

EMPLOYEE SYSTEMS TASK FORCE REPORT

OVERVIEW

December 22, 1997
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Background

The University of California's Payroll/Personnel (HR), Benefits, and Retirement Systems (collectively termed "Employee Systems") have served the University well over the years. They are complex, University-wide systems that perform reliably and correctly in meeting a broad range of requirements. From other perspectives, however, they are becoming outdated and do not support changing University organizational and customer-service objectives. Senior Vice President V. Wayne Kennedy in a memo chartering the Task Force recognized that it is time to reassess these systems, and to re-organize the work practices and services these systems are intended to support.

The workplace and other extrinsic forces that place demands on Employee Systems have changed since these systems last underwent substantial revision.

- As the University anticipates a new wave of growth to accommodate tomorrow's students and the opening of a tenth campus, the University faces the need to streamline its administrative processes to ensure that such growth does not place impossible demands on already strained administrative resources. Technological improvements are critical to productivity improvements.
- Resources for administrative support have already declined significantly relative to growing demands further straining administrative processes. In particular, central support no longer scales to meet the increasing service demands of end users (faculty, students and staff) and both internal and external constituencies (legislators, Regents, etc.). The University can no longer afford the inefficiencies of the same data passing through multiple hands as such data is converted from one format to another or fed from one system to another; or potential liabilities that can occur from passing on erroneous information.
- Processes have become more complex as, for example, benefit and retirement options have expanded and as federal and state reporting and regulatory requirements have increased. Some of the University's older systems (such as benefits/retirement) cannot readily be adapted to accommodate changing needs; as a result they are surrounded by numerous ad hoc systems patched together to meet exigent requirements. The "remaking" of Benefits and HR requires fresh approaches. Failure to

address these issues propagates processes that are increasingly expensive to support and that can lead to inadequate service or high frequency of error.

- Faculty, student, and staff end users, increasingly pressed for time themselves, are demanding improved levels of service. Most, in today's technological environment, are less tolerant of manual processes. They are demanding increased levels of self-service – easy access available at all hours – to replace dependencies on central staff and paper-based systems. Administrators responsible for business processes must be respectful of faculty, staff, and student time if the University is to maintain its leadership in teaching and research.
- The University can no longer rely on multiple layers of people checking people to ensure data accuracy and business process and systems integrity. Although accountability is ultimately a management responsibility, we must improve the level of systems controls to provide automated support where effective. To do otherwise exposes the University to risk and greater cost.
- While existing Employee Systems have served the University well, they are complex and highly interdependent. Changes to one system may have ramifications across other systems, making it difficult to be responsive to the rapid pace of externally and internally mandated changes. While it may be attractive to assume that the interdependence of systems can be easily eliminated, in reality this dependence must be recognized in future systems redesign.
- Campuses are making major investments in financial and research administration systems to meet pressing requirements for improved efficiency and effectiveness. The University's Employee Systems must likewise be improved – and soon. There is a narrow window of opportunity: the University can choose, where appropriate, to do so in a coordinated manner across the institution, or will likely find itself doing so in a fragmented manner at greater overall cost.
- The University is facing difficult choices in choosing among competing priorities for increasingly limited resources. Administrative systems must compete with many other priorities. Further, several campuses are wrestling with the implementation of other systems, and cannot accommodate too much change at one time. This calls for careful consideration of clear payoffs before advocating major new system initiatives.

Employee Systems Task Force Response

The Employee Systems Task Force has responded to the above concerns and to other challenges laid out in the chartering memo. In doing so, it first developed a Planning Framework to guide its work. To obtain feedback on services which are desired by end users of the University's employee systems, during the course of its work the Task Force conducted focus sessions with University employees, including faculty, staff, departmental management and personnel administrators, central campus administrative staff (Human Resources, Payroll, Benefits, and Retirement), and with retirees. Members of the task force also visited companies known as exemplars in the use of technology in providing HR/Payroll services and functions. It grappled with important policy issues and addressed regulatory obstacles to streamlining services and functions.

This final Task Force report also benefited from campus feedback received as a result of distribution of an Interim Report earlier this year. This feedback cautioned against proceeding on major HR systems replacement before laying the necessary groundwork through a process re-engineering study and careful evaluation of cost/benefits. It was urged to proceed immediately, on smaller scale, lower risk projects that would have near-term payoff and where there exists sufficient knowledge to proceed. This revised report reflects that advice.

The ESTF Report summarized here lays out general directions, project areas, priorities and strategies. It also estimates costs needed to implement near-term recommendations, and assesses the benefits of these recommendations.

Recommendations

The Employee System Task Force recommends that the University proceed through a series of phases, where the early phases reflect relatively low risk, low cost investments and where there the Task Force believes there is sufficient knowledge to ensure moderate to high payoff. The ESTF also recommends that the University not proceed with major investments in replacement systems at least until the benefits can be more clearly ascertained and the complex interactions among Payroll, HR, and Retirement Systems can be more carefully clarified in the context of process re-engineering.

Following this guiding principle and in the light of the above challenges and issues, the ESTF makes a number of specific near-term recommendations. These near-term recommendations, however, are framed in a strategic systems architecture context to ensure future relevance:

- A. Strategic Architectural Directions:** The Task Force recommends that the University pursue systems directions that:

1. Emphasize reliance on employee easy access and self service to reduce dependencies on centralized and manual support and business processes, and to improve service to employees.
2. Rapidly phase out the vestiges of paper-based forms and centralized print processes. These should be replaced by the use of Web-based access using desktop and other workstations; telephone access similar to today's Bencom capabilities; and kiosk-based access for employees who do not have ready access to workstations.
3. Evolve an Employee Systems architectural framework that (a) simplifies where possible the current complex interfaces among the different components of employees systems (b) allows for coordinated and, where possible, independent decisions about directions for each of these components, and (c) implements a modern technological foundation to support future change and improved functional delivery at lower risk of failures.
4. Eliminate redundant instances of data that lead to inefficiencies and errors arising from the asynchronicity and duplication of such data.
5. Streamline central processes and improve levels of service and controls.

B. Immediate Phase 1 Projects: As detailed in the body of the Report, the ESTF recommends that the University should immediately launch the following projects:

1. **Demographic Database:** The University should establish a logically unified, secure, employee Demographic Database containing basic information about each employee that shall be used to feed all other employee and other systems and databases across the University.
2. **Employee Self Service:** The University should launch a project to support Employee Self-Service in an expanding ring of applications ranging from update of employee demographic data to retirement fund modeling and allocations and changes to W4's.
3. **Payroll System Enhancements:** The University should implement two specific short-term enhancements to the Payroll System that would yield immediate benefit in making the Payroll System easier to use, namely to add a graphical user interface and to provide improved

support for Post Authorization Notification (PAN).

4. **Retirement System:** The University should replace the current Retirement System with a new system, based on modern technology, that would integrate the current centralized system and surrounding ad hoc systems; provide a more flexible platform; support improved controls; and provide significantly improved workflow and document management capabilities.
 5. **Business Process Re-Engineering and Systems Study:** The University should undertake a detailed business process re-engineering and systems study – with the assistance of outside consultants – to determine possible directions for simplifying employee systems. The study should determine options to:
 - Simplify business processes and the interfaces among different employee systems functions, and determine how to decouple these functions to the extent possible.
 - Replace or modify HR and Payroll functions by streamlined, possibly purchased, systems.
 - Improve the integration of employee systems with financial and emerging research administration and financial systems. Systems that support research administration are under development by several campuses, and will depend on smooth integration with employee systems.
 - Implement a secure Employee Records Database to complement the Demographic Database that would contain all the additional records normally contained in an Employee Personnel File.
 - Improve integration with other systems and data warehousing activities to provide improved management reporting capabilities.
- C. Phase 2 Future Systems and Interim Systems:** Depending on the outcome of Recommendation B5, above, the University will have options regarding modification or replacement of major employee systems, particularly the Payroll and HR systems, with the processes, benefits and costs clarified. The ESTF recommends, therefore, that the University should not implement any interim HR or other major employee systems pending the outcome and recommendations of this business process re-engineering and systems

study. This should not preclude important maintenance changes or interfere with local implementation of ancillary systems – such as pre-employment tracking systems – that can run independently of employee systems without jeopardizing employee systems' data integrity.

D. Design Principles: The Task Force strongly recommends that the above projects shall be undertaken following the seven *design principles* detailed in the body of the Report.

E. Regulatory Relief: The Task Force has identified several key areas where *regulatory relief* needs to be obtained, and recommends that these be brought to the immediate attention of the Task Force on Regulatory Reform. These are detailed in the body of the Report.

Implementation Strategy

As detailed in the body of the Report, the above project recommendations (Recommendation B) would be implemented through a combination of in-house development and purchased systems. Preference would be given to the latter where they exist, particularly in areas such as employee self-service. However, it must be recognized that this University is essentially unique in having its own retirement plan, and external software does not exist to support this area.

In-house development would be pursued in a partnership among UCOP and campuses. Deployment of employee self-service would be accomplished via a series of carefully phased-in pilots with iterative development based on feedback from early adopter focus groups.

The maintenance model for employee self-service assumes a centralized University helpdesk for systems support analogous to what is used for Bencom and for Pathways. This may be outsourced. The centralized helpdesk may have to be complemented by exploiting existing campus helpdesk services.

Benefits

As noted, the University is facing significant growth in students and faculty without commensurate increase in funding for administrative processes. As plans are being made for a new wave of growth to accommodate future students, commensurate increases in administrative funding is not realistic. It is imperative, therefore, that we streamline our administrative systems if we are to accommodate such growth without significant reduction in levels of service, accountability, timeliness, and accuracy; and to support growing functional complexity and increased research competitiveness. We must make

the most effective use of resources through the sharing of systems development costs and efforts among the campuses wherever practicable.

Benefits of systems improvements across enterprises as complex as the University of California are often difficult to quantify in financial terms. Such benefits are often distributed to the department level and are hard to recapture centrally to offset system development costs. Furthermore, such departmental benefits often accrue from streamlining of processes and improved levels of service rather than from reduced costs. They also accrue from cost avoidance in the face of workload growth, increases in demand for new functionality, and increases in complexity. Improvements can also lead to improvements in security and accountability.

The recommendations have these benefits in mind. In particular, the projects listed in Recommendation B have specific benefits to the University commensurate with the scale of the investment:

- The **Demographic Database** (Recommendation B1) provides a core functionality that would replace multiple redundant and overlapping databases – often containing erroneous or outdated information – that are scattered across campuses and the University. While it is hard to estimate the cost of such redundancy and errors, it is clearly significantly higher than the costs of maintaining a streamlined function that would serve multiple present and future needs, and bypass all of the reconciliation and redundant effort that characterizes the present environment that are so demanding of employee time. The Demographic Database provides the common data that reaches across all employee system applications.
- The **Employee Self Service** project (Recommendation B2) builds on the Demographic Database and results in:
 - Significantly improved service to our faculty, staff, and student employees by providing “anywhere, anytime” access to and update of data and modeling of decision processes (such as of retirement options);
 - Streamlined administrative processes through reduction of process steps;
 - Reduced costs through avoidance of duplication of effort and through exploitation of Employee Self Service to minimize dependencies on centralized processes;
 - Reduced exposure to liabilities arising from human errors;
 - Reduced training costs; and
 - Improved controls and accountability.

- The **Payroll System Enhancements** (Recommendation B3) provide easier access and usability, removing some of the key efficiency bottlenecks at relatively low cost. This enables the University to extend the life of the current system, allowing for a more deliberate consideration of when, how, and whether replacement will be necessary.
- Regarding Recommendation B4, there is an increased risk of failure and exposure to accidental or intentional misuse in attempting to prolong the life of the present **Retirement System** and the fragmented ancillary systems. Furthermore, its inflexibility is proving a serious obstacle to improved service delivery models and continued growth of accounts and service offerings. Replacing the system by a modern, integrated system would provide for greater flexibility and reduced costs in accommodating changes in function and new service delivery models; support greater accountability and improved controls; and provide significantly improved workflow and document management capabilities.
- Analyzing the current complex interaction of central and campus employee systems with a view to future replacement or modernization and to providing significant improvements in functionality is a lengthy, time-consuming process. As noted above, we do not recommend embarking on such extensive replacement or modernization without such careful analysis of alternative approaches, business process re-engineering, and careful assessment of benefits (Recommendation B5). We believe such an analysis would be most expeditiously and cost effectively achieved through retaining the services of an outside consultant to assist in the proposed **Employee Systems Business Process Re-Engineering Study**.

Implementation Costs and On-Going Costs

The Task Force believes the above benefits of the Recommendation B for Phase 1 activities far outweigh the costs, even though the benefits are difficult to recapture centrally and are thus hard to quantify in a meaningful ways. As summarized in the attached Table, the Phase 1 projects detailed in Recommendation B above are estimated to require an additional investment by the University of \$8.075 million over the next 2 years and continuing maintenance costs of \$1.8 million, including continuing helpdesk support costs.

Of the \$8.075 million two-year initial investment, \$4.8 million is new incremental funding for implementation and deployment, including \$1 million earmarked to assist in campus deployment. The balance of \$3.275 million consists of mostly campus redirected people resources for deployment, particularly initial training and support.

This additional investment excludes the cost of modernizing the Retirement System that has already been committed by the UCOP HR/Benefits Department paid for out of retirement operations funding.

Excluding the modernization of the Retirement System, the initial incremental investment represents less than \$35 per employee annually for each of the next two years, and the maintenance costs represent about \$12 per year per employee. As noted, there are offsetting benefits in reducing administrative “friction” caused by excessive paperwork and duplicate processes, in lowering exposure to liability, and in improving service to employees.

\$5.7 million of the approximately \$8 million initial investment is the estimated cost of implementing and deploying Employee Self-Service capabilities. Of the \$5.7 million, \$3.6 million is the estimate of campus training, implementation and local customization costs (as noted above, \$1 million of this would be funded directly from new funds), but actual expenditures will depend on campus specifics of how such costs can be integrated into other on-going programs. The Employee Self-service component is to use the Web as the means of user entry, requiring as little training above normal Web training as possible.

The ongoing costs of \$1.8 million annually are net, incremental costs to current expenditures. For example, the costs for support of the demographic database are assumed to represent the net costs to support of Demographic Database as part of central systems (Payroll, Human Resources, and Retirement and Benefits).

Whereas it would be premature to estimate the project costs for new Payroll, HR, or Comprehensive Employee Records Database systems and projects pending the outcome of the business process re-engineering study (Recommendation B5), it should be recognized that any one of these projects could singly cost the University well over \$30-50 million based on the experience of other institutions as well as our own experience. The Task Force does not believe it to be wise to undertake projects of this magnitude without much clearer rationale and cost/benefits, given competition for funds. The projects of Recommendation B represent a more limited investment justified on their own merits based on present knowledge and understanding, and can proceed independently of the outcome of the business process and re-engineering study.

The ESTF recognizes the need for careful process to determine the source of the requested \$4.8 million in incremental funding required for Phase 1 and for appropriate review in guiding the distribution of those funds should the recommendations be accepted.

The above financial data are summarized in the following Table.

EMPLOYEE SYSTEMS TASK FORCE PROJECT COSTS (\$Thousands)	YEAR 1		YEAR 2		TWO-YEAR TOTAL		ANNUAL ON-GOING MAINTENANCE COSTS (3)			
	Incremental Costs (1) Funding	Redirected Costs (2)	TOTAL COSTS	Incremental Costs (1) Funding	Redirected Costs (2)	TOTAL COSTS		Incremental Costs (1) Funding	Redirected Costs (2)	TOTAL COSTS
Immediate Projects										
Demographic Database	\$ 1,000	\$ 500	\$ 1,500	\$ -	\$ -	\$ -	\$ 1,000	\$ 500	\$ 1,500	\$ 100
Employee Self-Service	\$ 1,000	\$ 1,000	\$ 2,000	\$ 2,100	\$ 1,600	\$ 3,700	\$ 3,100	\$ 2,600	\$ 5,700	\$ 1,650
Payroll Enhancements							\$ -	\$ -	\$ -	
Graphical User Interface		\$ 175	\$ 175	\$ -	\$ -	\$ -	\$ -	\$ 175	\$ 175	\$ 25
PAN Enhancements	\$ 200		\$ 200	\$ -	\$ -	\$ -	\$ 200	\$ -	\$ 200	\$ 25
Retirement/Benefits System	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Business Process Reengineering and Systems Study	\$ 500	\$ -	\$ 500	\$ -	\$ -	\$ -	\$ 500	\$ -	\$ 500	\$ -
TOTAL	\$ 2,700	\$ 1,675	\$ 4,375	\$ 2,100	\$ 1,600	\$ 3,700	\$ 4,800	\$ 3,275	\$ 8,075	\$ 1,800

NOTES:

- (1) Incremental new funding required for project implementation. Includes pgmrs, software acquisition, hardware etc. Includes \$1M over 2 years to help support campus implementation costs.
- (2) Allowance for campus deployment costs, incl. training and support, local modifications etc. Payroll Graphical User Interface, however, would be campus-developed with campus personnel.
- (3) Central on-going costs only, including centralized 2nd-level helpdesk support. Excludes on-going campus costs because of difficulty of separating from regular activities and campus-to-campus variations. Campuses will need to estimate these costs.

TABLE 1: EMPLOYEE SYSTEM PHASE I PROJECT COSTS