Institutional Data as an Organizational Asset - Understanding the University Through Cal Answers

Bridging the Gap 11/21/12

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One Question, One Answer
The University produces a huge amount of operational data.

Most of it, however, is hidden away...
A subset of institutional data is available to some people who know how to get it.
A subset of institutional data is available to some people who know how to get it.
But that doesn't really help everyone else, or the University.
That's why Berkeley created the Institutional Data Management & Governance Initiative (IDMG), now led by AVC-CFO Erin Gore.

IDMG Roadmap Recommendations

1a) Establish Clear Institutional Data Leadership and 1b) a Governance Structure

Data Collection
3) Develop and Utilize Common Data Definitions

Data Analysis
4) Identify and Implement Shared Tools and Approaches

Data Presentation
5) Improve Presentation of Information to Decision Makers

Data Storage, Sharing, and Security
6) Evaluate, Prioritize, and Implement Campus-wide (Enterprise) Technologies Needed to Support These Recommendations

GOAL: Make institutional data easily accessible, reliable, consistent, and secure to support informed planning, decision making, and communication.
And here's an IDMG big idea: For almost any organization, its own operational data is one of the most important assets that it has.

When life gives you icebergs, make ice cubes.
So how does that change things?

If you treat institutional data like an organizational asset:
Data belongs to the University, so everyone has access to the data they need to do their jobs, regardless of where that data gets created.
To store all this data, we use an Enterprise Data Warehouse (EDW), so that:

People can go to a single source of integrated data;
People can access data using common, browser-only software.

![Business Intelligence dashboard](image)

**Undergraduate Cohort Graduation Data**

<table>
<thead>
<tr>
<th>Select Data View: Headcount % Table</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Undergraduate Entry Cohorts:</th>
<th>2000 Fall</th>
<th>2001 Fall</th>
<th>2002 Fall</th>
<th>2003 Fall</th>
<th>2004 Fall</th>
<th>2005 Fall</th>
<th>2006 Fall</th>
<th>2007 Fall</th>
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</thead>
<tbody>
<tr>
<td>Pct Undergrads Graduating In:</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Yrs or Less</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
</tr>
<tr>
<td>2.5 or 3 Yrs</td>
<td>2.7%</td>
<td>2.9%</td>
<td>2.5%</td>
<td>2.5%</td>
<td>2.9%</td>
<td>2.9%</td>
<td>2.7%</td>
<td>3.1%</td>
</tr>
<tr>
<td>3.5 or 4 Yrs</td>
<td>58.4%</td>
<td>58.0%</td>
<td>61.2%</td>
<td>63.8%</td>
<td>65.8%</td>
<td>68.0%</td>
<td>68.1%</td>
<td>68.5%</td>
</tr>
<tr>
<td>4.5 or 5 Yrs</td>
<td>24.5%</td>
<td>23.6%</td>
<td>22.6%</td>
<td>21.2%</td>
<td>19.8%</td>
<td>16.7%</td>
<td>17.1%</td>
<td></td>
</tr>
<tr>
<td>5.5 or 6 Yrs</td>
<td>3.2%</td>
<td>3.6%</td>
<td>3.3%</td>
<td>2.7%</td>
<td>2.4%</td>
<td>2.4%</td>
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<td></td>
</tr>
<tr>
<td>More Than 6 Yrs</td>
<td>2.9%</td>
<td>3.2%</td>
<td>2.1%</td>
<td>1.5%</td>
<td>1.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Graduated</td>
<td>8.2%</td>
<td>8.7%</td>
<td>8.3%</td>
<td>8.4%</td>
<td>7.9%</td>
<td>9.5%</td>
<td>11.9%</td>
<td>27.8%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

(Note: If you select one of the running sum data views for this table, the "Not Graduated" values will always equal the Grand Total row, since it’s the last row in the table. If you want to see the actual percentage of "Not Graduated" students, then select one of the regular headcount data views, rather than a running sum.)

**Undergraduate Graduation Counts by Entry Cohort**

![Graph showing graduation counts by entry cohort]
Sensitive data stays safe, rather than getting propagated all over.

Security roles limit who can see what data.
So that's the freezer. What about the ice cubes we store there?

* In the EDW, but not yet Cal Answers.
There's plenty to do, but a lot's happening.

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**EDW PROJECT PIPELINE**

<table>
<thead>
<tr>
<th>#</th>
<th>Subject Area</th>
<th>Project / Enhancement Name</th>
<th>Priority</th>
<th>LOE</th>
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<tbody>
<tr>
<td>1</td>
<td>Finance</td>
<td>Procure to Pay - Sprint 0.1</td>
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<tr>
<td>2</td>
<td>Finance</td>
<td>BAIRS Transfers, Report Changes for Cal Planning</td>
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<td>3</td>
<td>Finance</td>
<td>Procure to Pay - Sprint 2</td>
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<tr>
<td>4</td>
<td>Finance</td>
<td>COA Changes BAIRS/CalPlan</td>
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<tr>
<td>5</td>
<td>Student</td>
<td>Summer School Reporting</td>
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<tr>
<td>6</td>
<td>Student</td>
<td>Student July Release</td>
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<tr>
<td>7</td>
<td>Student</td>
<td>Student August Release</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Student</td>
<td>Student September Release</td>
<td></td>
<td></td>
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<tr>
<td>9</td>
<td>HR</td>
<td>HR Security / HR Census, E&amp;I</td>
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<tr>
<td>10</td>
<td>Tech</td>
<td>Informatica Upgrade</td>
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<tr>
<td>11</td>
<td>Tech</td>
<td>Browser Security</td>
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<tr>
<td>12</td>
<td>All</td>
<td>Enterprise Chart of Accounts</td>
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<tr>
<td>13</td>
<td>Finance</td>
<td>Procure to Pay</td>
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<td>14</td>
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<td>Cal Planning</td>
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<td>15</td>
<td>Finance</td>
<td>Position Management</td>
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<td>16</td>
<td>Finance</td>
<td>Principle Investigator (PI) Portal</td>
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<tr>
<td>17</td>
<td>Student</td>
<td>OE Student Finance Awards</td>
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<tr>
<td>18</td>
<td>Student</td>
<td>Student Applicant</td>
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<tr>
<td>19</td>
<td>Student</td>
<td>OE Student Curriculum</td>
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<tr>
<td>20</td>
<td>Student</td>
<td>Student Footprints Releases</td>
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</tr>
<tr>
<td>21</td>
<td>HR</td>
<td>OE HR / UCPath</td>
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<tr>
<td>22</td>
<td>Tech</td>
<td>Office Integration / Active Directory</td>
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</tr>
<tr>
<td>23</td>
<td>Tech</td>
<td>OBIEE Functionality Enhancements</td>
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<tr>
<td>24</td>
<td>Finance</td>
<td>OE Financials</td>
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<td>25</td>
<td>Student</td>
<td>Online Course Evaluation</td>
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<td>26</td>
<td>Student</td>
<td>Grad Div</td>
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<tr>
<td>27</td>
<td>HR</td>
<td>OE Spans &amp; Layers</td>
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</tr>
</tbody>
</table>

**Timeline**

- **Q3 2012**
  - Jul: M1, M2, M3
  - Aug: M4
  - Sep: M5, M6
  - Oct: M7, M8
  - Nov: M9
  - Dec: M10, M11

- **Q4 2012**
  - Jan: M12
  - Feb: M1, M2, M3
  - Mar: M4
  - Apr: M5, M6
  - May: M7, M8
  - Jun: M9

- **Q1 2013**
  - Jul: M10, M11
  - Aug: M12
  - Sep: M1, M2
  - Oct: M3
  - Nov: M4
  - Dec: M5, M6

- **Q2 2013**
  - Jan: M7, M8
  - Feb: M9
  - Mar: M10, M11
  - Apr: M12
  - May: M1, M2
  - Jun: M3

**Key Dates**

- Rollout & Communication
- Go-live with Fin Aid
- Phase 1, Phase 2, Phase 3

**Roles**

- Business Analyst
- Data Analyst
- Project Manager

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* "In Progress" EDW Project timelines are for estimation and planning purposes only.
* "Upcoming" EDW Project activities are dependent on scope, budget, resource constraints, sign-offs, etc.
What you can do to help:

- Get access to Cal Answers. It's easy; just go to http://ist.berkeley.edu/edw.
  (We'll show you that next.)

- Learn how to use Cal Answers. There are lots of job aids at http://ist.berkeley.edu/edw, with more training choices coming soon.

- Use Cal Answers as your first source to answer questions in the subject areas available.
Demo

Cal Answers consists of two parts, both of which help you answer questions about the University:

- Dashboards (predefined, interactive reports)
- Analysis (visual query tool)

http://ist.berkeley.edu/edw
Question #1

How many students were attending UC Berkeley in Fall 2012?

A. 40,735 (28,251 Undergrads & 12,484 Grad Students)
B. 35,899 (25,774 Undergrads & 10,125 Grad Students)
C. 32,128 (23,269 Undergrads & 8,859 Grad Students)
D. 30,002 (21,264 Undergrads & 8,738 Grad Students)
Question #2

Of the new freshmen who entered in Fall 2004, what percentage graduated from UC Berkeley in the federal-standard six years?

A. 58.2%

B. 68.8%

C. 88.6%

D. 91.1%
Question #3

Last month, in October 2012, how much did UC Berkeley spend on supplies from Office Max?

A. About $10,000
B. About $75,000
C. About $200,000
D. About $350,000
And Question #4

I work with particular cohorts of newly admitted students (both freshman and transfer students) each summer, and would like to be able to discern longitudinal trends for these 600-700 students around first-year retention, courses taken during the first two semesters, selection and/or change of major and college, and time to graduation.
Questions?

http://ist.berkeley.edu/edw

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