

# **IDMG Initiative Discussion**

## **Task Force Meeting**

September 16, 2008

**Institutional Data Management and Governance (IDMG)**  
**University of California, Berkeley**

# Meeting Objectives

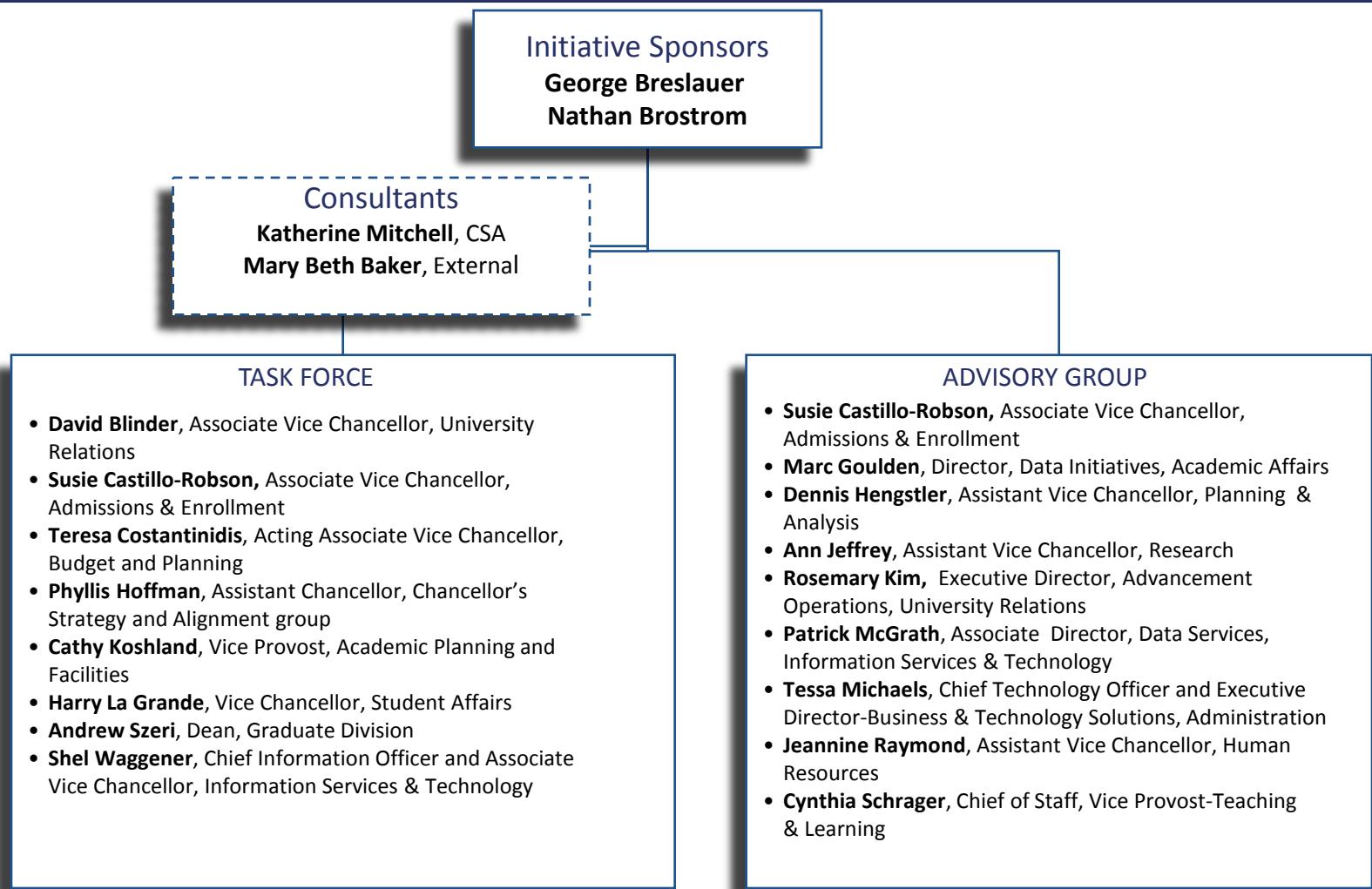
- Highlight what we have learned about institutional data on campus.
- Discuss transition issues related to moving from the IDMG assessment phase to developing recommendations and plans for implementation.
- Propose a plan for moving forward.

# Agenda

<b>Time</b>	<b>Topic</b>	<b>Leader</b>	<b>Desired Outcome</b>
3:30-3:40	Welcome Agenda review and initiative update	George Mary Beth	
3:40 – 4:20	What we've learned and how this informs IDMG's next steps	Mary Beth Phyllis Katherine	Shared understanding about what we've learned through the data-gathering experience, including the survey, case studies, and governance interviews.
4:20 - 4:50	What we need from the IDMG Task Force in order for IDMG to move forward	George Nathan Katherine	Discussion and agreement about next steps for the Task Force.
4:50 - 5:00	Close and next steps	Mary Beth	

# Who Constitutes “We?”

## Assessment Process Structure

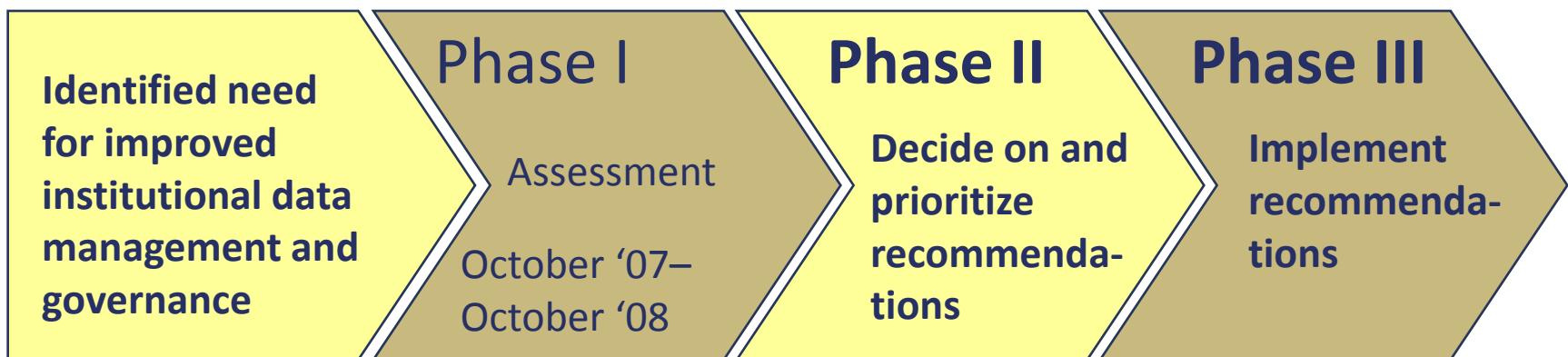


# Goal of the IDMG Initiative

To support informed planning, decision making, and communications by campus leaders by making UC Berkeley's institutional data easily **accessible, reliable, consistent, and secure**.

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

# IDMG Initiative Approach



- ✓ Review existing recommendations and initiatives
- ✓ IDMG Survey
- ✓ Interview leaders of campus data-related groups
- Identify external best practices
- ✓ Analyze findings
- ✓ Identify options

# Hypotheses about Current State of Institutional Data

## IDMG Task Force and Advisory Group Brainstorm (12/07)

- “**Data islands**” have been built throughout the campus to support unique departmental needs, often inefficiently duplicating data sets /processes /systems maintained elsewhere on campus.
- We **do not have campus-wide agreements** that support accessible, consistent, reliable, and secure institutional data in our decentralized environment, instead we are overly dependent on individuals.
- **The lack of technology systems** with built-in business logic for our institutional data limits the analytical capability of UC Berkeley.
- We **do not have dedicated campus funding or a financial model** to pay for and incentivize improving institutional data campus-wide and move us from “data islands” to our desired future state.
- We are **not able to substantiate the narrative** we tell about ourselves with consistent and reliable data, which places our institutional and individual credibility at risk.
- We tend to develop and answer institutional data questions to address external requirements rather than collecting and analyzing institutional data for our internal analysis and planning needs first.
- We have **significant inequities** between data rich and data poor areas of the campus.

# Desired Future State for Institutional Data

## IDMG Task Force and Advisory Group Brainstorm (12/07)

- **Leadership**
  - Explicit about the institutional questions they are asking;
  - Willing to commit the resources necessary to take questions from beginning to end.
- **Shared Approaches and Tools**
  - Data definitions are [agreed on and] consistently applied;
  - Reporting of data is consistent - multiple people can produce /see same results;
  - Commonly understood metrics (e.g., quarterly updates, dashboards) and scenario tools / analysis are developed and used to inform decision making; and
  - Data analysis is coordinated across the campus.
- **Supporting Technology**
  - Data is integrated at the campus system and local unit level throughout the campus;
  - Restricted data is managed and secure; and
  - Data sharing with third parties outside UC is facilitated, compliant and secure.
- **Data Governance**
  - Data management and governance roles are clearly defined, respected and understood;
  - Available data is easily accessible [to approved users];
  - Resolve competing needs; and
  - Data equity issues are addressed between the “haves” and “have-nots”.
- **Culture/Environment**
  - We operate in a productive, open and trustworthy environment;
  - Data and their sources are visible, transparent and accessible to approved users (data supermarket); and
  - Take empirical findings into account when making policy, funding, and other decisions.

# Approach

- To understand the gap between the ***current state*** and the ***desired future state***, we evaluated IDMG's initial hypotheses using the following data sources:
  - Existing institutional data reports, recommendations and initiatives
  - IDMG Survey data
    - Experience designing and administering the survey reflected the institutional data environment on campus.
    - On-line responses from 394 individuals representing all major budget control units and all schools and colleges. Greatest concentration of respondents classified their role as "supporting a decision-maker." Eighteen members of the Chancellor's Cabinet, eleven deans and six academic department chairs responded.
  - Interviews with leaders of campus data-related groups
    - Eight interviews with data-related groups, leaders, and/or participants.
  - Several hypothesis-testing discussions with the IDMG Advisory Group

*Through this assessment process we have deepened our understanding of the complexity of Berkeley's institutional data environment – and confirmed the need for nuanced, sequenced, integrated solutions.*

# Reminder of some of the *Key Survey Findings* about Berkeley's current data environment

- **Poor grades overall for institutional data:** Of the four key data attributes—access, usability, tools, and security—only security received assessment ratings above 70%.
- **A proliferation of systems with some administrative workhorses:** Survey respondents gave input on 41 unique campus systems; the highest concentration of users accessed BAIRS, BFS, BIS, Cal Profiles, and HRMS. Financial/human resource systems were rated most favorably and course-related systems least favorably.
- **Higher degree of confidence in local support:** In general, survey respondents rated the effectiveness of their own staff 10-20% higher than support provided by other units.
- **Data support for academic department chairs is a weak link:** Deans and chairs are involved in the greatest number decision-making areas. Gaining access to necessary data, however, appears to be problematic for staff who support the chairs.
- **Productivity slowed by ability to access systems.** For approximately 25 % of individuals requesting and receiving full access to “workhorse” systems, it can take between one week and one month to receive access.
- **Varied use of data to made decisions:** In major decision areas, about 70% of respondents reported that they rely on data.

# Other Key Findings

- **Many data groups exist without clear integration:** Among the data-related groups on campus there is some overlap in membership, yet each group operates independently without an overarching governance or communication structure with the other groups.
- **No common process or approach for defining data.** Efforts to develop common data definitions are time-consuming even with sponsorship. For example, a grass roots effort to develop common definitions for approximately twenty course data elements took four years to complete and a sponsored effort to agree on the number of non-academic staff on campus took one year.

# Key Observations

- **Significant disconnect between leadership questions and available data:** Campus systems are primarily transaction-based and lack the necessary tools/capability for the sophisticated analyses and reporting that campus leaders need to be able to manage the campus effectively. The nature of the questions decision makers are asking has changed in the past few years without a commensurate change in the systems, tools, and training for staff who must answer the questions.
- **We are data-rich and information-poor:** There is a proliferation of data on campus but limited capacity to translate the data into meaningful information to manage the enterprise.
- **Significant cultural barriers still exist:** Many individuals are still aligned most closely with departmental needs and lack incentives to work toward the common good.
- **Talented people on campus want to help:** A wealth of smart, dedicated, skilled individuals want to contribute to creating a more robust institutional data environment, but aren't clear where, how, or with whom to connect to contribute to sustainable solutions.
- **“Business-as-usual” is no longer working:** The cost of duplicated and diffuse institutional data, as well as the risks to our decision making, advocacy, and fundraising efforts are too great. We must begin to invest in data as an institutional asset that requires a coherent and integrated approach.

# The Good News

- **Acknowledgement of a shared problem:** Individual discomfort with institutional data challenges has grown into an institutional discomfort about a shared problem and interest in a shared solution.
- **Data producers and consumers want to “get it right”:** Open-ended survey responses, in-person interviews, and IDMG Task Force and Advisory Group meetings have demonstrated energy, passion and momentum for investing in improving our institutional data environment.
- **Appetite for change:** Campus leaders and President Yudof are eager for better institutional data.

# Going Forward...

# Implications for the Future

Through the IDMG assessment process we have learned that to move toward the desired future state, the next phase of work must address the following areas:

- Key institutional questions
- Complexity of data needs
- Delegated authority for data stewardship
- Incentives/disincentives for working collaboratively and adopting common solutions
- Sustainable funding model
- Shared data standards (definitions, access, reporting, policies, training, etc.) for the data elements used to inform the key questions.
- Shared analytical and reporting processes.
- Shared data storage/technology architecture for the relevant data developed in the context of UCOP and UC-wide data storage/access decisions.

# Implications for the Future

We have also learned that the next phase must be carefully designed.

- **Not a “One Size Fits All” Solution:** The approaches for improvement must recognize that there are real differences among data users – managing an operation in real time may not require the same data as future forecasting or reporting to external bodies about campus activities.
- **Consider Staged Change:** A staged, incremental approach to change may achieve greater campus acceptance and yield more useful products and outcomes.
- **Leverage Existing Work:** Wherever possible the initiative should build on existing initiatives and momentum for change, e.g., FASDI, EDW, etc.

*Based on these learnings we recommend that the campus begin a “proof of concept” phase.*

# A “Proof of Concept” Phase is Proposed

Elements of a “**proof of concept**” phase:

- Answer key questions
- Using a subset of institutional data
- In a defined period of time
- Test all components for developing, storing, analyzing, reporting, and sharing data to inform key questions
- Identify gaps and overlaps
- Model needed changes in processes, decision making, and collaboration
- Use to inform future phases and the long-term solutions



# What Is the Campus's Readiness for Change?

Attribute	Current Institutional Data Environment	Status 9/08
Sponsorship	Breslauer and Brostrom firmly on board.	
Organizational readiness	Shared urgency for change (with pockets of skepticism).	
Clear decision making structure	Frequently, unclear decision-making within and between data-related groups, owners, and partners.	
Dedicated operational leadership	Major gaps both in overall long-term leadership and for short-term planning.	
Clearly defined plan of action	Plans exist for individual functions and data systems. An integrated institutional data plan does not exist.	
Sustainable funding model	Growing sense that institutional data should be viewed as a common good, but funding continues to be decentralized and not prioritized.	

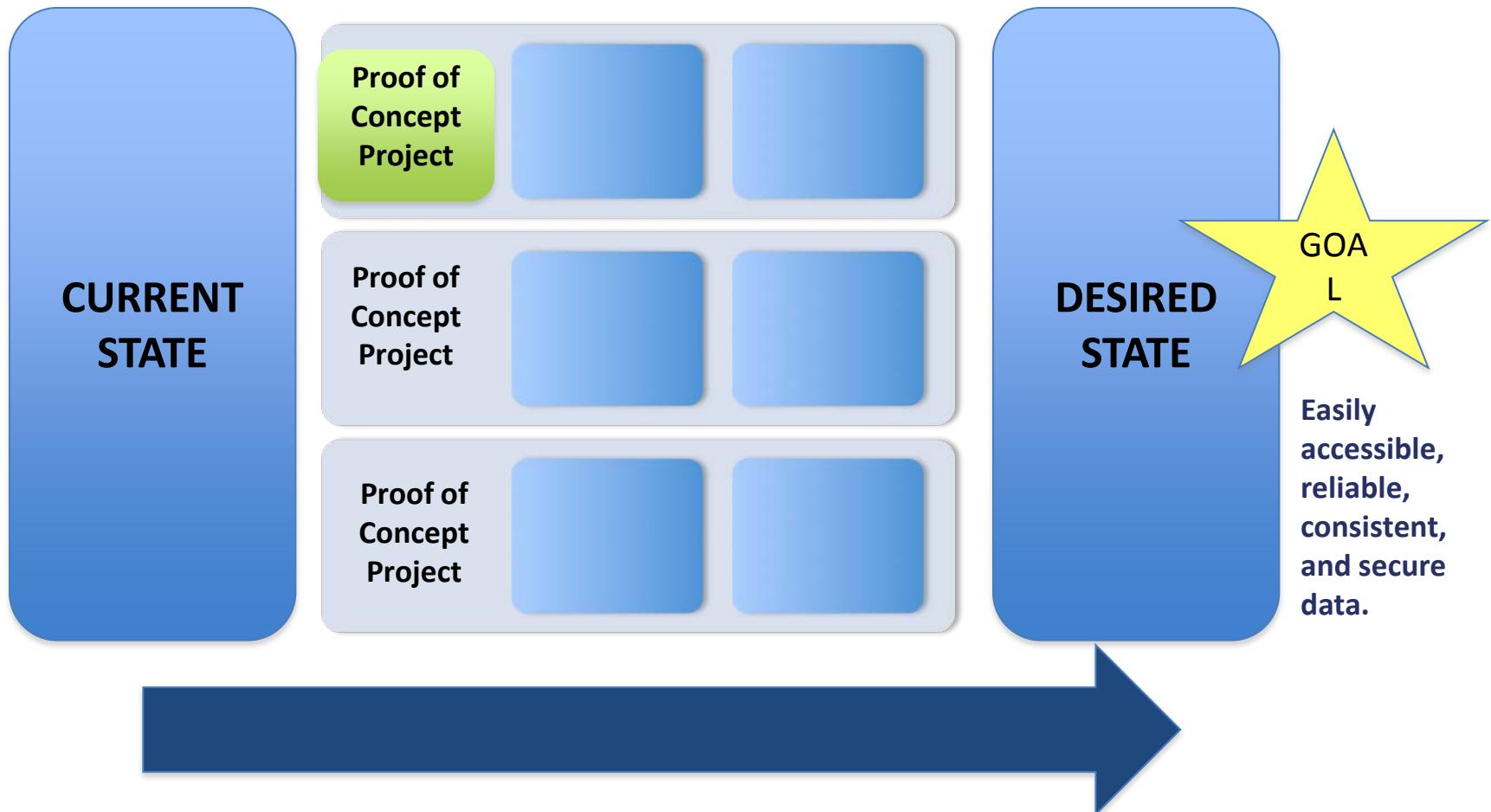
# Proposed actions to support successful, sustainable implementation

Attribute	Action Item	Status
Sponsorship	Continue strong support from Breslauer and Brostrom.	
Organizational readiness	Continue to monitor throughout project and address areas of skepticism by engaging those individuals/groups in “proof of concept” where possible.	
Clear decision making structure	<b>Identify an interim governance structure.</b> Sponsors, with IDM Task Force, can hold this space for now. Review membership and expand if needed to support “proof of concept.”	
Dedicated operational leadership	<b>Identify a dedicated leader for a “proof of concept” phase of IDM implementation</b> (see Appendix A for leader criteria and scope of responsibilities).	

## Proposed Actions *continued*

Attribute	Action Item	Status
Clearly defined plan of action	<p><b>Develop a well-defined “proof of concept” phase.</b></p> 	
Sustainable funding model	<p><b>Develop a long-range sustainable funding plan</b> using the “proof of concept” phase to identify funding challenges, issues, and strategies.</p>	

# Conceptual Roadmap



# What is needed from you to move forward?

1. Your willingness as IDMG Task Force members to serve as an interim institutional data governance body.
  - Continue to champion the IDMG efforts and goal.
  - Make institutional data governance decisions as necessary.
  - Agree to use the future state to guide the “proof of concept” phase.
  - Participate in a process to create a sustainable funding model.
2. Your support for Advisory Group\* members and others to work collaboratively to advance IDMG as a campus priority.

\* Current group may be redeployed into work streams as needed/defined by operational leader.

# Next Steps

- Review and endorse “future state” for “proof of concept” phase (today)
- Begin design of the proof of concept phase
  - Identify work streams
  - Create project structure
- Task Force members communicate about “proof of concept” phase and support staff to participate in “proof of concept” phase work streams
- Next Task Force meeting - early December 2008

# APPENDICES

- A. Dedicated Operational Leadership Criteria and Responsibilities
- B. Previous Reports
- C. Governance Interviews

# Appendix A: Dedicated Operational Leadership Criteria and Responsibilities

## Leadership Criteria

- Deep understanding of institutional data and related issues.
- Respected leader on campus both with executives and staff who touch institutional data at all levels.
- Ability to collaborate and to lead/facilitate individuals with diverse interests to sustainable groups decisions in a timely way.
- Content neutral when needed.
- Appreciation of technology solutions and how technology can enable us to reach our IDMG goal.

## Scope of Responsibility

*(with analytical/consulting support)*

- Identify key project deliverables.
- Design strategies to achieve the deliverables.
- Function as key liaison with task force and advisory groups.
- Bring operational groups together to make sustainable decisions.
- Work with campus and operational leaders to resolve roadblocks.
- Define and manage implementation tasks.
- More to be defined with named project leader.

# Appendix B: Previous Institutional Data Reports

## Previous Reports

- Enterprise Data Warehouse (EDW) proposal by the Data Stewardship Council, UC Berkeley (December 2005)
- University of California Human Resources Information Technology Assessment (HRIS Report) by Deloitte Consulting (October 2006)
- Undergraduate Outcomes Report by the Undergraduate Outcomes Task Force, UC Berkeley (September 2006)

*UC Berkeley's Business Resumption Plan (December 2001) was also reviewed for context.*

# A review of previous studies revealed similar themes to the initial impressions.

Initial Data Impressions (12/07)	Enterprise Data Warehouse Proposal (12/05)	HRIS Report (Human Resources Information Technology Assessment by Deloitte Consulting, 10/06)	Undergraduate Outcomes Report (09/06)
Data islands	People develop and maintain local shadow systems and store information on laptops, workstations, etc., putting the campus at risk for loss of confidential information.	Data definitions are not consistent, and data entry/management is diffused leading to errors and a lack of integrity.  Because each of the UC locations operates with a high degree of autonomy, policies, processes and programs are performed inconsistently, causing inconsistent service quality, redundant efforts, cost and complexity	Senior exit surveys are inconsistent, decentralized, and not yielding useful campus-wide input.
Lack of campus-wide agreements	Many employees are reaching the age of retirement. Tenure in key executive positions is about five years. Often the definitions and understanding of data and their use are kept by individual staff, not in a reliable data repository.		

## Previous studies *continued*

Initial Data Impressions	Enterprise Data Warehouse Proposal	HRIS Report	Undergraduate Outcomes Report
Lack of technology systems with built-in logic	Few campus operational systems have been designed to support analysis; It is difficult to gather and integrate data from these transactional systems because the data definitions and structures are inconsistent.		Campus lacks organizational capacity in evaluation and assessment that could complement OSR and OPA.
Lack of dedicated funding model			Campus has not funded future phases of the data warehouse at a level adequate to achieve the project's full scale vision.
Unable to substantiate the narrative		Process and data issues limit compliance and reporting for key policies and procedures.	
Develop answers to address external requirements		Many campuses are in a reactive mode dealing primarily with core HR or compliance-related tracking rather than focusing on future staff development.	Departmental self studies for academic program reviews are not yielding the expected outcomes-oriented attention

## Previous studies *continued*

Initial Data Impressions	Enterprise Data Warehouse Proposal	HRIS Report	Undergraduate Outcome Report
Significant inequities	Managers need better and more timely data to manage daily operations such as course enrollments (e.g., number of drops/adds, and on wait-lists) compared to previous days and semesters, to determine if additional sections of a course need to be added.		The campus lacks a consistent, reliable mechanism for alumni surveying.

# Appendix C: IDMG Members' Brainstorm of Key Institutional Groups on Campus

