

## 8: Efficiency and Effectiveness

Colleges and universities are expected to be good stewards of public resources. With declining state support for higher education, mounting health care and other costs, and rising competition for quality faculty, staff, and students, institutions need to be more creative than ever in addressing these significant financial challenges. In an effort to

fulfill their missions and sustain their future viability, universities must embody the values of efficient and effective management.

In this state and national context, the University is placing a high priority on fiscal resourcefulness, institutional efficiency, and quality student services.

### A. Enhanced Service and Productivity

With capabilities made available by new technologies, and with a history of strong working partnerships that exist among faculty, staff, and administration, the University launched in 2002 the Enhanced Service and Productivity Initiative. This initiative encompasses four broad goals:

- create a system-wide culture of customer service excellence,
- identify opportunities where resources can be used to bolster the University's internal economy,
- develop approaches for how the University can regularly monitor the effectiveness of key service and support areas, and
- identify innovations that transform University business practices.

#### Office of Service and Continuous Improvement

To take this work to the next level and consistently promote a culture of service and operational improvement, President Bruininks

established the Office of Service and Continuous Improvement (OSCI) in June 2004 with this vision: "It is my desire that this great university will soon be known as much for its service and business innovation as it is for its high-quality research and education."

OSCI supports the University by:

- serving as a catalyst and mentor for sustainable improvement;
- energizing and enabling a culture of continuous improvement; and
- collaborating with University units to identify and realize sustainable improvements.

OSCI's goal is to promote and facilitate transformation of the University in three ways:

- cultural transformation – advancing a culture of operational progress and service improvement;
- operational transformation – creating accountability structures;

- financial transformation – promoting stewardship of University resources.

Below are service and improvement projects that have been led by various teams across the University.

- Facilities Management (FM): FM structurally reengineered operations and realized a savings in 2004 of over \$5.6 million while still maintaining its high level of service. The office identified over 150 specific improvement opportunities which will drive future efforts.
- Financial Aid: Interactive financial aid award notification helps students create their own aid package on-line and view it in real time. Manual processing and updating time has been reduced by 70 percent. Estimated savings: \$200,000 annually.
- Grade Changes: Early, late, and changed grades are now entered via Web. This

eliminated 2-3 day processing time and increased security, flexibility, convenience and accuracy. Estimated savings: over \$200,000 annually.

- Asset Management: The temporary investment pool increased revenue by over \$7.4 million in 2003-04 without increasing exposure to risk.
- Extension Service: The University of Minnesota Extension Service re-engineered itself from 87 county offices to 18 regional centers enabling it to meet a \$7.2 million budget reduction in 2004 without sacrificing service and quality.
- Technology – vendor management: Over \$2.4 million in technology and telecommunications savings will be realized over the next four years through active management of vendors and contract renegotiations.

## **B. Information Technology Initiatives**

The Office of Information Technology (OIT) on the University of Minnesota – Twin Cities campus works collaboratively with units across the University on initiatives designed to improve the efficiency and effectiveness of the institution and demonstrate leadership in the higher education community. Several of these initiatives are listed below with related accomplishments for the previous year.

**UMCal:** In fall 2004, OIT introduced an institution-wide calendar service for all University faculty and staff and the student class of 2008. This service addresses the inefficiencies caused by decentralized and disparate calendar systems used throughout the University. UMCAL not only simplifies the electronic calendaring process but also creates institutional cost savings and gives units who

run their own calendar services the option of additional savings through server retirement, licensing fees, and administrative costs.

**Financial System Project:** In FY 2003-04, the controller's office and OIT began implementing a new financial system with "Phase I: Trailblazing." This initial effort intends to reduce the costs and risks of implementation by a thorough analysis of the new software's functionality matched to current business practices. Ideally, this effort will allow appropriately timed changes in business processes to optimize the benefits of the new system. "Phase II: Implementation" will begin in FY 2005-06. Individual modules will be released for University department and unit use as they become available.

**eBenefits:** Benefit administration functionality within PeopleSoft was implemented in April 2004. This project changed the open enrollment for employee benefits from a manual process to self-service. Benefits of the new system include reduced cycle time, reduced manual data entry, and reduced errors for over 20,000 benefit-eligible employees. The first Web-based self-service open enrollment period took place in October.

**Return on Investment (ROI) Analysis**

**Methodology:** Work continues to develop an institutional ROI methodology with the auditors and the newly formed Office of Continuous Service Improvement to better

understand the costs and benefits of implemented systems. This analytical methodology will help the institution in its prioritization process and enable quantifiable, outcome-based results of its key initiatives.

**Technology Expenditures**

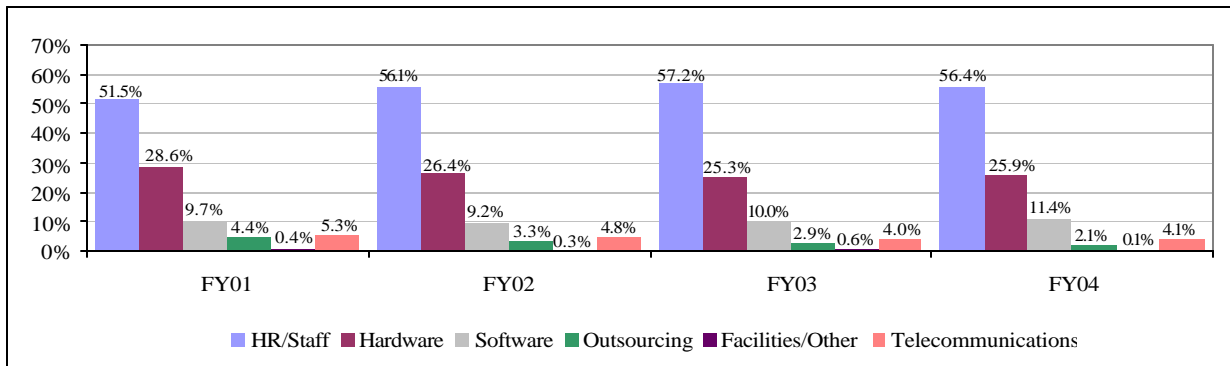
The University of Minnesota tracks its overall information technology expenditures as a percentage of academic, administrative, research, and outreach technology-related expenditures. These findings are summarized in Table 8-1 and Figure 8-1.

**Table 8-1. Information technology as a percentage of total budget, FY2002-2004.**

|                                 | FY 2002 | FY 2003 | FY 2004 |
|---------------------------------|---------|---------|---------|
| Information Technology Spending | 6.99%   | 6.99%   | 7.02%   |
| Other Spending                  | 93.01%  | 93.01%  | 92.98%  |

Office of Information Technology, University of Minnesota – Twin Cities.

**Figure 8-1. University of Minnesota information technology spending, FY2001-04.**



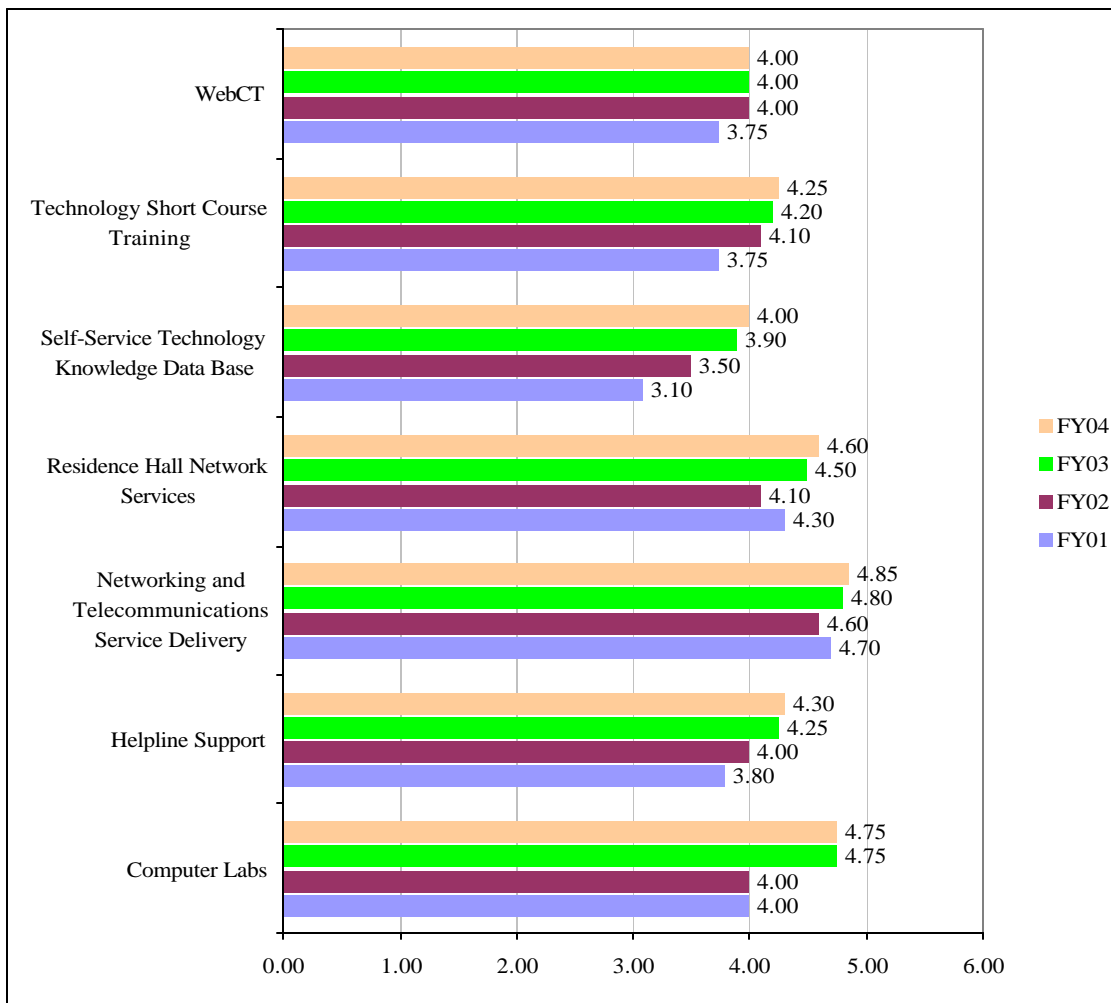
Source: Office of Information Technology, University of Minnesota – Twin Cities.

**Customer Satisfaction**

Satisfaction with technology services increased in five categories over the previous year’s levels and remained the same in the other two categories, as shown in Figure 8-2. Improvements in the University’s network and

its service delivery processes and an increased focus on technology education and help-desk support are key to improved satisfaction ratings.

**Figure 8-2. Customer satisfaction with Office of Information Technology services, University of Minnesota – Twin Cities, FY2001-04.**



Source: Office of Information Technology, University of Minnesota – Twin Cities.

Note: Data are shown on a five-point Likert scale. 1=least positive, 5=most positive.

### **C. Technology-Enhanced Learning (TEL)**

Technology-Enhanced Learning (TEL) is the term the University of Minnesota uses to describe distributed education, instructional technology, and the University’s focus on using technology to support its core teaching mission. All TEL efforts are designed to help students develop greater knowledge and understanding through improved access to the

University’s intellectual assets and through innovative instructional strategies.

The University takes an enterprise-wide solutions approach to TEL initiatives, deriving maximum efficiency from a robust and flexible infrastructure that is second to none. Examples of this infrastructure capacity and efficiency improvement efforts include:

**Network Connections:** There are 45,072 network connections on the University of Minnesota campuses – 6,292 of which serve students in residence halls and 5,700 of which are on the Duluth, Morris, Rochester, and Crookston campuses.

**Wireless Networking Coverage:** Wireless networking is becoming increasingly important and it is sometimes referred to as the “modern hearth,” where work, study, and home life intersect. On the Twin Cities campus there are over 380 wireless access points that provide services to classrooms and common/public spaces in over 80 buildings.

**ITV and Online Classes:** The University’s Interactive Television (UM-ITV) system links all five campuses using two-way video and audio links so that instructors and students can see and hear each other. Because UM-ITV can connect with other state, national, and

international systems, it effectively links the University of Minnesota to the developing global distance education network. Online classes are another option for students in remote locations and for students who desire the flexibility this type of learning offers.

Table 8-1 shows statistics for online and ITV classes for the period from summer 2003 through spring 2004 at all University of Minnesota locations. Because data from the Duluth campus was not included in previous reports, it is not possible to draw meaningful system-wide comparisons between 2003-04 and earlier years. However, enrollment in online classes on the Twin Cities campus rose from 587 in 2002-03 to 2,455 in 2003-04, a 318 percent increase. During the same period, online enrollment at Crookston was stable, while at Morris it rose 69 percent.

**Table 8-2. University of Minnesota online and ITV course statistics, 2003-04.**

|                         | Online*      | ITV*      |
|-------------------------|--------------|-----------|
| Total number of courses | 242          | 71        |
| Enrollment              | 4,355        | 1,079     |
| Credits                 | 10,814       | 3,043     |
| Tuition dollars         | \$2,7727,997 | \$849,954 |

Source: Institutional Research and Reporting, University of Minnesota.

\*Online figures are for all campuses. ITV figures do not include University of Minnesota Duluth.

**Next Generation of the Professoriate (NextGen):** The goal of NextGen is to work with incoming faculty to develop the theory and practices needed for effective teaching in the technology-enhanced learning classrooms of the present and future. The program pairs new faculty with volunteer mentor faculty from their discipline. Both groups are provided with workshops on technology and training in the design and use of TEL learning materials and new faculty also receive funds for equipment and/or software to support their teaching efforts. Program evaluations from past participants have been overwhelmingly positive.

**WebCT:** WebCT’s course management software is used extensively across the University. The Office of Information Technology has begun to auto-create course sites, providing faculty with the basic shell for a course, which makes having an electronic presence easier. The number of WebCT course sites has grown dramatically over the past year. By November 2004 there were:

- 3,248 course sites;
- 29,557 student users; and
- 60,368 student seats (A single student enrolled in two courses counts as two student seats).

**Interactive Technology—Breeze and Blogs :**

The University now offers Breeze, an automated system for creating and publishing multi-media presentations and conducting live meetings via the Web from a desktop computer. Presenters can display graphics and PowerPoint slides, broadcast audio and video, interact using chat and whiteboard tools, and gather real-time feedback from both on-site and distributed audience members. Students or audience members gain access via a link from a WebCT course site, a myU (portal) site, or a general Web site.

Another example of interactive technology that gained momentum during 2004 is the weblog, or “blog,” a Web page created as an interactive electronic journal. University Libraries and the Office of Information

Technology have collaborated to promote blogs as an effective form of personal expression, a record of the student voice, a discussion tool, and a basis for forming communities of learners. The number of blogs established to date has surpassed the initial goal of 1,000 per year.

**Technology for Life:** Also known as “K to gray,” this initiative connects learners of all ages with technology such as email, portfolio, and the portal. Portfolio now has 30,000 users; over 60,000 individuals have initiated accounts on the portal.

**OneHelp:** The University improved efficiency this year by expanding its technical helpline into a 24/7 service with staff who are able to help callers with a wide range of technical problems.