Finance Reform

A new metrics-informed financial model designed to improve transparency, align incentives with campus goals, and simplify our planning and management environment

November 17, 2015
Today’s objectives

• Introduce our new project to design a new financial model for the campus

• To share our current state analysis and early elements of the new campus financial model

• To start an ongoing dialogue with you as we prepare to begin the development phase
Project Definition and Scope
What is a financial model?

UC Berkeley is positioning itself to redesign our hybrid model.
Project goals

- Sustain and enhance the academic preeminence of UC Berkeley, underpinned by a sustainable financial model
- Strengthen units’ abilities to influence revenue growth
- Simplify allocation decisions and processes
- Better allocate funding in line with campus priorities
- Ensure provision of adequate strategic funding
- Allow campus leaders at every level to be nimble in allocating resources
- Encourage more horizontal collaboration
The initiative will also simplify the funding of central services

- Simplifying UC Berkeley’s financial model impacts all units.
- We need to think about the best way to fund central services, e.g. simplify current recharge activity and re-examine carry forward policies
- This will be a complex exercise given the heterogeneous nature of these activities
Current State
UC Berkeley’s current financial model is extremely complex
There are many different processes, determined at different times, by different people, that make up one unit’s financial relationship to campus.
Low-value transactions occupy time, add cost, and make it difficult to forecast.

There were 150,000 manually generated budget journal lines in 2010-11. Of these, at least 65% (shown here) are immaterial to our $2 billion budget.

- 65% of budget journal lines are <$10,000
- 18% of budget journal lines are <$100
- 7% of budget journal lines are <$10

Actual Dollars – Not in Thousands!
Early Thinking: Berkeley’s New Financial Model
The starting point

**Analysis:** after review, we know there is some equity and logic that has built a great university

**Findings:** allocations show a strong correlation between various metrics. A simple model using just three such metrics can explain more than 92% of current budget allocations...

**Next Steps:** build upon the findings to design a model that is more transparent and responsive to changes in workload
Guard rails

Retain key elements of our existing financial model that have contributed significantly to our excellence over time:

• The Senate Budget Committee will continue to serve their role in faculty search allocations and quality control

• Key central revenues, such as core tuition, will remain centralized

• Not a RCM “under cover” – leave certain revenues decentralized, while introducing a more logical, metrics-informed environment
The emerging new high level model

Central campus revenue sources

**Tuition and Fees**
- Tuition
- Non-Resident Tuition
- Other Fees

**State Appropriations**
- State Appropriations

**Other Income**
- Indirect Cost Recovery
- Investment Income (STIP and TRIP)
- Gifts to Campus
- Sales and Services (AFC)

**EVCP**
- Informed by performance standards and based on approved budgets and Strategic Allocations

**Central Campus**
- Strategic Allocation for designated programs and strategic initiatives
- Simplified metric informed Allocation

**Schools and Colleges**
- Various revenues flowing directly to units

**Other Units**

_Berkeley University of California_
The new model will streamline multiple allocations.
Key metrics will inform resource distributions

Hypothetical Resource Distributions to Schools and Colleges

What are the right metrics and values for our new financial model?
Initial design principles

- Continue current-state practices that ensure faculty and student quality
- Design to minimize disruption
- Ensure the new model is responsive to changes in student demand, but also “smoothed” so as not to create volatility
- Understand and value each school’s uniqueness
- Financially support pedagogical differences
- Adequately provide for campus-wide strategic initiatives
- Monitor and control service costs provided by central campus
Next Steps
Implementation timeline

FY16
Design
- Develop methodology
- Gather Data
- Design prototype
- Communications
- Stakeholder engagement
- Review cost allocations

FY17
Test
- Test prototype
- Rollout interim TAS model
- Build capacity
- Establish incentives and policies
- Prepare systems and reports

FY18
Implement
- Roll out the new metrics-informed revenue model
- Combine instruction budgets
- Update carry-forward policies
- Reform cost allocations

FY19
Make adjustments
- Review to match experience and update methodology

Future Phases
- Consider transition to a more autonomous model
- Utilize performance/curriculum metrics
Stakeholder engagement through June 2016

- **Existing Committees**
  - Understand the initiative and intended approach
  - Feedback

- **Project Team**
  - Define financial boundaries
  - Build initial model prototype

- **S&C’s and Project Team**
  - Gather unit input on prototype
  - Refine prototype
  - Draft white paper
  - Incorporate feedback from white paper

- **S&C’s and Project Team**
  - Test model
  - Build capacity
  - Refine

- **All**
Next Steps

• The team will be working to gather data and build a prototype model over the next 6-8 months.

• The team would like to meet with each of you individually or in small groups, at your convenience.

• We will iterate on design and seek feedback from COD, CAO, the Senate, and other key constituencies throughout the process.
Appendix
Detail on 43+ Current State
Budget Processes
There are 43+ different processes, determined at different times, by different people, that make up one unit’s financial relationship to campus

## Large Scale Processes

<table>
<thead>
<tr>
<th>#</th>
<th>Financial Process / Issue</th>
<th>Who Controls It?</th>
<th>Principle for Decision</th>
<th>Timing of Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Permanent Budget</td>
<td>Nobody -- It’s permanent</td>
<td>Historical Accretion</td>
<td>20+ years ago</td>
</tr>
<tr>
<td>2</td>
<td>Temporary Budget Allocations</td>
<td>Chancellor / EVCP / etc.</td>
<td>One Off Decisions</td>
<td>any time</td>
</tr>
<tr>
<td>3</td>
<td>TAS Funding</td>
<td>Chancellor / EVCP / etc.</td>
<td>Opaque to Law…</td>
<td>annual process</td>
</tr>
<tr>
<td>4</td>
<td>Startup Funding</td>
<td>VPAAFW / EVCP / Etc.</td>
<td>Need &amp; Ability to Pay</td>
<td>annual process</td>
</tr>
<tr>
<td>5</td>
<td>Benefits funding for 19900 Funds</td>
<td>Local Administrators</td>
<td>Gaming</td>
<td>continuously all year</td>
</tr>
<tr>
<td>6</td>
<td>Faculty Search Authorization</td>
<td>Budget Committee / EVCP</td>
<td>Academic concerns</td>
<td>1 year in advance</td>
</tr>
<tr>
<td>7</td>
<td>Private Faculty Search Authoriz.</td>
<td>Budget Committee / EVCP</td>
<td>Ability to Pay?</td>
<td>1 year in advance</td>
</tr>
<tr>
<td>8</td>
<td>Academic Merit Advancements</td>
<td>Budget Committee / VPAAFW</td>
<td>Academic Merit</td>
<td>Summer for fall</td>
</tr>
<tr>
<td>9</td>
<td>Academic Retention Cases</td>
<td>Budget Committee / VPAAFW</td>
<td>Academic Merit</td>
<td>Summer for fall</td>
</tr>
<tr>
<td>10</td>
<td>Assignment of Float Slots</td>
<td>Budget Committee / EVCP</td>
<td>Merit / Recruiting / etc.</td>
<td>Spring for fall</td>
</tr>
<tr>
<td>11</td>
<td>Library Merit Advancements</td>
<td>Central Library Committee</td>
<td>Academic Merit</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Salary Adjustments for Staff</td>
<td>Regents / UCOP / HR</td>
<td>System budget priorities</td>
<td>early fall for Oct.</td>
</tr>
<tr>
<td>13</td>
<td>Adj. to Acad. Salary Scales</td>
<td>Regents / UCOP / HR</td>
<td>System budget priorities</td>
<td>early fall for Oct.</td>
</tr>
</tbody>
</table>
## Budget Cut Processes

<table>
<thead>
<tr>
<th>#</th>
<th>Financial Process / Issue</th>
<th>Who Controls It?</th>
<th>Principle for Decision</th>
<th>Timing of Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.</td>
<td>Campus Perm Cuts</td>
<td>Chancellor / EVCP / etc.</td>
<td>Various + Ability to Pay</td>
<td>Spring for fall</td>
</tr>
<tr>
<td>15.</td>
<td>Campus Temporary Cuts</td>
<td>Chancellor / EVCP / etc.</td>
<td>Various + Ability to Pay</td>
<td>Spring for fall</td>
</tr>
<tr>
<td>16.</td>
<td>Campus Temporary Cuts Furlough Plan &amp; Sweep</td>
<td>Chancellor / EVCP / etc.</td>
<td>Tax on Reserve Bal.</td>
<td>Spring for fall</td>
</tr>
<tr>
<td>17.</td>
<td>Trans.</td>
<td>UCOP / Regents</td>
<td>Systemwide Budget</td>
<td>Unique, but temp Permanent</td>
</tr>
<tr>
<td>18.</td>
<td>STIP / TRIP Income Redirect</td>
<td>Chancellor / EVCP / etc.</td>
<td>Central Needed Funds</td>
<td>Unique, but permanent</td>
</tr>
<tr>
<td>19.</td>
<td>Gift Fee</td>
<td>Chancellor / EVCP / etc.</td>
<td>Returned to Dean</td>
<td>Unique</td>
</tr>
<tr>
<td>20.</td>
<td>Research Funding</td>
<td>Cmte. On Research</td>
<td>research worthiness</td>
<td>early fall?</td>
</tr>
<tr>
<td>21.</td>
<td>Program Specific Fee Cuts</td>
<td>UCOP / Chancellor / EVCP</td>
<td>Various</td>
<td>at any time</td>
</tr>
</tbody>
</table>

## Fee Issue Processes

<table>
<thead>
<tr>
<th>#</th>
<th>Financial Process / Issue</th>
<th>Who Controls It?</th>
<th>Principle for Decision</th>
<th>Timing of Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.</td>
<td>Reg / Ed Fees</td>
<td>Regents</td>
<td>Systemwide Budget</td>
<td>Varies</td>
</tr>
<tr>
<td>23.</td>
<td>Professional Degree Fees</td>
<td>Regents</td>
<td>Schools Request vs. ??</td>
<td>Varies</td>
</tr>
<tr>
<td>24.</td>
<td>Self-Supporting Program Fees</td>
<td>UCOP</td>
<td>Must make a profit</td>
<td>Spring for fall</td>
</tr>
<tr>
<td>25.</td>
<td>Self-Supporting Overhead</td>
<td>Chancellor / EVCP / etc.</td>
<td>Fair, but don't crush innov.</td>
<td>Happened this year</td>
</tr>
<tr>
<td>26.</td>
<td>Campus Fees</td>
<td>Committee on Campus Fees</td>
<td>Various</td>
<td>Spring for fall</td>
</tr>
<tr>
<td>27.</td>
<td>Health Insurance Fee</td>
<td>??</td>
<td>Market rate?</td>
<td>??</td>
</tr>
<tr>
<td>28.</td>
<td>Application Fees</td>
<td>UCOP / Grad Div</td>
<td>50 / 50 Split</td>
<td>One time</td>
</tr>
</tbody>
</table>
### Financial Aid Processes

<table>
<thead>
<tr>
<th>#</th>
<th>Financial Process / Issue</th>
<th>Who Controls It?</th>
<th>Principle for Decision</th>
<th>Timing of Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>Return to Aid Requirements</td>
<td>Regents</td>
<td>Affordability / Inclusion</td>
<td>Annual</td>
</tr>
<tr>
<td>30</td>
<td>Grad Div Block Grants</td>
<td>Graduate Div.</td>
<td>??</td>
<td>Reviewed annually</td>
</tr>
<tr>
<td>31</td>
<td>Grad Diversity Program Match</td>
<td>Graduate Div.</td>
<td>Improve Campus Div.</td>
<td>Set years ago</td>
</tr>
<tr>
<td>32</td>
<td>Ph.D. Grad Fellowship Apps</td>
<td>Graduate Div.</td>
<td>Academic quality / equity</td>
<td>Annual</td>
</tr>
<tr>
<td>33</td>
<td>Fee Remission Funding</td>
<td>Graduate Div.</td>
<td>Fee Levels / Instruction</td>
<td>Automated mostly</td>
</tr>
<tr>
<td>34</td>
<td>Undergrad Aid</td>
<td>Financial Aid Office (L&amp;S)</td>
<td>Financial need</td>
<td>Annual</td>
</tr>
</tbody>
</table>

### Fee for Service Processes

<table>
<thead>
<tr>
<th>#</th>
<th>Financial Process / Issue</th>
<th>Who Controls It?</th>
<th>Principle for Decision</th>
<th>Timing of Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>Campus Network Model Recharge for Services (mail, etc.)</td>
<td>Chancellor / Campus IST</td>
<td>Cost plus?</td>
<td>Once / Phased in</td>
</tr>
<tr>
<td>36</td>
<td>Charges for Capital Proj. Mgmt.</td>
<td>Capital Projects</td>
<td>Cost plus?</td>
<td>Per project</td>
</tr>
<tr>
<td>37</td>
<td>Charges for App. Development</td>
<td>Campus IST</td>
<td>Cost plus?</td>
<td>Per project</td>
</tr>
</tbody>
</table>

### Other Processes

<table>
<thead>
<tr>
<th>#</th>
<th>Financial Process / Issue</th>
<th>Who Controls It?</th>
<th>Principle for Decision</th>
<th>Timing of Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>6-Month Endowment Hold</td>
<td>Chancellor / EVCP / etc.</td>
<td>Replaced gift fee</td>
<td>Unique, but permanent</td>
</tr>
<tr>
<td>40</td>
<td>Campus OH on Grants</td>
<td>UCOP / Campus / SPO</td>
<td>Maximize</td>
<td>Shifting</td>
</tr>
<tr>
<td>41</td>
<td>Campus OH return policy</td>
<td>Chancellor / EVCP / etc.</td>
<td>Who knows…</td>
<td>Years ago</td>
</tr>
<tr>
<td>42</td>
<td>Market-Based Salary Programs</td>
<td>Chancellor / EVCP / etc.</td>
<td>Unit Pays</td>
<td>Unique, but permanent</td>
</tr>
<tr>
<td>43</td>
<td>Administrative Full Costing</td>
<td>Chancellor / EVCP / etc.</td>
<td>OH recover for auxiliaries</td>
<td>ramp up over time</td>
</tr>
</tbody>
</table>
Reverse engineering current state campus budgets as proof of concept for simplification efforts
“Reverse engineering” the distribution of campus support using metrics

The team found that Schools and Colleges do have consistent metrics available that can be applied across units.

The Methodology:

• Collected and reviewed common instructional activity metrics to analyze current funding models
• Observed the relationships of single metrics to campus support and to each other
• Applied statistical regression to analyze relationships of multiple metrics to Campus Support

Instructional Activity Metrics tested:

• Student Credit Hours (SCH)
• Course Offerings
• Undergraduate Majors Headcount
• Graduate Academic Headcount
• Graduate Professional Headcount
• Undergraduate Degrees Awarded
• Doctoral Degrees Awarded
• Professional/Master Degrees Awarded
• Contract and Grant Activity, Effective ICR rate
• Adjustments for lab sciences, schools vs. college, core subject teaching

Non-instructional units do not all have metrics available, nor are they consistent across units. Therefore, reverse-engineering was not possible for these units.
Outcomes from applying metrics to campus support

The best statistical equation to explain the distribution of current campus support to instructional units involved SCH, Grad Academic headcount, and Grad Professional headcount.

<table>
<thead>
<tr>
<th></th>
<th>SCH</th>
<th>Grad Acad HC</th>
<th>Grad Prof HC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value per Unit (coefficient)</td>
<td>$313</td>
<td>$30,508</td>
<td>$15,142</td>
</tr>
<tr>
<td>Confidence Level</td>
<td>1.0000</td>
<td>1.0000</td>
<td>0.9961</td>
</tr>
<tr>
<td>Explanatory value ($r^2$)</td>
<td>0.922</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Outcomes from applying metrics to campus support

SCH and Grad Academic Headcount have the strongest singular relationships to campus support as evidenced by high $r^2$ values (closer to 1.00 is a perfect relationship)

- SCH: $R^2 = 0.89$
- Grad Acad HC: $R^2 = 0.82$
Outcomes from applying metrics to campus support

Undergraduate Majors Headcount and Degrees Awarded are good but less related…