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 second initiative, Common Management Systems (CMS) are to eliminate duplicative administrative systems and processes, replace outdated legacy systems with an integrated suite of software applications, and improve work processes and services to students, faculty, and staff.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 third 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 SITD initiatives are reported below.

Common Management Systems
CSU campuses have employed a variety of administrative information system software applications that have, over time, 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 now called Human Capital Management System (HCM) that manages human resources; the Financial Information System (Finance), that manages financial operations; and the Student Administration System, now known as Campus Solutions System (CS), that manages student administration. These systems are integrated to provide maximum utility and flexibility.

CMS improves access to online information for students, faculty and staff for a wide variety of academic and business processes. For example, students can verify admission status, check grades, monitor progress towards graduation, and obtain financial aid information and status. Faculty can retrieve up-to-date academic records for advising students; departments can better manage faculty retention, tenure and promotion, and can recruit and hire new faculty more expediently. Staff can more efficiently process purchasing and payroll tasks, and have improved access to monitor expenditures and budgets.

Campus implementation of CMS began in 2000-01. By the end of that year, 5 campuses were using Finance and 2 had implemented HCM. By the end of FY 2005-06, 21 campuses had implemented the finance software; 22 had implemented the human resources application; and 10 had implemented the student administration system (Figure 5A).
### CMS Reporting for Measures of Success

In 2002-03, 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 FY 1998-99, implementation expenditures for core functions total $273.4 million. Operational costs for the same period were $240.1 million. Non-core implementation expenditures amounted to $9.7 million, and non-core operational costs were $2.9 million.

### User Findings

Staff and administrator use of computerized campus financial information and student records systems has not changed significantly since 2002, but the number of employees using computerized human resources systems grew by about 100 persons for each successive survey administration. The most striking change is the increase in the number of staff who report using a CMS/PeopleSoft application. Figure 5B summarizes these changes.

![Figure 5B: Administrative Information System Users](image)

Little or no change was observed in satisfaction scores for campus computerized information systems in terms of ease of use, quality of information, or response time, as shown in Figure 5C. These data combine both legacy and CMS/PeopleSoft systems. Obviously, the issue is more complex because some campuses have fully implemented some or all of the CMS/PeopleSoft modules and others are at later stages of implementation, so their ratings are based primarily on legacy systems. A breakdown by CMS versus legacy systems showed that legacy users always gave higher satisfaction ratings but not all differences were statistically significant. For the finance system, the only significant difference was for speed and response time. There were no significant differences for the human resources application. For the student administration system, all three satisfaction criteria (ease of use, quality of the information, and speed or response time) were significantly higher for users of legacy systems. According to national studies, satisfaction with new ERP implementations is usually lower than for legacy systems in the initial stages.
CMS/PeopleSoft Training

Of the employees who use CMS/PeopleSoft applications, most (88.7%) said that they received training or help with the system. Formal training occurred primarily in the form of on-campus group instruction. About half of these employees reported receiving informal help in lieu of or in addition to formal training. Staff who participated in formal training and who received informal help rated informal help as “more useful” (mean score = 8.11) than formal training (mean score = 7.28). Informal help occurred in a variety of modes:

- 61.1% received face-to-face, one-on-one help from a peer or technical support person
- 51.9% got help from co-workers via e-mail or telephone
- 47.6% got help from campus tech support by phone or e-mail

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 1, 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 FY 2005-06, the HOSS data center was providing both CMS operational support and support for new development and/or application upgrades on 23 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 23 operational campuses are compared with actual HOSS expenditures. (Cost data from campuses in the initial developmental stage are not included in the model.)

In 2005-06, an estimated cost avoidance of $14.17 million was realized for the year (Figure 5D); the total was $13.83 million in 2004-05. (The $14.62 reported in the 2005 MOS was incorrect.) The greater cost avoidance was primarily due again to planned lower costs for the Unisys data center and an increase in the number of campuses using the center. The CSU negotiated a new agreement with Unisys during 2005-06 to continue providing data center services.
This new agreement includes changes to the service model that bring certain support functions back to the CSU. These changes do not impact the overall comparison model, since all costs for the centralized data center services are still included for comparison.

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**Figure 5D - System Profile: Cost Avoidance Achieved through Data Center Consolidation**

- **Annual Cost Avoidance in Millions**
  - $20.00
  - $15.00
  - $10.00
  - $5.00
  - $0.00
  - ($5.00)
  - ($10.00)

- **Fiscal Year**
  - 2001-02
  - 2002-03
  - 2003-04
  - 2004-05
  - 2005-06

- **Cost Avoidance Values**
  - $0.46
  - $3.38
  - $13.83
  - $14.17
  - ($5.70)
  - ($10.00)