Enhancement of productivity and quality is the goal of the Information Technology Strategy (ITS) administrative initiatives. Three first wave initiatives use information technology to achieve new efficiencies through standardization and economies of scale. The first of these, Procurement Process Improvement, decentralized purchasing authority and reduced redundancy. It was fully implemented prior to inception of the MOS and is therefore not included in this report.

The goals of the Common Management Systems (CMS) are to eliminate duplicative administrative systems and processes, replace outdated legacy systems with an integrated suite of software applications, and improve work processes and services to students, faculty and staff. The initiative, Streamlining Information Technology Delivery (SITD), seeks to achieve cost efficiencies and increase service quality through consolidation of campus administrative data centers. The CMS and the SITD initiatives are reported below.

Over the years, CSU campuses have employed a variety of administrative information system software applications that had become increasingly difficult and costly to maintain. To address this problem, the CSU chose to leverage its size by moving to a single software platform. Three administrative modules make up the CMS platform: the Human Resources Information System (HR), the Financial Information System (Finance), and the Student Administration System (SA). These systems are integrated to provide maximum utility and flexibility.

CMS provides students improved ability to accomplish a wide range of tasks more efficiently, e.g., verifying admission status, checking on grades, monitoring progress toward graduation, and obtaining financial aid information and status. Through CMS, faculty can retrieve up-to-date academic records for advising students. In addition, the systems give departments better tools for managing the retention, tenure, and promotion process and for recruiting and hiring new faculty. CMS gives staff improved access to online information such as purchasing, budget, and expenditure status.

Campus implementation of CMS began in 2000-01. By the end of that year, five campuses were using Finance and two had implemented HR. At the end of FY 2003-04, 17 campuses had implemented the finance software; 21, the human resources application; and eight, the student administration system (Figure 5A).
CMS Reporting for Measures of Success

Last year, MOS reporting on CMS was modified to include implementation and ongoing operational costs in the expenditure data. In addition, CMS core functions, those common to all campuses, were distinguished from non-core functions, i.e. those unique to individual campuses. This year’s MOS retains that reporting convention.

Since the inception of the CMS initiative in fiscal year 1998-99, implementation expenditures for core functions total $213.4 million. Operational costs for the same period were $124.9 million. Non-core implementation expenditures amounted to $7.2 million, and non-core operational costs were $0.40 million.

User Findings

About four out of 10 CSU staff and administrators regularly use the campus student or financial information systems, and three out of 10 use the human resources information system. In 2003-04, more than eight out 10 staff working with human resources data used applications of the Common Management System/PeopleSoft information systems. For financial information, the percent of staff using CMS/PeopleSoft applications was two-thirds, and for student records, the CMS/PeopleSoft share was almost one-half (44 percent).

In the 2004 staff survey, satisfaction with campus administrative information systems, especially the CMS/PeopleSoft applications, was marginally positive with average ratings below seven (Figure 5B). Satisfaction with the administrative information systems has fluctuated with the transition from legacy to CMS/PeopleSoft applications. The chart below shows combined legacy system and CMS/PeopleSoft ratings for response time, ease of use, and information quality for each information system. Satisfaction ratings tend to go down during the first year of implementation, as occurred with the human resources and financial systems. With training and experience, ratings improve over time. The transition to the CMS/PeopleSoft student information applications began in 2003-04.

The 2004 faculty survey showed that 63 percent of faculty had used the campus online information system to get student records for academic advising, but their satisfaction with the system received only a 6.21 rating. Only 12 percent of faculty had used the online human resources system to access personal information.

The following graph shows how students used student information systems in 2001 and 2003. There were substantial and statistically significant increases in use for all types of student administration information across the two-year period. There were a few variations in use by students’ academic discipline or class level but no consistent patterns across the four categories.
Satisfaction with use of the student information systems was quite high among students in 2001 (with mean ratings ranging from 7.91 to 8.57) for the four categories in Figure 5C. The ratings maintained a strongly positive showing in the 2003 survey. Again, there were some instances where students’ academic discipline or class level affected satisfaction levels, but there were few strong or consistent patterns.

The data cited above reflect use of both legacy and PeopleSoft student systems, and the latter is partially implemented on six campuses. A comparison was made of student satisfaction levels on campuses that implemented the PeopleSoft SA versus campuses using legacy systems. Ratings for both PeopleSoft and legacy student systems were positive, although satisfaction levels were consistently lower on the PeopleSoft campuses (Figure 5D). Lower approval ratings for a new information system are typical initial reactions to new systems. Research shows that ratings improve over time as users become accustomed to them and gain appreciation for their benefits.
Streamlining Information Technology Delivery

This initiative leverages the size of the CSU to contain costs and improve efficiencies for administrative operations and for the hardware operations and support services used for the CMS initiative. By reducing the number of administrative data centers that support campus administrative systems from 23 to one, the CSU seeks to achieve economies of scale while maintaining quality of service to the campus communities.

To this end, a consolidated Hardware Operations and Support Services data center (HOSS) was established in June 2001. Unisys, under contract with the CSU, provides HOSS services from a data center in Salt Lake City, Utah. The HOSS data center is connected to the CSU through the CalREN inter-campus network. As of the end of fiscal year 2003-04, the HOSS data center was providing both CMS operational support and support for new development and/or application upgrades on 21 campuses.

A comparison model was developed to measure progress toward cost containment. The model compares actual costs for centralized data processing in support of the CMS with the estimated costs of separate processing on each CSU campus, taking into account differences in campus size and the number of applications implemented. The estimated aggregate costs of separate data centers on the 21 operational campuses are compared with actual HOSS expenditures. (Cost data from campuses in the initial developmental stage are not included in the model.)

In 2003-04, an estimated cost avoidance of $3.38 million was realized for the year; the total was $0.46 million last year. This was primarily due to planned lower costs for the Unisys data center and an increase in the number of campuses using the center.

Data Center Review

Only a small number of users interact directly with the Unisys Data Center staff and understand the technical and operational issues involved in providing the service. Surveys similar to those used to collect data from students, faculty and staff about use of, access to, and satisfaction with various aspects of Information Technology in the CSU are, therefore, not practical or methodologically sound if applied to HOSS services. CMS and Unisys managers meet regularly to review the overall performance and services offered by the Unisys data center.