Departmental reports and plans

I asked each department to provide a brief statement describing their expenses for FY 1999 and plans for FY 2000. The second part of my request was for how they would use additional fees generated by a substantial increase in the student computer fee. I requested that departments respond by December 1, 1999. The following is what I have received as of December 16, 1999.

Agricultural Economics

FY 1999 and FY 2000
Students have received open access to a 48 station (soon to be 60) laboratory, 12 hours a day, every weekday that is not a university holiday (including student breaks).

We spend our entire student computer fee allocation on the operation and maintenance of the student-access computer laboratory in 64/68 Heady Hall. This includes payment of lab monitors, provision of printer supplies, and maintenance of the laboratory network. In the past year, approximately 28 percent of our allocation went toward lab monitors, 47 percent to printer supplies, and 25 percent to network maintenance.

Use of new fees
An increase in computer fees would allow us to employ additional lab employees for special tasks. Upper level students with the skills to format educational modules for laboratory delivery would be especially useful. At present, we see a large population of students that would like to have self-paced tutorials or class-support materials available online. Teaching faculty have difficulty in effectively producing such material for "live" delivery. Providing production help for these efforts would increase the value of the laboratory, extend our impact to students throughout the university (they would not have to be in our laboratory to access the material), and increase the productivity of classroom contact time by providing a quality source of individual help outside the classroom.

Ag Education and Studies

The AGEDS Department provides fees for toner, paper, and telecommunications to all of our labs. Labs are open 8-5 Monday - Friday since the building is locked in the evening and weekends.

FY 1999 Expenditures
FY99 funds were used to upgrade the student lab server for Y2K. A new Novell 5 license of 30 was purchased. This also required additional memory and new ethernet card for the server. The server UPS was also replaced. Two new Pentium II 350 workstations were
purchased for the 206 Lab to replace to older Mac’s which would not run current software. Minor repairs were completed on two other workstations and new software was installed in the 220 lab. Department funds were used Fall semester to install a high capacity HP Laser printer in the 220 Lab. The Department has also placed a new HP Laser in the 206 lab. A new color scanner and additional image editing software were also purchased for the 220 Lab with student funds. Funds were received from the University CAC and College of AG CAC to replace the older 486’s and Mac’s to Pentium III systems in the 206 Lab. Eight new PIII’s were built and installed. New software (Office 2000) has also been installed. The 206 Lab also received a new color scanner with image editing software. Current configuration in the 206 Lab includes 8 PIII’s, 3 PII’s, 2 Mac 7200’s, color scanner, and laser printer. The 220 Lab includes 5 P166’s, 2 P200’s, 2 P233’s, color scanner, and laser printer. The 450Farm lab includes 1 P100 with laser printer.

**FY2000 Plans**

During FY2000, the remaining 3 Mac computers will be replaced with PC’s and new software. A new computer and software will be purchased for the 450 Farm Class Lab to replace an older Pentium which is not capable of running the new GPS software (donation from a company) that will be used in the AGEDS 450 class. Some of the remaining funds will be used to replace older Pentium computers and update software to Office 2000 in the 220 Lab. As always, a small amount will be held in reserve for repairs and maintenance.

**Use of new fees**

If the College receives an increase in student computer fees, I would hope some of the increase would be passed on to the Departments so each Department would be able to do timely hardware and software updates. Most small Departments can not compete at the University CAC level for grants. Our Department was very lucky this last year to receive a small amount which allowed me to almost replace a complete lab. My lab now has similar equipment which makes maintenance easier. This will also cause another problem down the road, as all computers will need to be replaced at the same time. Based on the current allocations to the Department, this will not be possible, so some of the existing computers will be used beyond their normal period or the lab will be without computers until funds are available. The College could also use the extra funds to help maintain a central College Lab. I am sure small departments would not be in favor of this as it would not be as convenient for their students. Students need access to current software and hardware. Also the printing issue will have to be addressed. Our department covers all printing costs at this point, but with the increased number of instructors placing information on the WWW, we have seen printing costs increase. These costs will have to come from student funds in the near future, which will decrease the available funds for new hardware and software.
Ag & Biosystems Engineering

FY 1999 and FY 2000
Recent expenditures have been for:

- Reference software/books
- Small hardware items

These materials have been used to upgrade coursework.

Use of new fees
Proposed expenditures:

- Upgrade Windows OS, Office suite, AutoCAD
- Replace peripherals (lab printer, scanner)
- Replace portable presentation hardware/software (laptop)
- Operating expenses (paper, toner, maintenance/repair)

Agronomy

FY 1999 and FY 2000
Most of the purchase for 1999 went to maintain current equipment. A couple of computers were added to the computer center. During the fy2000 we plan on replacing 4 older computer and to add 4 additional computer. We also plan on adding a new server in the room. Also planned are software updates.

Use of new fees
In our department we would benefit from an additional computer room located on the opposite side of the department

Animal Ecology

FY 1999 and FY 2000
Expenditures in FY 1999 supported the SCIIMF Computer Lab in Science II and computer facilities in room 106, Science II. The SCIIMF Computer Lab is used mostly by undergraduates in Animal Ecology, Entomology, and Zoology and Genetics and is supported jointly by these three departments.

The SCIIMF Computer Lab is staffed by monitors who assist students. Some of the salary and benefits for these monitors were covered with student computer fees. Expenditures totaled about $2,600. The wage costs of the monitors gets higher every year. This lab continues to be heavily used by our students on an open-lab basis as well as for in-lab instruction for courses required by our undergraduates
Room 106 Science II is used by graduate students in the Department of Animal Ecology. Most of the expenditures were made to upgrade the hardware. We purchased a Dell Dimension computer with a Sony monitor. We purchased minor hardware (e.g., network card, replacement diskette drive) and software and paid for software leases for SAS, a statistical package.

We plan to invest in additional new hardware for 106 Science II each year. We anticipate spending about $3,600/year to support the SCIIMF Computer Lab, which was just upgraded to new Macs and fast PCs. Minor expenditures will be miscellaneous items, such as updated software, toner cartridge replacements, paper and equipment repair. Some funds will be held in reserve to allow for unexpected expenses.

**Use of new fees**
Students in Animal Ecology, and perhaps other departments, would benefit from having a P&S or Merit employee to maintain machines and software in student labs. At times in the past, Animal Ecology has hired part-time people but this has been unsatisfactory because of high turnover. Perhaps College SCF funds could partially support such a position or a position could be split among departments. Additionally, students will benefit by having hardware and software kept more up-to-date than it is now.

**Animal Science**

**FY 1999 and FY 2000**
The department of Animal Science maintains two computer labs in rooms 1 and 124 Kildee. These rooms have a capacity for 32 and 13 computers respectively. Student computer fees are used almost exclusively to purchase software and hardware associated with these two facilities.

**Use of new fees**
An increase in student computer fees could be used to manage these facilities more effectively. Currently there are 5 desks that are empty because we can not afford to buy computers for these locations. There are also 11 computers that are over 4 years old that need to be replaced. We would also like to include additional software programs and hardware devices if resources were available.

**Biochemistry, Biophysics & Molecular Biology**

**FY 1999 and FY 2000**
Over the past year we secured funds from LASCAC, CAC, and the National Science Foundation to develop a computational laboratory in structural biology and computational biology. The purpose of the laboratory is to provide a UNIX-based computational facility in support of software applications necessary for upper-division and graduate course work in these disciplines. A room in the basement of the Molecular
Biology Building was renovated. Twelve 500 MHz PC systems (under Linux) were purchased, along with a 250 Gb disk storage array and a tape archival system for backup. The disk space may seem large, but almost any activity in bioinformatics or structural biology these days requires 100 Gb of space and processors with at least 256 Mb memory. We have used the AGCAC funds in the past to cover the cost of repairs for existing hardware and service contracts on Project Vincent workstations. All but one of the Project Vincent workstations has been replaced by the Linux PCs. Hence the AGCAC account will go toward hardware maintenance and the occasional acquisition of software. As most of our specialty software comes from the public domain, we anticipate no major software costs over the next 12 months.

Use of new fees
The Linux PC facility is being set up by Dr. Joe Anderson, who is the computer support specialist for BBMB, Zoo/Gen, Botany, and the Biology program. Although his salary is covered presently by funds from the four administrative units listed above, at some time in the future it may be necessary to charge a share of his salary against CAC funds at the college level. Dr. Anderson provides services (hardware and software configuration) which are essential to the use of computational facilities in formal course work. Dr. Anderson is also responsible for the computational laboratories associated with the Biology Program at ISU. His salary (approximately $40,000 + fringe benefits) is by no means guaranteed beyond the end of the current fiscal year. Just a small fraction of his salary represents a significant cost. In addition Dr. Anderson has a number of undergraduate assistants working under his direct supervision. These undergraduates help maintain the facilities associated with the Biology program. Again support of undergraduates for hardware/software maintenance is subject to the availability of funds from the four administrative units listed above. In general the amount of funding from various CAC sources falls significantly short of the total amount of funds spent in support of computers in formal teaching.

Entomology

FY 1999 and FY 2000
The student computer fees for entomology go to support our small student computing lab on the fourth floor of Science II. We currently have a new Mac, an old Mac, a PC, laser printer, scanner and a PC donated by faculty.

The emphasis is on providing up-to-date hardware and software for common student needs, such as statistical analysis, seminar preparation, paper and toner.

Use of new fees
I have passed this request along to the students; I'll compile their feedback and send it along.
Food Science & Human Nutrition

FY 1999 and FY 2000
During the past year, the student computer fees received from the College of Agriculture pool were used to maintain and upgrade the student computer laboratory located in Room 2311 Food Sciences Building. Four new Pentium computers were added to the computer laboratory giving students access to eight Pentium PCs with network capabilities and standardized software suites. An existing Macintosh computer also was upgraded. Student computer fees also were also used for repairs, purchase of paper and toner, ethernet charges, and for lab monitors. Currently, students pay a fee and obtain a password in order to print in the lab. In the future, money previously budgeted to paper and toner will be used for upgrading hardware and software. The FSHN Computer Committee plans to conduct a survey of department faculty and students in January 2000 in order to solicit suggestions of software that should be purchased for the student computer facility. The student representatives on the Computer Committee will solicit student input and assist in prioritizing requests. Our priority for FY 2000 will be to use any fees in excess of those required for ongoing costs (ethernet charges, repairs, routine maintenance by lab monitors etc.) to purchase software needed by students and faculty for instructional purposes.

Use of new fees
I did not have a chance to "brainstorm" this item with the department computer committee, but in the past we have talked about the need for FSHN classrooms equipped for computer-assisted instruction. If a portion of the increased fees were to be allocated to departments, we would like to have such a classroom readily available to our faculty in each of the two buildings where we are officed. We also have talked about the need for support to faculty for developing distance education modules and courses and other computer-based instructional materials. Increased funding could also enable us to provide more computer-based instruction and to purchase some of the more expensive types of discipline-related software that could be used in instruction. It would benefit our students to have experience with this type of software when they enter the job market. The students on our committee generally are interested in increasing the number of computers in the student labs, in increased help with applications (e.g. having lab monitors in the labs), and having the labs open for more hours.

Forestry

FY 1999 & FY 2000
Student computer fees in Forestry for FY1999 were used to upgrade systems in the student computer room and to add one new PC. Plans for the coming year include purchase of an additional printer for the student computer room, and a continuation of our efforts to update hardware to the extent that funds will allow.
Use of new fees
If the proposed increase in student computer fees goes back to the colleges, I certainly do not support such an increase. We struggle to maintain a facility that will provide our students with the specialized software needed for forestry applications, and to keep reasonably current hardware in place. The computer fee money that we now get falls far short of the amount necessary to do that job, so we have to provide a substantial subsidy from other sources. If the student fee is increased and the funds go to the college, forestry students (and I expect students in other departments as well) will be asking how their money is being used by the department. With the exception of those few times we are able to get a grant from the college, we won't have a very good answer for those students.

If the fees are going to be increased, that increase needs to come to the departments, not the college. We are trying to keep a student lab with 10 computers and 2 vincent workstations upgraded as much as possible. Our biggest need right now is to replace 5 zenith computers with processor speeds below 200 mhz with faster computers and we need to add another printer. Given that we currently receive only about enough annually to buy one computer, that means if we used all our money only for computer replacement, we would have computers ranging in age from 1 to 10 years. A 10 year old computer isn't worth much as a teaching tool. Any increase that comes to the department will go toward more rapid upgrade of the existing facility.

Horticulture

FY 1999 and FY 2000
We received CAC monies to purchase additional computers for the lab, and the student fees monies was spent in support of the computers, software licenses, toner, parts/repairs, RAM upgrades, and paper. We are seeing a tremendous use of paper and toner in the lab due to our not charging students for paper this year.

The departmental technology committee authorized the purchase of two PCs for the lab, based upon student requests for additional computer equipment for the lab. That is the "big ticket" purchase scheduled for this year. The rest of the money will be spent on toner, parts/repairs, paper, and other support items for the computers in the lab.

The students receive free printing, special software such as SAS, Pagemaker, Dreamweaver, and Deltagraph Pro (in addition to Microsoft Office and other "standard" public lab software), customized classroom instruction, and access to scanners in the lab for their classroom projects.

Use of new fees
At least 35% of computer support and software licenses for student fees-funded computers are currently paid out of my computer support budget for the department, so an increase in student fees allocation to our department would be welcome.
Increasing the resources available at the college level would allow us to offer more software programs and licenses to students, purchase more computer equipment and peripherals for student use, and would make more CAC funding available for "big ticket" items, such as student computer purchases, server purchases to support the student computers, and ceiling-mounted LCD projectors for student instruction in the labs. Furthermore, I am researching the possibility of an Ag College NT server-based system that uses the ISU ID card and a reader for print serving and charging printing to students that is currently in use at the University of Nebraska at Karny.

Microbiology

Plant Pathology

Sociology

**FY 1999 and FY 2000**
The primary use of our Agricultural CAC funding is to provide graduate student Research Assistant staffing in our computer lab. Beyond the basic maintenance and security functions the Research Assistants provide, they are also our teaching resources for all types of software.

The funding allows us to staff our computer lab with knowledgeable graduate students. Beyond providing assistance for the more common software such as Microsoft Office and Eudora the Research Assistants give assistance and instruction on programs specific to our department such as the high-end statistical packages SPSS and AMOS. They are an excellent front line resource for students and staff who use these tools on a daily basis.

Our plans for using fiscal year 2000 funding is exactly the same as for last years funds; funding of Research Assistant staff.

**Use of new fees**
While our current funding is exclusively used for staffing purposes there are other areas that increased funding would help. Printing is an area that must be monitored for rule compliance. Extra funding would allow us to provide a larger quota for student’s printed materials.

Another area would be in software acquisition. With increased funding we could provide a wider variety of software that would be applicable to students in their college and professional careers. Specifically for the Sociology Department we could provide a wider range of statistical software for our students. Exposure to a wider variety of tools will only enhance their skills and knowledge.
Zoology/Genetics

FY 1999 and FY 2000
The student computer fees received by the Department of Zoology and Genetics for FY 1999 were used to purchase a Dual Pentium Linux (OS) computer. This computer is to be used as a server for several of our undergraduate physiology courses. In particular, we are currently developing a significant web component for these courses and especially for the labs. The Linux box will be set up as the web server using Apache software. We expect that, once set up, our ability to instruct undergraduates in physiology will be greatly augmented and improved.

Use of new fees
Our general plan for the next three years is to use the student computer fees in the same way; that is, to support, upgrade and supplement our established undergraduate courses and especially the associated laboratories, as well as for contingency requirements in support of undergraduate/graduate student computational needs.

The student computer fees that we receive are used to directly improve the education environment which our students experience.

A major need, in our experience, is to establish and maintain the ability to systematically upgrade and improve our undergraduate computational environment in a timely fashion. One time only funds can often be obtained but continuing support or upgrade funds are obtained only with difficulty.