

VCAF - Office of the Chief Financial Officer

IDMG Initiative

Institutional Data Management and Governance (IDMG) Proposal

September 2007

Introduction

This proposal recommends an assessment as the next step to address the following question:

How can we make UC Berkeley's institutional data¹ easily accessible, reliable, consistent, and secure to support informed planning, decision-making, and communications by campus leaders?

Context

Reliable and consistent data – and the ability to access it easily and securely – is essential to all aspects of higher education.² Without reliable and consistent institutional data, universities would be unable to plan and manage effectively. Reliable and consistent data is necessary to understand faculty and staff hiring and advancement patterns, determine student progress toward degrees, maximize financial investments, effectively gauge and manage risk, avoid redundant workloads, or assess faculty/staff/student/alumni satisfaction. Accessible but incorrect or inconsistent data can put a department, and sometimes an entire institution, at risk. Hidden costs, such as higher capital expenditures, revenue leaks, or fines may stem from lack of data integrity and integration. Data security breaches are increasingly serious and costly, and with the advent of widespread Internet and e-commerce applications, the theft or loss of sensitive data can expose an institution and the individuals it serves to the entire world.³

CAMPUS DATA ENVIRONMENT

At UC Berkeley, campus institutional data – including data related to applicants, students, faculty, staff, alumni, and donor prospects – is currently electronically hosted and stored in over 300 sites across the campus. Data accessibility, reliability, consistency, and security are each compromised as a result of the wide distribution across varying systems and architectures used to collect, distribute, and manage the data systems that each require investment to build, customize, and maintain. Adding to the complexity of 300+ sites are the plethora of offices and individuals involved in institutional data management. Each functional unit that manages this data asserts some level of ownership and there are at least five campus-wide and two college offices dedicated to performing institutional research functions for the campus including:

- Office of Planning and Analysis (OPA)
- Office of Student Research (OSR)
- Office of Planning Analysis and Policy (OPAP)



- Graduate Financial and Data Information (GFDI)
- Office of Data Initiatives (ODI)

As described in the recently released Undergraduate Outcomes Task Force Report: "The campus faces a major disconnect between the types of sophisticated questions that we are asking about our institutional performance and the internal organization of the data needed to respond to such questions."⁴ The report also captures many of the institutional data challenges that have been noted over the past several years at UC Berkeley:

- Campus leaders and key decision-makers in the administration and the Academic Senate are not receiving necessary data and information that would contribute to the establishment of sound priorities and policies;
- Local units are unable to assess the effectiveness of their programs and services in relation to campus goals and to determine where best to put limited resources;
- Faculty and staff are unable to access data easily from their desktop computers, which would improve their effectiveness in helping students, faculty, and staff;
- Functional and technical groups across the campus spend a tremendous amount of time maintaining UC Berkeley's "spaghetti architecture" of legacy, current, and emerging technologies; and
- Institutional research professional staff must spend valuable time "data-mongering," (i.e., producing time-consuming extracts in order to exchange data across silos) or maintaining duplicative shadow systems, rather than conducting in-depth data analysis that will inform strategic planning efforts.

NATIONAL CONTEXT

The topic of data governance and management is an emergent issue in higher education. Institutions across the country have been experiencing increasing external pressure from both federal and accreditation agencies as well as prospective students, alumni, and donors for transparency and accountability in areas such as cost, access, and student learning outcomes. The Sarbanes-Oxley Act of 2002 created a sense of urgency for leaders to take an active interest in the accuracy, consistency, and timeliness of data or face legal consequences, yet it is widely believed that fewer than half of large companies have a formal data stewardship or data quality program that protects and leverages their unique strategic asset of data. For many organizations, data management and security problems remain hidden until a formidable event such as an external audit or investigation, questions from stakeholders/legislators, or a security breach forces a comprehensive review.⁵

PROPOSED NEXT STEPS FOR UC BERKELEY

On-going concern about the accessibility, reliability, and consistency of institutional data as well as the management and governance of our institutional data, the work of the Undergraduate Outcomes Task Force, and several recent institutional research requests, prompted George Breslauer, Executive Vice Chancellor and Provost, and Nathan Brostrom, Vice Chancellor-Administration, to propose convening a small Institutional Data Task Force composed of campus leaders to examine the current situation, best practices, and proposed solutions, and then make recommendations to them about how to support informed planning, decision-making, and communications by campus leaders by making UC Berkeley's institutional data easily accessible, reliable, consistent, and secure. By conducting an assessment of institutional data management and engaging campus leaders in deciding how best to proceed, UC Berkeley will be well positioned to develop a proactive strategy for making institutional data accessible while ensuring its reliability, consistency, security, and integrity.

Prepared by Mary Beth Baker at the request of UC Berkeley's Center for Organizational Effectiveness (COE), September 2007

FOOTNOTES:

¹"Institutional data" includes data related to applicants, students, faculty, staff, alumni, and donor prospects.

²For purposes of this proposal, the term "data" is used in the colloquial, singular form.

³"The Case for Data Stewardship", William Laurent, DM Review Magazine, February 2005.

⁴UC Berkeley Undergraduate Outcomes Task Force Report, 2007, pages 14-15. Points 1, 2, 3 and 5 are from UC Berkeley's Undergraduate Outcomes Task Force Report, 2007, pages 14-15.

⁵"The Case for Data Stewardship", William Laurent, DM Review Magazine, February 2005.



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