Operational Excellence

Achieving Operational Excellence at University of California, Berkeley

Final Diagnostic Report – Complete Version

University of California Berkeley

BAIN & COMPANY

April 2010

Contents

Purpose of this document 2

Operational Excellence vision and process 5

Summary of findings and recommendations 13

- Current situation and need for change 25
- Review of opportunity areas and critical enablers 30
- Potential savings and investment requirements 126

Path forward for Design stage 133

Next steps 139

Additional notes on the data 141

Appendix 145

Purpose of this document

- This document contains the **findings and recommendations from the UC Berkeley Operational Excellence Steering Committee** for the Diagnostic stage
- The scope of the Operational Excellence diagnostic **focuses primarily on improving the operations of the University**. Out of scope are aspects of the content of teaching and research that are under faculty governance, and revenue options that include registration or education student fees
- The recommendations in this report have been presented to the **Chancellor for his consideration** regarding specific initiatives that should be pursued, the manner in which they should be pursued, and the level of savings that should be targeted
- The Steering Committee (composed of representatives from UC Berkeley's faculty, staff, students, and alumni) is making these recommendations after **six months of detailed analysis, review and discussion, with significant input from the broader campus community** through interviews, focus groups, meetings, surveys, and email contacts
- The analysis in this report was primarily prepared by a **Working Group of more than twenty UC Berkeley employees, guided by UC Berkeley leadership and supported by Bain & Company**
- **Additional information** about Operational Excellence can be found at http://berkeley.edu/oe

Disclaimers and notes about the data

- The analysis in **this report is based on best available data**, but there are limitations due to the difficulty of assembling high-quality data from UC Berkeley's existing systems. **This report contains decisionable data** (not accounting precision); further refinements will be made as needed in the Design stage
  - In many instances, the data had to be created through interviews, surveys and manual data assembly (e.g., IT Catalog Survey to estimate number of applications, office-supplies invoices to analyze pricing variances by item)
  - In some instances, there were errors with the data in existing databases that were manually fixed (e.g., reporting relationships in HCM)

- **Potential savings, investment requirements, and timelines are estimates**
  - Savings achieved and timelines are ultimately dependent on the initiatives that are pursued, leadership, stakeholder support, and implementation
  - Savings estimates are meant to be directional, and should not be used exclusively when determining specific targets for any one initiative or unit; definition of baseline expenditures from which savings will be tracked will differ by initiative and be determined during the Design stage
  - This report does not make recommendations about how or where savings will be allocated, or to what extent savings may be strategically reinvested into operations or reallocated directly towards the academic or research mission
  - Savings may accrue to different campus units and only a portion of the savings may be available to reduce the central budget deficit
  - In general, organizations rarely achieve 100% of identified savings; 60-80% is more common due to implementation challenges and potential overlap between opportunities

- **Many opportunities identified are difficult to implement** and will require significant time, investment, and strong campus support in order to be successful

Contents

Purpose of this document 2

Operational Excellence vision and process 5

Summary of findings and recommendations 13

- Current situation and need for change 25
- Review of opportunity areas and critical enablers 30
- Potential savings and investment requirements 126

Path forward for Design stage 133

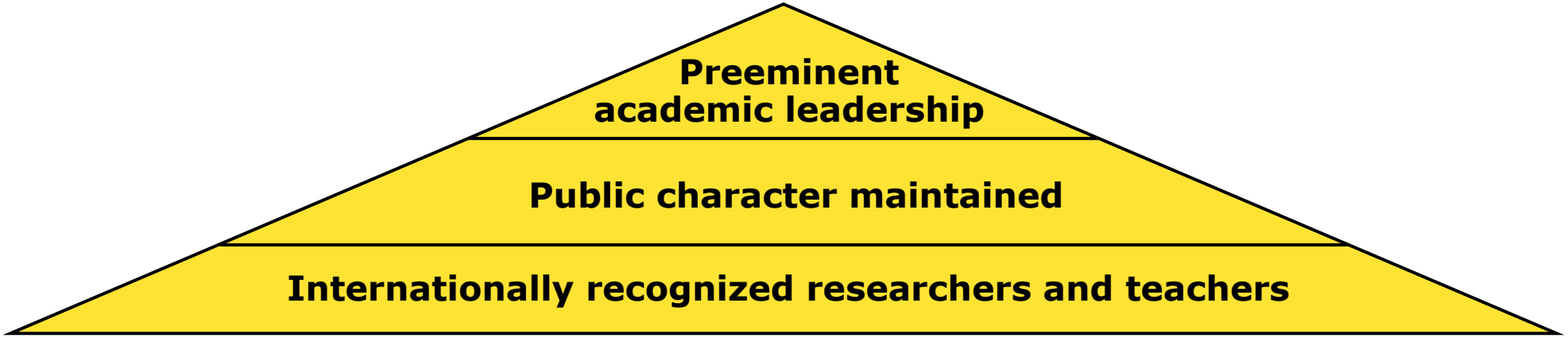
Next steps 139

Additional notes on the data 141

Appendix 145

Vision for Operational Excellence

World-class teaching and research supported by world-class operations



Organizational performance

- Alignment on priorities, with resources allocated appropriately
- Clear decision-making roles and accountabilities
- Appropriate measures & incentives
- Performance-driven employees with clear responsibilities and career paths

Financial sustainability

- Streamlined organization structure, optimized with a pan-university view
- Highly productive workforce using efficient processes and tools
- Appropriate, consistent service levels to meet functional needs
- Lowest cost for quality goods & services

We have just completed the Diagnostic stage of the three-stage OE process

We are here

6 months	2-6 months	3-36 months
Diagnostic	**Detailed Solution Design**	**Implementation**
• Identify and prioritize opportunities to improve efficiency and effectiveness	• Develop detailed implementation plans to capture value	• Implement workstreams and drive change in organization
What to do	**How to do it**	**Do it!**

The Chancellor set up a representative structure to govern the Diagnostic stage

Chancellor

- **Chancellor Birgeneau (OE lead)**

Operational Excellence Steering Committee (OESC)

- **Chancellor Birgeneau (chair)**
- George Breslauer
- Nathan Brostrom
- Carlos Bustamante
- Catherine Wolfram
- Frank Yeary
- Chris Kutz
- Rod Park
- Miguel Daal
- Roia Ferrazares
- Arun Sarin
- Judy Wade
- Phyllis Hoffman (staff)
- Will Smelko

Campus Leadership

- Chancellor's Cabinet
- Academic Senate Leaders
- Council of Deans

Stakeholder groups

- Users of campus services
- Providers of campus services

Project Leadership & Organizational Simplification

- **Frank Yeary (OE co-lead)**
- Phyllis Hoffman
- Khira Griscavage
- Claire Holmes (Communications)

Internal working group

Functional Owners

Procurement	HR	Finance	IT	Facilities Services	Student Services	Change Management
• Ron Coley	• Jeannine Raymond	• Erin Gore • John Ellis	• Shel Waggener	• Chris Christofferson	• Susanna Castillo-Robson	• Elizabeth Elliott

Point People

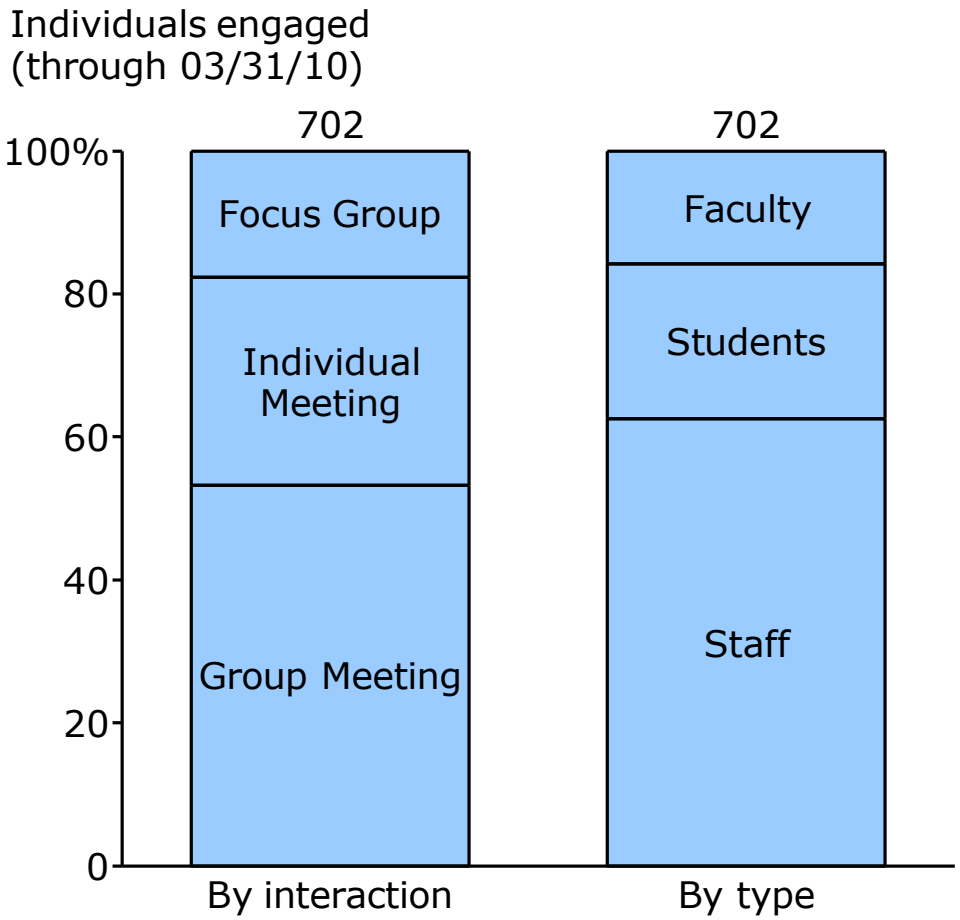
- Jon Bain-Chekal, Pamela Brown, Teresa Costantinidis, Liz Halimah, Rich Lau, Liz Marsh, Lila Mauro, Michael Mundrane, Moira Perez, Jodie Rouse, Kathleen Satz, Ken Schmitz, Nora Watanabe

The Steering Committee met monthly to discuss findings and recommendations …

Sep	Oct	Nov	Dec	Jan	Feb	Mar
Kickoff	**Results workshop**	**Fact-base review**	**Opportunity review I**	**Opportunity review II**	**Opportunity prioritization**	**Design planning**
	• Review early observations • Brainstorm hypotheses on high potential opportunities • Discuss potential issues and change management • Align on key factors for project success	• Review preliminary financial and org fact base • Discuss drivers of inefficiencies • Discuss emerging hypotheses on high potential opportunities	• Review refined fact base • Review key benchmarks and best practices • Discuss key opportunity areas, including estimates of value • *Dec: Focus on Procurement, Energy Management and Space Management* • *Jan: Focus on Org Simplification, IT, Student Services (initial view)*		• Complete discussion on org simplification and student services • Discuss potential savings and implement-ation costs • Prioritize opportunities to move forward with into the Design stage	• Discuss critical enablers for OE success – financial management model and high-performance operating culture • Agree on communi-cation and change management plan going forward

… and the OE team engaged 700+ people across campus to gather input along the way

Individuals engaged through individual or group meetings

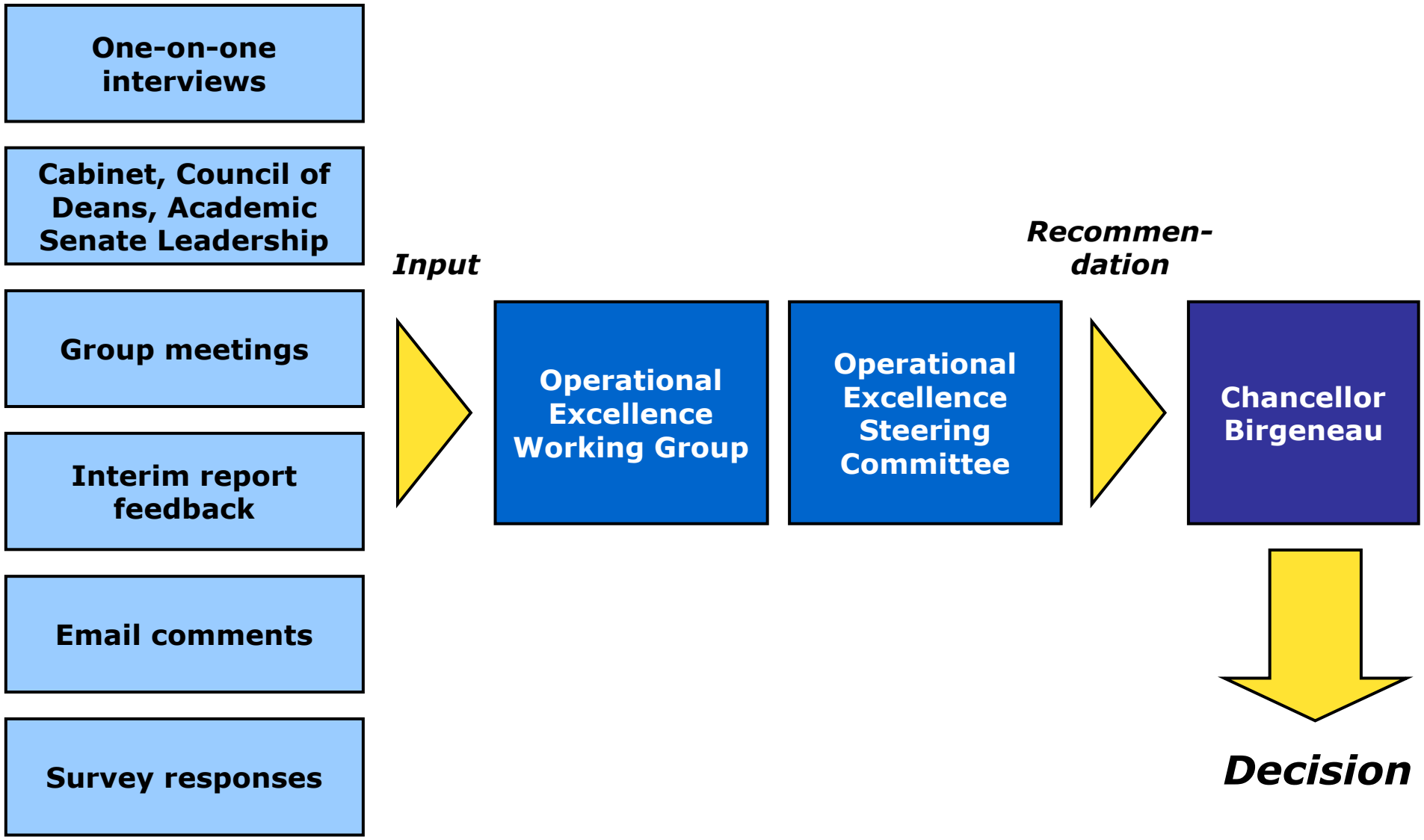


Additional feedback mechanisms

- **OE website/email list:**
  - Over 250 comments submitted
- **Interim report video:**
  - Over 1,700 views as of 3/31/2010
- **Cross-university updates after interim report:**
  - ~15 group meetings/Q&A sessions with over 400 total attendees
- **Capacity for Change and Organizational Effectiveness Survey:**
  - Distributed to 1,500 managers; ~300 responses recorded
- **Student Survey:**
  - Distributed to 12,000 students; ~2,300 responses recorded
- **Young Alumni Survey:**
  - Distributed to 5,000 alumni; ~450 responses recorded

Note: Group meetings include, but are not limited to, Academic Business Officers Group, Academic Senate Divisional Council, ASUC Leadership, ASUC Senate, Berkeley Staff Assembly Coordinating Committee, Budget Working Group, Cabinet, CC2, Control Unit Administrators, Control Unit Management Group, Council of Deans, Council of Ethnic Staff Organizations, Council of Science Deans, Chancellor's Staff Advisory Committee, CTC, DHRM, ITMF, Grad Student Assembly Executive Board, Vice Chancellor for Student Affairs Advisory Council
Source: OE Interview Contact Database; UC Berkeley directory; Campus group membership records; Operational Excellence Surveys

University-wide input has been a critical part of the OE decision-making process



Input from various constituents has been incorporated into different stages of the work

	Sample input	Integration into the work
Diagnostic stage	*"Individuals **optimize locally at the expense of the University**."* *"Lack of clear performance metrics means **ineffective workers can remain unnoticed**."* *"There's **no funding strategy for common goods**."*	• Solutions will have a **pan-university perspective** • Workstream dedicated to creating a **high-performance operating culture** • Workstream dedicated to **financial management model** redesign
Design stage	*"We **can't implement 'one size fits all' solutions.**"* *"If we move toward centralization, we need to make sure departments **get the right service levels**."*	• Design teams will work with units on **specific solutions that support their organization** • Design teams will work on creating **service-level agreements** and metrics
OE Process	*"Solutions need to be tailored to **Berkeley's unique environment**."* *"We need **clear accountability** and **sufficient dedicated resources** to make the changes happen."*	• **Hundreds of campus stakeholders engaged** through interviews, focus groups, meetings • **Proposed program office and initiative teams** will have dedicated resources and clear accountability for results

Source: OE Capacity for Change and Organizational Effectiveness Survey (Feb 2010); interviews; OE email comments

Contents

Purpose of this document 2

Operational Excellence vision and process 5

Summary of findings and recommendations 13

- Current situation and need for change 25
- Review of opportunity areas and critical enablers 30
- Potential savings and investment requirements 126

Path forward for Design stage 133

Next steps 139

Additional notes on the data 141

Appendix 145

Summary of OE Steering Committee findings

- **UC Berkeley has a long history of excellence** in teaching and research, as well as a strong commitment to its public mission
  - Berkeley ranks as the top public university for undergraduate education*, and ranks first nationally in the number of graduate programs in the top 10 in their field**
  - Berkeley's faculty today includes eight Nobel laureates and several hundred members of the National Academies of Education, Engineering and Sciences
  - Berkeley provides access to more Pell Grant recipients (for low-income families) than all Ivy League schools combined

- **State support for UC Berkeley has eroded**, making it imperative for the University to permanently change its operations in order to preserve resources to support its core mission
  - State support has declined by over 50% in real dollars since 2002
  - Future levels of state support are unclear, but unlikely to increase

- A **major systematic, university-wide effort is required** to improve operational efficiency and effectiveness
  - The organic growth of our operations over decades has led to many redundancies, complexities, and inefficiencies which will be challenging to unwind
  - Local optimization, although well-intentioned and efficient on an individual basis, has unintentionally undermined pan-university effectiveness and has increased overall institutional costs and risk
  - 60% of managerial staff surveyed do not believe UC Berkeley is a highly effective organization; 85% believe significant change is necessary

*US News & World Report, 2009; **National Research Council

Summary of OE Steering Committee recommendations

- Specifically, the Steering Committee recommends pursuing **five opportunity areas**, which will enable delivery of more consistent, sustainable service levels at dramatically lower cost:
  1. **Procurement**
  2. **Organizational simplification** (including HR, Finance)
  3. **IT**
  4. **Energy management**
  5. **Student services**

- In addition, the Committee recommends pursuing **two critical enablers**, which are foundational to the success of OE:
  A. **Commitment to a high-performance operating culture**, built around the setting of clear institutional goals, consistent decision processes and effective people management and development
  B. **Redesign of a disciplined financial management model** to ensure more effective management of financial resources

1

Opportunity summary: Procurement

Key findings

- UC Berkeley spends **~$410M on procurement,** of which **$35-175M is under negotiated contracts****
- Spending is fragmented across **18,000+ vendors** – 75% more vendors per dollar than benchmark institutions
- **Individuals are optimizing locally,** undermining campus buying power
- **Lack of standards** for commonly purchased goods weakens ability to aggregate expenditures (e.g., 36+ copier models)
- Two-thirds of central procurement **organization is NOT focused on strategic sourcing** (the primary tool to reduce cost)

Recommendations

- Negotiate University-wide, best-priced, **strategic vendor contracts** and aggressively drive spending through them
  - Increase categories covered by contracts
  - Drive contract utilization through policies and incentives, as well as through marketing and customer service strategies
- **Standardize and manage demand** for commonly purchased goods
- Complete on-time implementation and drive usage of **e-procurement** to make purchasing easier and more efficient
- **Restructure procurement organization** to increase focus on strategic sourcing (vs. transactional) activities

~$25-40M of full potential savings identified*

*Includes some savings overlap between opportunity areas; 60-80% of identified savings typically achieved
** $410M spent on procurement is for operating expenditures only (excludes capital expenditures); $35M is under system/campus-wide contracts and additional ~$140M is under department negotiated contracts

2 Opportunity summary: Organizational simplification

Key findings

- UC Berkeley spends **~$700M** on in-scope personnel**
- The University has **many layers** (11) and relatively **narrow spans** of supervisory control (average 4.4)
  - ~55% of supervisors have three or fewer direct reports
- Administrative staff are **highly distributed**, often in small units
- Benchmarks suggest potential to improve administrative **productivity**
  - E.g., UC Berkeley's HR staff to headcount ratio is 1:63 versus 1:127 for the average higher education institution

Recommendations

- **Improve operational productivity** through standardization, automation, and greater specialization
- **Create economies of scale** and **improve effectiveness** through grouping the delivery of common administrative functions (e.g., shared services) and combining operations of small units
- **Streamline organization** by increasing average supervisory spans to get closer to benchmarks - i.e., 6-7 for expertise-based functions and 11-13 for task-based functions

~$40-55M of full potential savings identified*

*Includes some savings overlap between opportunity areas; 60-80% of identified savings typically achieved
**"In-scope" personnel include all employees except undergraduate students, graduate students, faculty, postdoc employees/fellows, and university police.
Note: Successful realization of this opportunity relies on the high-performance operating culture enabler

3

Opportunity summary: IT

Key findings

- UC Berkeley spends **~$130M** on IT
- IT staff are **highly distributed** and many do not report to IT managers
  - Many IT decisions made to optimize locally at higher institutional cost and risk
- IT **infrastructure** is highly **decentralized**
  - E.g., 50+ buildings hold servers, increasing energy consumption and risk
- **Few standards** for applications development, support services, and IT procurement leads to increased cost
  - Applications created in 20+ languages
  - 30+ different PC models
- **No common goods funding model**

Recommendations

- **Redesign IT organization** and governance model in line with organizational simplification initiative
- **Consolidate infrastructure**
- **Develop standards** for application development, support services and IT procurement
- Selectively evaluate opportunities to **source non-core services** from **outside providers**
- Develop **IT common goods funding model**, in line with financial management model initiative

~$10-16M of full potential savings identified*

*Includes some savings overlap between opportunity areas; 60-80% of identified savings typically achieved
Note: Savings exclude reinvestments in foundational IT projects required across the different initiatives

4

Opportunity summary: Energy management

Key findings

- UC Berkeley spends **~$35M** on energy
- UC Berkeley's energy rates appear favorable relative to benchmarks, but **consumption is slightly above average** when compared to other California universities
- Energy consumption is **not systematically measured and managed** across campus
  - Energy consumption per square foot varies significantly across buildings with similar uses
- **Few incentives** exist for departments to reduce consumption since the utility bill is paid by central campus

Recommendations

- Accelerate **energy infrastructure improvement projects** (e.g., metering and reporting systems)
- Establish an **incentive system** to reward reduced energy consumption, enabled through new systems
- Refocus **energy management resources** to increase accountability for reduced energy consumption

~$3-4M of full potential savings identified*

*Includes some savings overlap between opportunity areas; 60-80% of identified savings typically achieved

5

Opportunity summary: Student services

Key findings

- UC Berkeley spends **$220M+** on student services **across five control units**
- **50+ different student services** are offered – each different in terms of its relative value to the University's mission and relative importance to students
- The **productivity** of student services staff (i.e., number of students served per staff member) **varies significantly across units**
- Several instances of **overlapping programs and functions** across different units

Recommendations

- Align **student services organization** and governance model to maximize effectiveness
- Evaluate opportunities to **resize services** based on value and alignment with UC Berkeley's mission
- **Improve productivity** through standardization, automation and greater specialization
- Identify efficiencies in overlapping or **redundant functions or programs**
- Procure goods and services efficiently and **selectively source non-core services** from outside providers

~$15-20M of full potential savings identified*

*Includes some savings overlap between opportunity areas; 60-80% of identified savings typically achieved

Summary of critical enablers

A High-performance operating culture

- Create mechanisms to effectively **cascade communication of institutional priorities** throughout all levels of the organization
- Develop **consistent decision processes with clear decision roles**
- Define clear organizational goals and **cascade goals to units and individuals**, with corresponding metrics
- Enhance **performance management and incentive** system to ensure accountability for high performance
- Ensure appropriate employee **development and support**

B Financial management model

- Align **resource management with clear pan-university priorities**
- Develop financial management model that provides **incentives for financial discipline** and appropriately **funds necessary common goods**
- Foster **highly skilled finance organization**
- Maintain **ongoing financial discipline and accountability**, using financial performance metrics to guide decision making

Critical enablers lay the foundation for OE success

Summary of OE Steering Committee recommendations

Benefits to UC Berkeley

- Based on the opportunities identified, the Steering Committee believes that **more than $100 million in potential savings exists** from UC Berkeley's ongoing operations cost base and recommends that the University pursue a **systematic effort to capture at least $75 million** in annual operational cost savings
  - Savings to ramp up over three years, reaching $75 million by the end of Year 3 and recurring on an ongoing basis thereafter
- Pursuing these opportunities should also result in more **consistent, sustainable (and often superior) service** levels, as well as a reduction in institutional risk

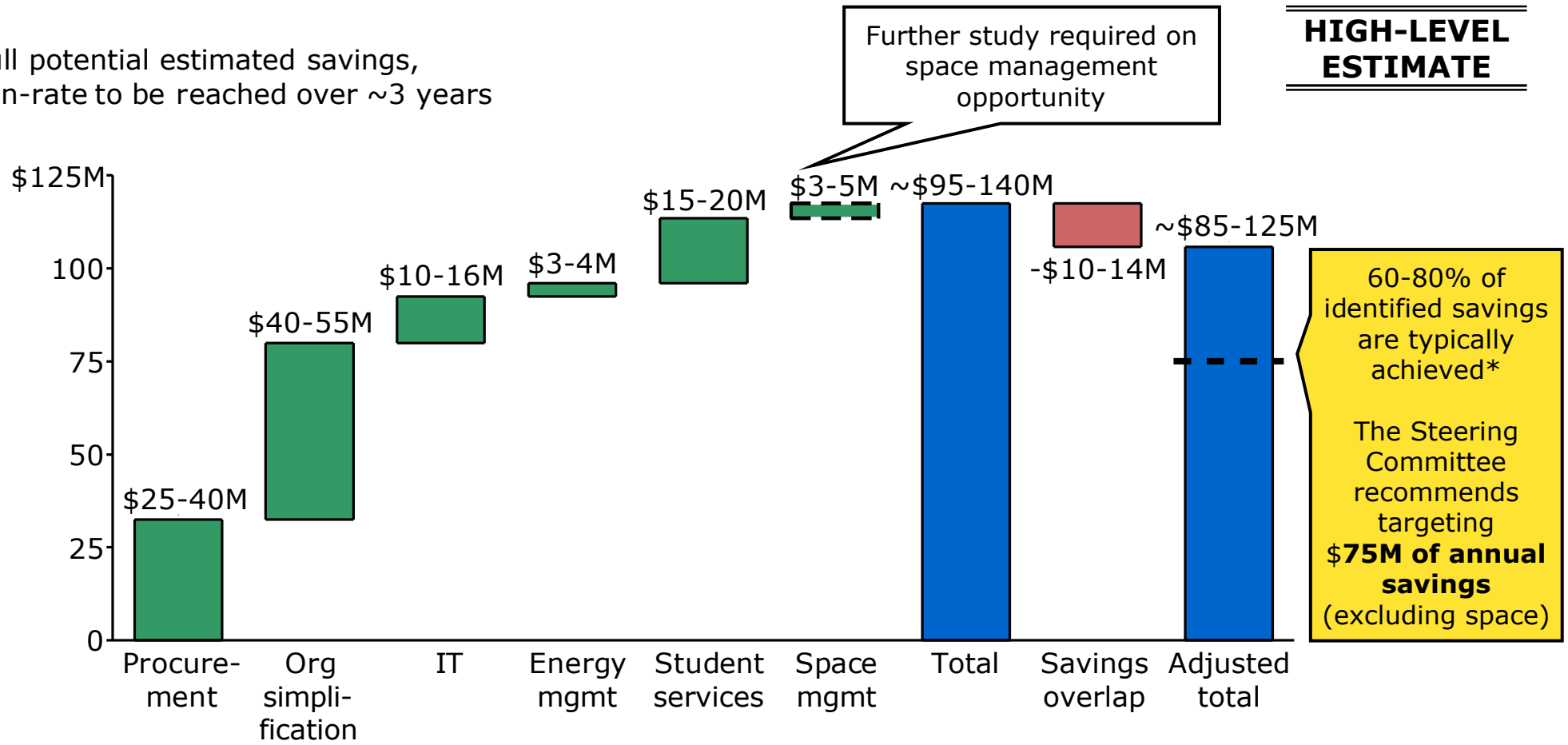
Investments and requirements

- **Significant investments** in process redesign, automation projects, people and training will be required to realize the identified cost savings
  - Early estimate of $50-$70 million in one-time investments over three years, and $5 million in annual ongoing investments thereafter
- Capturing these benefits will require a systematic and sustained effort **led by senior managers, with real rewards and consequences** throughout the organization for individual behaviors
- To ensure successful design and implementation, the Steering Committee recommends putting in place **initiative teams tasked against each opportunity**, as well as a **Program Office** to coordinate across initiatives and track progress

Steering Committee recommends targeting $75M out of >$100M in identified savings …

Full potential estimated savings, run-rate to be reached over ~3 years

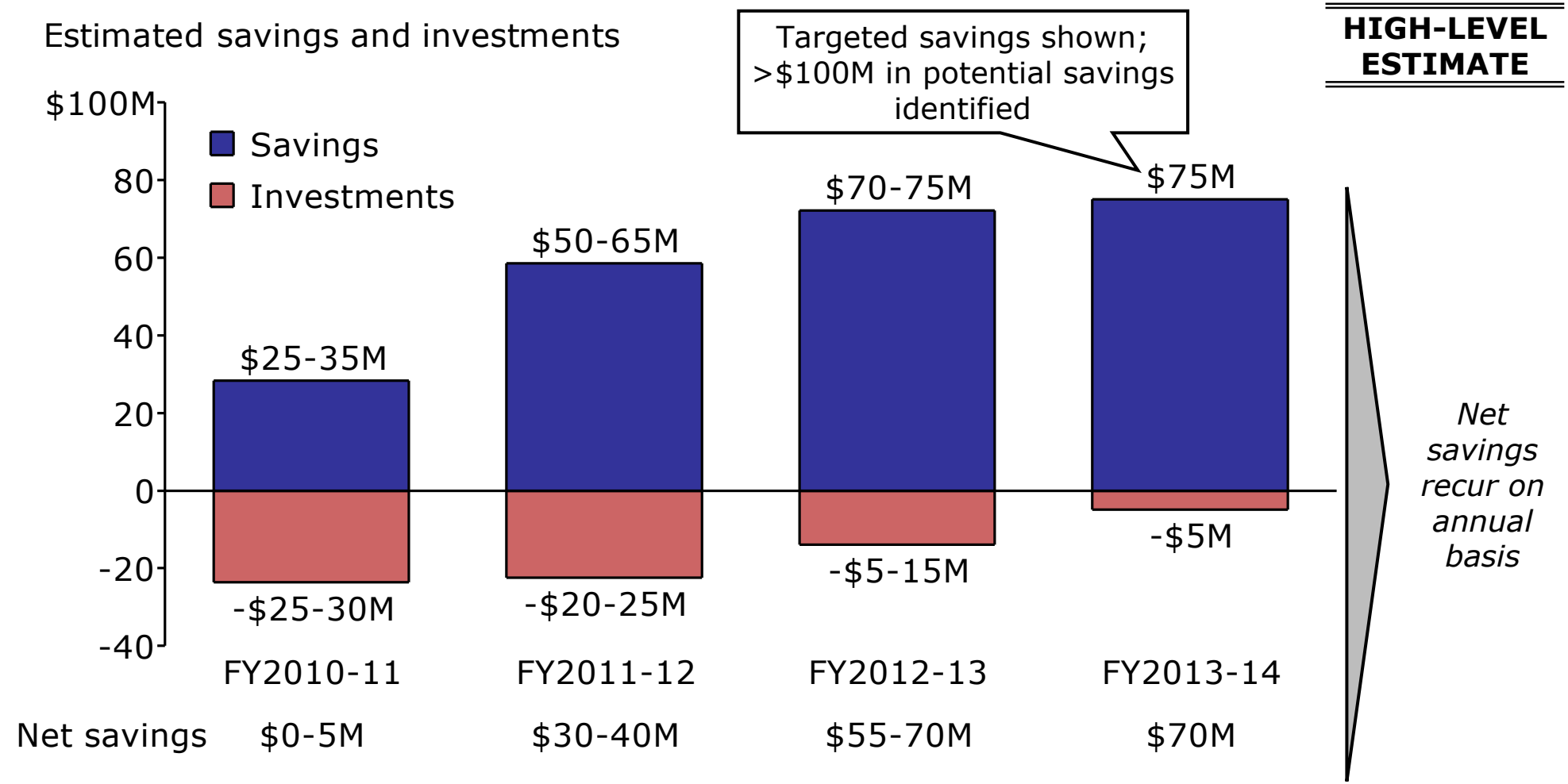
HIGH-LEVEL ESTIMATE



	Procure-ment	Org simpli-fication	IT	Energy mgmt	Student services	Space mgmt
Expenditure	$410M	$700M	$130M	$35M	$220M	$270M
% savings	6-10%	6-8%	8-12%	9-11%	7-9%	1-2%

*Typically achieved savings based on Bain experience working on large-scale operational improvement projects
Note: Estimated expenditure is for FY2008-09 period; definition of baseline expenditures from which savings will be tracked will differ by initiative; savings based on benchmarks, adjusted for higher education and other Berkeley-specific factors; midpoint of savings range shown on chart; some savings in IT and student services overlap with org simplification and procurement
Source: UC Berkeley purchasing database pulled from BFS A/P table; HCM Database as of 12/22/09; CalProfiles

… with savings ramping up over time and reaching target over the next ~3 years



Estimates and timing to be refined during Design stage

Note: Estimated savings to be achieved by end of each fiscal year; Assumes total investment of $60M over first three years (i.e., midpoint of $50-70M investment range). Under the quicker savings ramp scenario (higher end of savings range), year-by-year investment estimates are $30M,$25M,and $5M over the first three years. Under the slower ramp scenario (lower end of savings range), year-by-year investment estimates are $25M ,$20M,and $15M over the first three years. Potential Space Management savings not included, as the Steering Committee recommends this opportunity as an area for future study.
Source: BFS A/P database, Career Compass and HCM data as of 12/22/09, UCB experience, Bain analysis

Contents

Purpose of this document 2

Operational Excellence vision and process 5

Summary of findings and recommendations 13

- Current situation and need for change 25

- Review of opportunity areas and critical enablers 30

- Potential savings and investment requirements 126

Path forward for Design stage 133

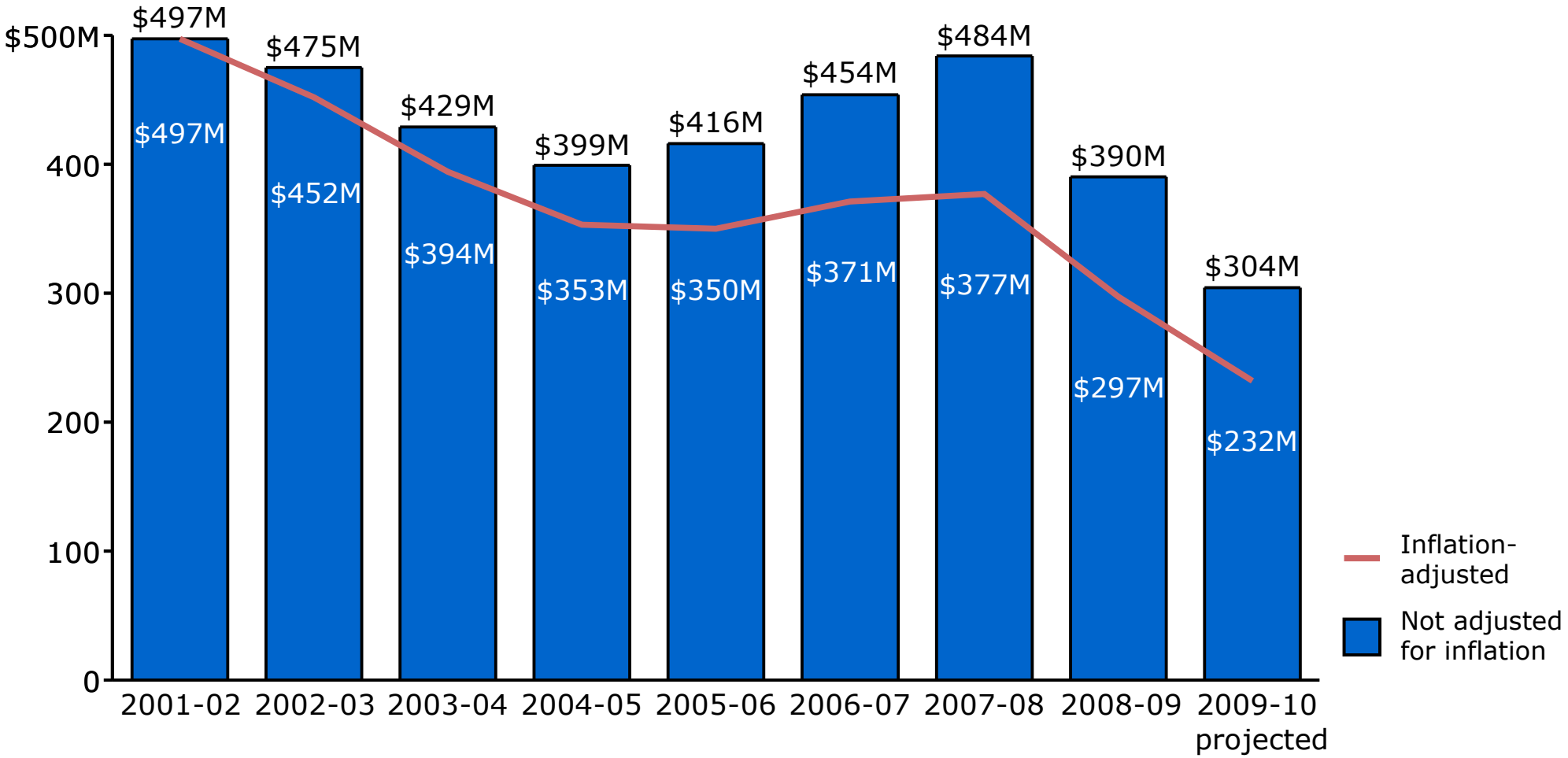
Next steps 139

Additional notes on the data 141

Appendix 145

State educational appropriations to UC Berkeley have been falling …

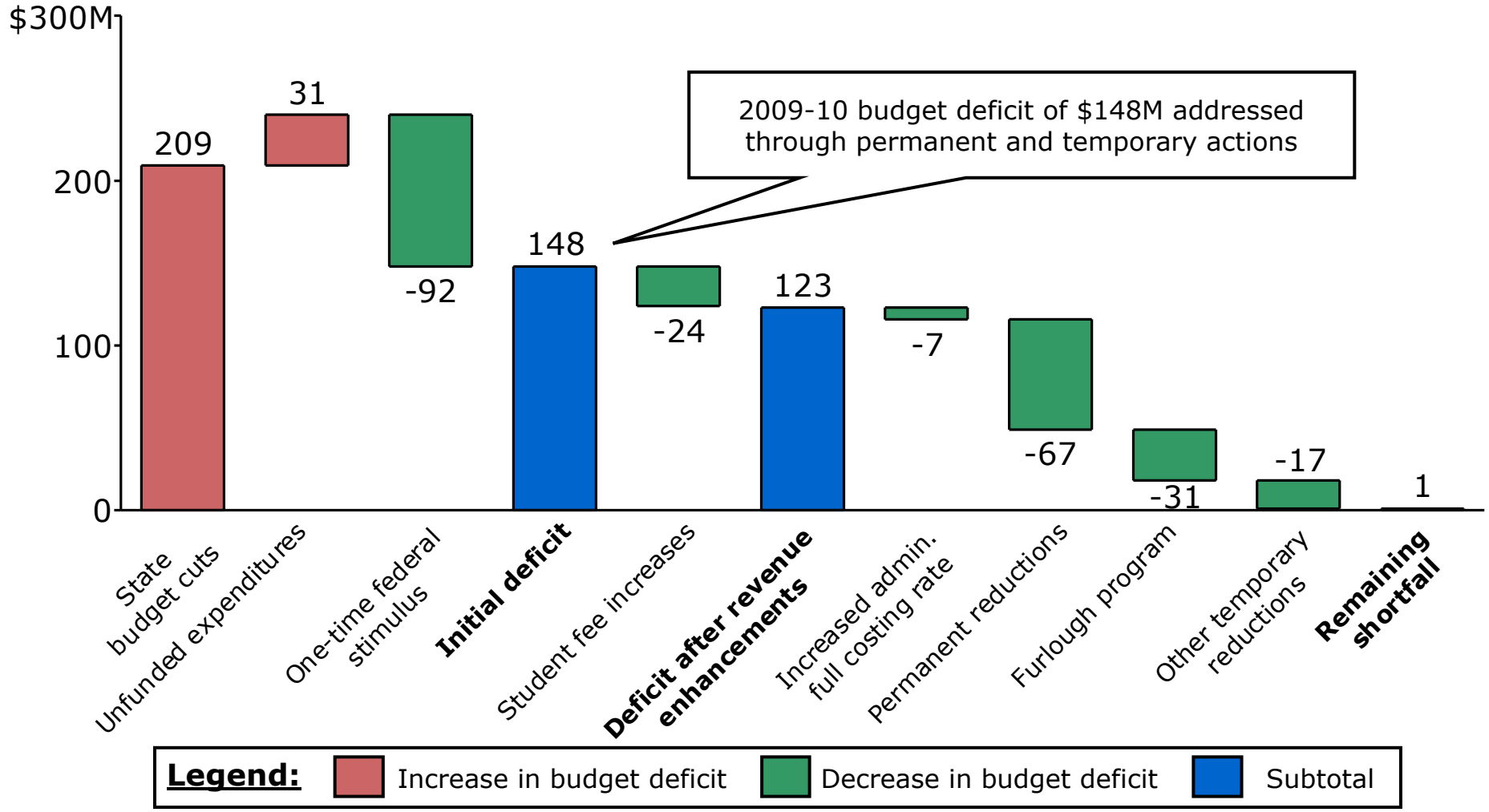
State educational appropriations (excluding Indirect Cost Recovery)



Source: http://controller.berkeley.edu/FINRPTS

… and campus had to take drastic steps to close a $148M budget deficit in 2009-10

UC Berkeley budget deficit, FY2009-10

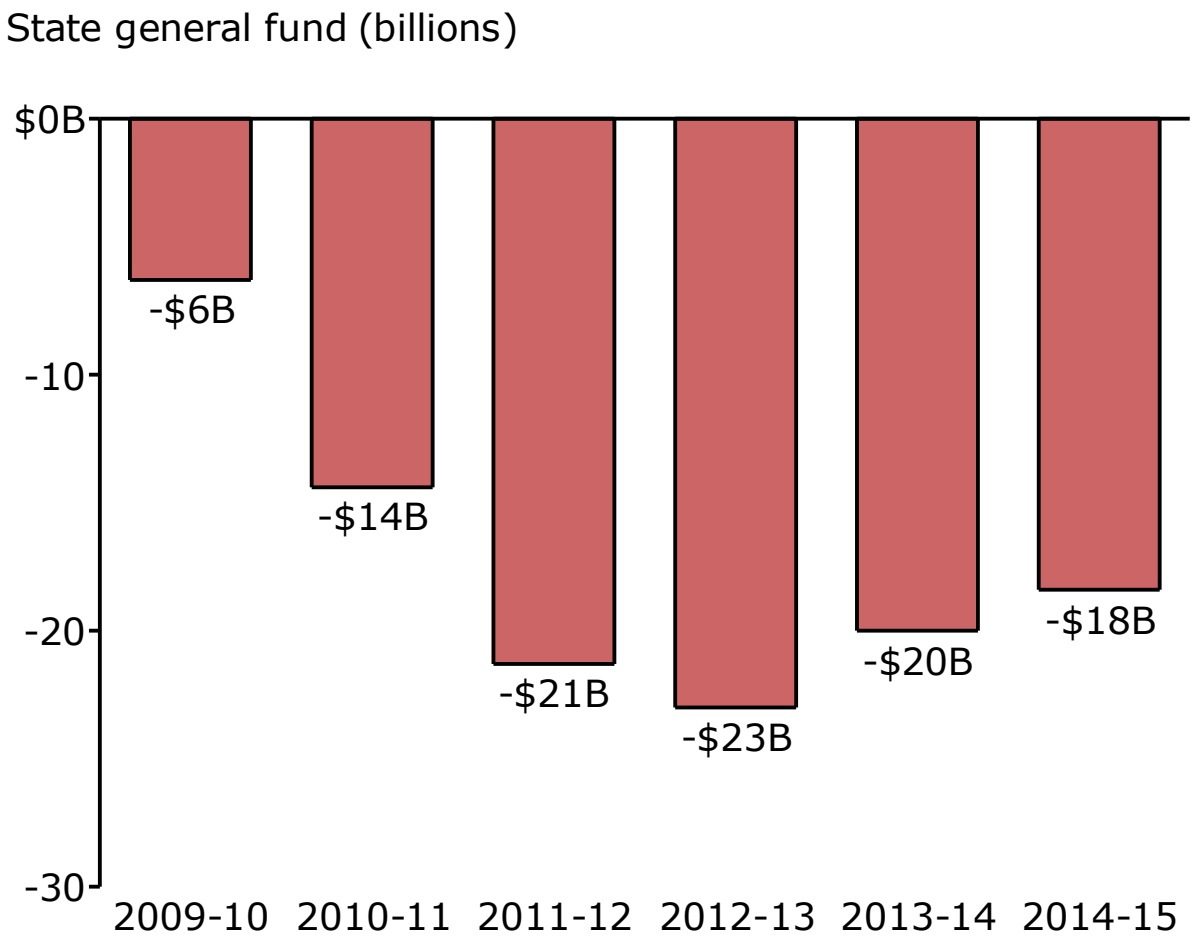


Note: $209M state budget cut figure includes UCOP-imposed temporary and permanent budget reductions, prior-year budget cuts that were not implemented in unit operating budgets, and federal reductions assigned to the UC Berkeley campus; estimates based off June 2009 plan and actual (working) amounts may have changed; unfunded expenditures include purchased utilities, health & medical benefits, salary increases for represented employees, etc.

Source: Internal budget data

The situation is not likely to improve – California's fiscal outlook remains bleak

Projected annual operating shortfall in state general fund



Legislative Analyst's Office perspectives

*"The **scale of the near-term and future budget gaps is so large** that the **Legislature will need to make significant reductions** in all major state programs."*

*"Unless the Legislature and the Governor take action… there will be future periods when **state finances teeter again near the brink.**"*

Source: Legislative Analyst's Office – "The 2010-2011 Budget: California's Fiscal Outlook" (November 2009)

OE success can help campus avoid taking further dramatic actions

Every incremental $25M in savings is equivalent to:

- ~13% increase in student fees

… or …

- ~10-20 furlough days/affected employee

… or …

- Raising an additional ~$500M endowment

Note: Furlough days based on days required for administrative and non-faculty academic staff; endowment required based on 5% endowment payout
Source: "UC Berkeley – Furlough Plan at a Glance", UCOP update on 2008-09 and 2009-10 budgets (9/16/09); UC Berkeley Foundation Payout Summary

Contents

Purpose of this document 2

Operational Excellence vision and process 5

Summary of findings and recommendations 13

- Current situation and need for change 25
- Review of opportunity areas and critical enablers 30
- Potential savings and investment requirements 126

Path forward for Design stage 133

Next steps 139

Additional notes on the data 141

Appendix 145

The OE team reviewed six opportunity areas and two critical enablers

Opportunity areas

1. Procurement
2. Organizational simplification (incl. HR, Finance)
3. IT
4. Energy management
5. Student services
6. Space management*

Critical enablers

A. High-performance operating culture
B. Financial management model

*Steering Committee recommends space management to be an area for future study

How to read this section

For some opportunities, there are **multiple levers that drive efficiency and effectiveness**

The **tracking boxes and letters** in the right hand corner of the slide **help identify which lever the slide refers to**

There are multiple levers that can be pulled to drive savings in procurement

A Negotiate to achieve 'best-price' agreements

- Are there many products not covered by strategic contracts? → Contract for additional products
- Can we negotiate lower prices? (e.g. commit spend, prevent depts from agreeing to prices) → Improve vendor management and negotiation strategy

B Aggregate spend and enforce 'best-price' agreements

- Is utilization of our strategic contracts low? → Increase utilization of strategic vendors
- Are we purchasing the same product on different contracts? → Consolidate to lowest price contracts

C Manage demand to achieve additional savings

- Are we using multiple SKU's for the same function? → Standardize to lowest price SKU's*
- Can we change the quantity or quality of goods and get the same outcome? → Reduce demand or purchase cheaper alternatives

D E-procurement

E Organization, policy, and culture

* "SKU" stands for "Stock-keeping unit" and is used to indicate a unique product; for example, a blue BIC pen and a blue Papermate pen would represent 2 different SKUs

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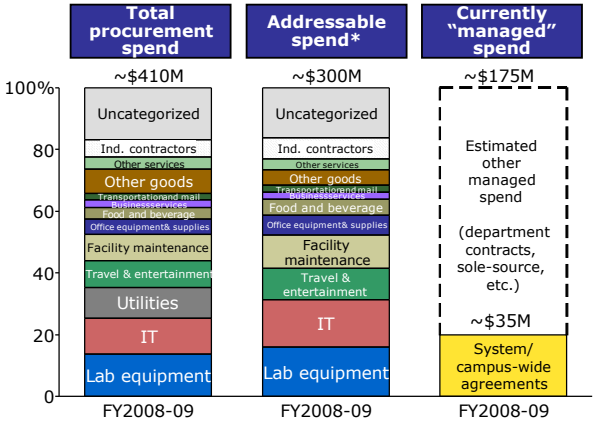
Of ~$410M OPEX procurement spend, ~$35-175M is currently "managed"

A Negotiate best-price agreements



Potential opportunities

- **Bring more spend under management** by negotiating contracts to cover more product categories and ensuring high contract utilization
- **Ensure that managed spend is getting the best pricing** from vendors by leveraging system or campus-wide buying power

Definitions

- **Total procurement spend:** Total goods & services procured as part of operating expenditures (OPEX) in FY2008-09
- **Addressable spend:** Total less spend on categories for which procurement does not typically negotiate contracts (e.g. utilities, conferences)
- **Currently "managed" spend:** Spend managed under UCOP/campus contracts plus spend covered by UCB department-level negotiations

Note: Does not include capital spend, passthroughs, subawards, or recharge; category grouping based on UC Berkeley BFS account codes; "Other goods" includes published products, apparel, tools and general machinery, live plant/animal material, sports/recreational supplies, and other categories; "Other services" includes education/training services, healthcare services, financial/insurance services, organizations and clubs, security/safety services, and personal/domestic services; "uncategorized" includes expenses classed as miscellaneous or general supplies, among others
Source: UC Berkeley purchasing database pulled from BFS A/P table

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The OE team reviewed six opportunity areas and two critical enablers

Opportunity areas

1. Procurement
2. Organizational simplification (incl. HR, Finance)
3. IT
4. Energy management
5. Student services
6. Space management*

Critical enablers

A. High-performance operating culture
B. Financial management model

*Steering Committee recommends space management to be an area for future study

UC Berkeley procurement is ready for the next step change in its evolution

Where we were

"Compliance & service crisis"

- Customer dissatisfaction
- No strategic sourcing
- No data analytics capability
- Major UC & federal policy compliance issues
- Antiquated technology

Where we are

"Compliance & customer-oriented"

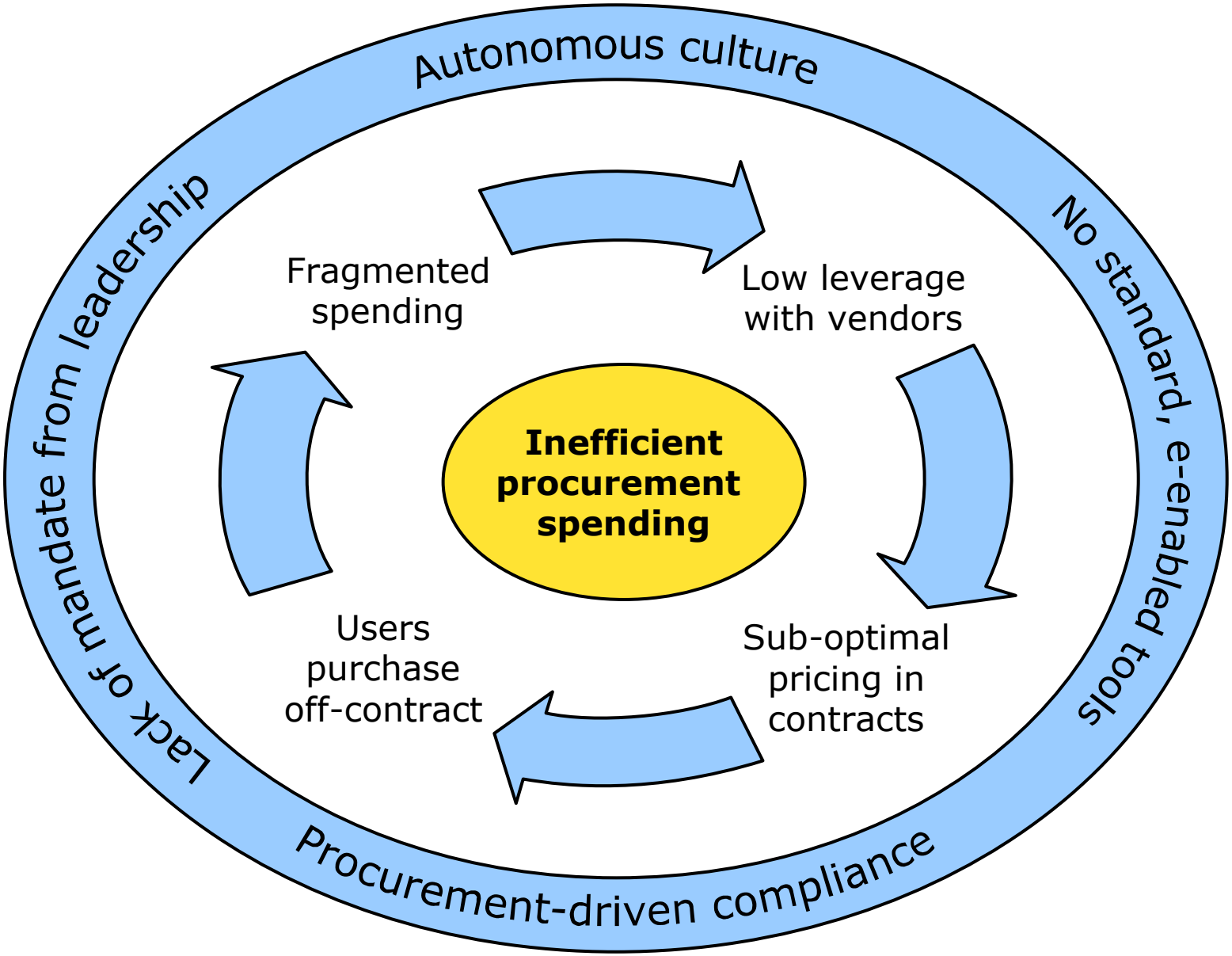
- Net-positive customer satisfaction ratings
- Some campus and system-wide strategic sourcing
- Limited data analytics
- Procurement-driven policy compliance
- E-procurement implementation in process

Where we aspire to be

"Procurement Exemplar in Higher Education"

- Focused on cost savings AND very satisfied customers
- Vast majority of spending covered by quality contracts
- Demand-management focused culture
- Campus-driven policy compliance
- Enhanced technology and data analytics

However, UC Berkeley's current operating environment hinders efficient sourcing



There are multiple levers that can be pulled to drive savings in procurement

A — Negotiate to achieve 'best-price' agreements

- Are there many products not covered by strategic contracts? → Contract for additional products
- Can we negotiate lower prices? (e.g., commit volume, prevent depts from agreeing to prices) → Improve vendor management and negotiation strategy

B — Aggregate spending and enforce 'best-price' agreements

- Is utilization of our strategic contracts low? → Increase utilization of strategic vendors
- Are we purchasing the same product on different contracts? → Consolidate to lowest price contracts

C — Manage demand to achieve additional savings

- Are we using multiple SKUs for the same function? → Standardize to lowest price SKUs*
- Can we change the quantity or quality of goods and get the same outcome? → Reduce demand or purchase lower priced alternatives

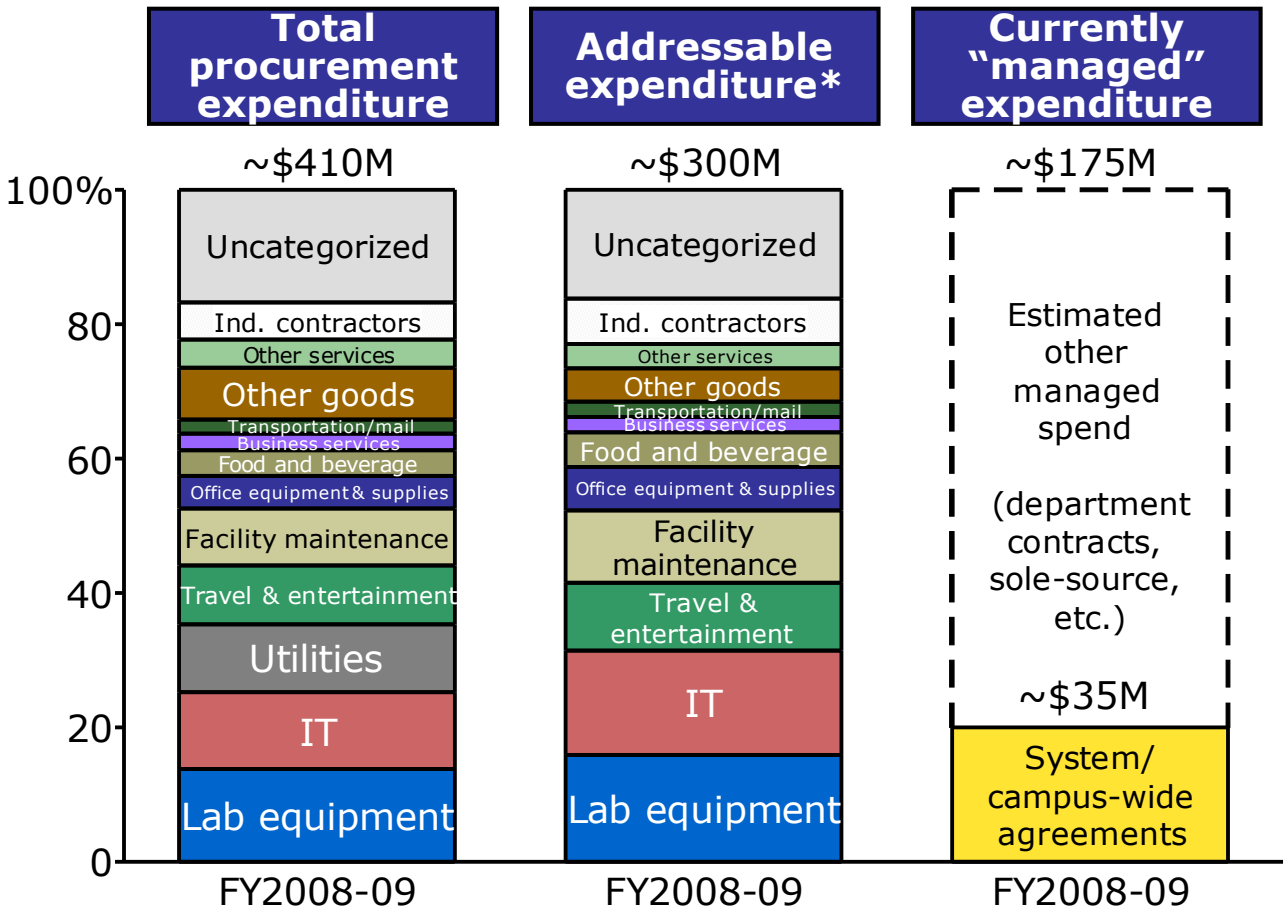
D — E-procurement

E — Organization, policy, and culture

* "SKU" stands for "Stock-keeping unit" and is used to indicate a unique product; for example, a blue BIC pen and a blue Papermate pen would represent 2 different SKUs

Of $410M procurement operating expenditure, $35-175M is "managed"

A Negotiate best-price agreements



Potential opportunities

- **Bring more expenditure under management** by negotiating contracts to cover more product categories and ensuring high contract utilization
- **Ensure that managed expenditure is getting the best pricing** from vendors by leveraging system or university-wide buying power

Definitions

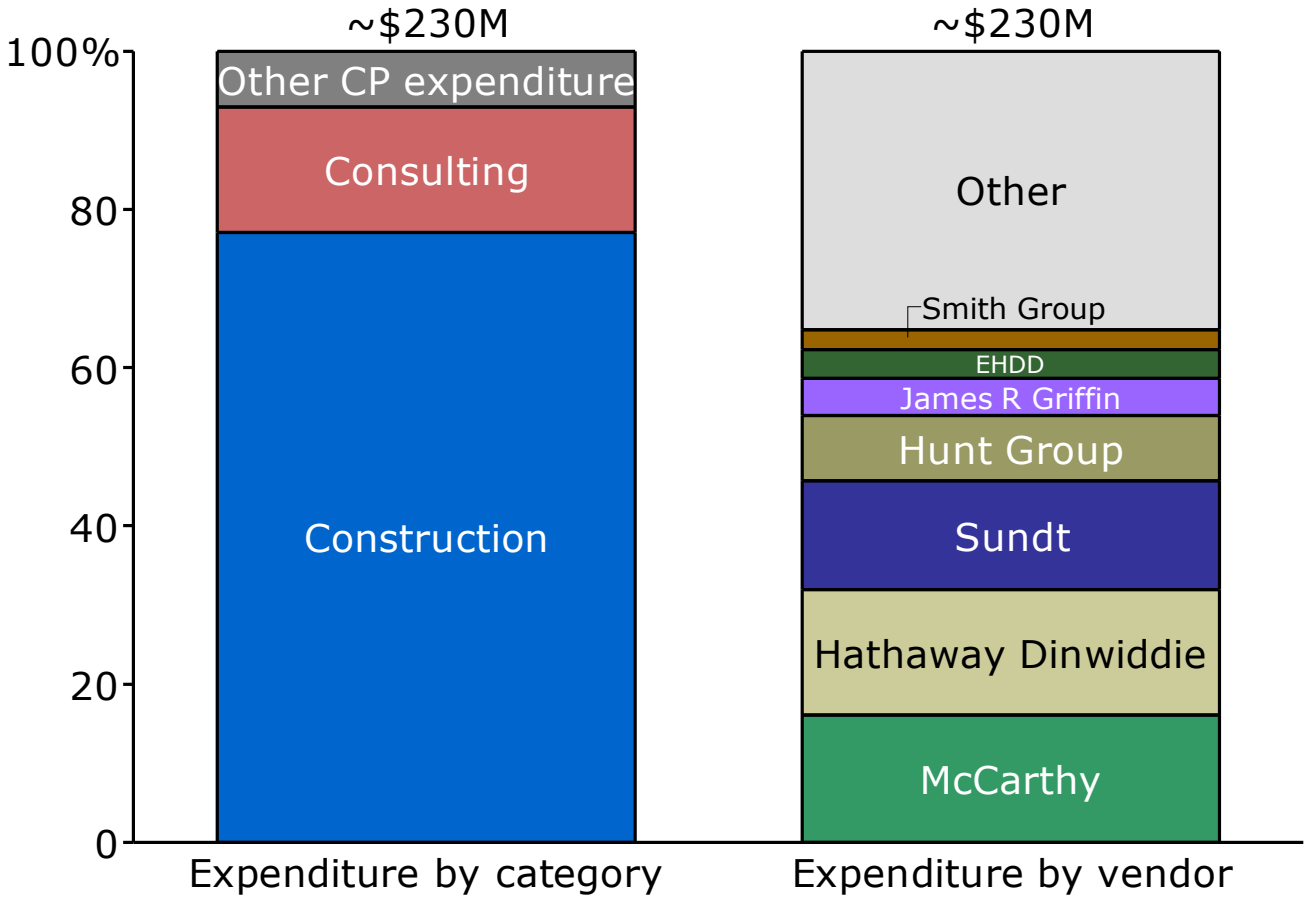
- **Total procurement expenditure:** Total goods & services procured as part of operating expenditures (OPEX) in FY2008-09
- **Addressable expenditure:** Total, less expenditure on categories for which procurement does not typically negotiate contracts (e.g., utilities, conferences)
- **Currently "managed" expenditure:** Expenditure managed under UCOP/campus contracts plus expenditure covered by UCB department-level negotiations

Note: Does not include capital expenditures, pass-throughs, sub-awards, or recharge; category grouping based on UC Berkeley BFS account codes; "Other goods" includes published products, apparel, tools and general machinery, live plant/animal material, sports/recreational supplies, and other categories; "Other services" includes education/training services, healthcare services, financial/insurance services, organizations and clubs, security/safety services, and personal/domestic services; "uncategorized" includes expenses classed as miscellaneous or general supplies, among others
Source: UC Berkeley purchasing database pulled from BFS A/P table

Additional ~$230M of capital projects expenditure is managed separately

A Negotiate best-price agreements

Total Capital Projects expenditure, FY2008-09



Potential opportunities

- **Create incentives for contractors** to deliver under budget
- **Ensure best pricing for materials** procured as part of contracts
- Partner with UCOP to **lobby state legislature on key policies**

Potential savings more limited due to complex policy environment; further analysis required

Note: "Other CP expenditure" includes movable equipment, site development, facilities management, survey/test/plans/specs, special items, and other non-capitalized expenditures associated with Capital Projects (e.g., furniture, moving services, deferred maintenance, etc.)
Source: UC Berkeley purchasing database pulled from BFS A/P table; Capital Projects accounting

Negotiation levers can be pulled to achieve 'best-price' agreements

A Negotiate best-price agreements

Best-in-class negotiation levers	UC Berkeley situation
• Agree to **minimum spending/volume commitments** to get best pricing - Tier pricing based on spending thresholds	• System contracts do not have spending commitments, but some department-level contracts do
• **Limit multiple awards** for the same product to consolidate spending with preferred vendors and achieve more favorable pricing	• Multiple awards in many categories (e.g., 3 copier contracts)
• Ensure **central procurement owns all vendor relationships** - Users provide specifications but do not discuss pricing	• End users sometimes make "soft" promises to vendors about pricing

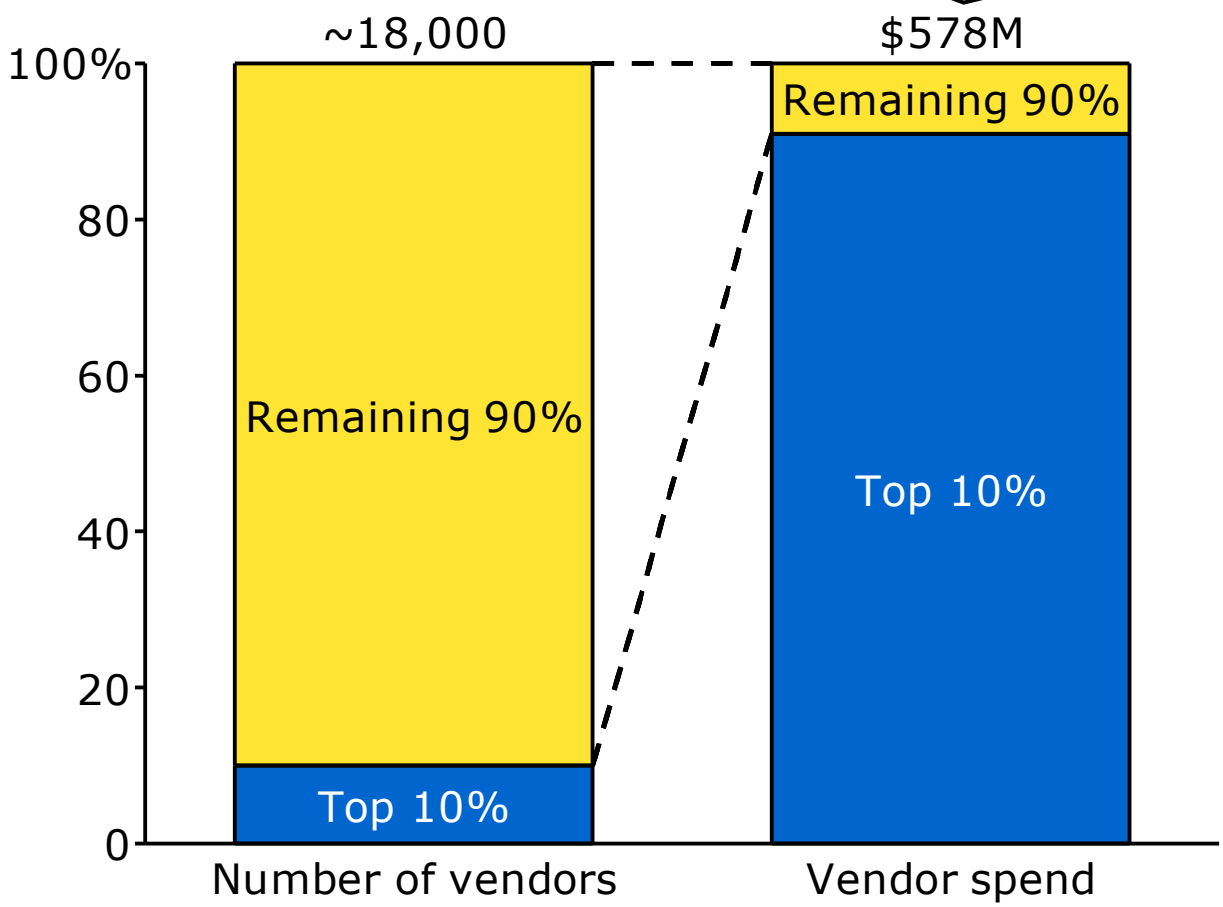
Source: Interviews with benchmark university Chief Procurement Officer; UC Berkeley procurement leadership

Procurement is fragmented across ~18,000 vendors

B
Aggregate spending

UC Berkeley purchasing expenditure, FY2008-09

Excludes ~$60M of individual reimbursements and independent contractor expenditure



External benchmark:
6,000 vendors for ~$830M of spending

↓

Benchmark: ~$140K/vendor
Berkeley: ~$32K/vendor

Note: Capital projects expenditures included; pass-throughs, sub-awards, recharge, and other internal transfers not included; top 10% of vendors refers to the top ~1.8K vendors from which UC Berkeley purchased the most goods and services during FY2008-09
Source: UC Berkeley purchasing database pulled from BFS A/P table; Benchmark university data

Identical products are being bought at different prices

B Aggregate spending

LAB EQUIPMENT EXAMPLE

	Item	Vendor A price	Vendor B price	Difference ($)	Difference (%)
Brand #1	48-well deep well plate (case)	$249.02	$206.22	**$42.80**	**17%**
Brand #1	Snaplock microtubes (case)	$127.57	$93.28	**$34.29**	**27%**
Brand #1	Universal fit pipette tips (case)	$133.96	$195.73	**$61.77**	**32%**
Brand #1	Microtube rack (case)	$74.05	$115.38	**$41.33**	**36%**
Brand #2	Graduated cylinder	$10.85	$11.25	**$0.40**	**4%**
Brand #2	Polypropylene beakers (case)	$83.92	$104.55	**$20.63**	**20%**
Brand #2	Economy wash bottles (case)	$88.59	$68.05	**$20.54**	**23%**
Brand #2	LDPE laboratory bottles (case)	$43.31	$60.03	**$16.72**	**28%**

Note: Vendors intentionally disguised; percentage difference calculated off of higher priced item; 2009 UC Berkeley pricing listed; items shown are select examples of products offered by multiple vendors at different prices and is thus not a comprehensive list
Source: UCOP strategic sourcing agreements; UC Berkeley Business Services

Furthermore, lack of standardization makes it difficult to aggregate spending

C Manage demand

Multiuse copiers (36+ models offered under 3 contracts)

Canon copiers shown; ~17 additional copiers from Ricoh and 9+ by Xerox

imageRUNNER 2018 (18ppm)	**$1,488**
imageRUNNER 2020 (20ppm)	**$1,746**
imageRUNNER 3025 (25ppm)	**$3,339**
imageRUNNER 3030 (30ppm)	**$3,899**
imageRUNNER 3035 (35ppm)	**$5,340**
imageRUNNER 3045 (45ppm)	**$6,015**
imageRUNNER 5050 (50ppm)	**$10,382**
imageRUNNER 5055 (55ppm)	**$11,682**
imageRUNNER 5065 (65ppm)	**$13,858**
imageRUNNER 5075 (75ppm)	**$14,322**

Multiuse copy paper - 5000 sheets (29+ types under office supplies contract)

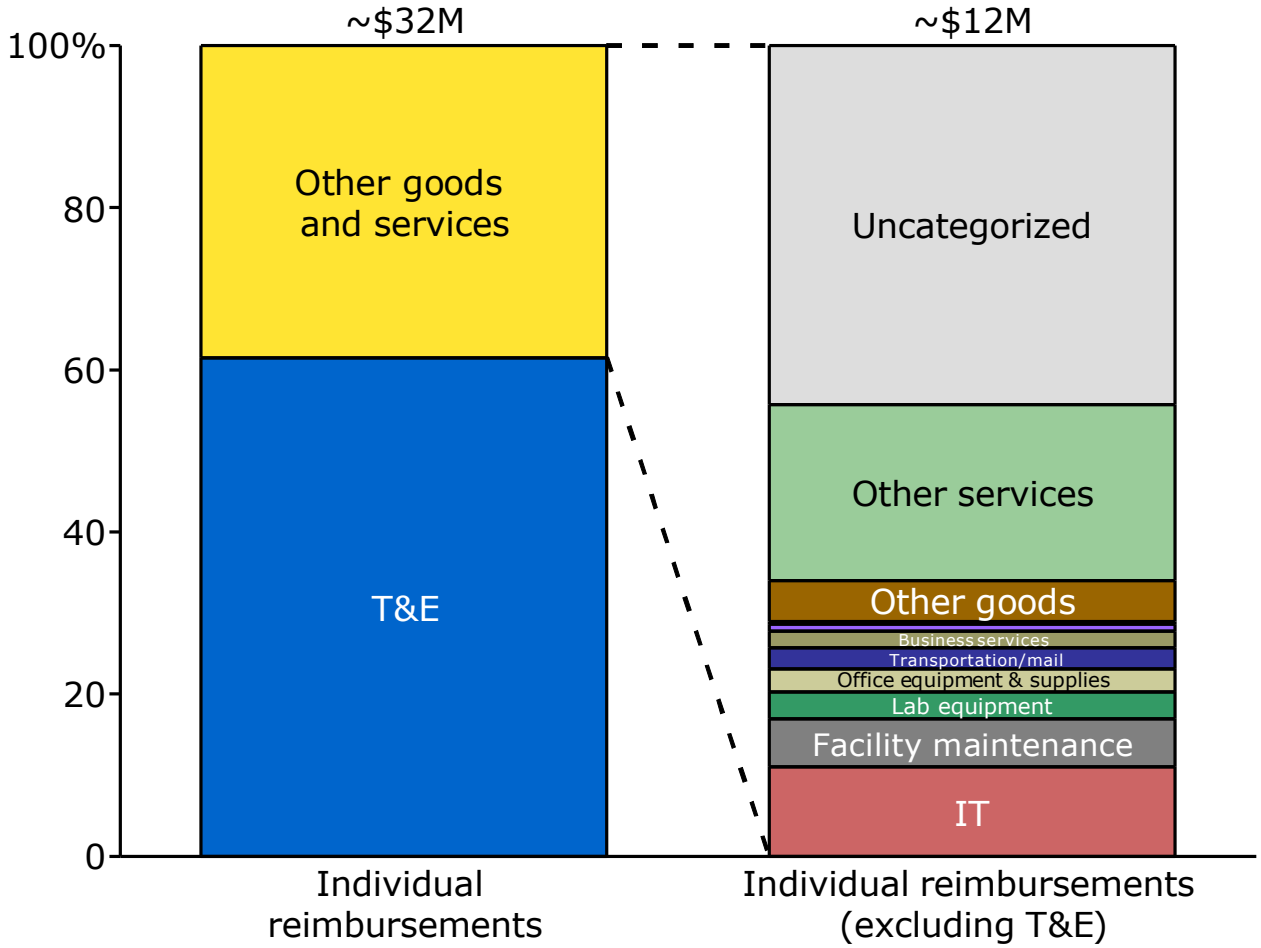
EXAMPLES	
Boise - Aspen 30% recycled	**$28.78**
OfficeMax Copy	**$29.26**
Boise X-9 Multiuse	**$29.48**
HP - Office Paper	**$39.27**
Hammermill Copy Plus	**$40.95**
Navigator Premium Multipurpose	**$58.69**
Universal Bright White Multiuse	**$67.35**
Weyerhaeuser First Choice Multiuse Premium	**$101.40**

Note: Purchase price of copiers (excluding options and accessories) listed; copier pricing from 2008, paper pricing as of 12/1/09
Source: UCOP strategic vendor contracts; blu.berkeley.edu

Individual reimbursements create additional inefficiencies

C Manage demand

UC Berkeley individual reimbursements, FY2008-09



Implications

- **Reimbursed spending is off-contract**
  - Increases cost from not leveraging strategic contracts
  - Further fragments spending and prevents UCB from negotiating better discounts
- Employees are **wasting time** purchasing goods and services
- **Significant administrative overhead** to process reimbursements

Note: "Other goods" includes published products, apparel, tools and general machinery, live plant/animal material, sports/recreational supplies, and other categories "Other services" includes education/training services, healthcare services, financial/insurance services, organizations and clubs, security/safety services, and personal/domestic services; "uncategorized" includes expenses classed as miscellaneous or general supplies, among others
Source: UC Berkeley purchasing database pulled from BFS A/P table

Levers can be pulled together to drive savings – office-supplies category example

Negotiate to achieve 'best-price' agreements

Are there many products not covered by strategic contracts?

Can we negotiate lower prices? (e.g., commit volume, prevent depts from agreeing to prices)

- **No spending commitments** in contract (system-wide agreement)
- Minimal discounts on some items

Aggregate spending and enforce 'best-price' agreements

Is utilization of our strategic contracts low?

- **55% utilization** of contract, well below desired level
- Significant **purchasing from local vendors** with no contract because users want to support local business

Are we purchasing the same product on different contracts?

Manage demand to achieve additional savings

Are we using multiple SKUs* for the same function?

- **SKU proliferation** in core basket
  - E.g., 29+ different types of multiuse paper**

Can we change the quantity or quality of goods and get the same outcome?

- **Significant variation in price** of similar goods
  - Price of one dozen ballpoint pens ranges from $0.92 to $11.93

*"SKU" stands for "Stock-keeping unit" and is used to indicate a unique product; for example, a blue BIC pen and a blue Papermate pen would represent 2 different SKUs
**5,000 sheet cartons
Note: Product prices accurate as of 11/25/09
Source: blu.berkeley.edu

Successful roll-out of e-procurement will drive savings and improve service

D E-procure-ment

Benefits of e-procurement

- **Improved customer experience**
  - **User-friendly** interface (e.g., web-based, "shopping cart")
  - **Comparison shopping** to easily identify best matching and lowest priced products
- **Procurement cost savings**, through **increased utilization** of strategic vendors

E-procurement implementation timeline

- **Complete BFS 9.0 upgrade**, which is a critical enabler for e-Procurement (July)
- **Implement e-Procurement** in phases and conduct user training (July-December)
- **Provide on-going user support** and training as needed (ongoing)

Broad university-wide adoption of e-procurement critical to maximizing savings

Source: UC Berkeley procurement and finance leadership interviews

Central procurement spends majority of time on non-sourcing activities

E Organiza-tion

	Central procurement responsibilities	Resource allocation
Strategic sourcing & procurement technology	• Strategic sourcing activities • Data analysis support • E-procurement management - Systems support (PeopleSoft, SciQuest) • Vendor table maintenance	**~5.5 FTEs**
Transactional procurement	• Transactional buying • P-card (bluCard) program	**~5 FTEs**
Risk management & other	• Risk management: - Policy compliance - P-card and department P.O. assessment - Independent contractor contracts • Supplier diversity (reporting and outreach)	**~6.5 FTEs**

Note: "FTE" = full-time equivalent; resource allocation only includes central procurement resources and does not include department funded buyers
Source: UC Berkeley procurement leadership; UC Berkeley Business Services organizational chart

Case study: Example university achieved significant savings through major initiative

Key elements of procurement initiative

- **Campus policy: Mandate from senior leadership** to make procurement an institutional priority
  - Consequences for off-contract spending (e.g., lose access to e-Pro system, no reimbursement)
  - Regular reports to senior management & trustees
- **Organization: Procurement chiefly responsible for strategic sourcing**
  - Commodity-focused sourcing staff with industry experience
  - CFOs of departments responsible for compliance with federal/legal policy
- **Vendor relationships: Central procurement owns all vendor relationships**
  - End user specifies what they want, and procurement decides which vendor to source from
- **Systems: Heavy investment in technology**
  - Implementation of Oracle Financials, SciQuest & Iasta online/reverse bidding tool
  - Redesign of university-wide P2P process

Results

- Vendor base of 6,000 with average spending of **$140k per vendor**
- **~70% of transactions from preferred** suppliers
- **~75% of transactions through online marketplace**
- Large number of **new supplier discount pricing contracts each year** (83 in 2009)

~$61M savings over last 3.5 years on estimated spending of ~$850M

Note: Case study is of a private university institution
Source: Interview with benchmark university's Chief Procurement Officer; private university procurement website

Opportunity summary: Procurement

- Negotiate University-wide, best-priced, **strategic vendor contracts** and aggressively drive spending through them
  - Increase categories covered by contracts
  - Drive contract utilization through policies and incentives, as well as through marketing and customer service strategies
- **Standardize and manage demand** for commonly purchased goods
- Complete on-time implementation and drive usage of **e-procurement** to make purchasing easier and more efficient
- **Restructure procurement organization** to increase focus on strategic sourcing (vs. transactional) activities

Potential next steps for Design stage

ILLUSTRATIVE

Diagnostic → Detailed Solution Design → Implementation

Define savings methodology and metrics

- Develop standard **methodology to quantify procurement savings**
- Develop **performance metrics** and targets

Prioritize categories

- **Refine list** of sourceable categories
- **Prioritize categories** based on size of potential opportunity, difficulty of implementation

Hire sourcing FTEs to execute plan

- Identify incremental sourcing staff needs
- **Hire experienced sourcing staff** with category expertise

Assign owners & develop category-action plans

- **Assign owners** to each opportunity
- Develop **detailed action plan** for Wave I categories

Begin implementing category-by-category

- **Begin implementing** on Wave I categories as soon as plans are developed
- Continue implementing on each Wave and renegotiating contracts as they come up

Develop communication, marketing and customer service strategies

Develop plan for changing purchasing behavior through policies & incentives

Redesign procurement organization in line with org simplification initiative

Finalize e-Pro rollout plan and identify future technology requirements

Note: Excludes those steps common to all initiatives (e.g., assign leaders, create charter, etc.).

The OE team reviewed six opportunity areas and two critical enablers

Opportunity areas

1. Procurement
2. Organizational simplification (incl. HR, Finance)
3. IT
4. Energy management
5. Student services
6. Space management*

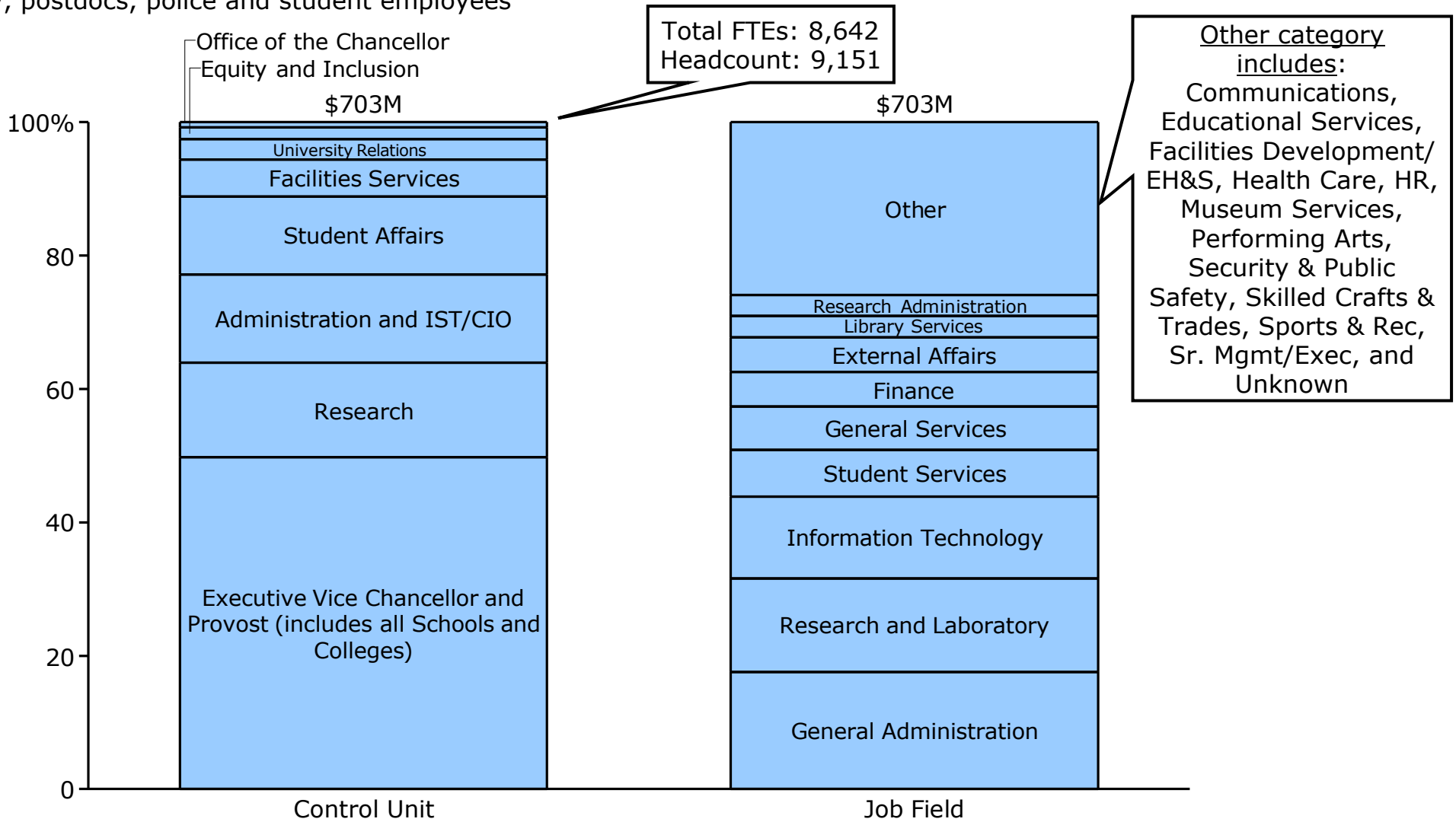
Critical enablers

A. High-performance operating culture
B. Financial management model

*Steering Committee recommends space management to be an area for future study

UC Berkeley spends ~$700M on in-scope operations personnel

Total personnel expenditures (including benefits)—excludes faculty, postdocs, police and student employees



Note: "In-scope" personnel include all employees except undergraduate students (~1.7K FTE), graduate students (~1.9K FTE), faculty (~1.9K FTE), postdoc employees/fellows (~0.9K FTE) and university police (~0.1K FTE); "FTE"= full-time equivalent; FTE numbers for students and grad students are from the 10/31/09 Workforce Census; < 3% of employees are categorized as "Unknown"; Includes benefits of 28%

Source: HCM Database as of 12/22/09

Opportunity exists to make UC Berkeley a higher performing organization

	Characteristics of a high-performance organization	UC Berkeley current state
Efficiency	• **Flat, streamlined organization** with quick decision making • Highly **productive employees** with more specialized skill-set and expertise • **Economies of scale** realized across units • Standardized, efficient processes with high degree of **automation**	• **Many organizational layers** results in slower decision making • **Many generalist** administrative staff who lack specialized expertise • **Small, distributed units** • Many **manual, non-standard** processes
Effective-ness	• **Well-defined roles and career paths** for individual contributors and supervisors • Employees **reporting to function specific** leadership, who can provide appropriate feedback, evaluation and support • **Timely/actionable performance feedback** with **aligned incentives**	• Perception that **having direct reports** is required to get higher pay • Many **staff report to generalist supervisors** who may lack expertise to manage and evaluate effectively • **Inconsistent** use of performance metrics and misaligned incentives

UC Berkeley's current state is a result of several root causes

Budget cuts since 1990 have resulted in a reduction of services provided centrally

Delegation of some central functions to local units

Local dissatisfaction with level of service received from central units

Units created their own organizations, systems and processes to meet local needs

Unintended consequences

- **Local rather than pan-university optimization**
- **Redundancy**
- **Lack of standardization**
- **Complexity**
- **Increase in institutional risk**

Two primary levers can be pulled to simplify the organization

Align organizational structure and clearly define governance

Create scale by combining small units and/or grouping common functions

A

Increase supervisory spans

Can supervisors oversee a greater number of direct reports?

Elevate or reassign direct reports, reducing number of supervisors

B

Improve front-line productivity

Can this function be performed with fewer employees?

Redesign processes, increase automation, develop expert employees and eliminate low value work

Develop employee skills and capabilities

Create high-performance operating culture

Methodology: Spans & layers analysis

A Increase spans

Description	• Spans & layers analysis is a tool to **analyze the complexity of an organization's structure** - **Spans:** Average number of direct reports (full-time equivalent) per supervisor - **Layers:** Number of layers of supervisors between the Chancellor and front-line employees (i.e., non-supervisory employees)
Value of analysis	• **Creating higher spans drives effectiveness (higher value)** - Streamlines processes for more effective execution - Focuses supervisors on highest-value work - Empowers direct reports • **Creating higher spans drives efficiency (lower cost)** - Eliminates redundant or lower-value supervisory activities (i.e., time spent communicating up and down the chain of command) - Identifies and corrects for under-utilization of supervisory resources
Process	• Obtained database of reporting relationships across the university to analyze spans & layers for each organizational unit • Compared UCB organizational structure to relevant higher education benchmarks
Data caveats	• **"Supervisor"** is defined as anyone with one or more non-student direct reports • Analysis looks at average spans per **in-scope** supervisor - Faculty, postdocs, undergraduate/graduate students and police staff are **not** in-scope (though faculty/postdocs are counted as direct reports when calculating their supervisors' spans) • Spans are compared to **different benchmarks by function** - **Expertise-based functions** require more one-on-one supervision (e.g., HR, Finance, IT, communications, etc.) and thus typically have lower spans (higher ed benchmark is 6-7) - **Task-based functions** require less one-on-one supervision (e.g., custodial services, food service, etc.) and thus typically have higher spans (higher ed benchmark is 11-13)

UC Berkeley has many layers (11) and relatively narrow spans (4.4)

A

Increase spans

Layer 1 = Chancellor

Layers

Berkeley	Avg span	No. of spvsr	Total spvsr salary
1	12.0	1	-
2	10.1	10	$3.0M
3	9.0	81	$17.4M
4	4.9	255	$35.8M
5	4.4	525	$57.6M
6	3.7	509	$49.9M
7	4.2	250	$24.3M
8	2.6	85	$8.4M
9	2.4	21	$2.3M
10	3.6	7	$1.0M
11	-	0	-
All layers	**4.4**	**1744**	**$200.1M**

How to read this chart:
There are 525 supervisors in layer 5 (4 steps below the Chancellor). On average, each one supervises 4.4 direct reports.
The total salary and benefits of the supervisors in this layer is $57.6M.

Higher education benchmarks:

Expertise-based functions:
6-7 span
Task-based functions:
11-13 span

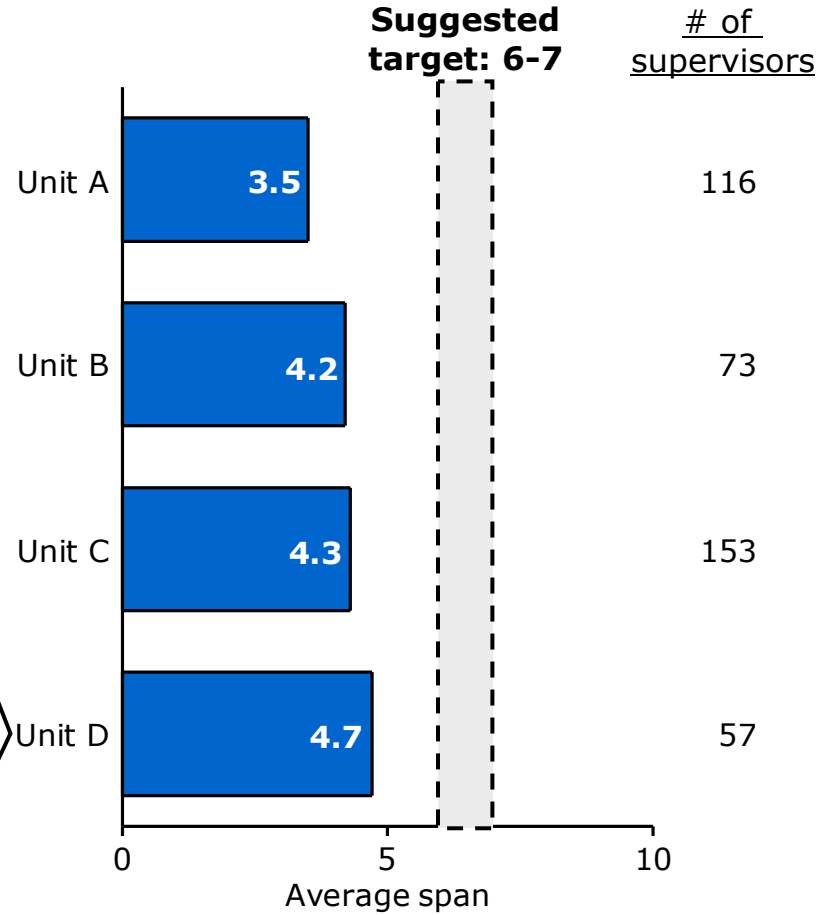
Note: Does not include supervisors or FTEs where reporting relationship cannot be traced back to the Chancellor due to missing data (~75 supervisors & 500 FTEs). Higher education benchmarks are informed by Bain's work on >120 organizations involving spans and layers analysis (including higher education organizations). Data does not include undergraduate student employees (~1.7K FTE) and graduate students employees (~1.9K FTE). All other employees included in span calculation, but supervisor count excludes faculty (~1.9K FTE), postdoc employees/fellows (~0.9K FTE) and university police (~0.1K FTE). Spans equal total FTE direct reports. Salary includes benefits of 28%. Analysis assumed that employees report to supervisors' primary roles in the case of multiple appointments
Source: HCM Database as of 11/30/2009; staff interviews; Bain spans and layers benchmarks

Most units have spans that are below the typical target for higher education

A

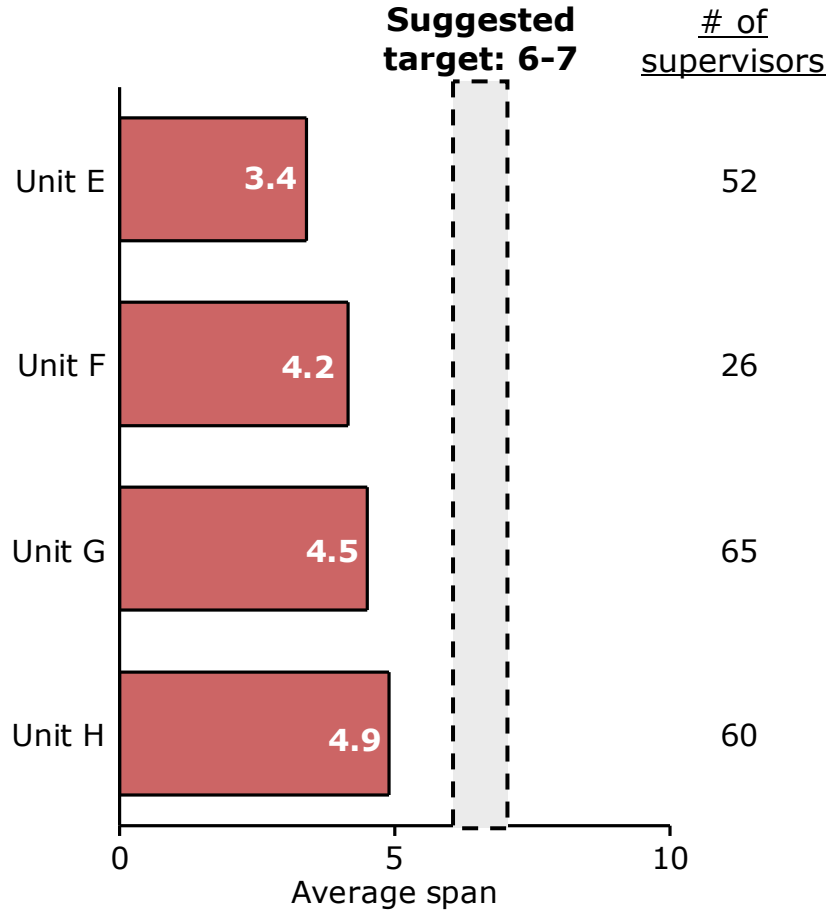
Increase spans

Avg span for select UC Berkeley academic units



How to read this chart: On average, in-scope supervisors in Unit D supervise 4.7 direct reports

Avg span for select UC Berkeley non-academic units



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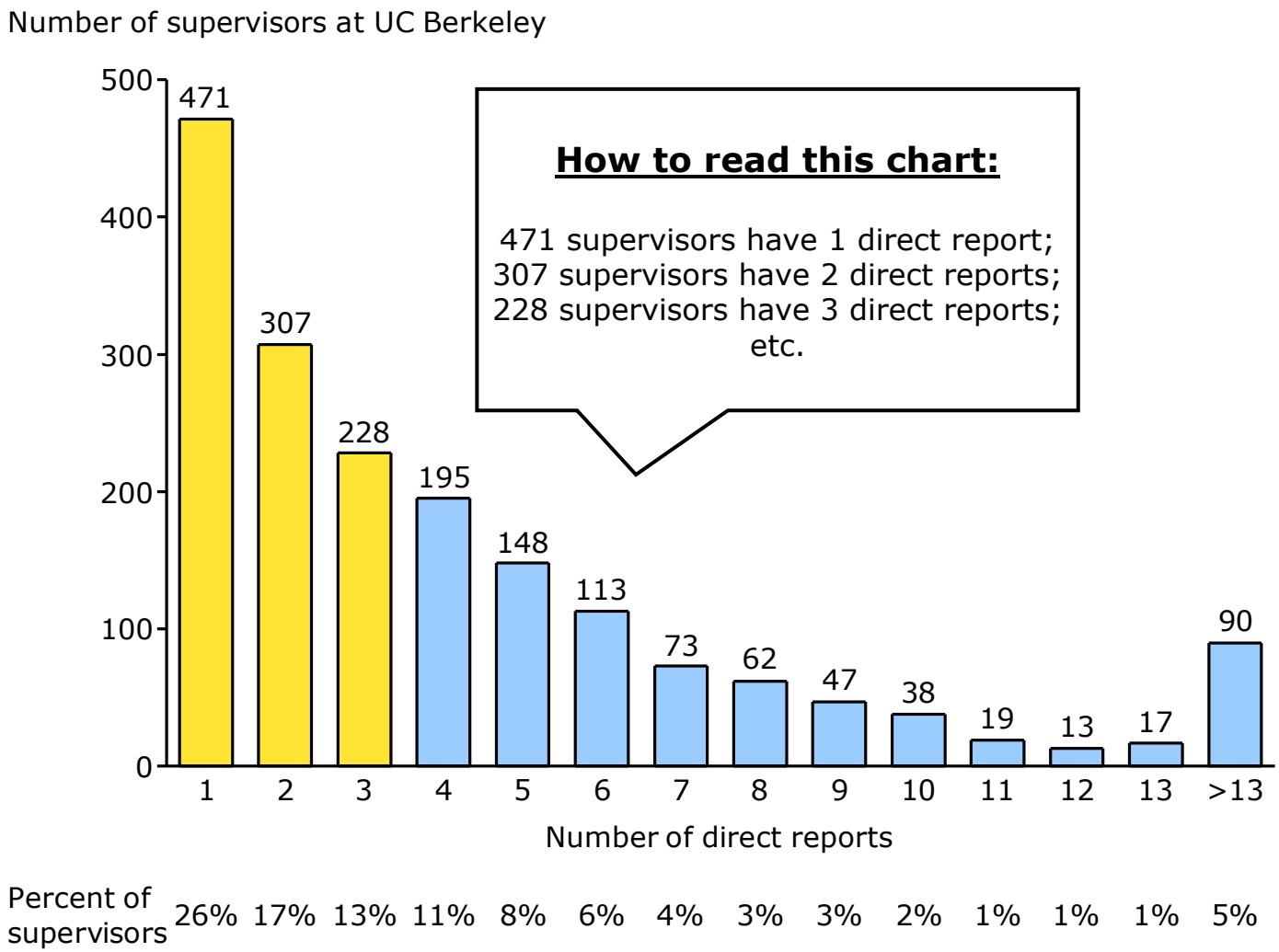
Source: HCM Database as of 11/30/2009; staff interviews; Bain spans and layers benchmarks

~55% of supervisors (~1,000 people) have three or fewer direct reports

A

Increase spans



Implications

- **Increased bureaucracy** and slower decision making
- Many supervisors may **not be challenged to fully utilize managerial skills**
- Employees may **not get an optimal level of managerial support**

Note: Data does not include student employees or graduate students employees. All other employees included as direct reports, but supervisor count excludes faculty, postdoc employees/fellows and university police. Supervisor is defined as anyone with direct reports. Many supervisors are also individual contributors in addition to their roles as supervisors

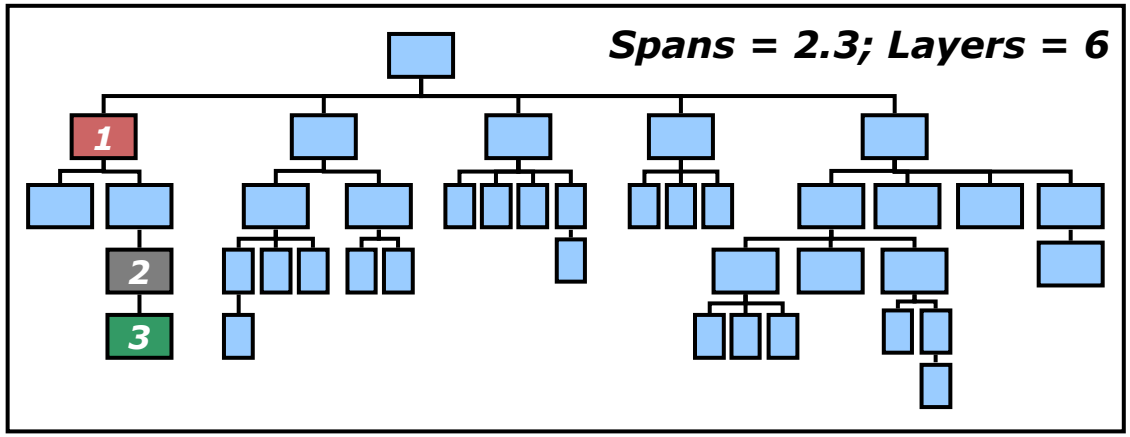
Source: HCM Database as of 11/30/09; interviews with Control Unit Administrators

Narrow spans (and many layers) hinders efficiency and effectiveness

A Increase spans

ILLUSTRATIVE

Sample organization: Before



1 Senior supervisor

"I am a great supervisor, but I feel **underleveraged**."

"I **don't have a clear vision of my career path** in this role."

"**I don't know what my employees are thinking**."

2 Junior supervisor

"I am a **great individual contributor**, but not very good at this supervisor thing."

"I guess I have to supervise someone **to get paid more**."

"Seems like **my boss and I have the same job**, she/he has just been here longer."

3 Individual contributor

"I am **my boss's only direct report**, so she/he totally micromanages me."

"I spend **half my week in meetings** with my four different bosses."

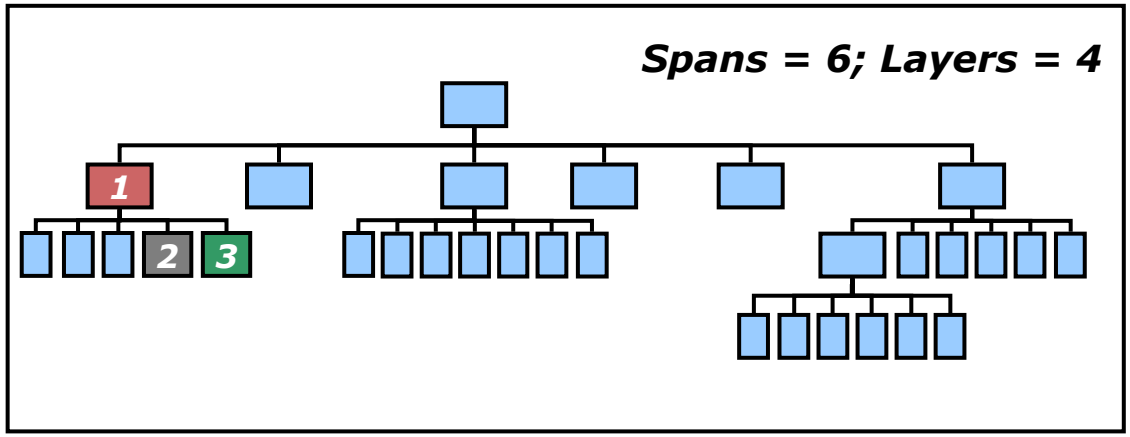
"I feel completely **disconnected from senior leadership**."

Increasing spans provides benefits for employees at all levels

A Increase spans

ILLUSTRATIVE

Sample organization: After



1 Senior supervisor

"While I **feel challenged**, I have learned to prioritize."

"I see how this position is preparing me for the **next step in my career**."

"I feel more **connected to my team**."

2 Senior contributor

"I get to focus on what I am best at, which is **what I like to do**."

"I still get **paid well** without having a direct report."

"Since I am a senior resource, I still **assist and mentor** junior team members."

3 Junior contributor

"I feel **empowered** to take ownership of my work."

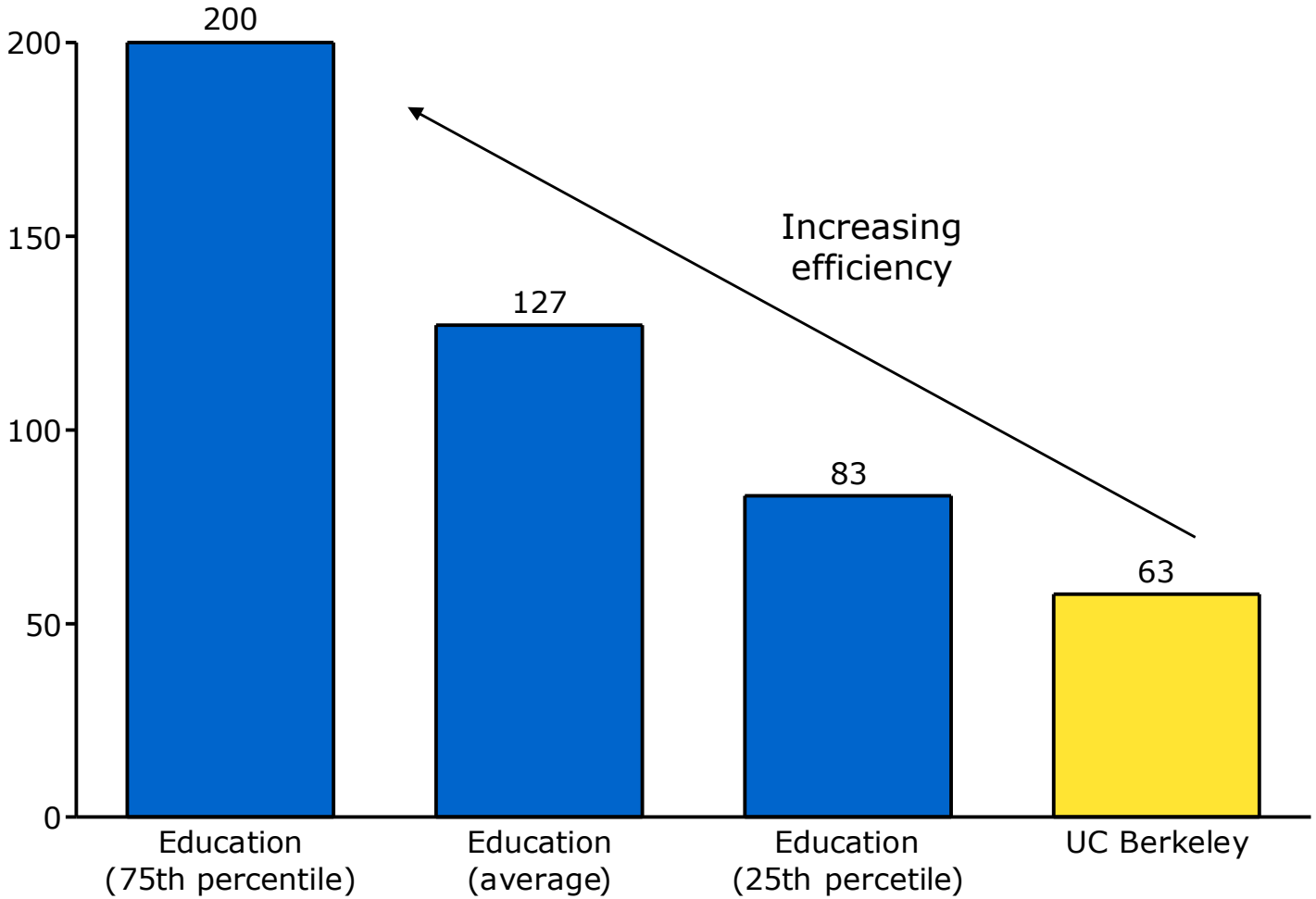
"I get the **guidance and mentoring** I need from my supervisor."

"My days are busier and **more productive**."

Benchmarks suggest opportunity to improve productivity (HR example)

B Improve productivity

Total headcount/HR FTE
(UC Berkeley vs. higher education benchmarks)



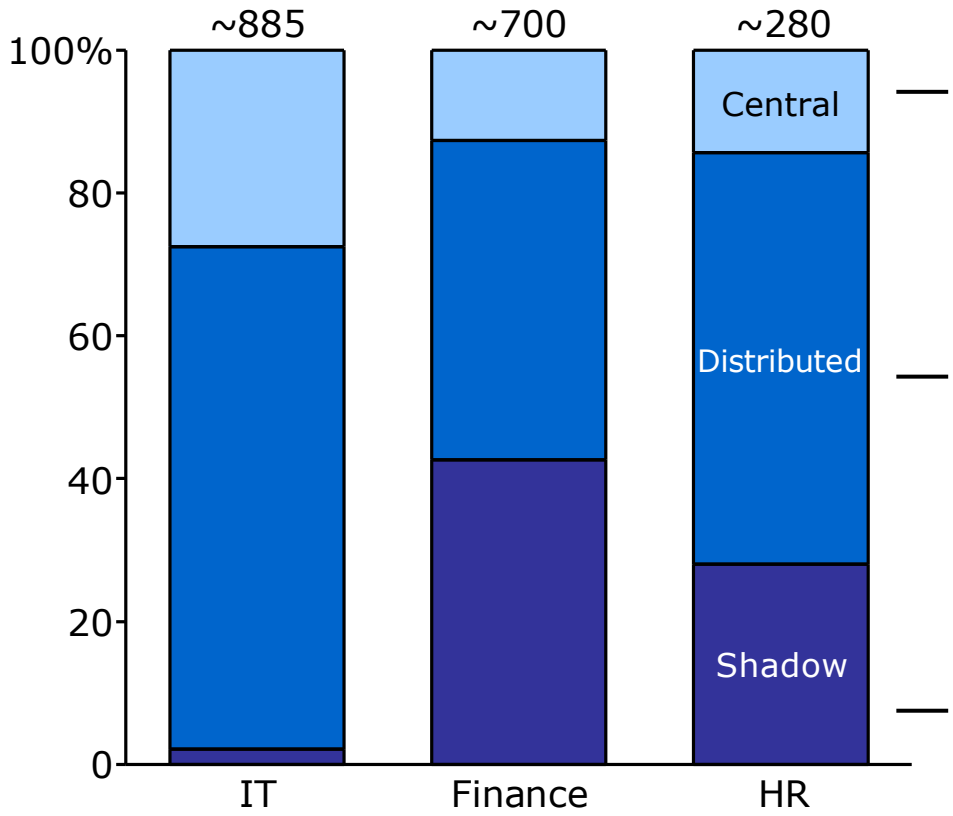
Note: UC Berkeley ratio includes job types A-ladder-rank faculty, B-other faculty, C-other academic and E-staff, but excludes D-grad student employee and F-student employee. Data includes temporary employees. Total number of HR employees is based on Career Compass job field classifications. UCB ratio would be 1:107 if student and grad student employees are included, but this is not comparable to average benchmark which excludes student employees. Average benchmark based on a survey of >150 public and private colleges/universities

Source: Institute of Management & Administration 2008 Guide to HR Benchmarks; An HR Shared Service Center for Administration—final report; HCM Database as of 12/22/09; College and University Professional Association

Majority of admin personnel are outside of their functional group ...

B Improve productivity

UC Berkeley administrative FTEs



Central: *Functional staff reporting to central functional group*

Distributed: *Functional staff reporting to distributed units*

Shadow: *Staff not classified in function, but perform function as part of their job*

% FTEs outside central functional groups:	IT	Finance	HR
	72%	87%	86%

Observations

- Distributed functions evolved because historically, **central groups could not meet local needs**
- Distributed and shadow personnel **do not report up through functional areas** and are **fragmented** in small units
- **Lack of standardization, specialization and knowledge sharing** contribute to lower productivity and higher cost
- Distribution creates **risk management issues**

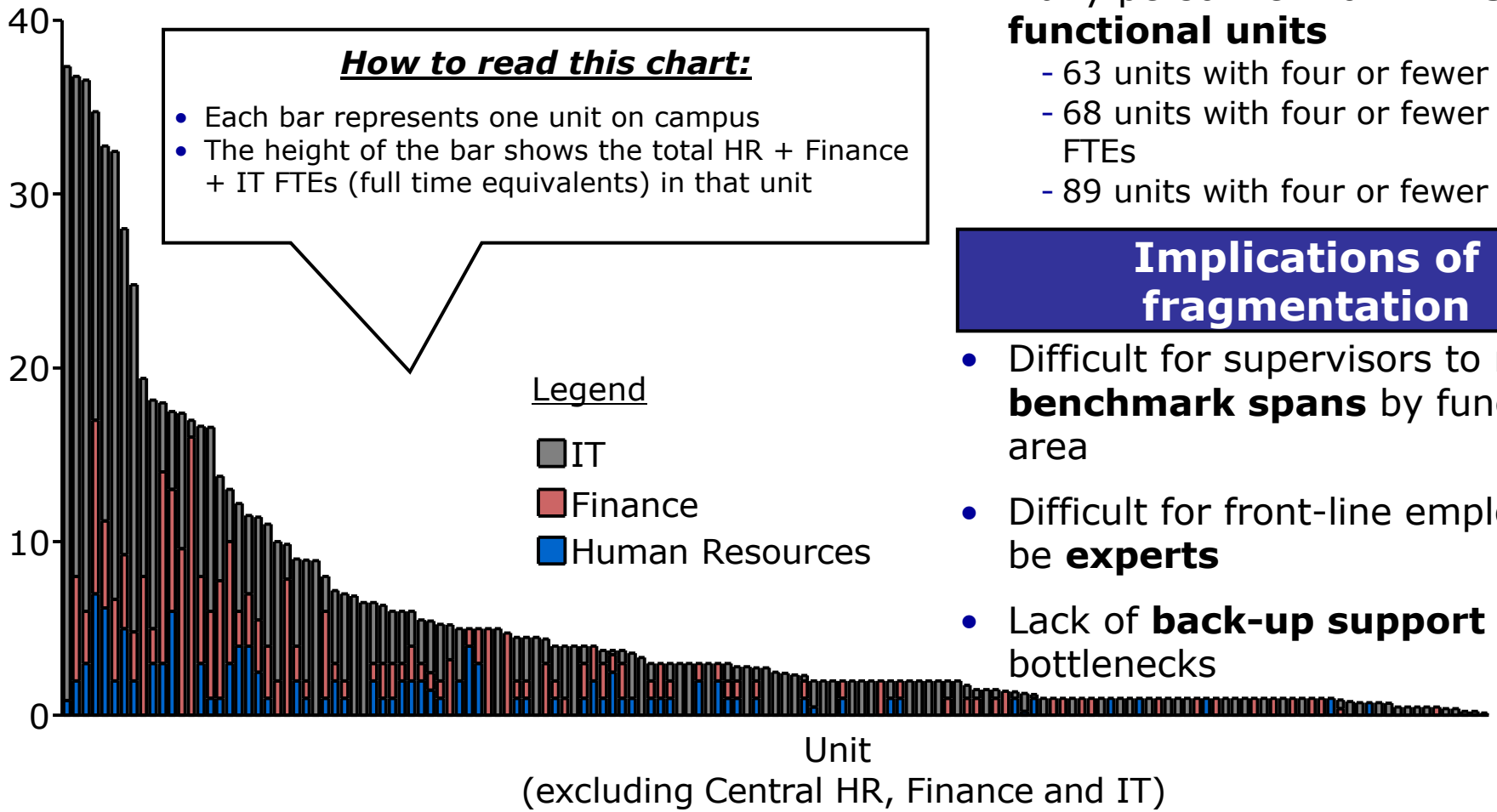
Note: Data does not include student or graduate students employees. Central IT includes all employees classified as IT in Career Compass within IST and OCIO divisions. Central HR includes all employees classified as HR in Career Compass within the Human Resources dept and the Academic Personnel Office. Central Finance includes all employees classified as Finance in Career Compass within AVC Budget & Resource Planning, AVC Finance & Controller divisions and Business Services-Marchant dept. Distributed personnel includes employees classified as IT, Finance, HR (respectively) in Career Compass but located in units outside of the aforementioned central units. Shadow workforce FTEs includes employees that are not classified as IT, Finance, and HR (respectively) but do some aspect of this work as a portion of their time (full or partial allocation). Shadow personnel were estimated by re-allocating these FTEs to appropriate functions based on interviews with managers from a representative sample set of units across campus (large/small, academic/research/administrative)
Source: HCM Database as of 12/22/09; Department-level manager interviews conducted January 2010

… and distributed personnel are highly fragmented in small units

B

Improve productivity

Number of distributed HR, Finance and IT Personnel (FTEs), by unit



Observations

- Many personnel work in **very small functional units**
  - 63 units with four or fewer HR FTEs
  - 68 units with four or fewer Finance FTEs
  - 89 units with four or fewer IT FTEs

Implications of fragmentation

- Difficult for supervisors to reach **benchmark spans** by functional area
- Difficult for front-line employees to be **experts**
- Lack of **back-up support** creates bottlenecks

Note: Units are based on classifications in data received from Central HR. Roles are based on Career Compass job fields and exclude uncategorized employees. Data includes all employees except undergraduate students (~1.7K FTE) and graduate students (~1.9K FTE). Data also excludes central finance (all units under AVC Budget & Resource Planning, AVC Finance & Controller divisions, and Business Services-Marchant), Central HR (Human Resources dept and Academic Personnel Office), and Central IST/OCIO. Three non-central units with > 40 HR, Finance and IT FTEs are excluded from chart for presentation purposes
Source: HCM Database as of 12/22/09

Three potential actions can be taken to increase spans and improve productivity

	Optimize within defined units	Group common functions	Combine operations of smaller units
A **Increase supervisory spans:**	• Increase supervisory spans where possible within current organization structure	• Increase spans for common functions by delivering them centrally or through shared service centers	• Increase spans for small units not able to meet targets on a stand-alone basis
B **Improve front-line product-ivity:**	• Drive productivity gains through independent process improvements within each unit	• Drive productivity gains in common functions through: - Specialization - Elimination of low value work - Process redesign - Automation of manual processes	• Further drive productivity gains through best practice sharing across combined units

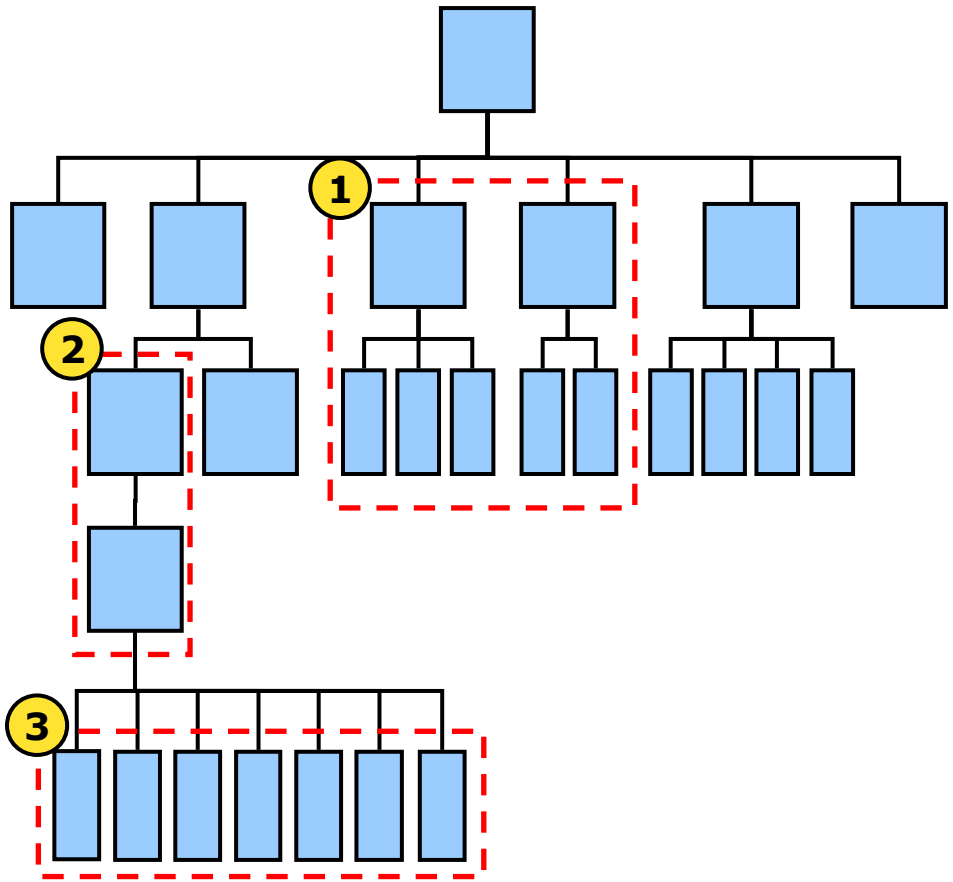
Note: Actions are neither mutually exclusive nor sequential

Note: Outsourcing and off-shoring were also discussed, but not the focus of the analysis

A number of actions can be taken to optimize within existing organizational units

Optimize within units

Illustrative unit



Potential actions

1. Combine two similar groups under one supervisor
2. Eliminate supervisor position and reassign direct reports
3. Redesign processes and automate tasks to reach benchmark number of staff within certain functions

Considerations

- **Insufficient scale** may limit size of opportunity
- Some actions may require **investments in training** and **development of staff**
- Unit optimization must be **aligned with pan-university goals**
- **Grouping common functions** is required to realize additional benefits

Note: Potential actions are not exhaustive

Grouping common admin functions has benefits, but involves design complexities

Group common functions

Objectives of grouping common functions

- Allow **greater functional specialization** for front-line staff and supervisors
- **Optimize supervisory spans** by creating scale
- **Standardize** to the most efficient processes
- **Share knowledge** and best practices

Greater productivity and more consistent service delivered by specialists

Key questions to be answered in Design stage

Which services should be provided locally, through shared service centers, or centrally?

How should units be grouped as customers of shared service centers?

What are the appropriate reporting relationships for shared service centers?

Note: "Common admin functions" include HR, Finance and IT

Several test cases suggest that significant benefits can be achieved

Group common functions

Example institution	Design elements	Benefits
Large public university	• **Functions delivered through Shared Service Center (SSC):** HR, IT, Finance, Marketing and Communications • One SSC serves 19 units, grouped based on **existing department relationships** (currently in pilot)	• Biggest **savings opportunity in IT;** additional savings in HR and Finance • **Service quality to be maintained** by service-level agreements and rigorous metrics tracking
Mid-sized public university	• **Functions delivered through SSC:** HR, Finance • 18 SSCs organized around **end-user need**	• **10% reduction in administrative positions** realized
Mid-sized private university	• **Functions delivered through SSC:** HR, Finance and IT • 3 SSCs to serve the campus	• Targeting **$25M in annual savings** from clustering and consolidation

Note: University examples are disguised to protect confidentiality
Source: Interview with large public university Associate Provost on 1/6/2010; interview with private university leadership; Educational Advisory Board report on Shared Services

Combining operations of small units can result in further benefits

Combine small units

Illustrative example: Combining operations of small units

Before

Unit A

- **4 supervisors**, with average **span of ~2.5**
  - 3 Student Services
  - 1 General Admin
- **7 individual contributors**
  - 5 Student Services
  - 1 General Admin
  - 1 IT

Unit B

- **3 supervisors**, with average **span of ~3.3**
  - 2 Student Services
  - 1 General Admin
- **8 individual contributors**
  - 6 Student Services
  - 1 General Admin
  - 1 IT

After

Consolidated Unit

- **3 supervisors**, with average **span of ~6.6**
  - 2 Student Services
  - 1 General Admin
- **18 individual contributors**
  - 14 Student Service
  - 2 General Admin
  - 2 IT

Changes made:

- Eliminated 1 General Admin supervisor and reassigned direct reports
- Converted 3 Student Services supervisors to individual contributors and elevated their direct reports

Note: FTE totals rounded to nearest whole FTE; Illustrative example only, but "before" state is based on actual data
Source: HCM Database as of 11/30/09

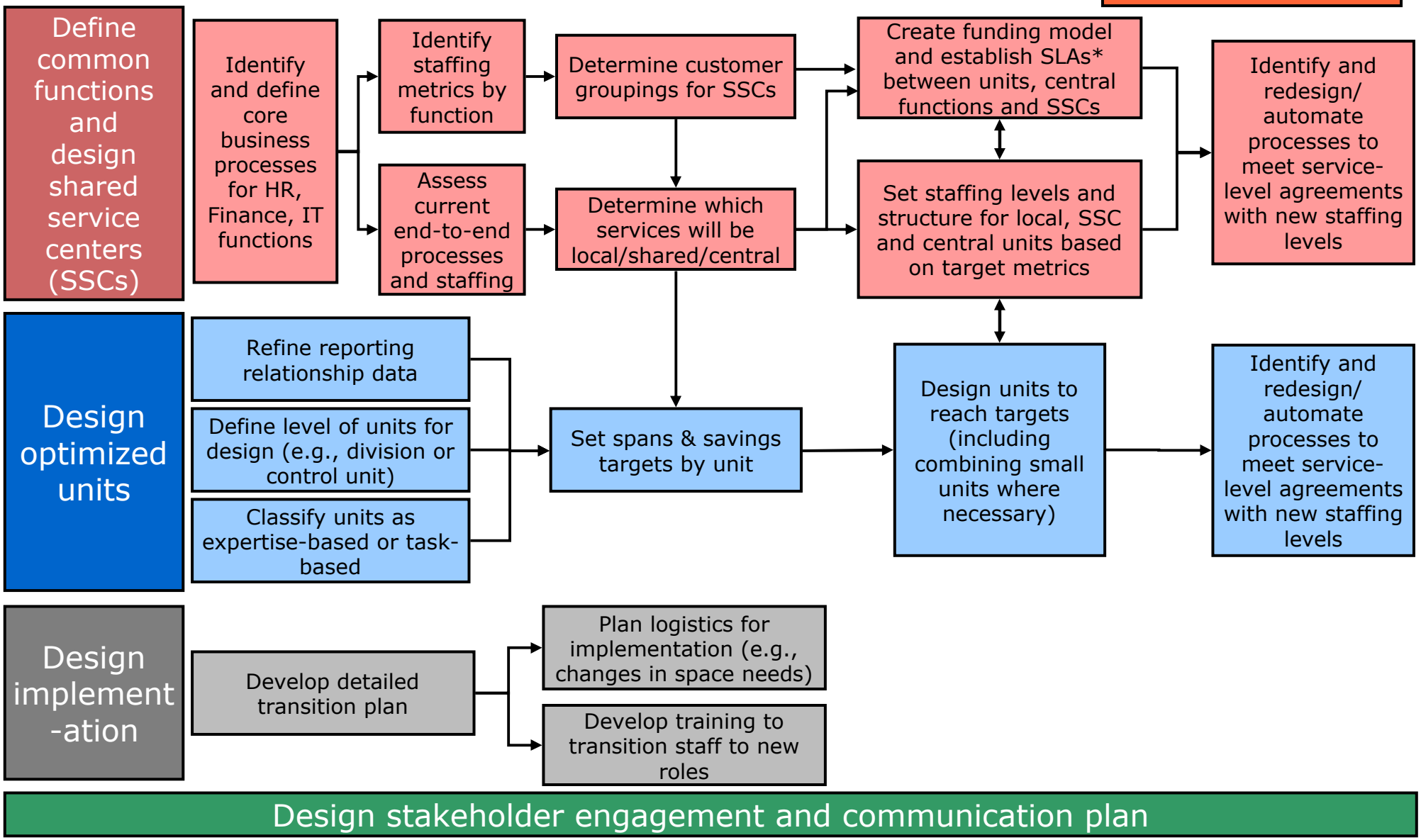
Opportunity summary: Organizational simplification

- **Improve operational productivity** through standardization, automation, and greater specialization
- **Create economies of scale** and **improve effectiveness** through grouping the delivery of common administrative functions (e.g. shared services) and combining operations of small units
- **Streamline organization** by increasing average supervisory spans to get closer to benchmarks - i.e., 6-7 for expertise-based functions and 11-13 for task-based functions*

*Benchmarks are informed by Bain's work on >120 organizations involving spans and layers analysis (including higher education organizations)
Note: Successful realization of this opportunity relies on the critical enabler of creating a high-performance operating culture

Potential next steps for Design stage

ILLUSTRATIVE



*SLAs = Service-level agreements

Note: Excludes those steps common to all initiatives (e.g., assign leaders, create charter, etc.). Includes actions that will be taken by central functions, unit leadership, and initiative teams. Not all processes will be redesigned/automated before SSCs are launched

UCB is committed to minimizing adverse effects on employees during the Design stage

These changes will not be easy, but the University is committed to assisting our employees through this transition

Services for all employees

- **Career planning workshops** in the campus Career Center for assessing interests and potential
- **Online learning resources** aligned with occupational needs through the Learning Center
- Broad selection of **professional development courses** through UNEX at discounted rates for non-rep staff
- Newly designed **special training for supervisors** to develop supervisory skills and join on-going cohort support networks
- **Functional training in some occupational areas** to prepare employees for future workforce needs

Displaced employees

- **Assistance with outplacement and/or "in-placement"**
- **Guidance through the layoff process** from the Transition Services team
- **Workshops to prepare employees for re-entry** to the job market including help with:
  - Social networking
  - Networking/informal interviews
  - Resume and cover letter writing
  - Interviews
- **Participation in support cohorts**

Source: http://hrweb.berkeley.edu/transition.htm; Central HR; Center for Organization and Workforce Effectiveness

The OE team reviewed six opportunity areas and two critical enablers

Opportunity areas

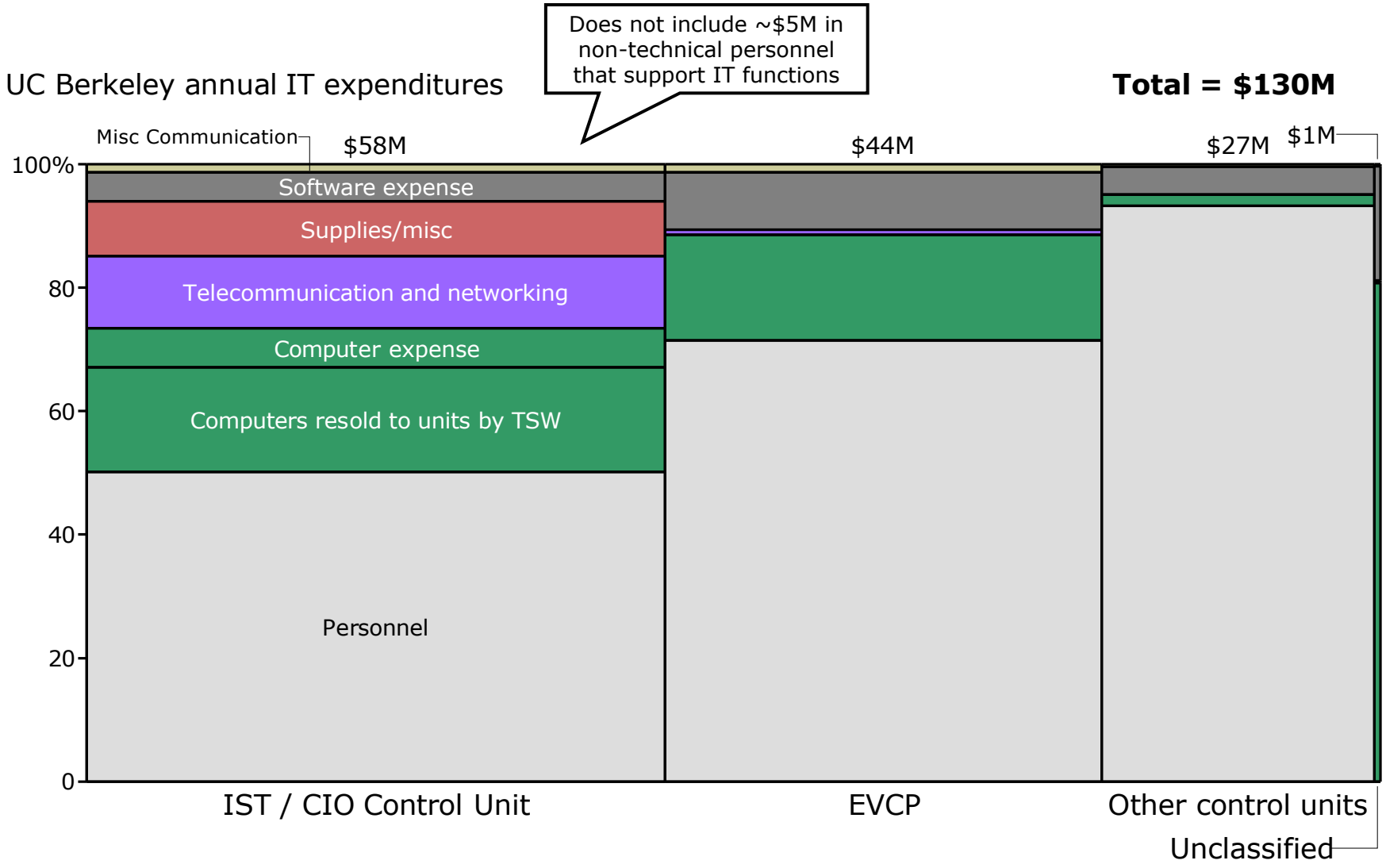
1. Procurement
2. Organizational simplification (incl. HR, Finance)
3. IT
4. Energy management
5. Student services
6. Space management*

Critical enablers

A. High-performance operating culture
B. Financial management model

*Steering Committee recommends space management to be an area for future study

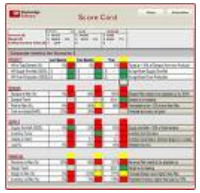
UC Berkeley currently spends ~$130M on IT



Note: Personnel expenditures does not include student employees, non-technical staff that support IT functions and distributed personnel currently uncategorized by Career Compass. 28% benefits load assumed. Procured items for "technical" account codes in non-IST units included. $3.1M in COGS sold externally removed from "Computers resold to units by TSW" line item; "Supplies/Misc" under IST includes non-technical items including capital leases; Does not include ~$0.5 – $1M in IT shadow workforce; Does not capture IT expenditures embedded in research equipment

Source: HCM Database as of 12/22/09; UC Berkeley purchasing database pulled from BFS A/P table

Gap exists between current state and future vision for IT at UC Berkeley

		Where we are	Where we want to be
IT service delivery		**Multiple IT organizations** with limited specialization and scale	**Fewer IT supply points**; **dedicated demand planners** liaising between IT customers and IT service providers
Account-ability		IT service providers **accountable to central units or local department,** but rarely both	Balance between **local and global accountability** (functional, security, efficiency); **IT personnel reporting to IT managers**
IT standards		Units making autonomous decisions on nearly all **IT issues**	Policies created to **enforce IT standards** (e.g., applications to be developed in standard languages)
Funding model		**IT funding model** creates **misaligned incentives**	Funding model to **provide for common goods***

*"Common goods" are goods and services which should be consistently provided university-wide

There are multiple levers to drive improvements in IT

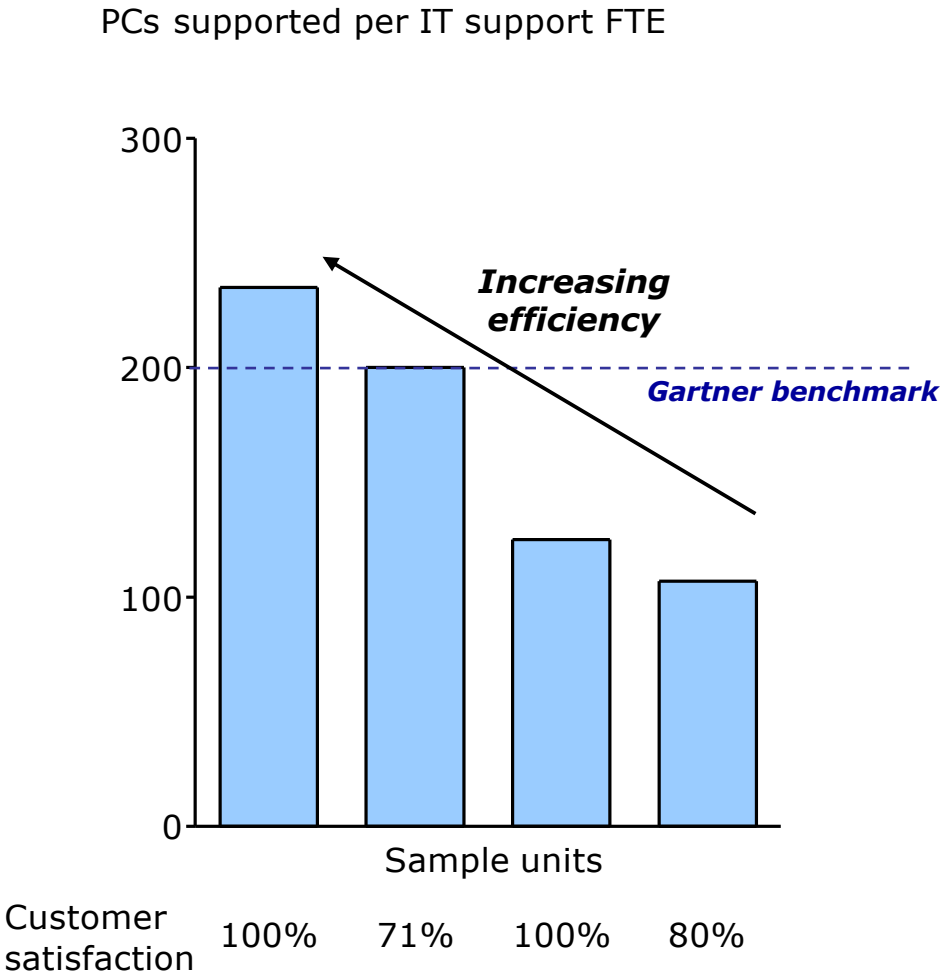
Create scale through consolidation	Reduce complexity and increase efficiency				Manage demand
A Are IT personnel working in sub-scale groups?	**B** Is our infra-structure sub-optimal?	**C** Do we have redundant applications?	**D** Are we "making" when it is cheaper to "buy" or "partner"?	**E** Is our IT goods spending highly fragmented?	Are we executing low-value discretionary projects?
Use shared service centers and consolidated IT services appropriately	**Streamline** infrastructure, **virtualize** servers, etc.	**Eliminate redundancies** and create **architecture standards** going forward	Selectively source non-core services **from outside providers**	**Aggregate** procurement spending and increase standardization	**Enhance governance** structure to prioritize projects and **increase visibility** into local spending

Improve funding model and governance structure

Many IT support units are currently sub-scale

A Create scale

PCs supported per IT support FTE across a sample of UCB units



Observations

- **Many sub-scale IT support units:** Many units are too small to get to benchmark levels of productivity
- **Many IT generalists**: ~50% of IT support personnel surveyed spend at least half of their time doing non-support activity
- **Lack of standards for tool selection:** Different systems used for ticketing, imaging, patching, etc. across units

Potential opportunities

- Create **3-1-1 consolidated IT service center** to resolve level 1 (basic) issues, with clear service-level agreements
- **Create shared service center** for level 2 (more complex) support issues
- **Standardize tools**

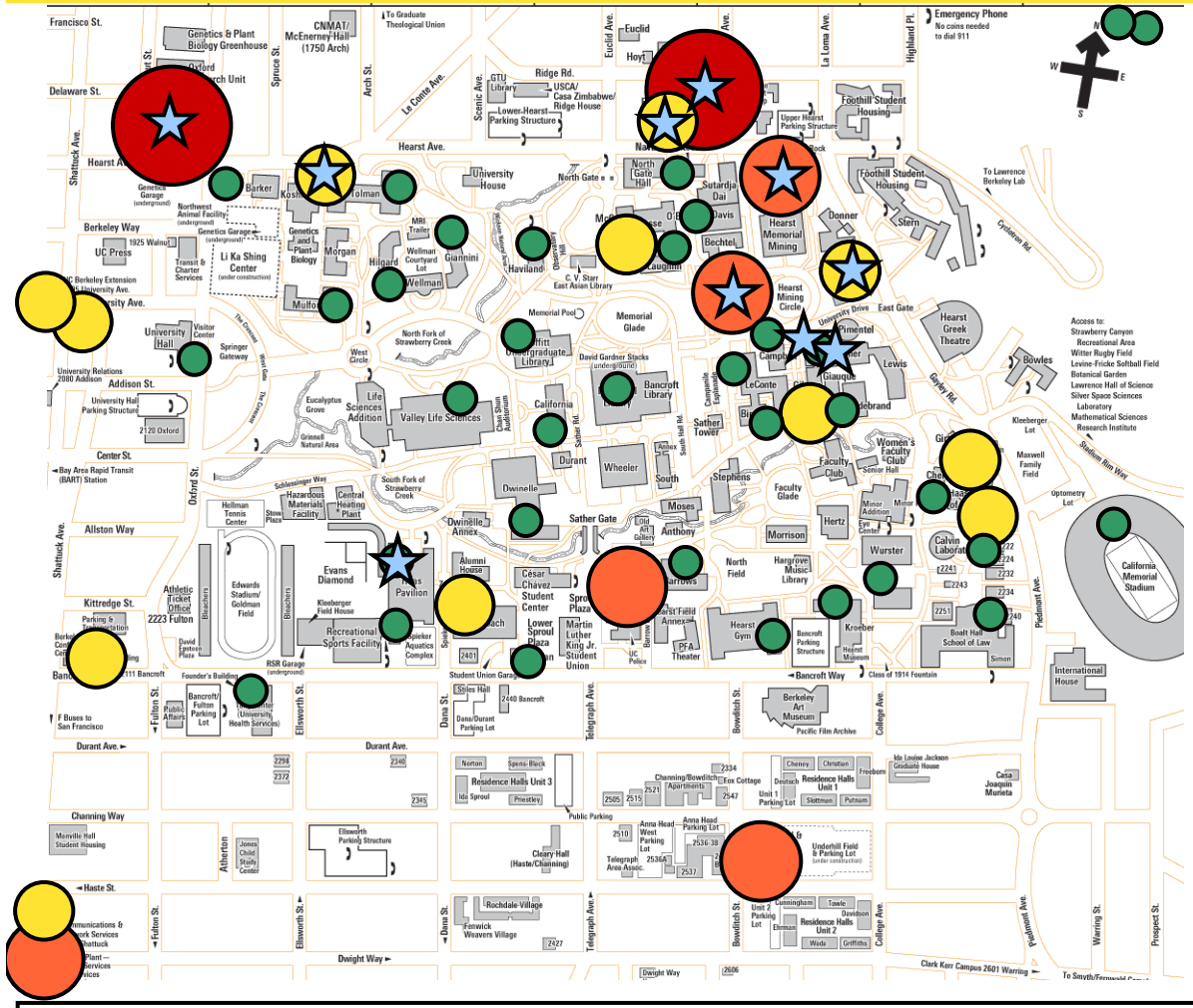
Note: "Non-support" activity was defined by survey participants and include (among other activities) project management, server maintenance, network maintenance. Sample for survey was 22 IT support providers and 42 IT support users/customers. Analysis assumed 1 PC per FTE served. "Level 1" are basic support issues which do not require extensive expertise and can primarily be handled remotely. "Level 2" are more complex issues requiring a greater support skill set. "Customer satisfaction" measured by percentage of respondents who were "satisfied" or "highly satisfied" with their IT support

Source: OE Helpdesk Survey, Jan 2010 (n = 22 IT support providers, n = 42 IT support users); Gartner IT staffing report 2009

Server management is highly decentralized

B

Optimize infrastructure



Observations

- **Highly decentralized:** 900+ servers located in 50+ buildings
- **Capacity underutilized:** Digital storage utilization across campus servers is ~ 52%
- **Increased risk:** Some unmanaged servers with limited backup or disaster recovery
- **High energy consumption:** 95% of servers (by number) not in central data center, resulting in sub-optimal distributed HVAC systems

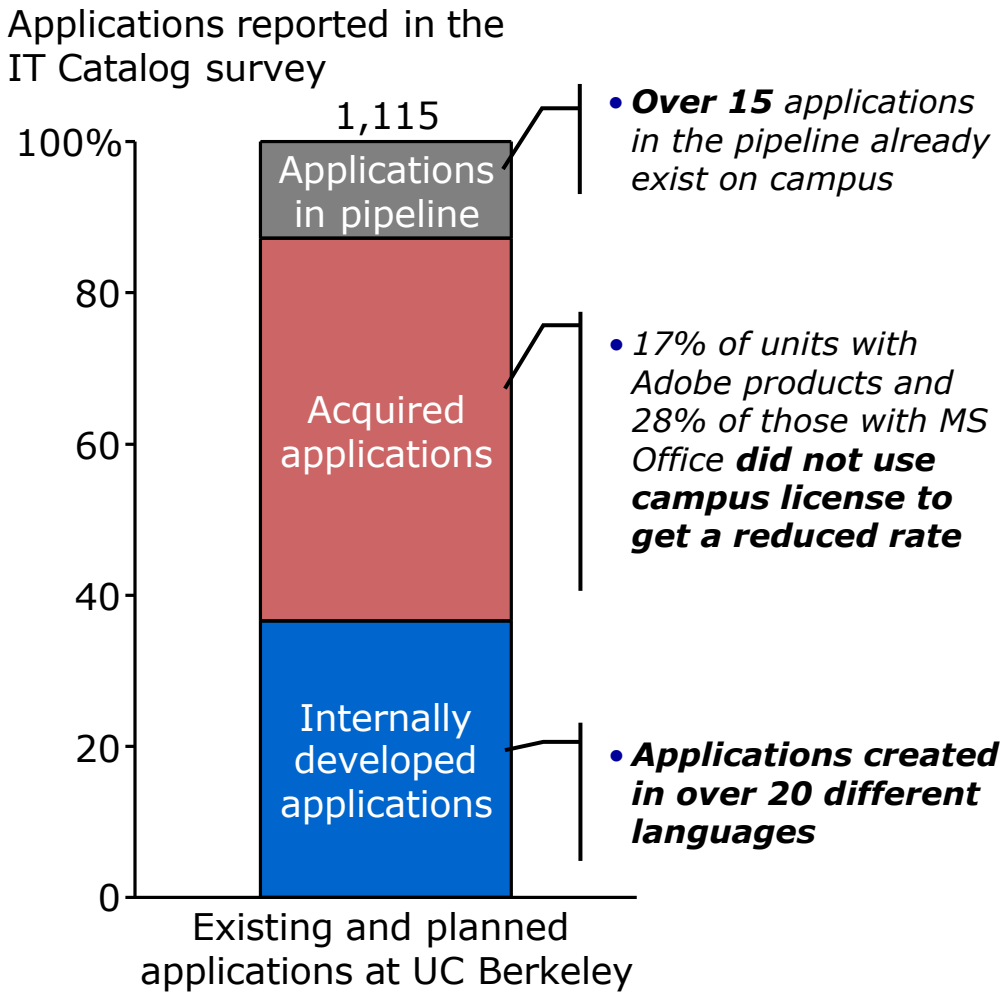
Potential opportunities

- **Consolidate** servers into central data center
- **Virtualize** servers where possible

Note: Only includes servers over $5K; 35% of units with servers not in central data center do not have HVAC (heating, ventilating, air conditioning) controlled machine rooms; Bubble size corresponds to number of servers; "Top energy consuming buildings" are those in the top 10 by energy consumption in 2008-09; "Virtualizing" a server is a way of dividing a physical server into multiple servers in virtual environments, often running on multiple operating systems
Source: BETS data pull, 11/18/2009; OE IT Catalog Survey, Dec 2009 (n = 80); Physical Plant-Campus Services electricity consumption data

Significant redundancy and lack of standards in applications development

C Optimize app development



Observations

- **Significant redundancy:** Many units have created applications which do the same things
- **Lack of coordination:** Many application purchases did not leverage discounts from campus licenses
- **Lack of standards and oversight:** Applications created in over 20 different languages, increasing development costs
- **Inability to respond to dynamic security threats** (e.g., UHS security breach)

Potential opportunities

- **Reorganize** application developers into shared service centers to gain scale and increase productivity
- Create **development standards**; train developers to adhere to standards
- Provide campus community with suite of **enterprise applications** to reduce need for shadow systems

Note: Applications reported in the survey represent only a subset of applications existing on the UC Berkeley campus. "UHS" is University Health Services.
Source: OE IT Catalog Survey, Dec 2009 (n = 80)

Sourcing from outside providers should be considered for select IT functions

D Source from outside providers

Potential to source select IT functions from outside providers*

Infrastructure	*Helpdesk*	*App Dev*	*Mgmt/admin*
Storage	Level I	Planning	Strategy
Hosting	Level II	Design	Compliance
Security		Development	Procurement
Network design/ops	Level III	Testing	Printer/copier maint.

- >50% sourceable from outside providers
- 20-50% sourceable from outside providers
- <20% sourceable from outside providers

Considerations for sourcing from outside providers

- **Service** levels
- **Cost**
- **Risk** and guarantee of results
- Access to **best IT practices** and innovation
- **Flexibility** of outsourced operations
- Ability to **free up management time**

Potential opportunities at UC Berkeley

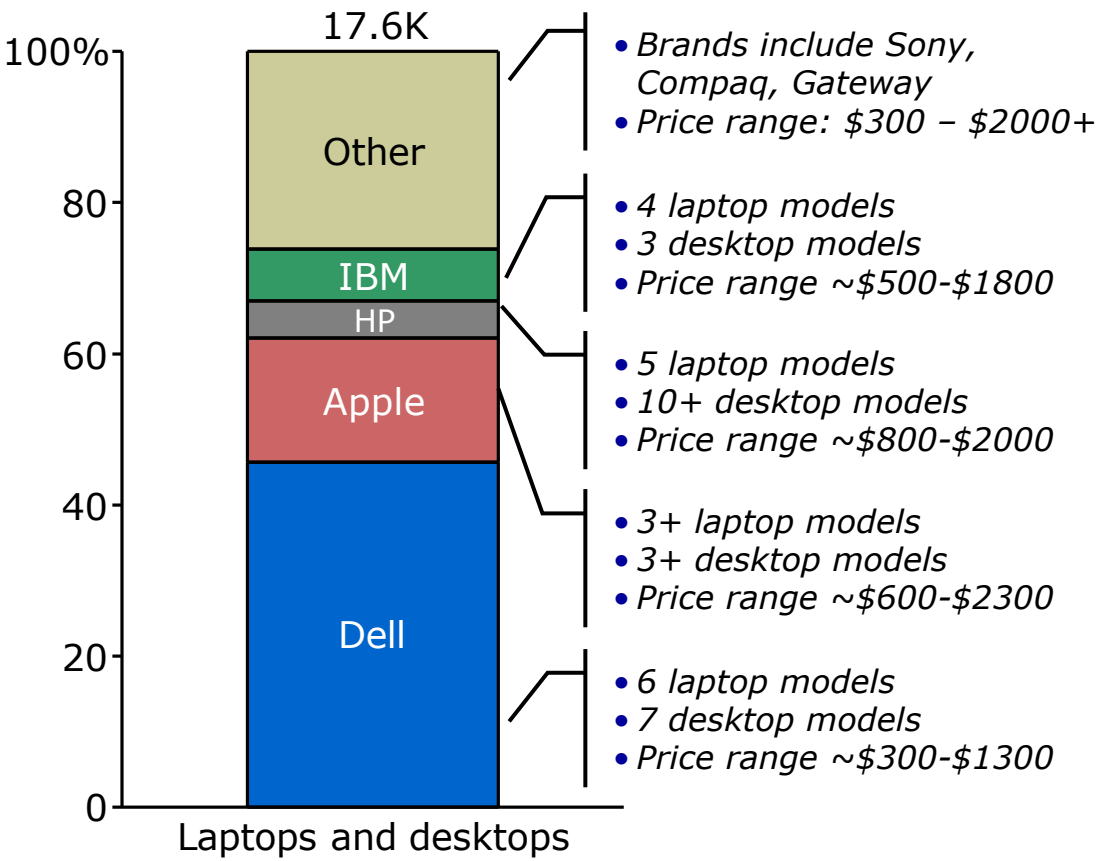
- Targeted applications
  - E.g., learning management system (bSpace)
- Data center
- Printer/copier maintenance

*List of functions to source from outside providers not exhaustive; % sourceable from outside providers represents the average percent of that function which has outsource potential, based on Bain G&A Capability Sourcing Point of View - not specific to UC Berkeley
Source: Bain G&A Capability Sourcing Point of View

IT procurement spending is highly fragmented with few standards

E Aggregate procurement spending

Laptops/desktops reported in the IT Catalog survey



Observations

- **Decentralized purchasing:** Procurement highly distributed with each unit making purchasing decisions
- **Technology as a reward:** Some departments use premium technology (e.g., twin 22" Apple monitors) as a method of employee recognition/ reward
- **Lack of standards:** Few technology standards (e.g., computers, printers)

Potential opportunities

- Create **technology standards** (e.g., only 2-3 models to be used for all admin computing)
- Channel spending through cost-effective, **centrally negotiated contracts**

Note: Computers reported likely represent only a subset of computers on the UC Berkeley campus
Source: TSW website; OE IT Catalog Survey, Dec 2009 (n = 80)

Opportunity summary: IT

- **Redesign IT organization** and governance model in line with organizational simplification initiative
- **Consolidate infrastructure**
- **Develop standards** for application development, support services and IT procurement
- Selectively evaluate opportunities to **source non-core services** from **outside providers**
- Develop **IT common goods funding model**, in line with financial management model initiative

Potential next steps for Design stage

ILLUSTRATIVE

Use shared service centers and consolidated IT services appropriately

- Refine IT personnel fact base; determine IT functions to be provided centrally vs. locally vs. in shared service centers
- Determine service-level requirements for each IT service
- Identify IT processes to be redesigned and/or automated

Reduce complexity and increase efficiency

Streamline infrastructure, virtualize servers, etc.

- Refine portfolio of infra-structure across campus
- Identify areas where central data center could take on excess capacity
- Identify server consolidation opportunities by type and geographic location
- Continue virtualization of servers in the central data center

Eliminate application redundancies & create architecture standards

- Refine portfolio of existing applications and migrate units off sub-optimal apps if better alternative exists
- Identify applications in pipeline to rationalize and reduce short-term duplication
- Continue work to create/refine standards; design training program around standards

Selectively source non-core services from outside providers

- Identify criteria/service-level requirements for external service providers
- Create list of potential services to consider sourcing from outside providers
- Identify potential external service providers

Consolidate purchases & increase standardization

- Categorize IT expenditures into sourceable categories
- Set standards for major categories
- Work with procurement initiative team on category-level execution plan

Work with Finance to design common goods funding model for IT services

Invest in foundational IT projects

- Including identity management, common ticketing tools, content management, source code and release management

Design stakeholder engagement and communication plan

Note: Excludes those steps common to all initiatives (e.g., assign leaders, create charter, etc.).

The OE team reviewed six opportunity areas and two critical enablers

Opportunity areas

1. Procurement
2. Organizational simplification (incl. HR, Finance)
3. IT
4. Energy management
5. Student services
6. Space management*

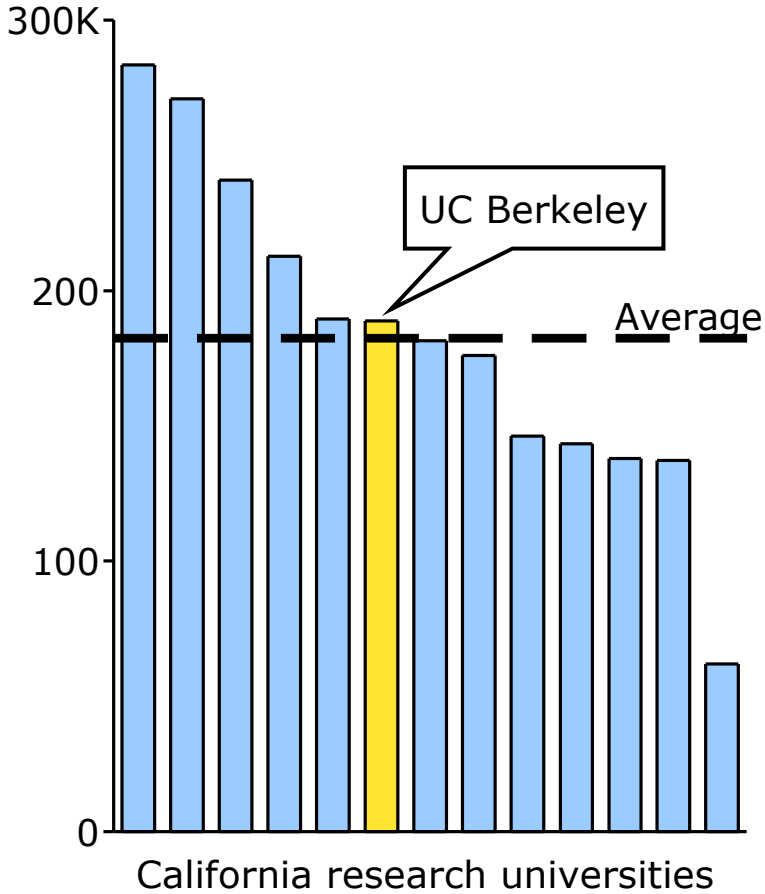
Critical enablers

A. High-performance operating culture
B. Financial management model

*Steering Committee recommends space management to be an area for future study

UC Berkeley consumes slightly more energy than the average California university

Energy consumption/maintainable gross square footage (BTU/MGSF)



Observations

- **Departments are not incented** to save electricity as the bill is paid by central campus
- Utility usage data is **not well tracked** at the building level
- There is a **lack of accountability** for energy conservation
- **Old infrastructure** at UC Berkeley is **not energy efficient**
- **Note:** Opportunity is in consumption vs. rate negotiation as rates are ~25% below benchmark average

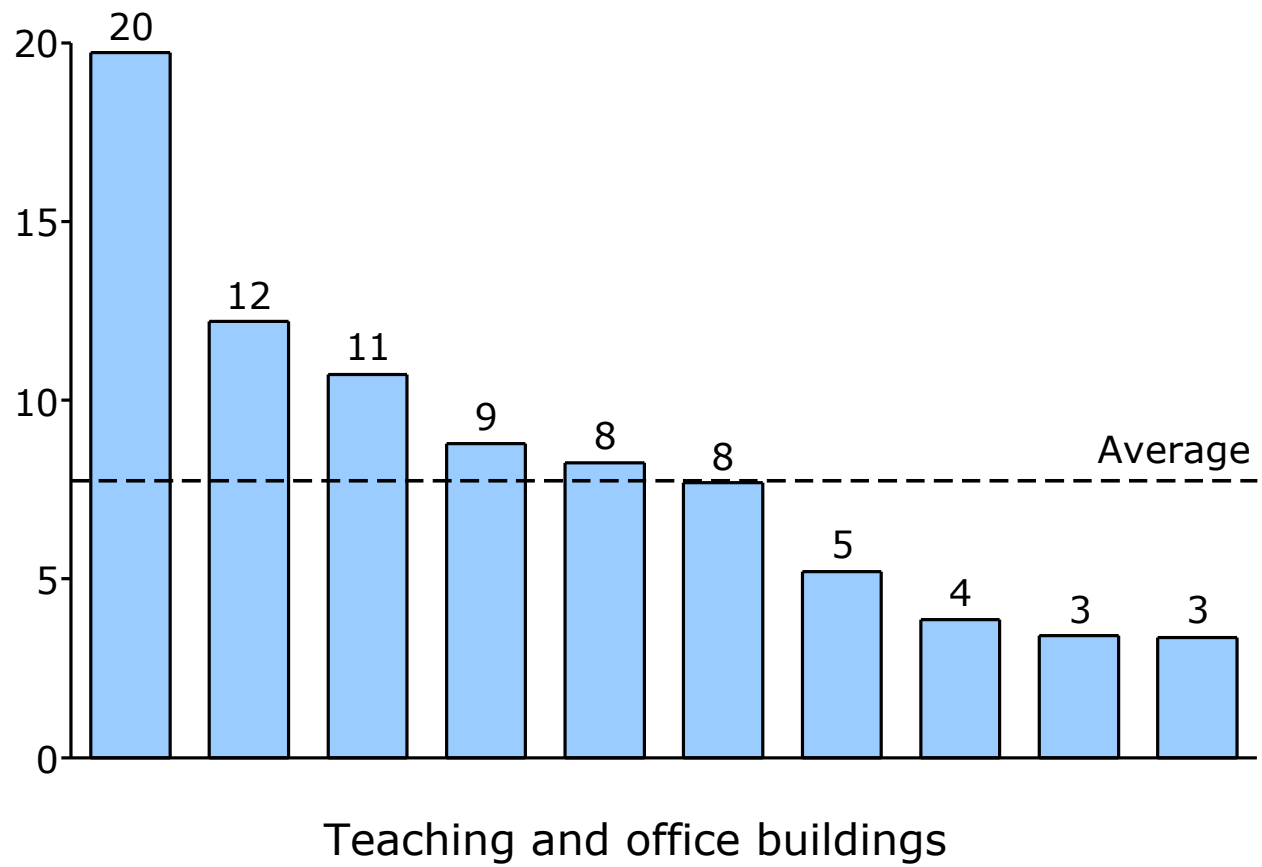
Notes: BTU/MGSF as reported by each university; benchmarks should be used for discussion only; state eligible space only; BTU= British Thermal Unit
Source: California Research Universities Partnership for Performance 2007-2008

Energy consumption varies significantly across the campus

Example: Teaching/Office Buildings

ILLUSTRATIVE

2008-09 Energy consumption by building (kWh/GSF)
Teaching/office buildings



Observations

- Energy efficiency of **infrastructure** varies between buildings
- **Behavior and culture** surrounding energy conservation varies between buildings

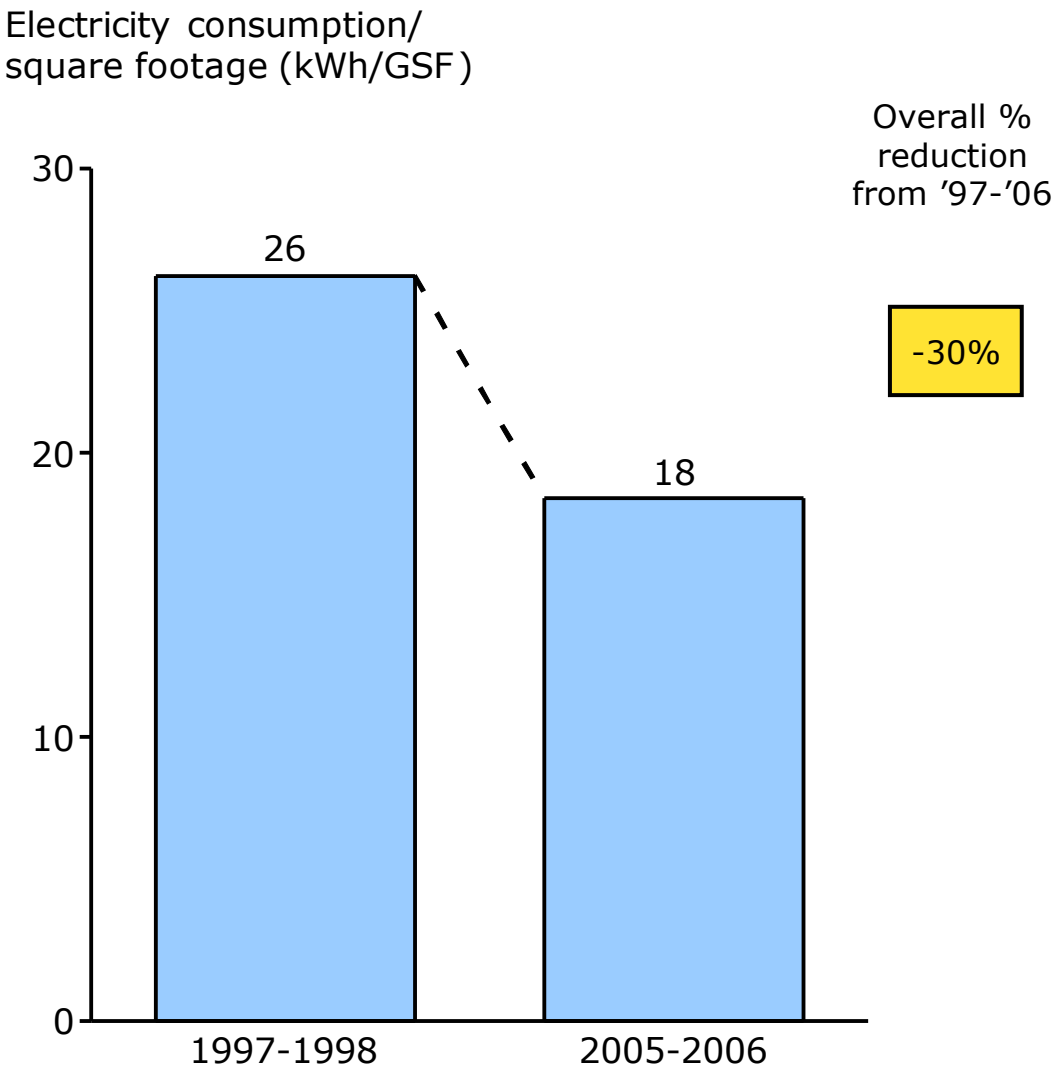
Note: Only includes buildings with reliable meter data and over 85% of space classified as instruction or office by Space Management and Capital Programs. This avoids large, expected variation due to varying uses of space (e.g., storage space would have low consumption and research space would have high consumption).
Source: Physical Plant-Campus Services electricity consumption data; Space Management and Capital Programs

Potential to pursue additional energy efficiency projects

- Opportunity to **accelerate monitoring-based commissioning projects**
  - Purchase and install meters that enable real-time monitoring of energy use
  - Monitoring projects have had the best return, exceeding expected savings
- Use monitoring projects to **identify other potential energy efficiency projects**
- **Lack of dedicated staff,** not funding, constrains ability to pursue these opportunities
  - Additional funds are available for unidentified projects; can be used to support project-specific salaries
  - Ongoing resource support necessary to capture full value of monitoring projects

Source: Newcomb Anderson & McCormick SEP; interviews

Case study: One CA university reduced energy use through metering and systems



Key Initiatives

- Appointed a **dedicated energy consumption manager**
- **Metered** all major buildings to identify potential savings
- Invested in **energy information systems** (Enterprise Energy Management Suite)

Results

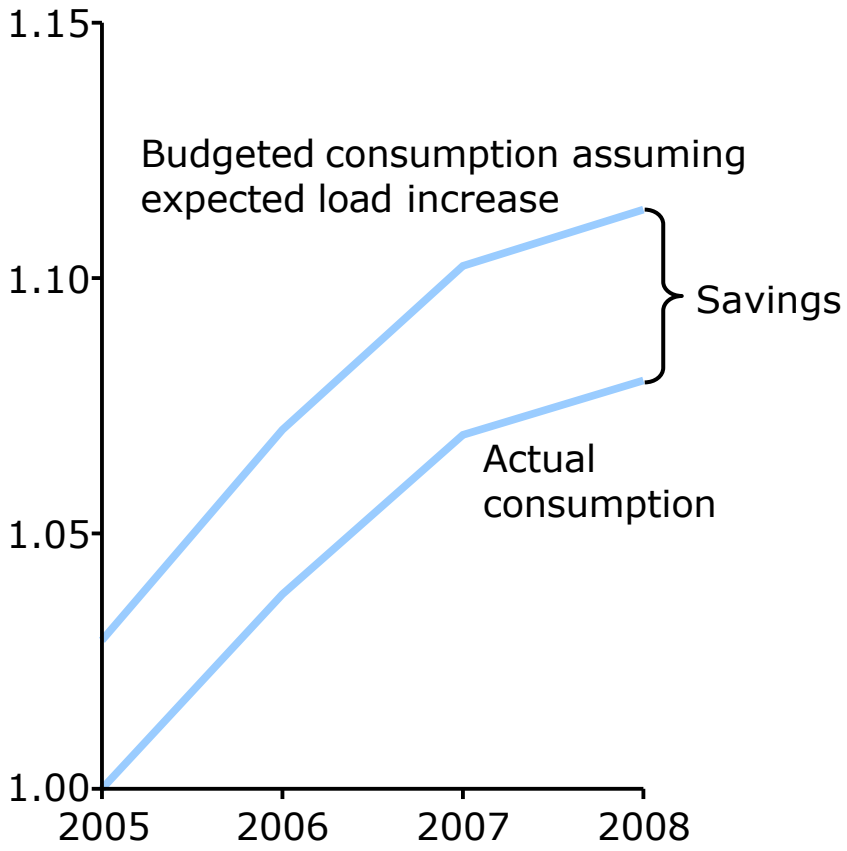
- Increased energy efficiency by **30% from 1997 to 2006**
- Saved **$1.8M in electrical costs/year**
- Reduced natural gas usage by **23% since peak** in '99

Source: University energy website

Case study: Another CA university implemented a successful incentive program

Estimated utility savings

Indexed electrical consumption
(2005 consumption = 1)



Key initiatives

- Modified energy consumption behavior through new **incentive system**
- **Created consumption baseline** based on historical consumption, adjusted for new infrastructure
- **Returned savings to departments** that consumed less than their baseline **and charged for use over consumption baseline**

Results

- **3% under consumption budget** in each of 4 years following implementation
- **Cost savings and reduced emissions**

Note: "Expected load increase" is anticipated increase in demand due to new buildings, new equipment, increased research, etc.
Sources: University Business Executive Roundtable; interviews; Energy Conservation Incentive Program summary

Opportunity summary: Energy management

- Accelerate **energy infrastructure improvement projects** (e.g., metering and reporting systems)
- Establish an **incentive system** to reward reduced energy consumption, enabled through new systems
- Refocus **energy management resources** to increase accountability for reduced energy consumption

Potential next steps for Design stage

ILLUSTRATIVE

Diagnostic → Detailed Solution Design → Implementation

Refocus energy management resources

- **Redefine energy manager role** to increase accountability for reducing energy consumption
- **Increase real-time consumption feedback**
- Hire additional **energy management staff**

Design energy incentive system

- **Draft "rules"** for energy incentive program with input from stakeholders
- **Design support plan** to assist buildings in reducing usage during program

Plan incentive roll-out

- Set timeline for **establishing consumption baselines**
- Define **baseline appeals** process
- Set timeline for **phased implementation**

Prioritize additional energy projects (including metering)

- **Accelerate metering projects** necessary to identify other opportunities

Use available funds to hire more project management staff

- Use SEP funds to **hire staff on a project basis**

Design stakeholder engagement and communication plan

Note: SEP=Strategic Energy Plan. Excludes those steps common to all initiatives (e.g., assign leaders, create charter, etc.).

The OE team reviewed six opportunity areas and two critical enablers

Opportunity areas

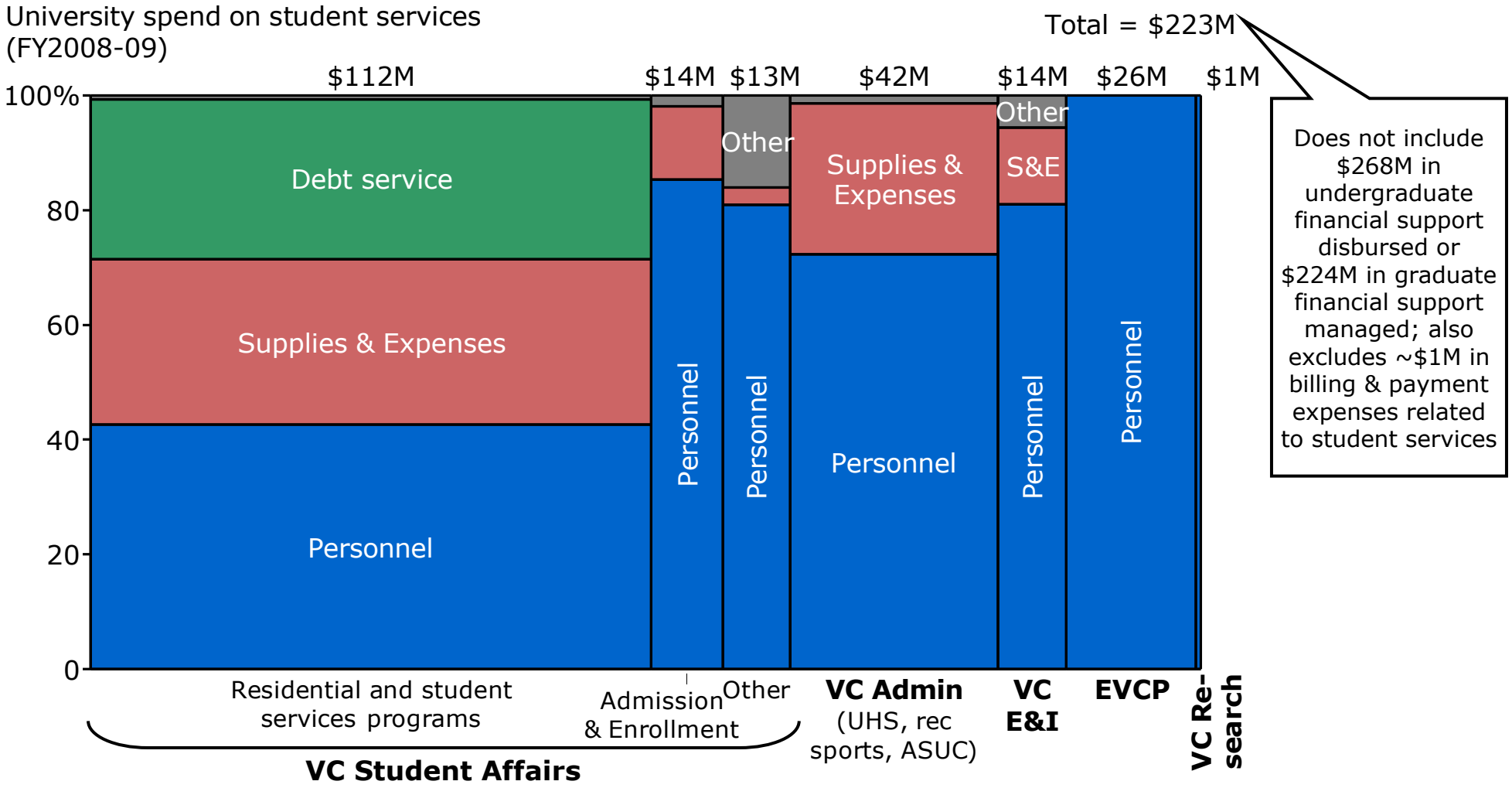
1. Procurement
2. Organizational simplification (incl. HR, Finance)
3. IT
4. Energy management
5. Student services
6. Space management*

Critical enablers

A. High-performance operating culture
B. Financial management model

*Steering Committee recommends space management to be an area for future study

UC Berkeley spent >$220M on student services across control units in FY2008-09 ...



Note: "Other" expenses include inventorial equipment, travel, payments to students, subcontracts, indirect cost recovery and other accounts. Admission & Enrollment expenses do not include payments to students. Other VC Student Affairs includes immediate office, Student Dev Office, Student Services Systems, Career Center and Campus Life & Leadership. VC E&I includes Student Learning Center and Athletic Studies Center. EVCP and VC Research personnel expenditures includes FTE categorized as Academic Achievement Counseling, Admissions/Recruitment, Career Services, Curriculum Planning, Financial Aid, Student Academic Advising, Student Academic Support, Student Life & Development, Student Services, or Student Services Advising in Career Compass. EVCP and VC Research expenditures excludes student employees, and includes a 28% benefits load on salary.
Source: CalProfiles; HCM Database as of 11/30/09; RSSP data

… to provide more than 50 services to undergraduate and graduate students

University-wide services

Admin services
- Office of the Registrar
- Financial Aid Office
- Residency Office
- Billing & Payment Services

Information systems
- BearFacts
- TeleBEARS
- Degree Audit Reporting System
- CARS
- bSpace

Residential services

- On-campus housing
- On-campus dining halls
- Residence Hall Academic Centers
- Residential Living Programs
- Theme programs
- University Village Recreation Program

Student-specific services

Undergraduate

Academic services
- Academic advising (college/dept)
- Student Learning Center
- Academic Achievement Division
- Athletic Study Center
- Student Life Advising

Student life services
- Student org advising
- Cal Corps advising
- Greek Life advising
- Center for Student Leadership
- Disabled Students' Program
- Career Center

New student services
- CalSO
- Summer Bridge
- Welcome Week

Graduate

Graduate Division
- Degrees Office
- Fellowships Office
- GSI Teaching and Resource Center
- Graduate Division writing workshops
- Graduate Diversity Program

Departmental services
- Advising resources (GSAOs)
- Diversity programs (GDOs)

Other services
- Graduate Assembly
- Student org advising
- Disabled Students' Program
- Career Center
- New student orientations

All students

Programmatic services
- Berkeley Intl Office
- Gender Equity Resource Center
- Multicultural Student Development
- Transfer, Re-entry & Parent Center

Advocacy services
- ASUC Student Advocate's Office
- Center for Student Conduct & Standards
- Ombuds Office

Misc support services
- Bear Transit
- Recreational Sports Facility (RSF)
- Tang Medical
- Tang Counseling
- Cal Performances
- Berkeley Art Museum
- Childcare

Note: List is not fully comprehensive; excludes infrastructure services (e.g., AirBears, security, etc.), outsourced business auxiliary services and smaller departmental programs
Source: Working team analysis; departmental and student interviews

Students see value in support services, but there is opportunity for improvement

If you had to use three words or phrases to describe your general experience with student services at UC Berkeley, what would they be?

Source: OE Student Survey, Feb 2010 (n=2,281)

There are multiple levers to drive efficiency and effectiveness in student services

Align student services organizational structure and clearly define governance

A

Prioritize existing services and resize where appropriate

How do students value existing services and programs?

How do existing services align with UCB's mission and priorities?

Invest in and maintain high priority programs, and consider resizing programs based on value and alignment

B

Optimize services to reach appropriate levels of service at the lowest possible cost

How can service levels for our priority programs be optimized?

How can the cost to operate our priority programs be reduced?

Improve productivity through standardization, automation and greater specialization

Consolidate common functions and programs

Source non-core services from outside providers

Improve procurement

Services can be evaluated on value to students and alignment with mission

A

Prioritize/ resize services

Higher

Relative value to students

Informed by surveys to grad and undergrad students

Lower

Evaluate *Offer service levels in line with relative priority*	**Champion** *Provide best-in-class service to meet student demand*
Consider resizing *Use funds to invest in higher priority programs*	**Maintain** *Provide mandated service levels at lowest possible cost*

Lower **Relative alignment with UCB's mission/priorities** *Higher*

(Instruction, research, quality of life, access and recruitment)

Informed by working team, senior mgmt, student & alumni leaders

<u>Objective:</u> Prioritize areas of focus for further assessment in Design stage

Methodology: Survey data and internal ratings informed analysis

A

Prioritize/ resize services

Y-axis

Relative value to students

- OE launched a **student survey** to quantify how students value services and programs, and to understand service levels
- Survey was sent to **12,000 students** (~8,000 undergraduates and ~4,000 graduates), and we received ~**2,300 responses** (~20% response rate)
  - Representative of student population in terms of ethnicity and gender
  - Sample size allows for detailed analysis during design
- **Maximum Difference analysis** was used to measure relative importance of services to students
  - Unlike typical "importance" survey questions, MaxDiff requires respondents to consider trade-offs
  - Technique results in higher discrimination between programs and higher correlation with choice behavior

X-axis

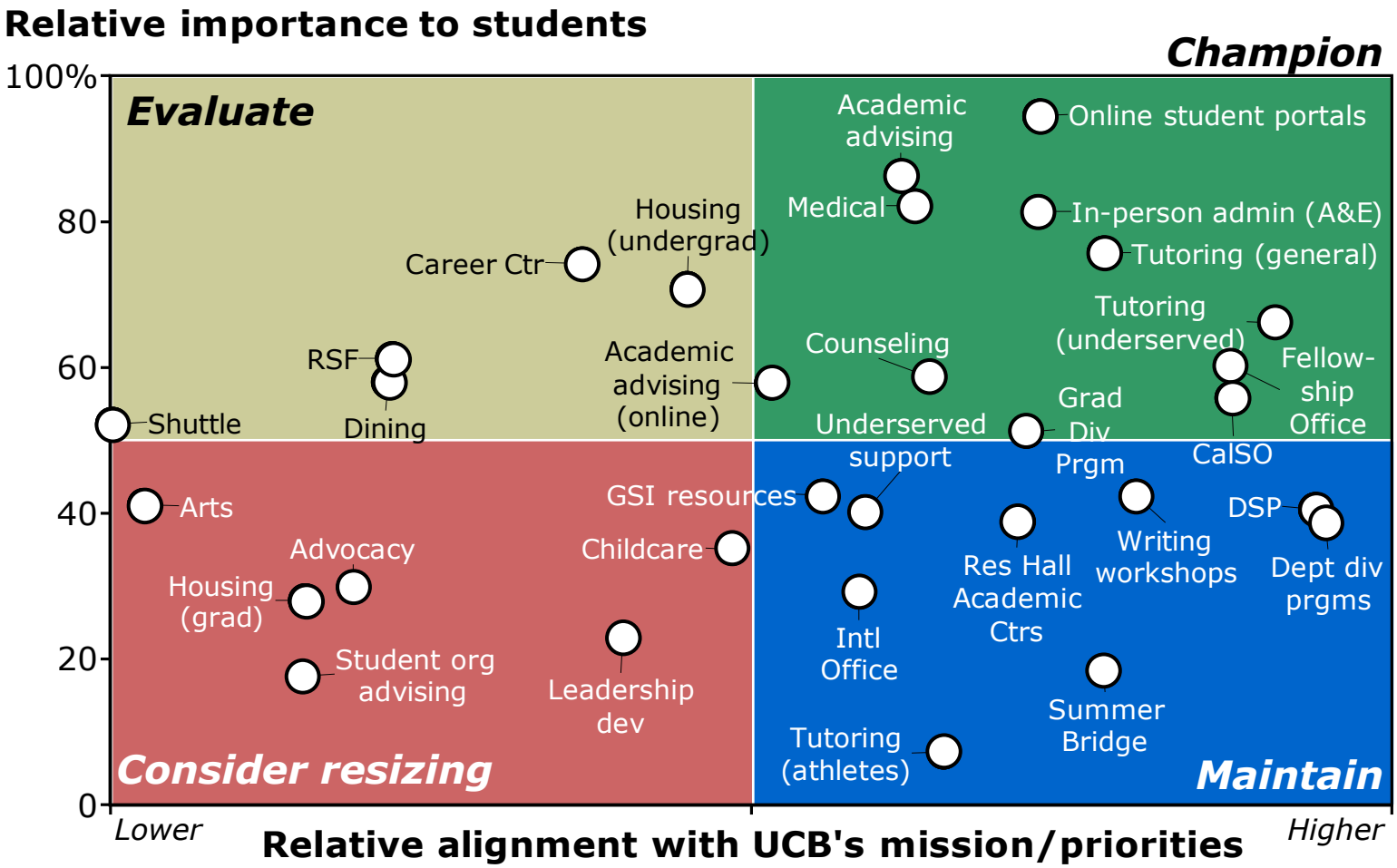
Relative alignment with UCB's mission and priorities

- **Each service was rated** on several dimensions that are core to mission using a high/medium/low scale. Dimensions included:
  - Academic instruction
  - Research mission
  - Student quality of life
  - Access and affordability
  - Maintaining competitive advantage in recruiting
- Participants included OE Student Services working team, select senior management, and student/alumni leaders (n=15)
- Ratings were **differentially weighted** for undergraduates and graduates, and aggregated to a total score

Note: Additional detail on survey demographics, Maximum Difference methodology, definitions and output included in Appendix

Output: Opportunity to prioritize services; further analysis is required

A Prioritize/ resize services



How to read this chart:

Location of each dot indicates relative importance to students (Y-axis) and relative alignment with UCB's mission and priorities (X-axis). For example, online student portals is relatively highly valued by students and relatively highly aligned with UCB's mission and priorities.

Further analysis to be completed in Design stage to understand needs of sub-populations

Note: Y-axis calculated based on student survey using Maximum Difference methodology; includes all students surveyed. X-axis calculated based on input from senior student services mgmt and other stakeholders. Programs that are specific to graduates or undergraduates include relevant student population survey data only; all other programs are combined unless noted. Some programs included on chart are mandated (e.g., DSP). Please see Appendix for detailed definitions of programs and services.

Source: OE Student Survey, Feb 2010 (n=2,281); interviews (n=15)

In addition, levers can be applied to optimize programs and services

B Optimize services

ILLUSTRATIVE

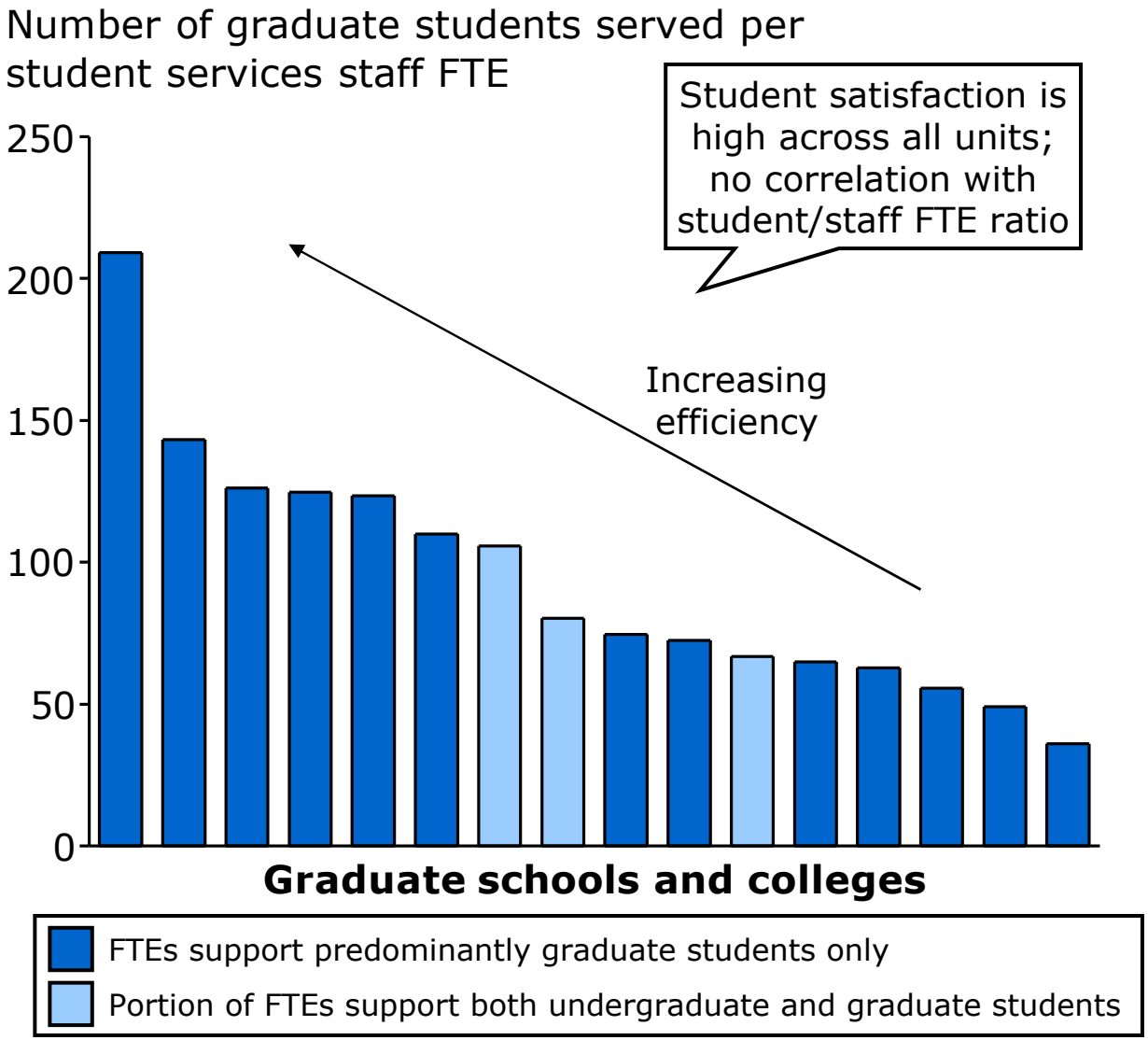
Sample programs	Est FY2008-09 expense	Optimize programs to reach appropriate levels of service at the lowest possible cost			
		Improve productivity through automation, standardi-zation, etc.	Consolidate redundant functions & services	Source non-core services from outside providers	Improve procurement
Housing	$60M	✓	✓	✓	✓
Dining	$25M	✓	✓	✓	✓
Academic advising	$17M	✓	✓		
Childcare	$5M	✓		✓	
Tutoring programs	$5M	✓	✓		
Underserved support programs	$2M	✓	✓		

Check mark indicates an opportunity may exist to use specified lever

Source: CalProfiles; RSSP data and analysis; departmental budget data

Grad advising illustrates potential to drive productivity and maintain service

B Optimize services



Potential opportunities

- Identify **best practices** in schools/colleges with high satisfaction and productivity, e.g.,
  - Streamlined processes
  - Automation
  - Staff specialization
- **Codify learnings and provide training** across units to disseminate best practices

Share best practices to improve productivity while maintaining service

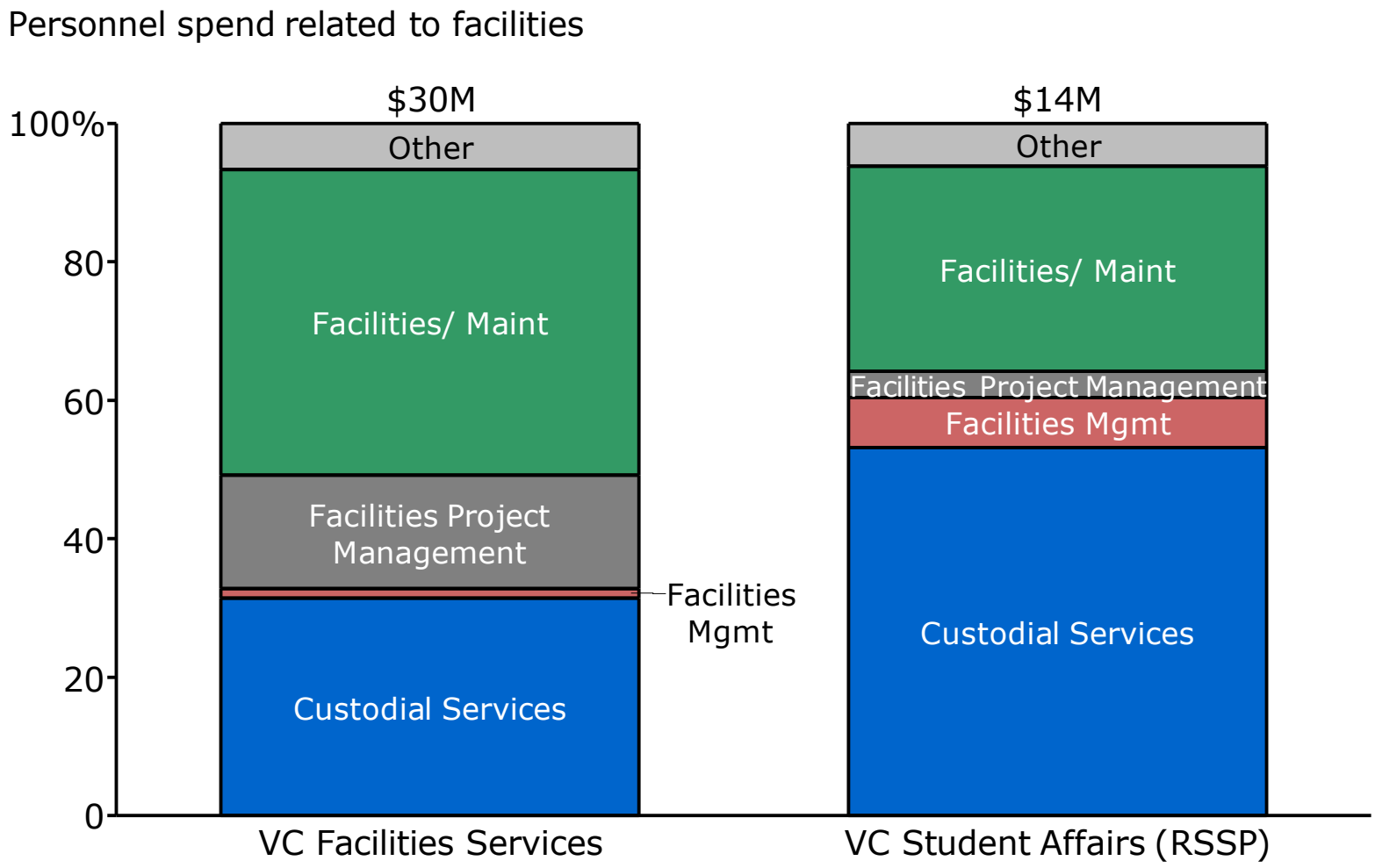
Note: Includes FTEs who are identified in Career Compass in the Student Services job family; does not include represented staff
Source: Career Compass job description data; Graduate Division Survey (2008)

Redundant programs and functions observed; further analysis is required

B

Optimize services

Potential function consolidation example: RSSP facilities services



Source: HCM Database as of 11/30/09

Many universities have outsourced services not core to their mission

B Optimize services

University outsourcing examples

Housing	University of Maryland; The University of Alabama
Dining	ASU; University of Virginia; University of Michigan
Child care	Cornell University; Stanford; NC State

Outsourcing considerations

- **Service** levels
- **Cost**
- **Risk** and guarantee of results
- Access to **best practices** and new models
- **Flexibility** of outsourced operations
- Ability to **free-up management time**

Source: Institution websites, secondary research (March 2010)

Opportunity summary: Student services

- Align **student services organization** and governance model to maximize effectiveness
- Evaluate opportunities to **resize services** based on value and alignment with UC Berkeley's mission
- **Improve productivity** through standardization, automation and greater specialization
- Identify efficiencies in overlapping or **redundant functions or programs**
- Procure goods and services efficiently and **selectively source non-core services** from outside providers

Potential next steps for Design stage

ILLUSTRATIVE

Align student services organizational structure and clearly define governance

- **Develop options** for governance structure based on external benchmarking and internal analysis
- **Decide on structure** that maximizes scale but provides appropriate service levels for unique student populations
- **Design structure** with clear reporting relationships in line with org simplification principles

Prioritize

Resize services based on value and alignment with UCB mission

- **Refine prioritization analysis** via student focus groups
- **Decide which (if any) services to resize** and estimate savings
- Design **alternative options** for services that have been resized or restructured

Optimize programs to reach appropriate levels of service and cost

Improve productivity through standardization, automation and greater specialization

- **Identify opportunities** for service/productivity improvements via benchmarking and student demand
- **Identify drivers** of service/productivity and **compare to best practices**
- Design **automated solutions** and **streamlined processes**

Consolidate common functions and programs

- **Identify units** that provide similar service offerings to students or internal customers
- **Set criteria and evaluate** identified units
- **Design consolidated services and functions** to reach benchmark levels of staff and cost

Source non-core services from outside providers

- **Create list** of potential services to consider sourcing from outside providers
- **Set criteria** for sourcing from outside providers and evaluate options
- Benchmark costs and benefits realized at **other institutions**

Improve procurement

- **Work with procurement initiative team** on category-level execution plan

Design stakeholder engagement and communication plan

Note: Excludes those steps common to all initiatives (e.g., assign leaders, create charter, etc.).

The OE team reviewed six opportunity areas and two critical enablers

Opportunity areas

1. Procurement
2. Organizational simplification (incl. HR, Finance)
3. IT
4. Energy management
5. Student services
6. Space management*

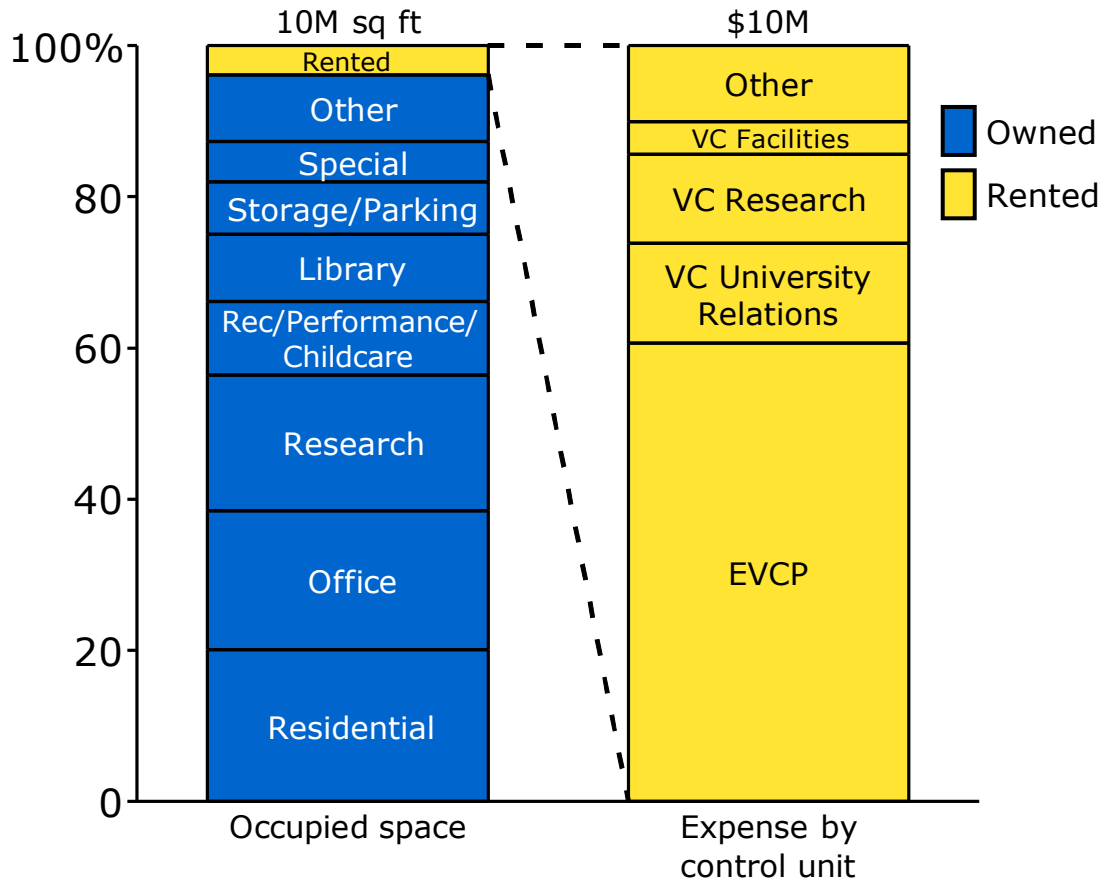
Critical enablers

A. High-performance operating culture
B. Financial management model

*Steering Committee recommends space management to be an area for future study

Space is a very large asset for UC Berkeley and rent is a significant expense

Occupied space



Observations

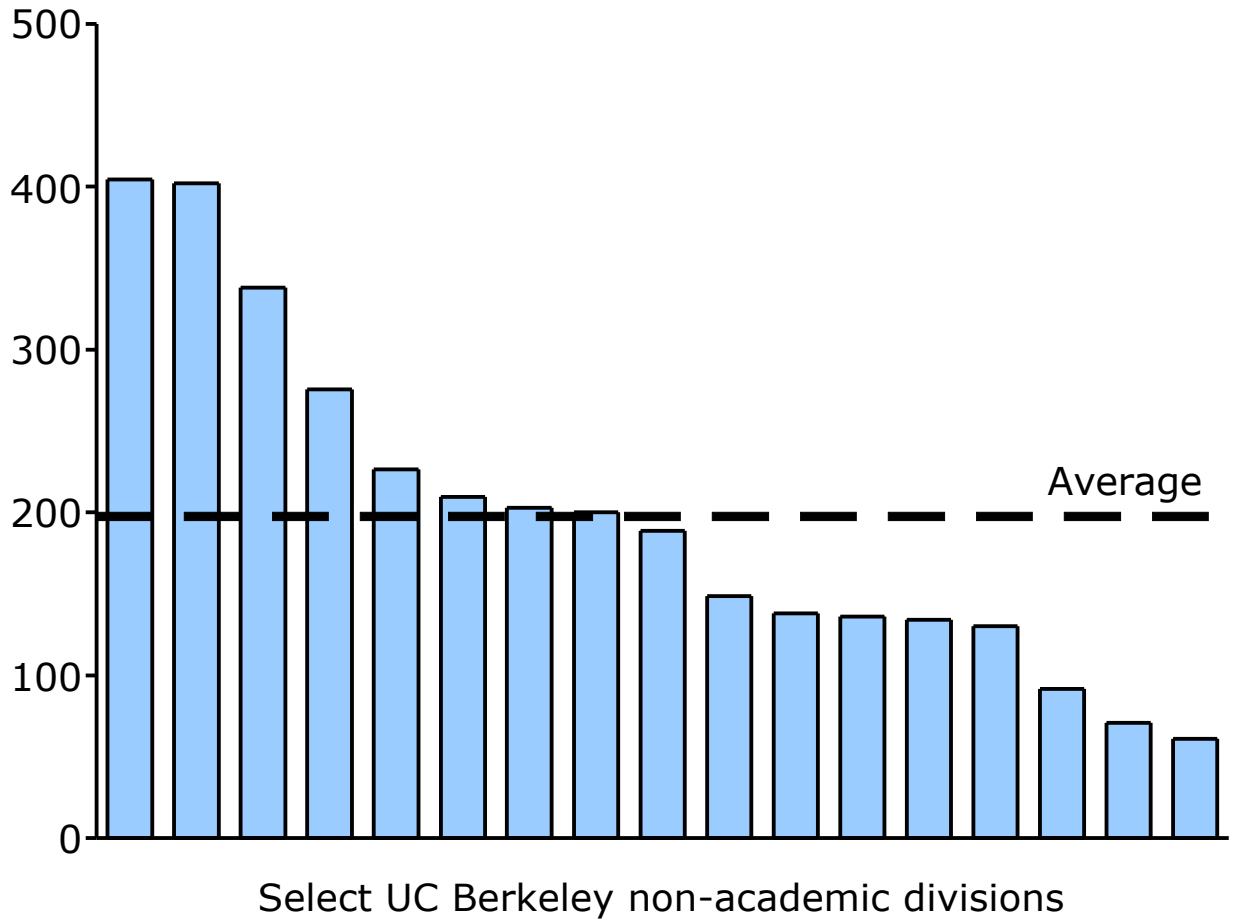
- Space is a large asset—**imputed rent** for campus-owned space **>$250M/year**
- Rented space accounts for **~4% of total space** and **costs ~$10M/year**
- Recent efforts to reduce rent expense have focused on **strategic building purchases, rather than optimizing existing space**

Note: "Rec" space refers to recreational space. 56% of total rent expense is from auxiliaries. Rented space and rent expense exclude 6701 San Pablo (~$2M annual expense and ~380K sq ft), whose leaseback ends in 2010. Rent expense excludes utilities. "Other" space category includes Instruction (214K sq ft), Medical (34K sq ft), Med-Spec (4K sq ft), and Miscellaneous (650K sq ft) space categories. Imputed rent assumes same average rental rates per square foot for UCB owned space as currently paid by UCB for rented space

Source: Regents as Tenant Listing—UC Berkeley; Space Management and Capital Programs; interviews

Space usage varies dramatically across campus

FY2008-09 office and support space per employee (sq ft/FTE)



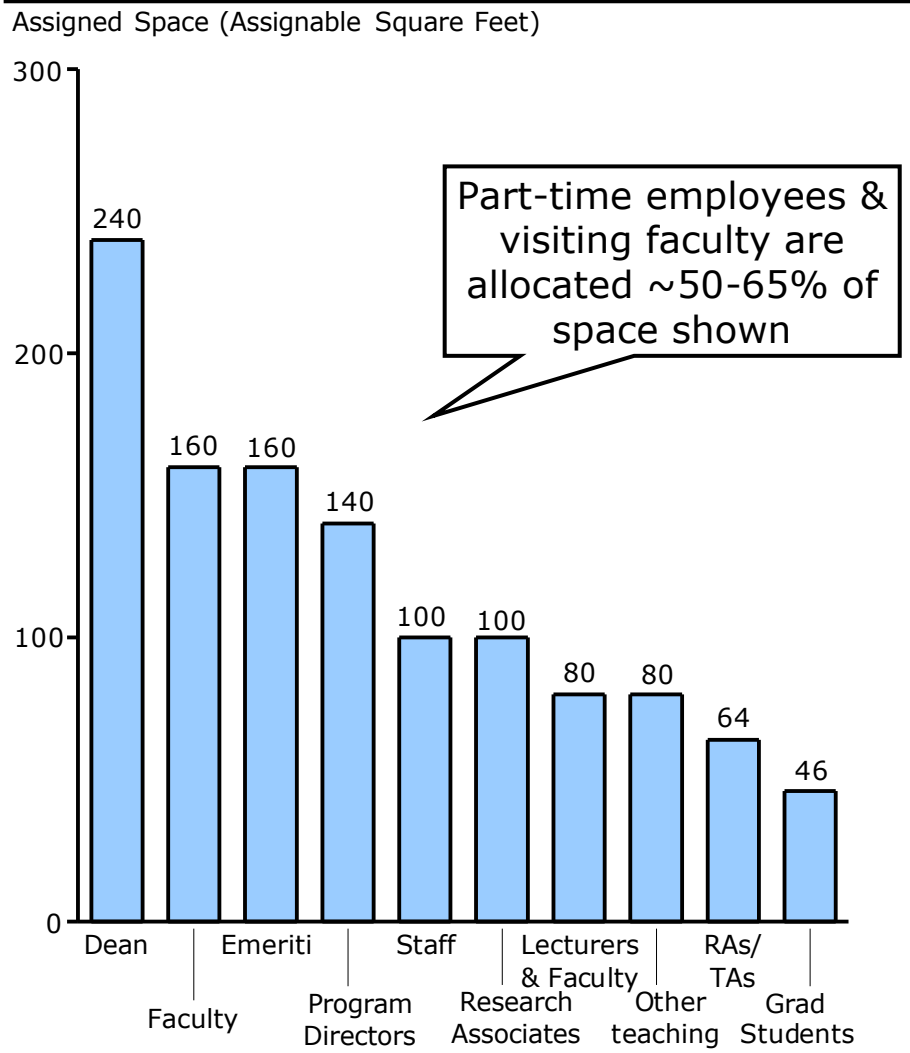
Observations

- Campus **lacks guidelines to govern space allocation**—space per employee varies widely
- Space **utilization** is not tracked
- Units have **no incentives** to give up unused space

Notes: Only includes non-academic divisions (L-3) and space classified as "Office & Support"; includes all employees
Source: CalProfiles; Space Management and Capital Programs

Case study: One California university improved space utilization with space charge

University recommended office space guidelines for employees



Key initiatives

- Allocated office space based on **University-wide guidelines**
- Instituted **fees for exceeding space needs**
- Provided **space re-design services** for departments
- Initiative championed by the **Provost**

Results

- Expected recovery of **5-10% of space in campus buildings**
- Several schools working to **reduce their space fees**
- **Delayed construction** of a building by one year

Source: University Space & Furniture planning guidelines (originally published March 2003, last updated April 2009); employee interviews

Opportunity summary: Space management

- Establish **space allocation guidelines** that set standards for how much space departments should have
- **Create incentives** for departments to reduce space use
- Develop tools and systematic methods to **track space utilization** across the campus (e.g., space walks)
- **Relocate employees** as required to optimize space use
- Assign **dedicated staff members** to manage space program, including space re-design services

Note: The Steering Committee recognizes that space is a valuable asset and that better management of University space is a potential opportunity. The Committee **recommends doing further analysis** on this opportunity area, and then **re-evaluating the need for a major University-wide initiative at a later stage**.

The OE team reviewed six opportunity areas and two critical enablers

Opportunity areas

1. Procurement
2. Organizational simplification (incl. HR, Finance)
3. IT
4. Energy management
5. Student services
6. Space management*

Critical enablers

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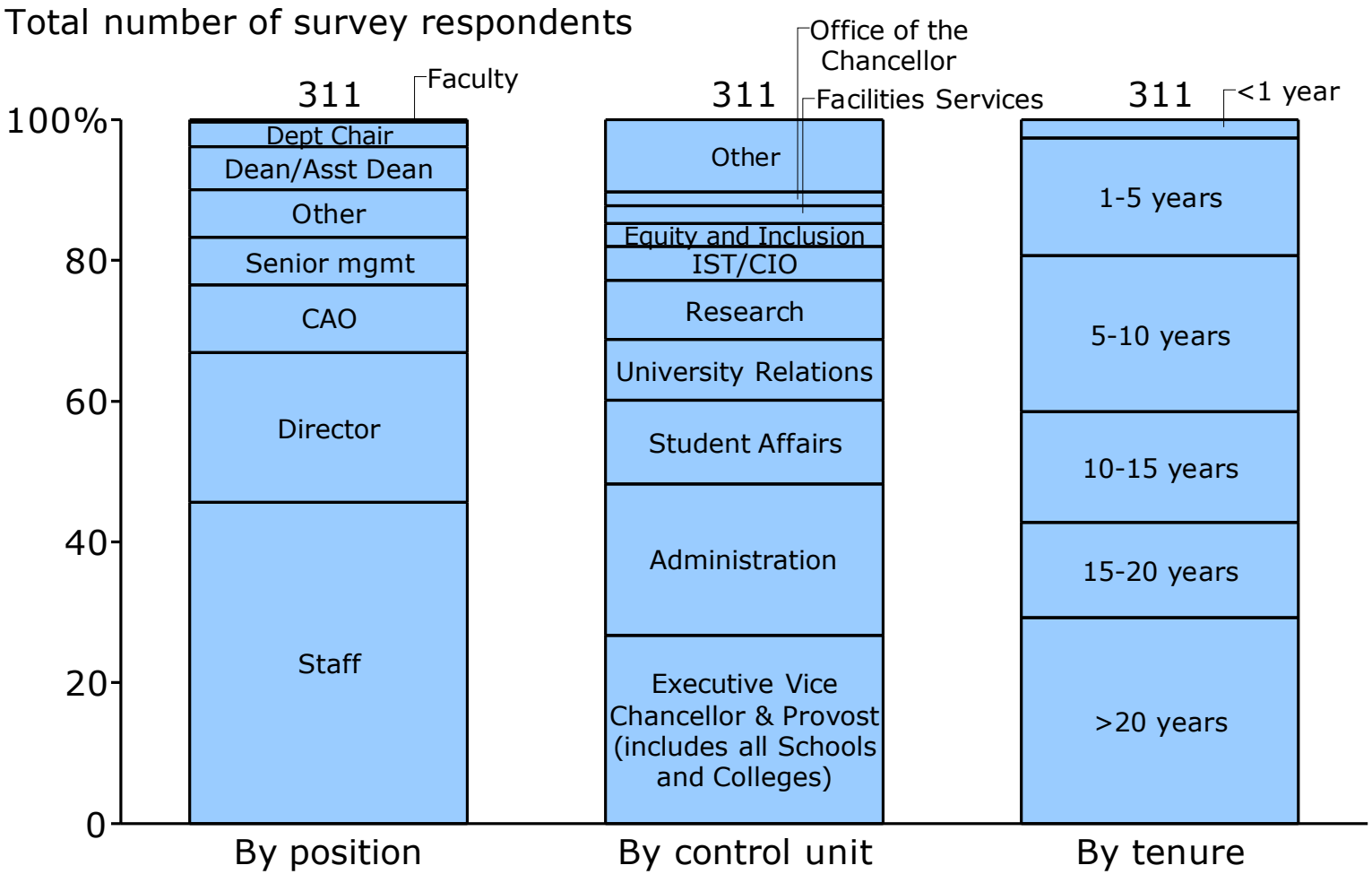
300+ managers responded to the Capacity for Change and Org Effectiveness Survey



Response rate = ~20% (survey sent to ~1,500 managers)

Note: Survey sent to UC Berkeley managers (Manager levels 1-4 and Professional levels 4-5) who have been involved in past change efforts at the University. "Senior mgmt" includes the following positions: Chancellor, Vice Chancellor, Provost, Vice Provost, Assoc Chancellor, Asst Chancellor, Assoc Vice Chancellor, Asst Vice Chancellor

Source: OE Capacity for Change and Organizational Effectiveness Survey, Jan 2010 (n=311)

UC Berkeley managers expressed a strong need for organizational change

60% of survey respondents **do not believe UC Berkeley is a highly effective organization**

*"There is a lot of **system and process redundancy**."*

CAO

*"Lack of clear performance benchmarks means **ineffective workers can remain unnoticed**."*

Director

*"Things are **difficult, slow, and hard**."*

Department Chair

And 85% believe that **significant change is necessary**

*"We need to **break the culture** of belief **that all change is for the worst**."*

Dean

*"Senior leadership **needs to support change efforts**."*

Director

*"We need to be **more assertive about change**."*

Staff

Note: Statements presented were "All things considered, UC Berkeley has a highly effective organization" and "Our University's organization needs to change significantly to be successful in the next 5 years"; responses that agreed or strongly agreed were included in data shown.
Source: OE Capacity for Change and Organizational Effectiveness Survey, Jan 2010 (n=311)

Issues identified in communications, decision making, and performance management

A **Clarity and communi-cation**

- Leaders are **clear on priorities**
- Campus priorities are **communicated**

B **Decision making**

- People have clear **decision-making roles**
- Decision-making **processes are disciplined**
- We have a bias towards **action over analysis**

C **Performance management**

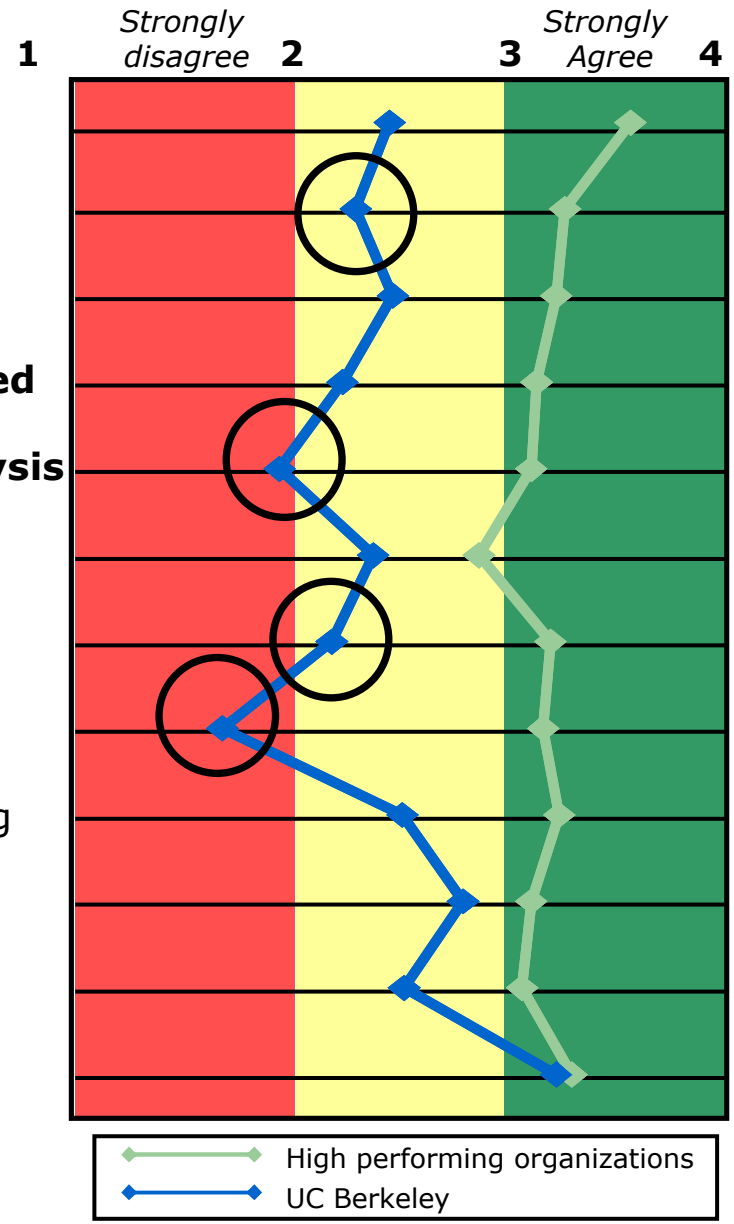
- Org helps individuals reach **full potential**
- **Org effectively evaluates** individuals
- Incentives are **tied to performance**

Leadership

- **Leaders support** effective decision making
- **Leaders are aligned** with values
- **Personal leadership is** demonstrated

Culture

- Org has a **clear and unique identity**

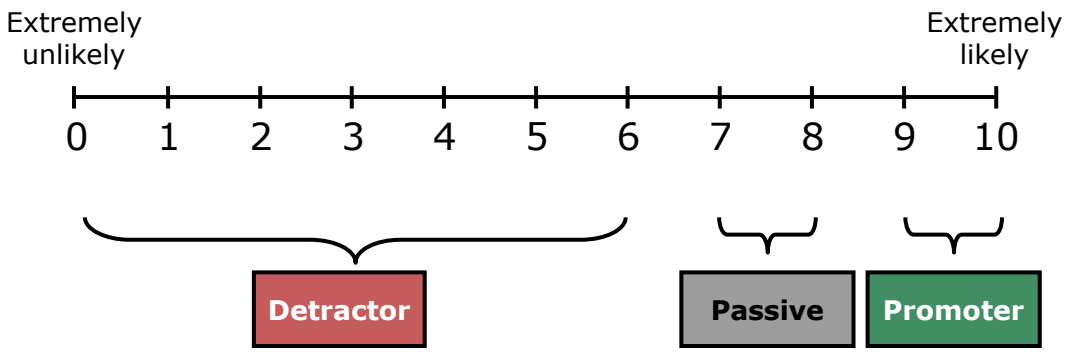


Note: Data based on questions asked about organizational capacity. Not all question categories are included. "High performers" are those in the top quintile of the survey
Source: OE Capacity for Change and Organizational Effectiveness Survey, Jan 2010 (n=311); Bain Decision Driven Organization Database

These issues, as well as challenging times, have led to more detractors than promoters

Net Promoter Score® (NPS) is typically a measure of advocacy and satisfaction

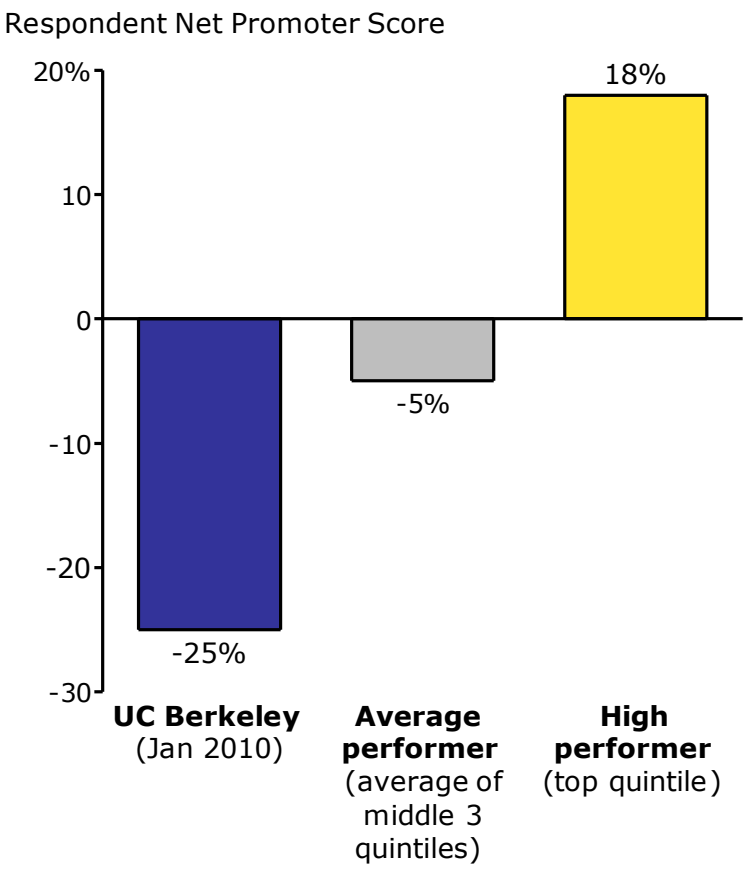
"On a scale from 0 to 10, how likely are you to recommend UC Berkeley as a place to work to a friend or relative?"



Net Promoter Score = % promoters - % detractors

- NPS scores vary by industry and function
- Measuring NPS over time can help to understand changes in employee perception

NPS at UC Berkeley is low compared to benchmarks

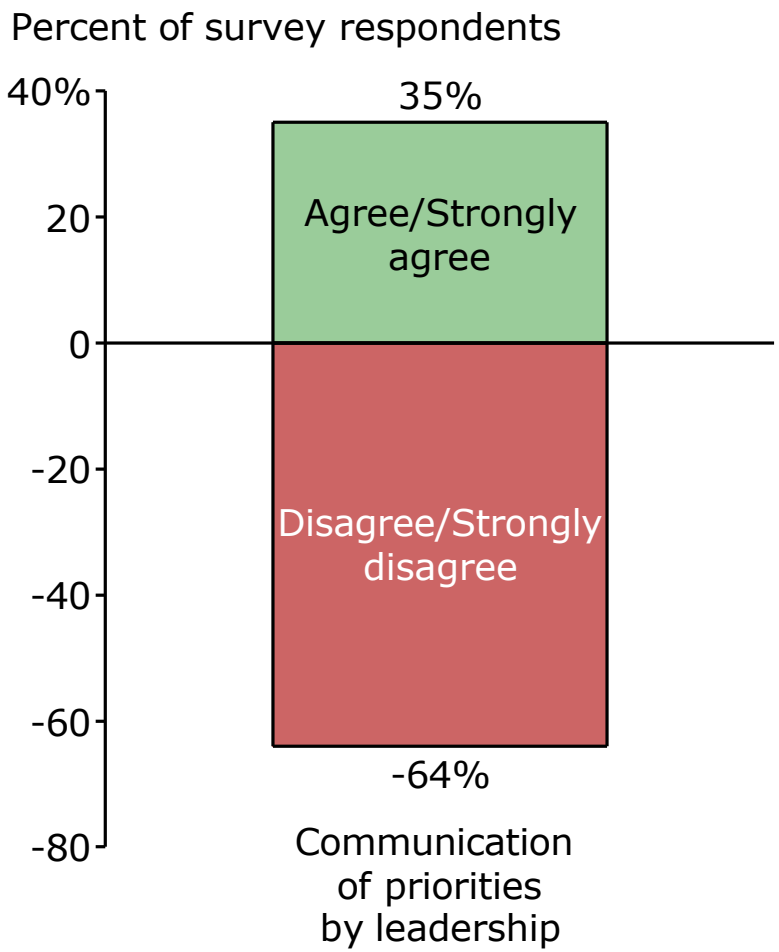


Note: NPS scores for high and low performers based on database of ~65 companies across a variety of industries. "Performance" based on decision effectiveness. Survey timing, question wording and response rating scale differs from Employee Climate Survey which asks "I could recommend UC Berkeley to friends and family seeking employment," to which 26% responded Strongly Agree, 56% responded Agree, and 18% responded Disagree or Strongly Disagree
Source: OE Capacity for Change and Organizational Effectiveness Survey, Jan 2010 (n=311); Bain NPS Database

Respondents believe that priorities are not clearly communicated

A Clarity and communica-tion

"Are priorities communicated clearly throughout the University to provide context for decision making and execution?"



Observations

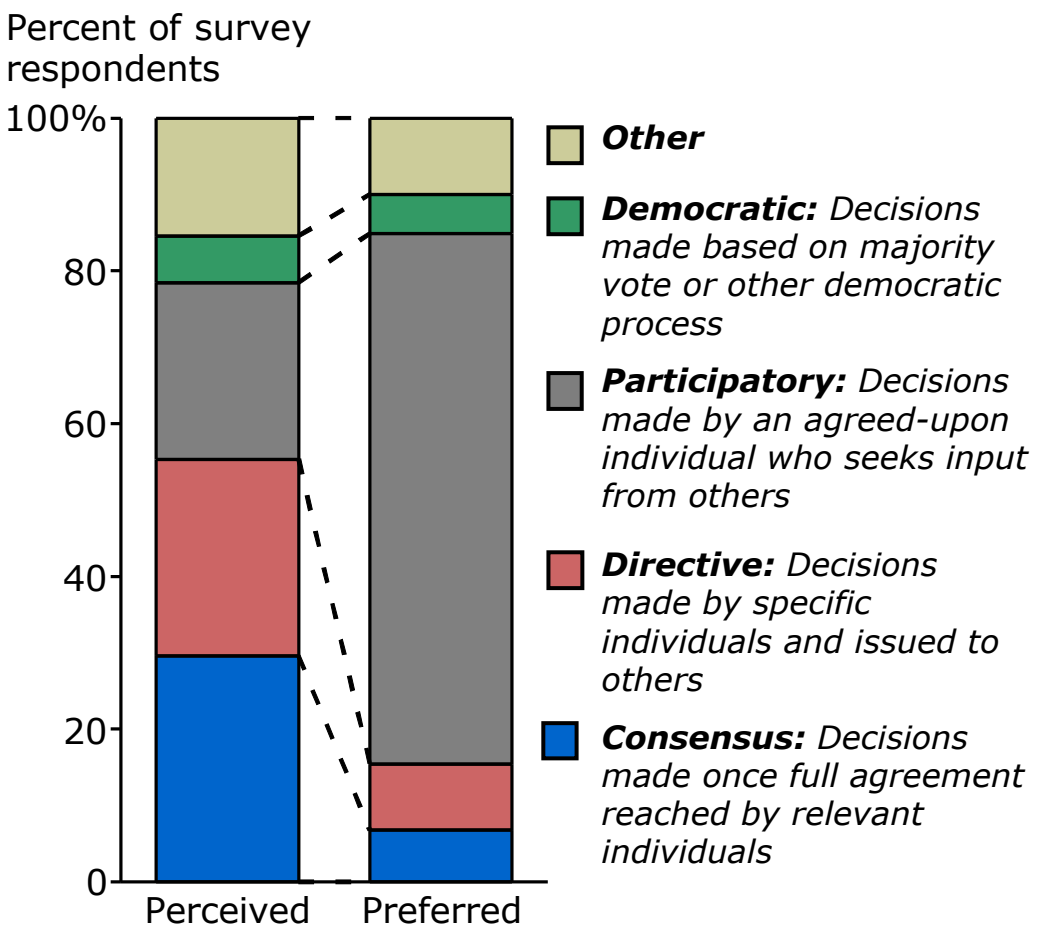
- **UC Berkeley lacks consistent communication channels** to ensure cascading communication throughout all levels of the organization
- **Managers are not accountable for** cascading communications to their direct reports
- *"The difficulty [during our change effort] was in **communicating to a broader set** of stakeholders."*
- *"**Clear channels of communication must be established** between the leadership team implementing the change and those who will be most affected by the change."*

Note: Responses of "Not applicable/don't know" not shown, so totals may not equal 100%; Full question is "Have we communicated priorities clearly enough that people throughout the University understand the context for decision making and execution in their area?"
Source: OE Capacity for Change and Organizational Effectiveness Survey, Jan 2010 (n=311)

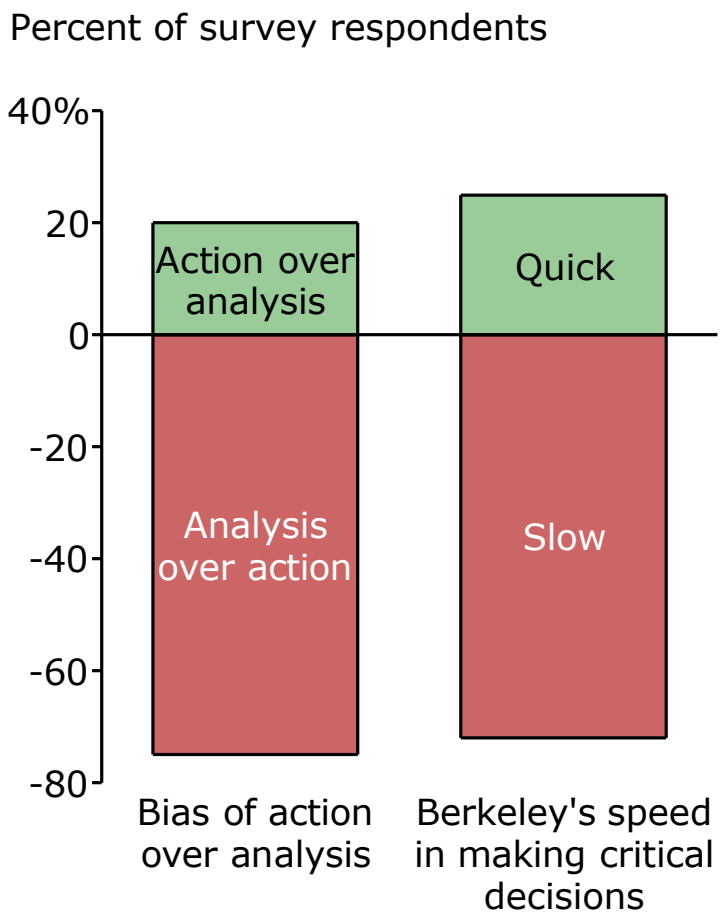
Speed of decision making is hampered by lack of alignment on decision style

B Decision-making

"What style is used to make decisions at Berkeley? What decision-making style would you like to see?"



"Do our people have a bias towards action rather than extended analysis? What is our speed when making critical decisions?"



Note: Responses of "Not applicable/don't know" not shown, so totals may not equal 100% ; "Slow" includes responses "Very slowly" & "Slowly", "Quick" includes responses "At moderate speed" & "Quickly"
Source: OE Capacity for Change and Organizational Effectiveness Survey, Jan 2010 (n=311)

Performance management is an issue affecting all levels of the organization

C Performance management

Institution lacks full alignment on organization-wide goals and consistent metrics to assess overall institutional performance; campus does **not consistently utilize performance evaluation tools and systems**

Units lack clear **goals and corresponding metrics** cascading from the organization-wide goals; institution also **lacks ability to assess merit of unit performance**

Supervisors are **not consistently held accountable** for meeting unit goals or for effective management and evaluation of direct reports

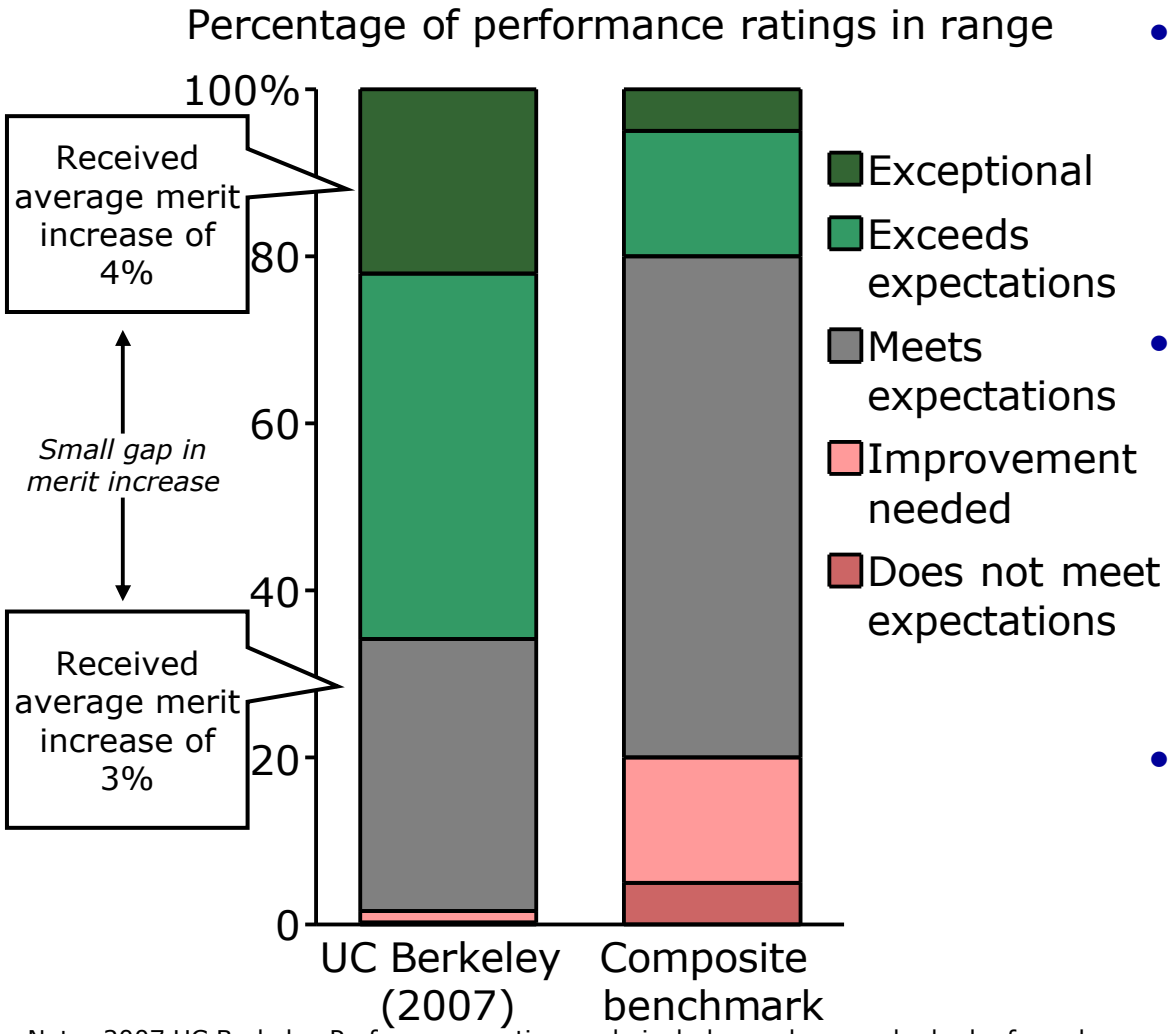
Individuals do **not consistently have performance metrics** tied to unit goals and do not receive appropriate feedback

Opportunity to more clearly define and cascade goals, consistently measure performance and ensure accountability

Current performance management methods do not incent high performance

C Performance management

Performance ratings at UC Berkeley versus benchmark



Note: 2007 UC Berkeley Performance ratings only include employees who had a formal performance review submitted to HR (~4,400 employees in 2007); evaluation of represented employees is subject to collective bargaining
Source: Performance Management Presentation to Chancellor's Cabinet, January 2008; Central HR; Bain benchmarks

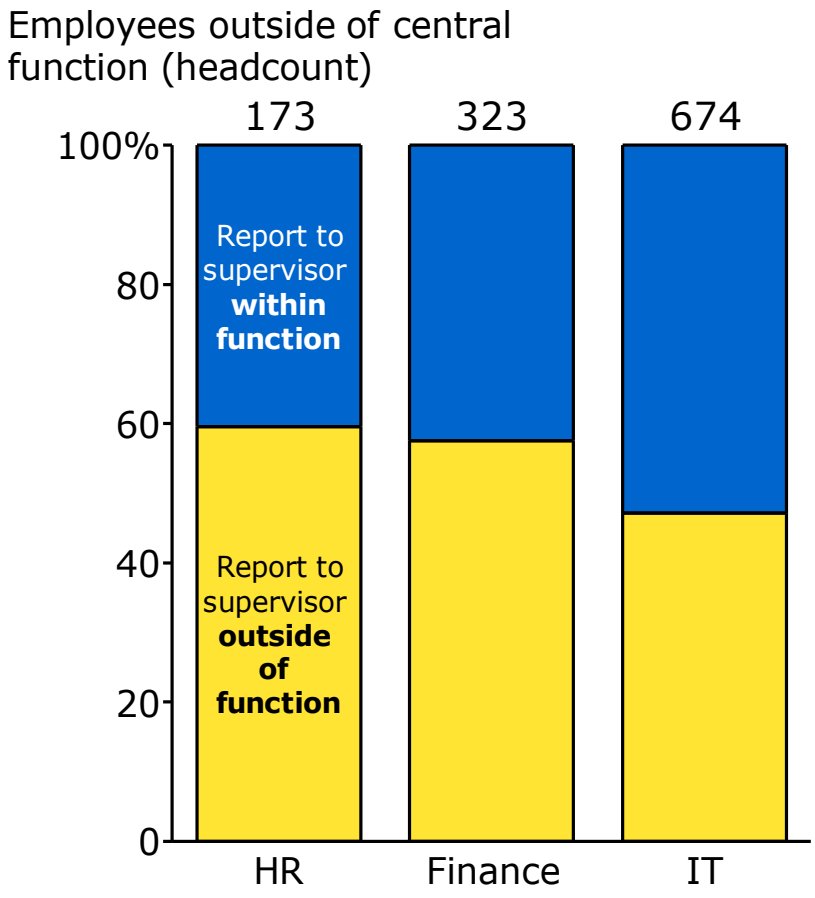
Observations

- Evaluations are **not leveraged for professional development**
  - University-wide performance reviews only done when there are merit increases; not all employees are evaluated
- Supervisors **may not be sufficiently discerning or may have low expectations**
  - No common understanding of what exceptional performance is
  - Only 2% of individuals were identified as "improvement needed" or "does not meet expectations"
- **Incentives are not aligned with performance**
  - Merit money, when available, is spread among many as a general reward, not used to recognize significant contributions
  - Small gap between merit increases of high and average performers

Staff often report to supervisors who are not in the same functional area

C Performance management

Reporting relationships for staff in units outside the center



Observations

- **>50% of distributed functional staff** (i.e. HR, Finance, IT professionals in units outside the center) **do not report to a supervisor in the same functional area**
  - These staff may report to a generalist manager or a manager with different functional expertise
- Difficult for supervisors who supervise employees outside of their functional area **to support and assess the performance** of direct reports
- ***"I don't always know if the IT staff in my department are doing a good job."***

  - Department Chair

Note: Employees are considered to report to a "supervisor within function" if their career compass job fields are the same (e.g., both Human Resources). Data does not include student employees. HR includes all employees classified as HR in Career Compass outside of the Central Human Resources department and the Academic Personnel Office; Finance includes all employees classified as Finance in Career Compass outside of AVC Budget & Resource Planning, AVC Finance & Controller divisions and Business Services-Marchant department; IT includes all employees classified as IT in Career Compass outside of the VC IST control unit

Source: HCM Database as of 12/22/09

Implications for UC Berkeley's operating culture

	Where we are	Where we want to be
Clarity and communica-tion	• **Priorities not always clearly communicated** and cascaded throughout the organization	• Mechanisms to **effectively cascade communications** throughout all levels of the organization, with **manager accountability** for cascading messages to direct reports
Decision making	• **Inconsistent decision-making process** across campus • **Bias toward analysis over action**	• **Consistent decision-making process with clear decision roles,** yielding quick, high-quality decisions
Performance management	• **Poor cascading of organizational goals** to units and individuals, **with limited accountability for meeting goals** • **High or low performers** not consistently identified • **Incentives** not tied to performance; monetary incentives are limited • Many **staff report to supervisors outside their functional area** who cannot provide appropriate support or performance evaluation	• **Well-defined organizational goals cascaded to units and individuals,** with clear accountability for meeting goals • **Clear institutional guidelines** on how to assess performance • Evaluations **used as a basis for professional development** • **Incentives aligned with performance** • Organizational structure that ensures **functional oversight** for key decisions (e.g., hiring, performance evaluation, development)

Potential next steps for Design stage

ILLUSTRATIVE

Clarity and communication

- **Catalog** existing communication processes and channels
- **Identify best practice** communication mechanisms within campus and from other organizations
- **Design enhanced communication cascade mechanism**, including communication methods, timing, and closed feedback loop
  - Identify **potential technology enablers** for communication mechanism
  - **Design training program and accountability process for supervisors** on communication cascade

Decision making

- **Identify priority decisions** on which to focus during first wave of design
- **Map relevant governance bodies and decision rights** for key decisions
- **Redesign decision rights** and decision roles for these key decisions
- **Repeat decision redesign process** (iteratively) for decisions throughout the university

Performance management

- Define institutional, unit and individual-level **goals against which to measure performance**
- Set **institutional guidelines** for defining and measuring performance, incorporating best practices from other organizations
- **Develop unit and individual performance evaluation process** (e.g., timing and frequency of evaluations, distribution of ratings, appropriate follow-up steps)
- **Develop corresponding incentive structure** tied to performance outcomes
- **Design development plan** for supervisors

Design stakeholder engagement and communication plan

The OE team reviewed six opportunity areas and two critical enablers

Opportunity areas

1. Procurement
2. Organizational simplification (incl. HR, Finance)
3. IT
4. Energy management
5. Student services
6. Space management*

Critical enablers

A. High-performance operating culture
B. Financial management model

*Steering Committee recommends space management to be an area for future study

Vision for UC Berkeley's financial organization

What do we aspire to do?

Enhance the financial stewardship of the campus and uphold the public's trust in the institution and mission of UC Berkeley

How will we create value for our community?

Deliver effective services that balance cost with risk	Provide data to support decision making, prioritization and action	Support units in achieving teaching and research goals	Deliver efficient financial services

What does the future look like?

- High-performing finance organization with clear roles and responsibilities
- Resource allocation aligned with clear, measurable priorities
- Appropriate funding for common goods
- Financial discipline, with incentives for expense control and revenue growth
- Timely, consistent, pan-university access to financial information

Significant issues with our current model

Processes

- Insufficient **long-term priority planning with metrics** to inform resource allocation
- Limited, inconsistent **common goods* funding** model
- Budgeting is largely done **incrementally** and does **not include all funds**
- Too transaction oriented, limiting **scenario planning capability**
- **Annual (vs. quarterly) budgeting and closing** of financials limits timely decision making
- **Financial processes not aligned** around risk and incentives

Organization

- Finance **personnel highly distributed and not fully aligned** with institutional priorities
- **Skills** of finance personnel are **highly variable**

Systems

- **Unlike nearly all peer institutions, UC Berkeley has no budget tool** for managers to track how they are spending vs. budget
- **Limited management reporting** for decision making
- **Lack of other important business systems** (e.g., ID management, T&E)
- Many **shadow systems** created to fill gaps, but have resulted in increased cost and complexity

*"Common goods" are goods and services which should be consistently provided university-wide

There are four strategic financial themes:

1. Optimize financial management model	2. Align resource management with priorities	3. Transform finance organization	4. Maintain ongoing financial discipline
• Develop a resource allocation model that responds quickly and flexibly to changing priorities • Provide incentives that encourage expense control and revenue growth • Invest in appropriate funding for common goods, services and tools	• Create a long term academic support plan aligned with the academic strategy • Prioritize key processes for improvement • Establish and articulate a risk tolerance for the campus that matches our campus strategy and priorities • Develop a technology strategy for financial systems	• Align both central and distributed organization to support financial model • Streamline and standardize financial management and business processes • Increase financial acumen and risk management skills • Implement key technology improvements	• Use financial performance metrics to make decisions and guide actions • Make process improvement a continuous activity • Use a framework to effectively identify, assess, manage, and mitigate campus risk • Maximize current analytical applications

Critical enablers to support high performance

Campus leadership	Campus priorities	People	Communication	Roles and Responsibilities	Systems	Data	Incentives

Contents

Purpose of this document 2

Operational Excellence vision and process 5

Summary of findings and recommendations 13

- Current situation and need for change 25
- Review of opportunity areas and critical enablers 30
- Potential savings and investment requirements 126

Path forward for Design stage 133

Next steps 139

Additional notes on the data 141

Appendix 145

Summary of opportunities and critical enablers

Organizational simplification (including HR, Finance)

- Create economies of scale through grouping the delivery of common functions (e.g. shared services) and combining operations of small units
- Streamline organization by increasing average supervisory spans to get closer to benchmarks - i.e., 6-7 for expertise-based functions and 11-13 for task-based functions
- Improve operational productivity through standardization, automation, and greater specialization

Procure-ment

- Drive spending to best-priced strategic vendor agreements
  - Establish more contracts
  - Increase utilization
- Manage demand
- Drive use of e-Procurement

IT

- Redesign IT org to create scale
- Consolidate infrastructure
- Develop standards
- Selectively source non-core services from outside providers

Energy Mgmt

- Accelerate energy infrastructure improvement projects
- Create incentives to reduce consumption

Student Services

- Resize services based on value and alignment with mission
- Improve productivity
- Consolidate common functions and programs
- Source goods & services efficiently

Space Mgmt*

- Establish space allocation guidelines
- Create incentives to optimize space

High-performance operating culture

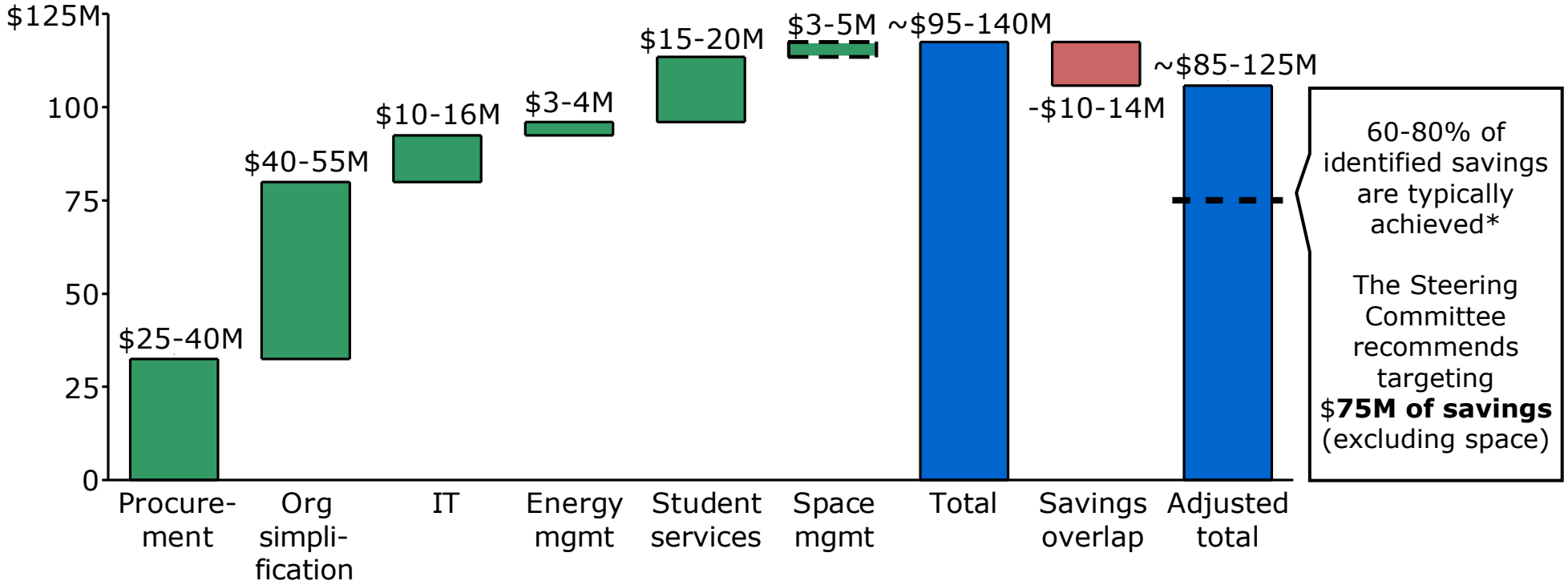
Financial management model

*Steering Committee recommends space management to be an area for future study

Steering Committee recommends targeting $75M out of >$100M in identified savings

HIGH-LEVEL ESTIMATE

Full potential estimated savings, run-rate to be reached over ~3 years



	Procure-ment	Org simpli-fication	IT	Energy mgmt	Student services	Space mgmt
Expenditure	$410M	$700M	$130M	$35M	$220M	$270M
% savings	6-10%	6-8%	8-12%	9-11%	7-9%	1-2%

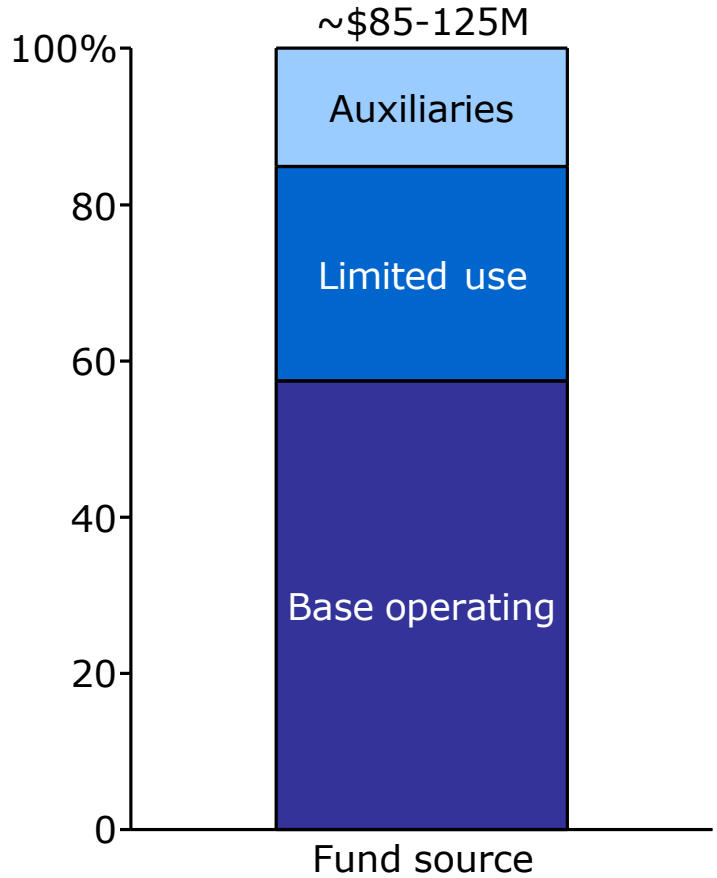
*Typically achieved savings based on Bain experience working on large-scale operational improvement projects
Note: Estimated expenditure is for FY2008-09 period; definition of baseline expenditures from which savings will be tracked will differ by initiative; savings based on benchmarks, adjusted for higher education and other Berkeley-specific factors; midpoint of savings range shown on chart; some savings in IT and student services overlap with org simplification and procurement
Source: UC Berkeley purchasing database pulled from BFS A/P table; HCM Database as of 12/22/09; CalProfiles

~60% of savings will likely be in base operating funds

PRELIMINARY

Savings by fund source

Full potential savings



Implications

- **Base Operating funds:**
  - Savings can be used to reduce the central budget deficit, strategically reinvested into operations or invested to support the university's core mission
  - Portion of savings will accrue to the center; portion of savings may also accrue to units depending on how each initiative is implemented
- **Limited use funds:**
  - Savings can be used to enable additional research
- **Auxiliary funds:**
  - Savings can lower program expenses and potentially reduce the total cost of student attendance

Note: Savings by fund source are proportional to expenditure by fund source by opportunity area. "Base operating" funds include funding from student fees, state appropriations, indirect cost recovery, and other sources (Short Term Investment Pool, etc.). "Limited use" excludes Auxiliary funds, but includes sponsored activities, gifts & endowments, and recharge
Source: UC Berkeley purchasing database pulled from BFS A/P table; HCM Database as of 12/22/09; CalProfiles

Achieving these savings will require significant investment

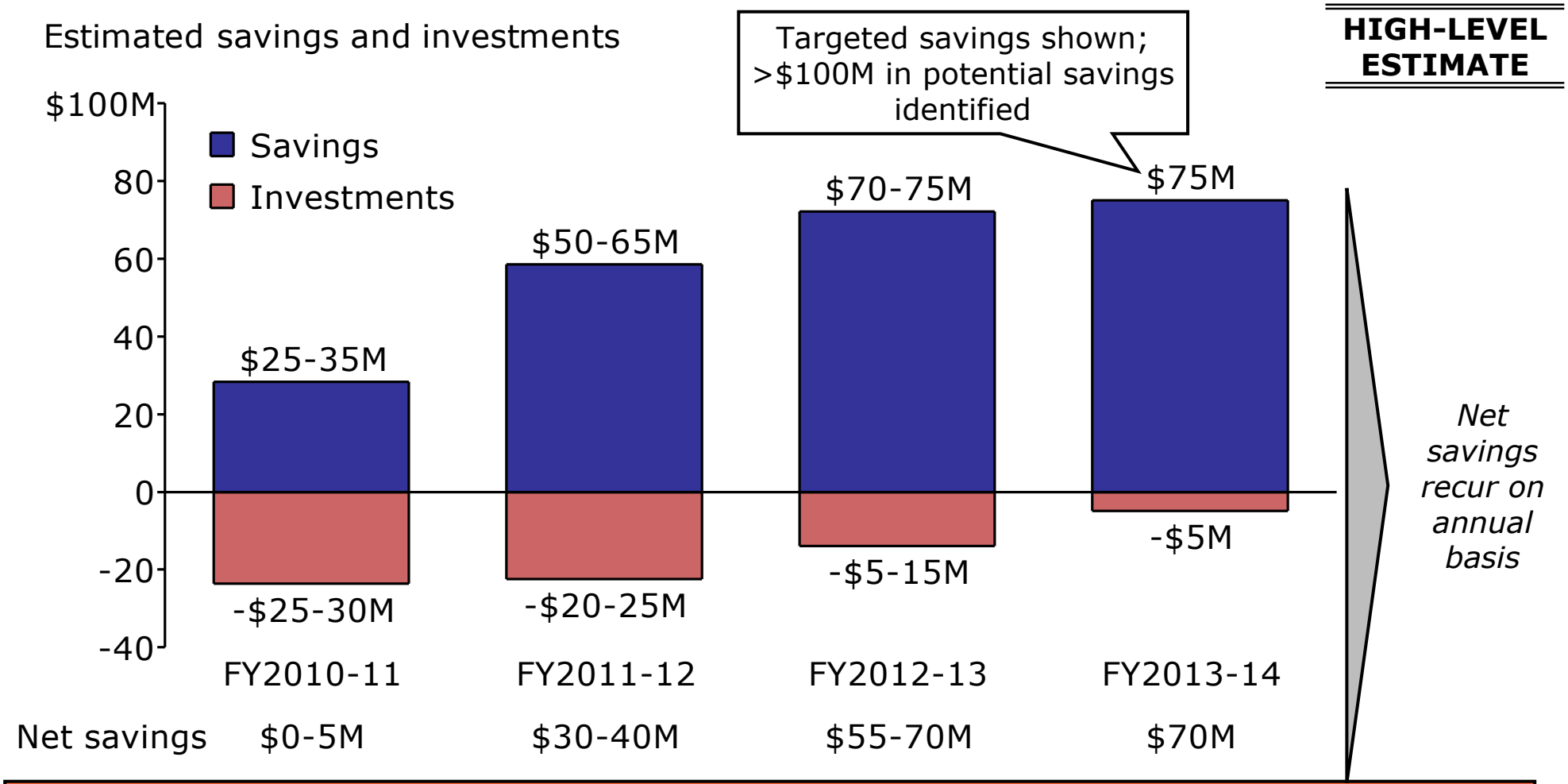
PRELIMINARY

	Upfront one-time investments (over first 3 years)	Annual ongoing investments (after first 3 years)
Procurement	• Completion of e-Pro implementation • New systems implementation • 3 sourcing FTEs	• 3 sourcing FTEs • Technology licensing and support
Org simplification	• Automation projects • FTEs for project management • Training and process redesign support • Severance costs	• Technology licensing and support
IT	• FTEs for data center management, project management and training	• FTEs for data center and other project management
Energy mgmt	• Energy management system • Real-time meters • 1 energy manager, 1 engineer, 1-2 project managers	• 1 energy manager, 1 engineer, 1-2 project managers • Technology licensing and support
Student services	• Systems upgrades • FTEs for project management and training	• Technology licensing and support
Program office	• FTEs to manage initiatives	• None required
Financial mgmt	• Budget and forecasting tool	• Technology licensing and support

<u>High-level estimate:</u> ~$50-70M one-time investments over first 3 years, and ~$5M annual ongoing investment thereafter

Note: Estimates to be refined in Design stage; Technology cost estimates include licensing and support
Source: UC Berkeley Operational Excellence working group interviews

Savings expected to ramp up over time and reach target level over the next ~3 years



Estimates and timing to be refined during Design stage

Note: Estimated savings to be achieved by end of each fiscal year; Assumes total investment of $60M over first three years (i.e., midpoint of $50-70M investment range). Under the quicker savings ramp scenario (higher end of savings range), year-by-year investment estimates are $30M,$25M,and $5M over the first three years. Under the slower ramp scenario (lower end of savings range), year-by-year investment estimates are $25M ,$20M,and $15M over the first three years. Potential Space Management savings not included, as the Steering Committee recommends this opportunity as an area for future study.
Source: BFS A/P database, Career Compass and HCM data as of 12/22/09, UCB experience, Bain analysis

Success will require strong leadership and broad campus support

Campus leadership (at all levels) needs to:

- **Prioritize investments in OE**
- **Promote and enforce new policies** to drive efficient practices across campus, with limited exceptions
- **Create appropriate incentives and consequences** to drive fundamental behavior change
- **Become conspicuous advocates of pan-university optimization**, while balancing local needs
- **Accept personal accountability** for improving efficiency on campus

All individuals across campus need to:

- Be willing to **change individual behaviors** to comply with new policies
- Be willing to **trade some local autonomy for reliable, scalable services**
- **Adopt new technology and business processes** to support more efficient practices
- **Monitor service levels** and actively provide feedback to service delivery centers
- **Accept personal accountability** for improving efficiency on campus

Functional service providers need to:

- **Proactively seek customer feedback and drive service improvements** to meet customer needs
- **Clearly communicate behaviors required** to support efficient campus practices
- **Clearly define transition plans** to guide organization from current to future state

Contents

Purpose of this document 2

Operational Excellence vision and process 5

Summary of findings and recommendations 13

- Current situation and need for change 25
- Review of opportunity areas and critical enablers 30
- Potential savings and investment requirements 126

Path forward for Design stage 133

Next steps 139

Additional notes on the data 141

Appendix 145

We are moving into the Detailed Solution Design stage

We are here

6 months	2-6 months	3-36 months
Diagnostic	Detailed Solution Design	Implementation
• Identify and prioritize opportunities to improve efficiency and effectiveness	• Develop detailed implementation plans to capture value	• Implement workstreams and drive change in organization
What to do	**How to do it**	**Do it!**

Key success factors for Design and Implementation stages

Key Success Factor	Rationale
Governance and proper resourcing **(Structure)**	• **Senior-level leadership, sponsorship and support are critical** for driving action and decisions • Change requires **real work by real people** • **Work and decision making needs to be embedded** into institutional structure and processes • **Dedicated resources**, of the right type and caliber, are essential
Disciplined process **(Process)**	• For each initiative there must be a **named sponsor(s)**, **initiative lead and project manager, along with a business case** and a plan with **agreed metrics** and milestones • Each initiative should have **clear deliverables and timeline** • The plans should **utilize common tools and processes,** designed to align objectives, identify and overcome implementation challenges, while maintaining transparency • Plan needed for **interdependencies and critical enablers**
Rigorous tracking, monitoring and escalation process **(Tools)**	• Progress against timelines and targets must be **monitored in a common, visible, regular and consistent way** • **Off-track projects should be escalated** to senior management for fast, focused decision making and unblocking • Goal is to **identify problems early or before they happen**

Governance and team structure need to support the changing nature of OE work

October 2009 – March 2010 | *April 2010 - ongoing* →

Diagnostic	Detailed Solution Design	Implementation
• Identify and prioritize opportunities to improve efficiency and effectiveness	• Develop detailed implementation plans to capture value	• Implement workstreams and drive change in organization

Current governance structure

- **Executive Leadership:** Representative committee **provides internal and external validation** of findings. Informed by campus leadership groups
- **Day-to-day Leadership: Start-up-like, nimble** Leadership Team provides day-to-day problem solving, direction setting, change management and communications support
- **Working teams: Functional owners** and experts **drive analysis and data collection**

Proposed future governance structure

- **Executive Leadership:** Need **nimble decision-making capability**, informed by implementation drivers and representative leaders of campus leadership groups
- **Day-to-day Leadership:** Need **dedicated day-to-day leadership** with extensive project management, change management, communication and implementation expertise
- **Working teams:** Need **representative teams** of functional experts, process participants and customers to **drive design and implementation of initiatives**

Proposed governance structure for Design and Implementation stages

PRELIMINARY

Executive Committee

- Chancellor, EVCP, VCA, Program Office Head

- Final decision-making body (sets priorities and allocates resources)
- Input from Cabinet, Academic Senate Leadership and Council of Deans

Program Office (PO)*

- Leadership and program management team responsible for day-to-day OE design and implementation

- Single point of coordination
- Program dashboard: track progress vs. milestones & targets
- Organize and chair monthly initiative review meetings
- Staff Coordinating Committee
- Manage inter-dependencies
- Escalate when appropriate
- Coordinate training and communications activities

Initiative Teams

- Cross-functional initiative teams of 6-8 with strong relevant functional expertise and key stakeholder representation

- Design/implement initiatives to deliver agreed milestones, metrics and financial outcomes
- Lead formal stakeholder engagement process
- Report progress monthly
- Escalate issues to PO

Coordinating Committee

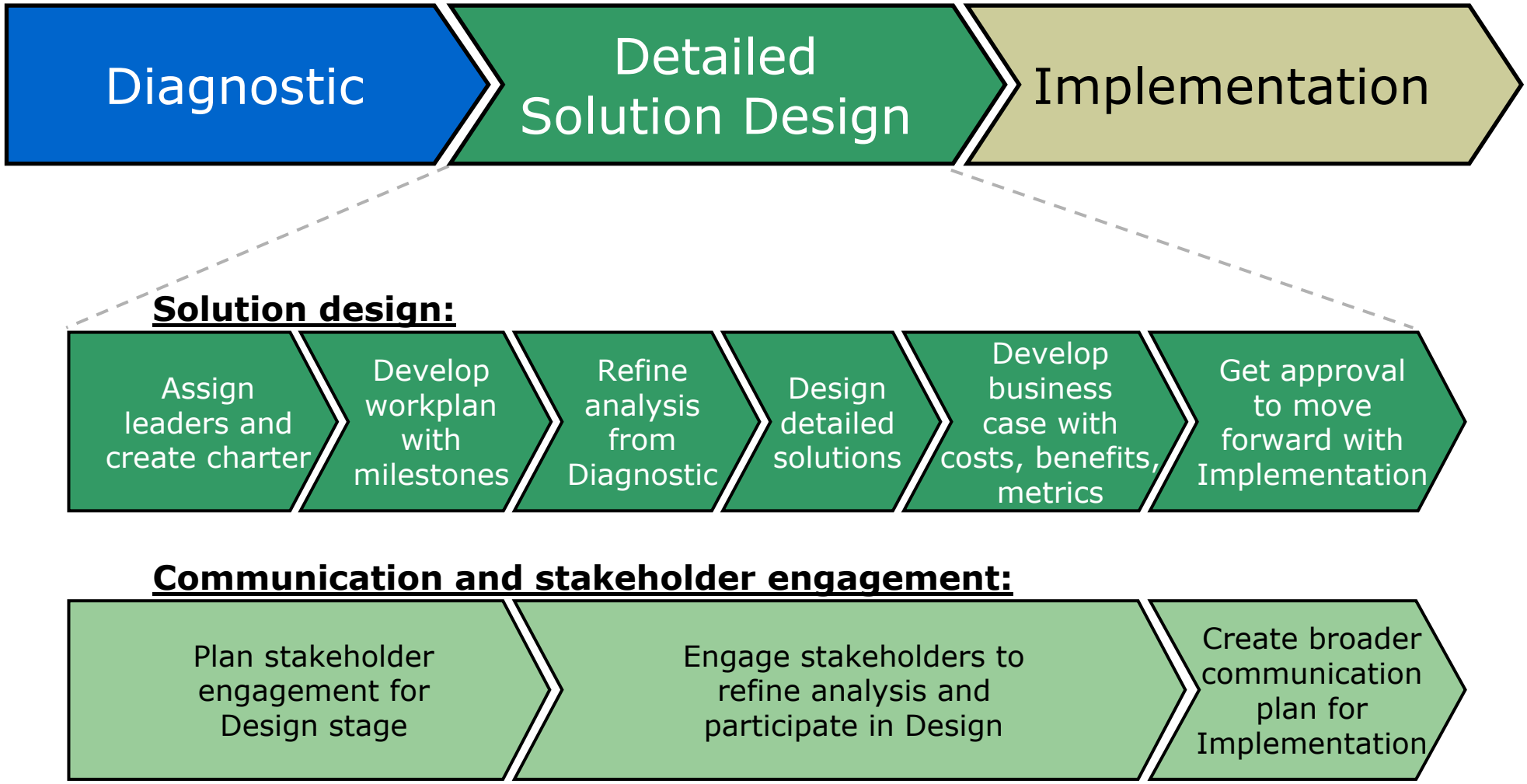
- Functional leads and key campus decision makers
- Initiative sponsors

- Identify and resolve cross-initiative issues and opportunities
- Remove roadblocks
- Escalate issues to PO

*Program Office expected to be in operation for Detailed Design and Implementation stages (~2-3 years)

Each initiative should follow a standard process for the Design stage

PRELIMINARY



Contents

Purpose of this document 2

Operational Excellence vision and process 5

Summary of findings and recommendations 13

- Current situation and need for change 25
- Review of opportunity areas and critical enablers 30
- Potential savings and investment requirements 126

Path forward for Design stage 133

Next steps 139

Additional notes on the data 141

Appendix 145

Next steps

- The Chancellor will respond to the Steering Committee's diagnostic recommendations in late April 2010 with decisions on:

  - Opportunity areas to be pursued

  - Savings target

  - Path forward

For information and updates: **http://berkeley.edu/oe**

Please send comments and suggestions to **oe@berkeley.edu**

Contents

Purpose of this document 2

Operational Excellence vision and process 5

Summary of findings and recommendations 13

- Current situation and need for change 25
- Review of opportunity areas and critical enablers 30
- Potential savings and investment requirements 126

Path forward for Design stage 133

Next steps 139

Additional notes on the data 141

Appendix 145

Notes and caveats on data used (1 of 3)

- **Goal was to develop a decisionable factbase**
  - Assembling the factbase **was challenging** due to poor data systems
  - **Very difficult to get total expenditure on functions** (e.g., IT, HR, Finance) due to distributed nature of the organization
  - The analysis is **based on best available data**, but there are limitations

HR Data

- HR database pulled from HCM and includes Career Compass job categorizations
  - Excludes undergraduate student staff (~1.7K FTE), graduate student staff (~1.9K FTE), faculty (~1.9K FTE), postdoc employees/fellows (~0.9K FTE) and police (~0.1K FTE)
  - Students were excluded from the data set to allow for an apples-to-apples comparison between UC Berkeley and other universities where student employees were excluded for similar analysis. Student employees will be included in the additional analysis done during the Design stage, to ensure any new organizational structures account for the reality of student employment in departments
- Reporting relationships data is as of 11/30/2009
  - Adjusted based on staff interviews
  - ~5% of employees cannot be traced back to the chancellor due to missing relationships
- Functional roles data is as of 12/22/2009
  - Career Compass job field classifications have been supplemented by Central HR
  - ~3% of staff positions are not classified
- Benefits load of 28% assumed for all personnel expenditures
- Salary data is based on HR salary data not payroll data

Notes and caveats on data used (2 of 3)

Procurement Data

- Procurement data pulled from A/P tables in BFS
- Procurement data for FY2008-09 only
  - Pass through, internal transfers, sub-awards, and U.S. Bank payments excluded
  - Capital Projects expenditures analyzed separately
  - Individual reimbursements and independent contractors included
- Commodity categorization predominantly based on BFS account codes
- Fund sources based on mapping BFS fund codes to Management fund groupings (e.g., Base operating, Limited use, Auxiliary)
- Benchmarks used for savings derived from Bain Purchasing Results Database

IT Data

- IT Catalog Survey (conducted 12/2009)
  - Used to inventory the following across campus:
    - IT personnel by function
    - Existing applications (both internally developed and acquired)
    - Planned applications for development
    - Application languages
    - Server and network infrastructure
    - HVAC systems supporting IT infrastructure
  - Sent to ~120 IT managers; ~80 responses representing ~750 IT personnel
- Server data pulled from BETS (11/2009)
- Analysis of IT procurement spending may not include laboratory IT expenditures not captured through technology codes

Notes and caveats on data used (3 of 3)

Energy Data

- Data received from Physical Plant-Campus Services, based on best available meter data
- Data on total purchased utilities expenses received from VC Facilities accounting, pulled from general ledger

Space Data

- Space allocation/FTE data is based on CalProfiles (FY2008-09) and includes all employees (including postdocs, grad students and student assistants)
- Rent expense data received from Real Estate Services excludes expense that will not be incurred going forward
- Space data (by type of use) provided by Space Management and Capital Programs

Student services Data

- Student services data from CalProfiles for FY2008-09 is as of 11/30/09
- Cost and unique students served data provided by departments in VC Student Affairs, VC Administration, and VC Equity and Inclusion
  - Data reflects FY2009-10 budgets where possible
  - Unique students served calculated based on survey data if not available from department
- EVCP costs include all personnel coded with Student Services job families

Contents

Purpose of this document 2

Operational Excellence vision and process 5

Summary of findings and recommendations 13

- Current situation and need for change 25
- Review of opportunity areas and critical enablers 30
- Potential savings and investment requirements 126

Path forward for Design stage 133

Next steps 139

Additional notes on the data 141

Appendix 145

Appendix

- Additional detail on specific opportunities
  - Procurement
  - Student services
- Additional back-up on savings calculations
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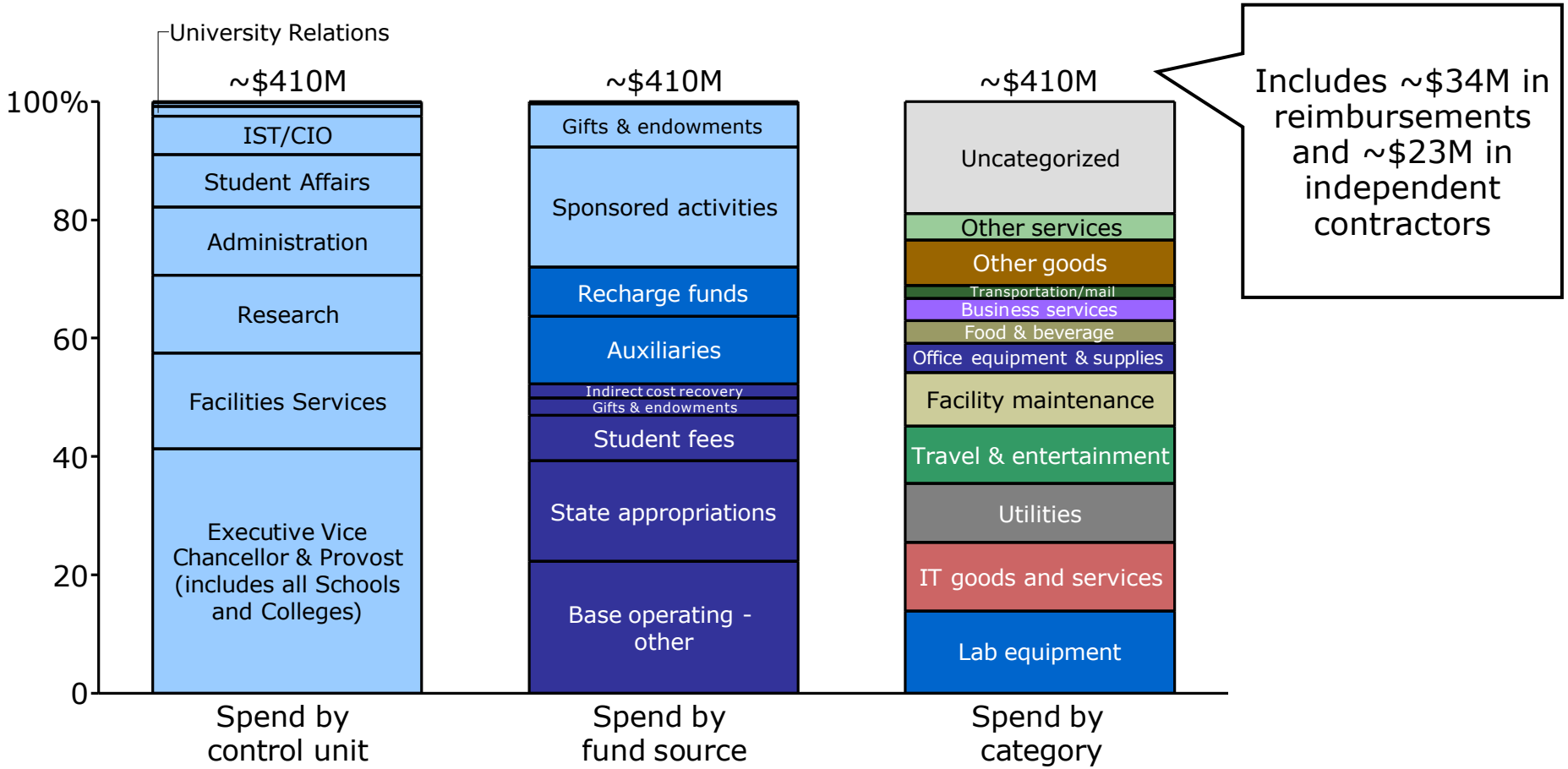
Procurement operating expenditures total ~$410M

Total procurement operating expenditures (FY2008-09)

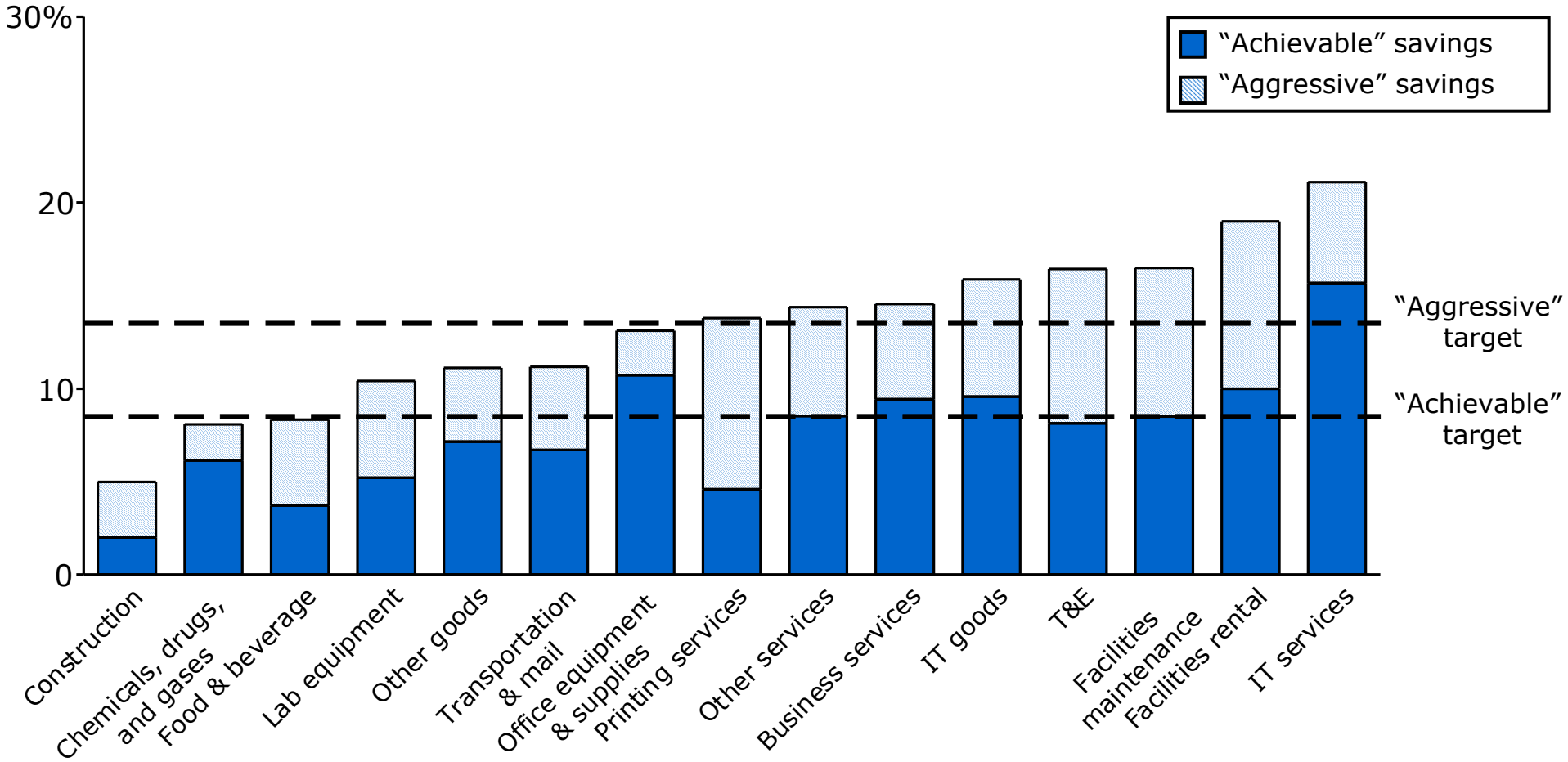


Note: Does not include capital expenditures, pass-throughs, sub-awards, or recharge; category grouping based UC Berkeley BFS account codes. "Other goods" includes published products, apparel, tools and general machinery, live plant/animal material, sports/recreational supplies, and other categories. "Other services" includes education/training services, healthcare services, financial/insurance services, organizations and clubs, security/safety services, and personal/domestic services. "Uncategorized" includes expenses classed as miscellaneous or general supplies, among others. "Base operating - other" includes sales and services from educational activities (e.g., hosting academic conferences and seminars), Endowment administration fee, STIP. "Recharge funds" is a Limited Use management fund group (and counted as such in savings estimates), but is shaded with auxiliaries to indicate that it is more fungible than limited use funds from sponsored activities o gifts & endowments. IST includes AVC IT and CIO organizations
Source: UC Berkeley purchasing database pulled from BFS A/P table

External view based on benchmarks suggests significant savings are achievable

PRELIMINARY

Procurement savings by category
(Bain Purchasing Results Database)



Note: Potential savings opportunity refers to reduction off current baseline in 2-5 years; "Achievable" refers to what is likely possible for institutions with significant policy & cultural constraints; "Aggressive" refers to what is likely possible for institutions able to execute on all procurement savings levers; benchmarks span multiple industries and based off Bain experience
Source: Bain Purchasing Results Database

Appendix

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  - Procurement
  - Student services
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Detailed descriptions of student services and programs

Program/service	Description and examples
Academic advising	In-person academic advising (e.g., within depts)
Academic advising (online)	Online academic advising (e.g., interacting with academic advisors via email, submitting forms electronically, etc.)
Advocacy	Advocacy services for students (e.g., ASUC Student Advocate's Office, Center for Student Conduct and Community Standards, Ombuds Office)
Arts	Performing arts and film programs (e.g., Cal Performance, Berkeley Art Museum & Pacific Film Archive)
CalSO	Orientation for new students (e.g., CalSO)
Career Ctr	Career advising, workshops and events (e.g., Career Center)
Childcare	On-campus childcare and family programs (e.g., Early Childhood Education Program)
Counseling	Counseling services (e.g., Tang Center)
Dept div prgms	Diversity programs and support in your school/college/department (e.g., support and programs provided by Graduate Diversity Officers or other administrative advisors with the goal of supporting diversity)
Dining	On-campus dining facilities (e.g., dining halls)
DSP	Academic and counseling services for disabled students (e.g., Disabled Students' Program)
Fellowship Office	Dedicated staff and support for fellowships (e.g., Graduate Fellowships Office)
Grad Div Prgm	Academic and personal support for educationally/financially disadvantaged and underrepresented students (e.g., Graduate Diversity Program)
GSI resources	Teaching resources for GSIs (e.g., GSI Teaching and Resource Center)
Housing	On-campus housing (e.g., residence halls, campus apartments, etc.)
In-person admin (A&E)	In-person services for academic and financial information (e.g., Office of the Registrar, Financial Aid Office, Residency Office, Billing and Payments Services)
Intl Office	Services for international students (e.g., Berkeley International Office)
Leadership dev	Leadership development services (e.g., Center for Student Leadership)
Medical	Medical services on campus (e.g., Tang Center)
Online student portals	Online student portals for academic and financial information (e.g., BearFacts, TeleBEARS, DARS, bSpace)
Res Hall Academic Ctrs	Academic services in the Residence Halls (e.g., peer advising, tutoring, etc.)
RSF	Sports facilities (e.g., Recreational Sports Facility)
Shuttle	Campus shuttle services (e.g., Bear Transit)
Student org advising	Advising for student organizations (e.g., special interest organizations, public service organizations, Greek life)
Summer Bridge	Summer programs for new students (e.g., Summer Bridge)
Tutoring (athletes)	Tutoring services for student athletes (e.g., Athletic Study Center)
Tutoring (general)	General tutoring services (e.g., Student Learning Center)
Tutoring (underserved)	Financial, academic and personal support for low-income students and first generation college goers (e.g., Student Life Advising Services, Academic Achievement Division)
Underserved support	Support services for underserved student populations (e.g., Gender Equity Resource Center, Multicultural Student Development, support for transfers/veterans/student parents)
Writing workshops	Workshops in grant/academic writing and editing (e.g., Graduate Division writing workshops)

Methodology: Maximum Difference analysis to calculate value to students

Maximum Difference (MaxDiff) analysis is a survey method to measure relative preference or importance

Methodology

- In the survey, students were presented with a series of ~15 questions in which sets of 5 to 6 programs or services were shown
- In each set, respondents indicated which is the **most** and which is the **least important** program or service
- Aggregated data allows for overall relative importance to be calculated across a sample or sub-sample

EXAMPLE

In the following group, please select the one service that is most important and the one that is least important to you.

Most important		Least important
☐	Program 1	☐
☐	Program 2	☐
☐	Program 3	☐
☐	Program 4	☐

Rationale

- Typical "importance" questions ask respondents to rate the importance of a program or service on a scale of 1-5
  - Minimal discrimination between attributes (i.e., everything is important)
  - Uncertainty of how importance scores correlate with behavior
- MaxDiff creates sets so that respondents make **trade-offs** between programs and services
  - High discrimination between attributes
  - High correlation with choice behavior

Appendix

- Additional detail on specific opportunities
  - Procurement
  - Student services
- Additional back-up on savings calculations
- Sample service-level agreement
- Additional Capacity for Change and Organizational Effectiveness Survey results
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Savings calculation methodology by opportunity area (1 of 2)

Procurement

- Savings estimated by applying relevant benchmarks to UCB procurement expenditures on a category-by-category basis
- Savings of 6-10% of total procurement operating expenditures (8-13% of addressable expenditures*) triangulated with higher ed experience (6-15%) and corporate benchmarks (9-15%)

Org simplification

- Savings estimate based on:
  - Reaching benchmark spans by unit (6-7 average for expertise-based units and 11-13 average for task-based units), assuming that 60% of affected supervisor positions** are converted to individual contributors and 40% are eliminated
  - Reaching benchmark levels of productivity in the IT, Finance and HR functions
- Savings of 6-8% of addressable personnel expenditures triangulated with higher ed experience (6-9%) and corporate benchmarks (10-16%)

IT

- Savings estimate calculated through bottoms-up estimates by IT sub-initiative area (e.g., server consolidation, data center outsourcing, procurement consolidation)
- Savings of 8-12% triangulated with savings estimates from corporate benchmarks (10-15%) and higher education experience

*Addressable expenditures excludes categories not sourced through Procurement – e.g., utilities
**Affected supervisor positions are those that need to be reclassified or eliminated in order for the unit to reach benchmark spans

Savings calculation methodology by opportunity area (2 of 2)

Energy mgmt

- Savings estimate based on benchmarking results of similar projects undertaken at other higher education institutions, adjusted for UC Berkeley spending levels

Student services

- Savings estimated by applying higher education benchmarks to the areas of housing/dining (9-15% potential savings), advising (15-18%) and remaining student services activities (10-12%)
- Assumes no savings on existing debt service ($31M annually)
- Overall potential savings of 7-9% on total student services cost base triangulated with Education Advisory Board's top down national averages for Student Services budget reductions last year (6-10%)

Space mgmt

- Savings estimate based on benchmarking results of similar projects undertaken at other higher education institutions, adjusted for UC Berkeley spending levels
- Includes potential avoided debt service from delaying building construction

Breakdown of savings estimate by fund source

PRELIMINARY

Fund source	Procure-ment	Org simpli-fication	IT	Energy mgmt	Student services	Space mgmt	Total savings
Base operating:	50%	65%	65%	95%	45%	35%	~60%
Limited-use:	40%	25%	30%	5%	15%	10%	~25%
Auxiliary:	10%	10%	5%	0%	40%	55%	~15%
Total	100%	100%	100%	100%	100%	100%	~100%

Note: Total savings breakdown is a weighted average of savings by fund source across all opportunity areas
Source: UC Berkeley purchasing database pulled from BFS A/P table; HCM Database as of 12/22/09; CalProfiles

Appendix

- Additional detail on specific opportunities
  - Procurement
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Service-level agreements hold providers accountable for meeting customer needs

Description

- Service-level agreements (SLAs) are **contracts between service providers and their customers**
- They describe in detail **which services** the provider has to provide and define the required **level of performance** for those services
- SLAs establish **service management mechanisms** and escalation/compensation **procedures for inadequate performance**

Best practices

- Develop SLAs in a **collaborative process** between provider and customer
- Limit metrics to the **most important measures of service**
- **Track metrics regularly** and **tie them to incentives**
- **Define terms clearly** to avoid misunderstandings
- **Refine SLAs regularly** to ensure they reflect the current needs of customers

Example SLA: Services provided should be clearly listed (1 of 2)

1 General Overview

This is a Service Level Agreement ("SLA") between the customer and Department A to document:

- The technology services Dept A provides to the customer
- The targets for response times, availability, and maintenance associated with these services
- The responsibilities of Dept A as a provider for subscription-based services
- The responsibilities of clients receiving subscription-based services
- Processes for requesting services
- Review and Reporting SLA process

This SLA will be reviewed annually to assess hardware, software and procedural accuracy.

2 Service Description

2.1 Service Scope – Desktop Support Services

Dept A provides a variety of computing support services under this program, including ongoing technical support and maintenance for Windows and Apple operating system based machines. Under this plan, department or individual workstations are actively maintained and departments are provided advice on and analysis of future computing plans and needs.

A desktop is defined as a desktop or laptop computer running a Windows or Apple non-server operating system and not running any shared services. Desktops running web or file sharing functions are considered Servers and follow the Dept A SLA for Server Support.

The following chart outlines the degree to which services are supported under this SLA:

	Desktop
Installations and configuration	
AD Bind, Network set up	X
Basic Operating System	X
Security Software	X
Supported Software	X
All other software	Best Effort

Description of contents of SLA

Clear list of services provided

Note: Central and shared service center SLAs will cover a broader range of services and may have different service levels

Example SLA: Response times should be well-defined and tracked (2 of 2)

Incident response times may vary. An incident means any interruption in the normal functioning of a service or system.

Incident Response Times

Category	Initial Response Time	Initiation of Support
Urgent	0-90 minutes	0-3 hours
Normal	0-90 minutes	0-8 hours
Planned	4-8 hours	Scheduled between Customer and Dept A

Prioritization

Dept A will prioritize incoming incident requests as "urgent" priority if it meets any one of the following criteria:

- Number of departments or people affected.
- Percentage of total tasks that can no longer be performed by individuals.
- Academic and Administrative Calendar deadlines.
- Impact on the delivery of instruction.
- Lasting impact on student academic performance.
- Risk to safety, law, rule, or policy compliance.

Agreement on definition of "incident"

Well-defined incident response times (an easily tracked metric)

Agreement on definition of "urgent"

Note: Central and shared service center SLAs will cover a broader range of services and may have different service levels

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Survey asked about capacity for change and overall org effectiveness (1 of 3)

Capacity for change

Organizational Capacity to Change

- Once our team decided to make this change, I was confident that we could execute this change effort successfully to deliver the expected results
- Our team anticipated the challenges of this change effort and put measures in place to address them
- This change effort targeted the issues that have the greatest impact on our organization
- Goals of this change effort were clear and specific enough for individuals to make the right decisions and take the right actions to deliver desired results
- Our organization created the capacity (people, time and resources) to deliver this change effort
- This change effort was designed to deliver quick wins and frequent successes
- This change effort focused on delivering specific outcomes that would have fast, real and lasting impact on results
- Approaches to implementation were balanced between being managed 'bottoms-up' or 'top-down', according to which was the most effective approach
- This change effort was executed to ensure ongoing ownership by the employees delivering the service
- If elements of this change effort were not delivering expected results, steps were taken in a timely manner to course-correct
- We were able to execute this change effort because of the experience we gained during previous change efforts
- **As individuals**, the leadership team directly overseeing the effort acted like role-models for achieving this change (i.e., demonstrated exemplary behavior I wanted to emulate)
- **As a group**, the leadership team directly overseeing the effort was visibly committed to this change
- The leadership team clearly and effectively communicated the goals of this change effort and the specific impact on people's roles, responsibilities and behaviors
- The leadership team inspired, motivated and supported our people to play their role and alter behaviors to achieve the goals of this change effort

Individual Capacity to Change

- Individuals impacted by this change understood why this change effort was needed and were convinced it was necessary
- Individuals agreed with the solution used to achieve the goals of this change effort
- The communication received during and about this change effort was regular
- The communication received during and about this change effort was consistent
- The communication received during and about this change effort was compelling
- Individuals were made to feel motivated to do their part to push this change effort forward
- Rewards and incentives (monetary and non-monetary compensation, awards and benefits) encouraged participation in this change effort
- Individuals changed their behavior in order to support this change effort
- Individuals understood the impact of this change effort on their roles, responsibilities and behavior
- Individuals were provided with the training, coaching and tools necessary to meet the requirements of this change effort
- I was confident that we as an organization would be successful at this change effort
- I was confident that I as an individual would play a successful role during this change effort

Note: For most questions (unless otherwise noted), respondents asked to choose one of the following responses: Strongly agree, agree more than disagree, disagree more than agree, strongly disagree, not applicable/don't know

Survey asked about capacity for change and overall org effectiveness (2 of 3)

Decision making and org effectiveness

Decision effectiveness

- We know which decisions matter most in driving our University's success
- Which of the following most accurately describes the quality of the most critical decisions made by UC Berkeley over the past three years? We choose the right course of action: 25% or less of the time , 26-50% of the time, 51-75% of the time, More than 75% of the time, I don't know
- Which of the following most accurately describes your view of UC Berkeley's speed of making critical decisions? We make major decisions: Very slowly, Slowly, At moderate speed, Quickly, I don't know
- Which of the following most accurately describes the effectiveness of execution as it relates to the most critical decisions at UC Berkeley over the past three years? We execute critical decisions as intended: 25% or less of the time , 26-50% of the time, 51-75% of the time, More than 75% of the time, I don't know
- Which statement best describes the effort it takes to make and execute critical decisions at UC Berkeley (please respond considering the perspective of decisions that need to be made at or involving your level)? 1 – We don't put nearly as much effort as we should into making and executing critical decisions, We don't put quite as much effort as we should into making and executing critical decisions, We put exactly the right amount of effort into making and executing critical decisions, Making and executing critical decisions requires somewhat more effort than it should, Making and executing critical decisions requires a lot more effort than it should, I don't know
- I would describe the style we generally use to make decisions at UC Berkeley as: Directive, Participative, Democratic, Consensus, Other
- I would like to see us use the following style of making decisions more often: Directive, Participative, Democratic, Consensus, Other

Organizational Effectiveness

Clarity

- In my opinion, our faculty and staff are clear on the 3-5 priorities that are most important to meeting UC Berkeley's mission over the next three years

Alignment

- Our campus senior leadership is cohesive and aligned around our priorities
- We have communicated our priorities clearly enough that people throughout the University understand the context for decision making and execution in their area

Roles

- Individuals are clear on the role they should play in making and executing our most important decisions (university-wide decisions)
- Decisions are generally made at the right level in the University (e.g., not everything needs to be elevated, critical strategic decisions have appropriate visibility and support from senior management, etc.)

Structure

- The University's organizational structure is aligned with our mission
- On balance, we have the appropriate number of direct reports per manager (i.e., spans of control)
- On balance, we have the right number of layers in our organization (where the Chancellor is Layer 1, his direct reports are Layer 2, etc.)

Note: For most questions (unless otherwise noted), respondents asked to choose one of the following responses: Strongly agree, agree more than disagree, disagree more than agree, strongly disagree, not applicable/don't know

Survey asked about capacity for change and overall org effectiveness (3 of 3)

Organizational Effectiveness

Processes

- When making university-wide decisions, we follow effective decision disciplines (e.g., right sequence/timing of interactions, appropriate use of committees, effective transition from decision to action, etc.)
- I understand how decisions are made in my department/school/college
- The operational processes core to our mission (e.g., teaching, research, student services, etc.) work seamlessly across organizational boundaries
- The processes that support our core operations (e.g., finance, HR, IT) add value commensurate with their cost

Information

- Information needed to make and execute decisions is readily available to the right people at the right time
- We have mechanisms in place to allow us to confront issues if things don't go according to plan
- All things considered, our information technology helps us to achieve our University's mission

People development and deployment

- Our organization is effective at helping individuals develop to their "full potential" (e.g., through training, career opportunities, mentoring, etc.)
- Our organization effectively evaluates individual performance and takes appropriate follow-up action
- Our high-performing staff members are in the jobs where they can have the most impact

Personal performance objectives and incentives

- People's individual performance objectives are simple, understandable and consistently drive action
- Our incentives/rewards are tied to performance

Operational performance culture

- Operationally, UC Berkeley has a culture of excellence
- Our University has a clear and unique identity, which inspires our faculty and staff
- Our people consistently demonstrate behaviors focused on driving exceptional performance
- Our people are motivated to achieve ambitious goals
- Our people focus their energy on fulfilling our collective mission, not on individual gains or personal prestige
- Within UC Berkeley's operations, it is results that count
- Our people have a bias towards action rather than extended analysis and discussion
- We consistently demonstrate mutual trust and teamwork
- Our organization has a high capacity to change

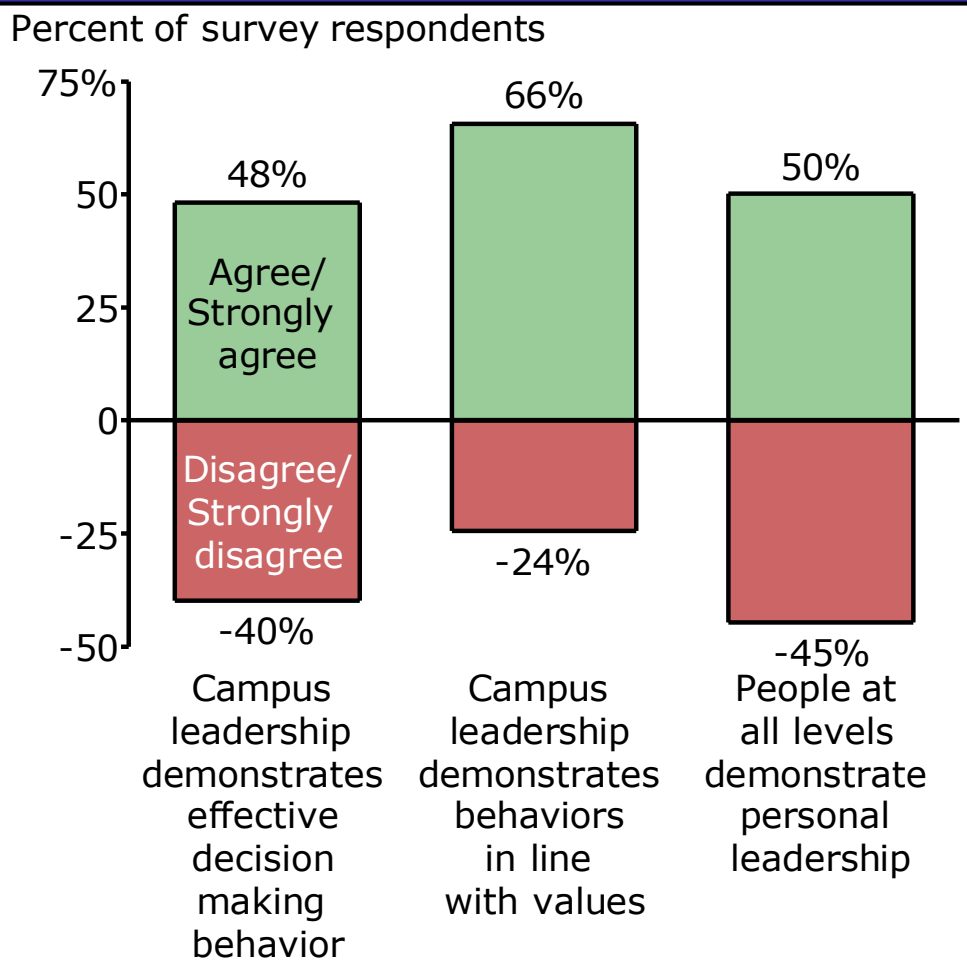
Leadership

- Each member of our campus senior leadership consistently demonstrates behaviors that support effective decision making and execution
- Each member of our campus senior leadership consistently demonstrates behaviors in keeping with our values
- People at all levels of the University consistently demonstrate personal leadership

Note: For most questions (unless otherwise noted), respondents asked to choose one of the following responses: Strongly agree, agree more than disagree, disagree more than agree, strongly disagree, not applicable/don't know

Mixed views on leadership effectiveness

"Campus leadership demonstrates behavior that supports effective decision making"
"Campus leadership demonstrates behavior in line with our values"
"People at all levels of the campus demonstrate personal leadership"



*"There was a **lack of leadership by the business owners,** so those responsible for implementing the change **did not have the requisite support**."*

Staff

*"Leadership does **need to make sure** they are **living by their stated values**."*

Director

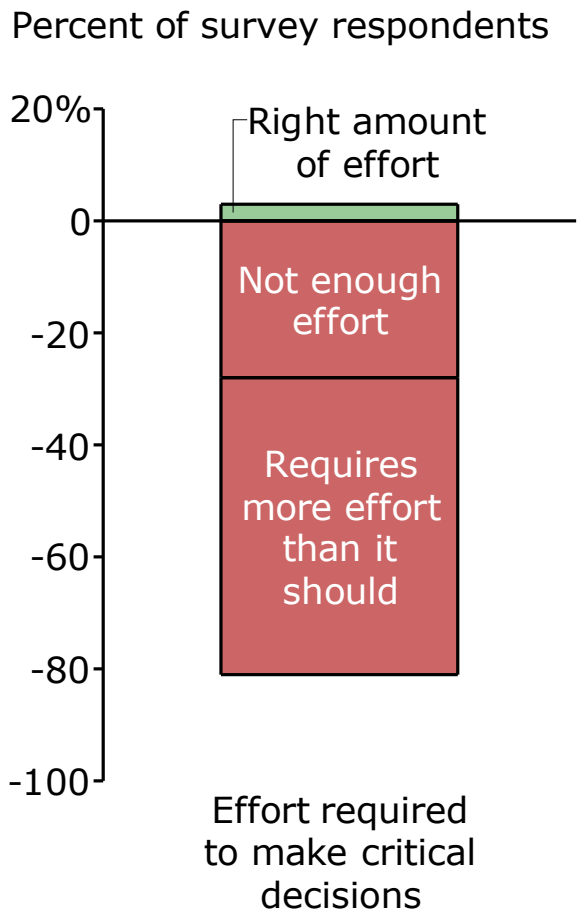
*"We need to hire and support **strong, energetic leaders with visions who can effect change.**"*

Senior Management

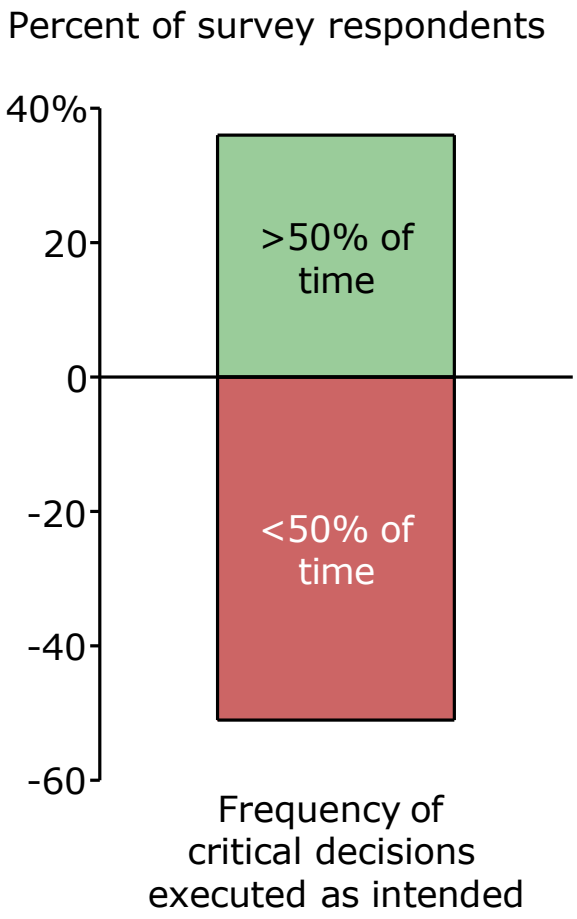
Note: Responses of "Not applicable/don't know" not shown, so totals may not equal 100%; question: "Campus leadership demonstrates behavior that supports effective decision making," "Campus leadership demonstrates behavior in line with our values," "People at all levels of the campus demonstrate personal leadership." "Senior mgmt" includes the following positions: Chancellor, Vice Chancellor, Provost, Vice Provost, Assoc Chancellor, Asst Chancellor, Assoc Vice Chancellor, Asst Vice Chancellor
Source: Capacity for Change and Organizational Effectiveness Survey, Jan 2010 (n=311)

Issues identified around decision-making effectiveness

"What effort does it take to make and execute critical decision?"



"How often do we execute decisions as intended?"



Note: Responses of "Not applicable/don't know" not shown, so totals may not equal 100%; questions: "What effort does it take to make and execute critical decisions?" "How often to we execute decisions as intended?"
Source: Capacity for Change and Organizational Effectiveness Survey, Jan 2010 (n=311)

Various decision styles are possible

Consensus	Democratic	Participative	Directive
• Decisions are reached when all involved reach agreement and have comfort	• Decisions are reached based on vote, majority rules • Dissenting views are expected to support the final decision made by the majority	• Decision-making authority for each decision rests with one person • Decisions made based on input from those with knowledge and expertise that the decision maker has invited to the discussion • Once decision made, all are expected to support it	• Decision-making authority rests exclusively with one person • The decision maker issues directives that are expected to be followed and supported

Source: Conner Partners Decision Styles

Clear decision roles are imperative

Decision roles

- **R***ecommend* – propose the best solution
- **A***gree* – approve the recommendation prior to decision
- **P***erform* – take the actions needed to implement
- **I***nput* – provide information to shape the recommendation
- **D***ecide* – select the best solution

Governance issues

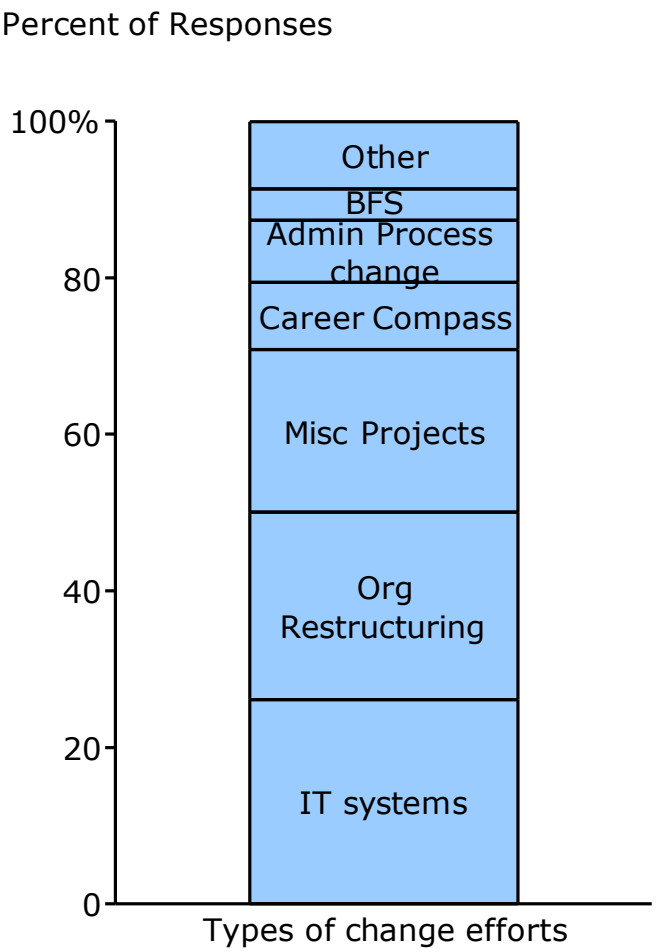
- *Sufficient inclusion* – provide Faculty, Students, and Staff with adequate visibility and opportunity to provide input into the OE process and options under consideration

… without implying …

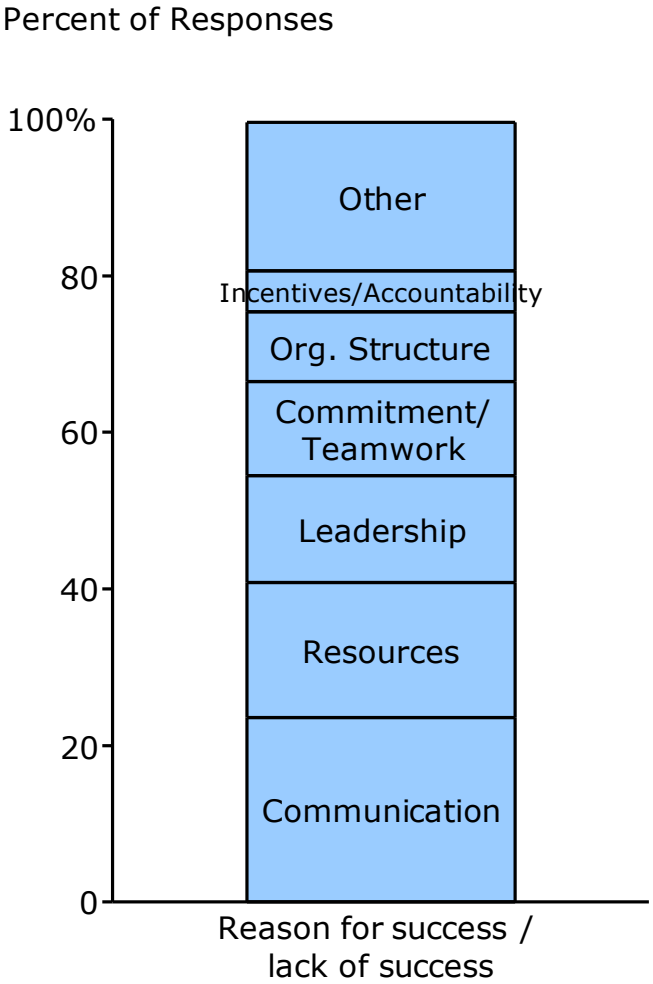
- *Veto Power* – the ability of any one constituent group to take attractive options off the table based on narrow, parochial concerns

Respondents were asked about past change efforts

Types of change efforts



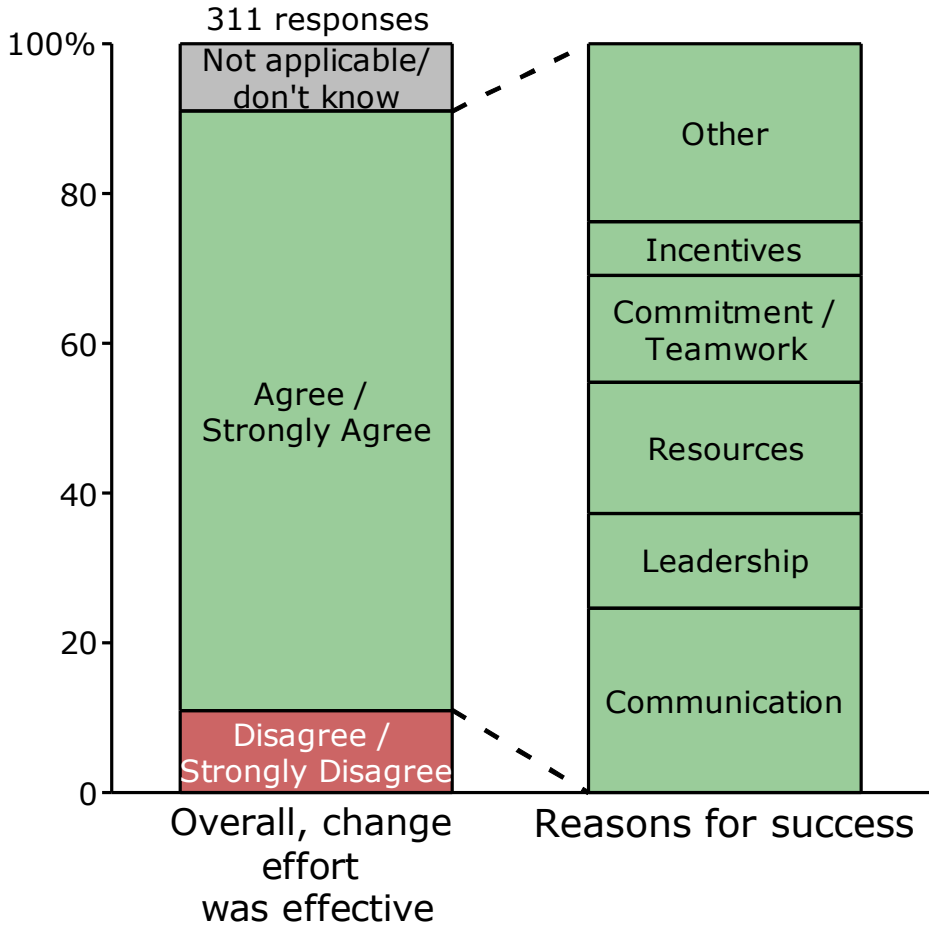
Reasons for success or lack of success



Note: Question: "We would like you to think of a specific change effort where you were directly involved in planning and/or implementation. What was the name of the change effort?" and "What were the most important reasons for success or lack of success?" Number of responses smaller than respondents because not all respondents provided a response to this question
Source: Capacity for Change and Organizational Effectiveness Survey, Jan 2010 (n=311)

Perspectives on successful change efforts

"Think of a change effort where you were directly involved in planning and/or implementation. Do you consider this change effort to be successful? For successful efforts, what were the most important reasons?"



*"We had **full commitment from all parties** from the beginning and throughout."*

Misc. project

*"There was **planning** and **flexibility in changing course** when necessary; communication contributed to success."*

Career Compass

*"A compelling case was made for the **assignment of additional staff resources** in the affected department, and **those resources were granted**."*

Misc. project

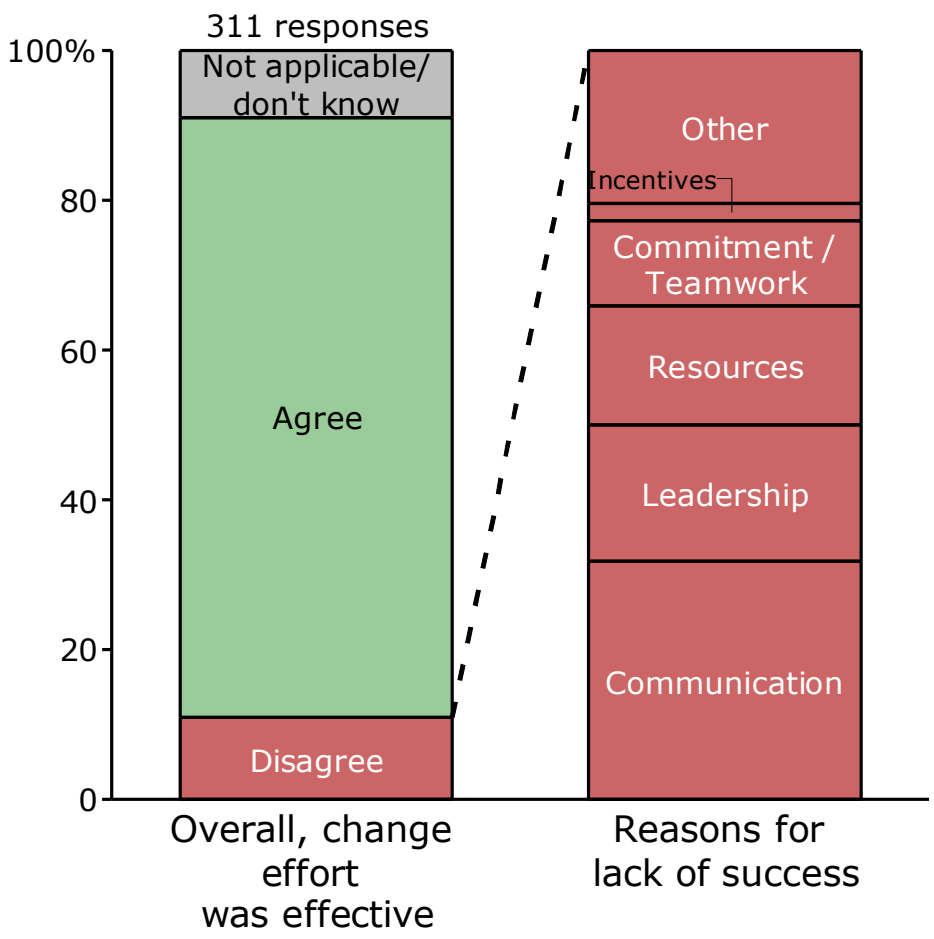
*"Success came from the **commitment of the single leader** and the staff organizing the effort."*

Strategic planning effort

Note: Responses for "reasons for success" = 126 and responses for "Agree that change effort was effective" = 249. Responses for "reasons for success" are fewer because not all respondents answered this question, and some respondents provided more than one reason
Source: Capacity for Change and Organizational Effectiveness Survey, Jan 2010 (n=311)

Perspectives on less successful change efforts

"Think of a change effort where you were directly involved in planning and/or implementation. Do you consider this change effort to be successful? For unsuccessful efforts, what were the most important reasons?"



*"There was a **lack of leadership** by the business owners so that those responsible for implementing the change **did not have the requisite support.**"*

Systems implementation effort

*"**Lack of managerial buy-in** and **accountability** by those managers tasked to perform their duties."*

Misc. project

*"There was a **lack of clear decision-rights** and **lack of sufficient resources** for implementation."*

Process change effort

*"The project is **taking longer than anticipated due to miscalculation on resources needed to succeed**. More resources have been allocated and things are moving quicker now."*

Systems implementation effort

Note: Responses for "reasons for lack of success" = 44 and responses for "Disagree that change effort was effective" = 34. Responses for "reasons for lack of success" are more because and some respondents provided more than one reason

Source: Capacity for Change and Organizational Effectiveness Survey, Jan 2010 (n=311)

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The OE team launched a student survey to help understand service levels and priorities

Methodology overview

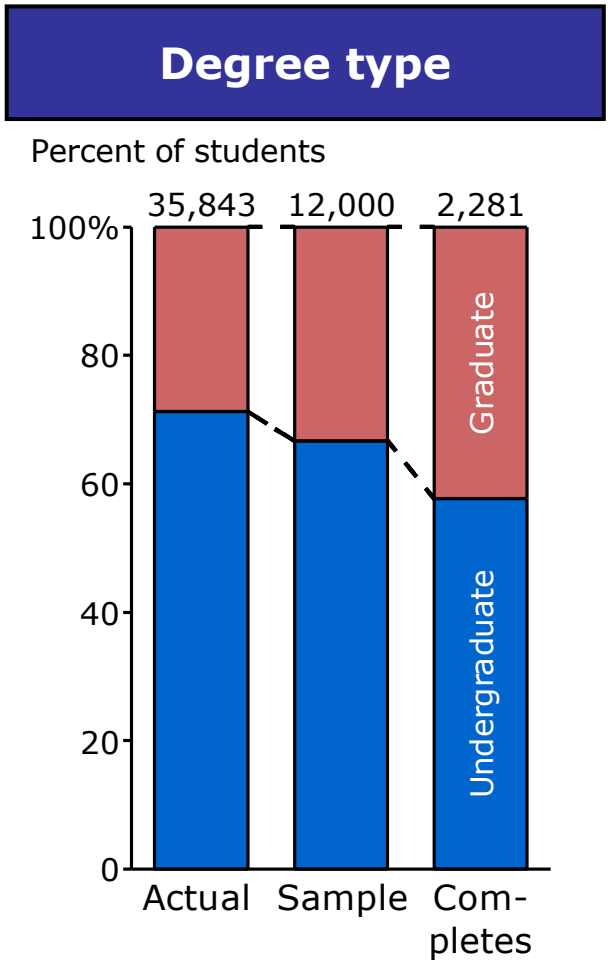
- OE launched a **student survey** to quantify how students value services and programs, and to understand service levels

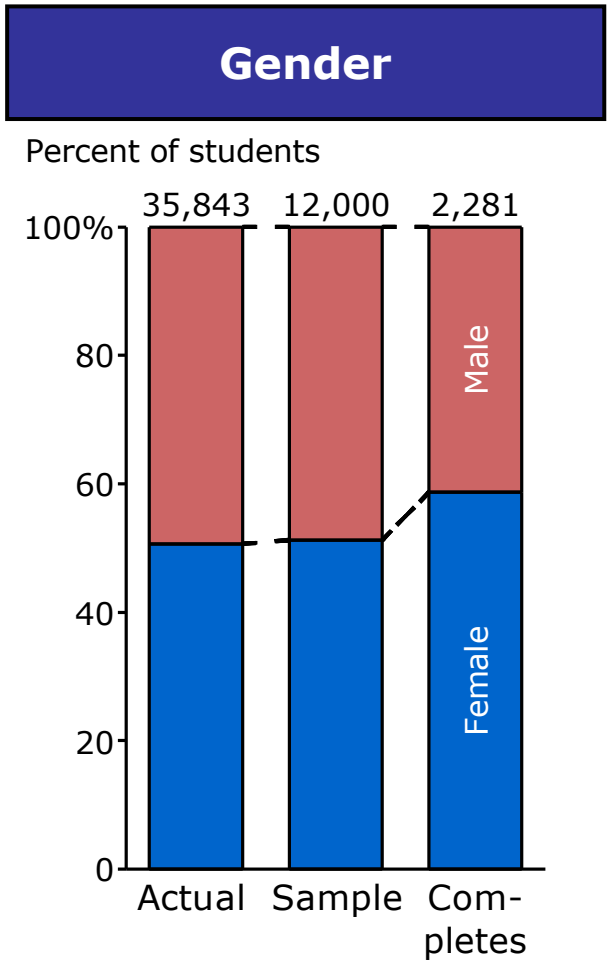
- Survey was sent to **12,000 students** (~8,000 undergraduates and ~4,000 graduates), and we received ~**2,300 responses** (~20% response rate)

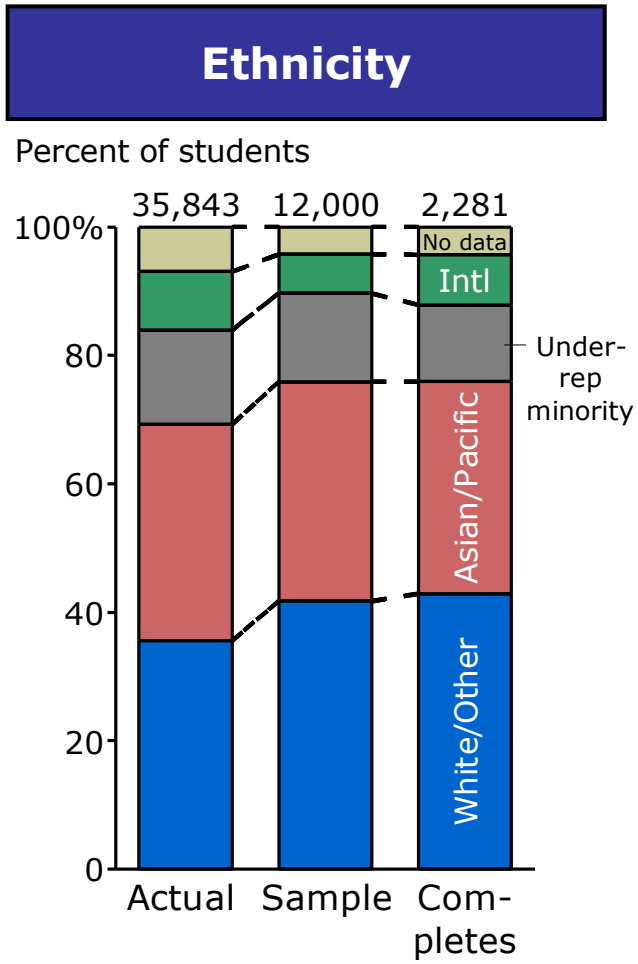
- In addition to traditional satisfaction questions, **Maximum Difference analysis** was used to measure relative importance of services to students
  - Unlike typical "importance" survey questions, MaxDiff requires respondents to consider trade-offs
  - Technique results in higher discrimination between programs and higher correlation with choice behavior

Responses largely representative; sample size allows for add'l analysis during Design

Student survey detailed demographic data



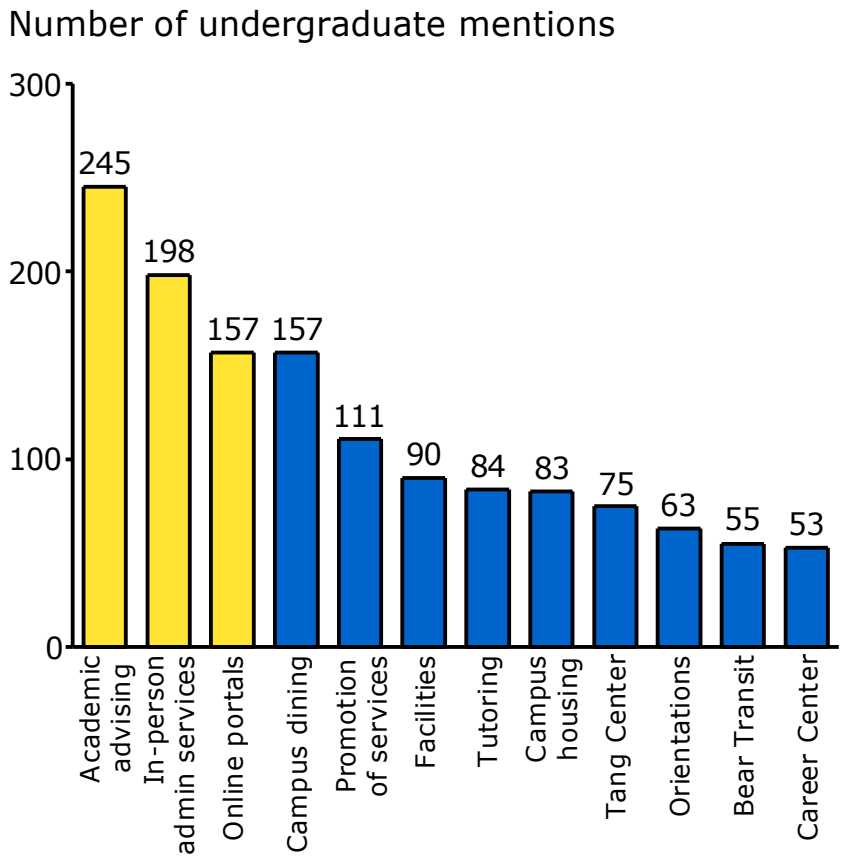


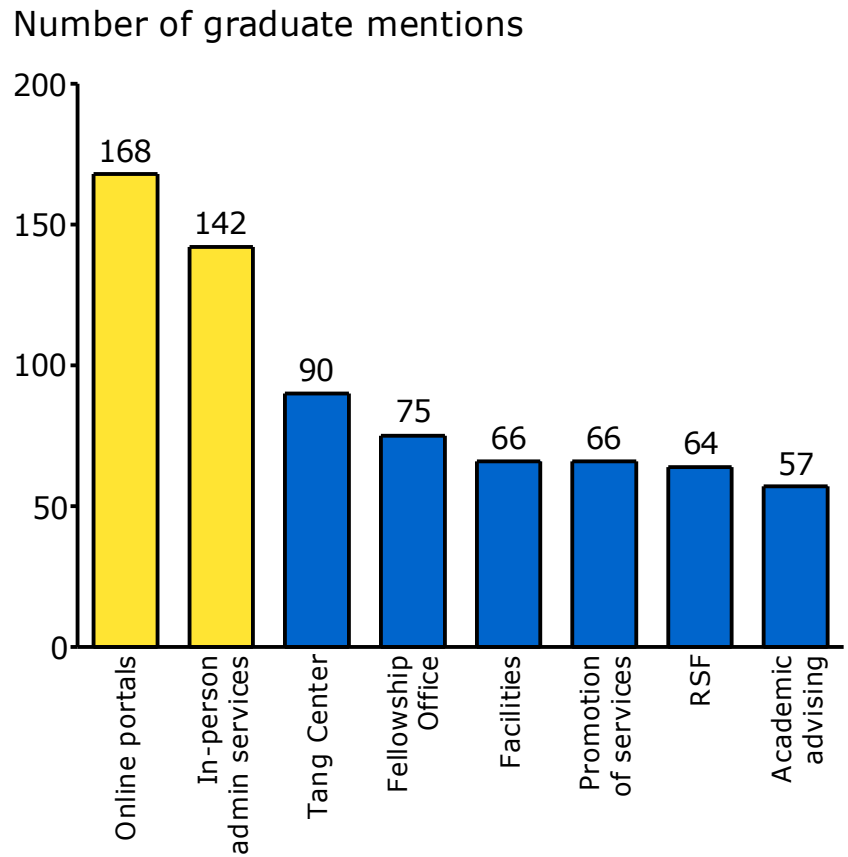


Source: UC Berkeley Office of Student Research; OE Student Survey, Feb 2010 (n=2,281)

Students highlighted several high priority areas for service improvements

What are the 2-3 areas where the student service experience can be most improved?





Focus of detailed analysis to date

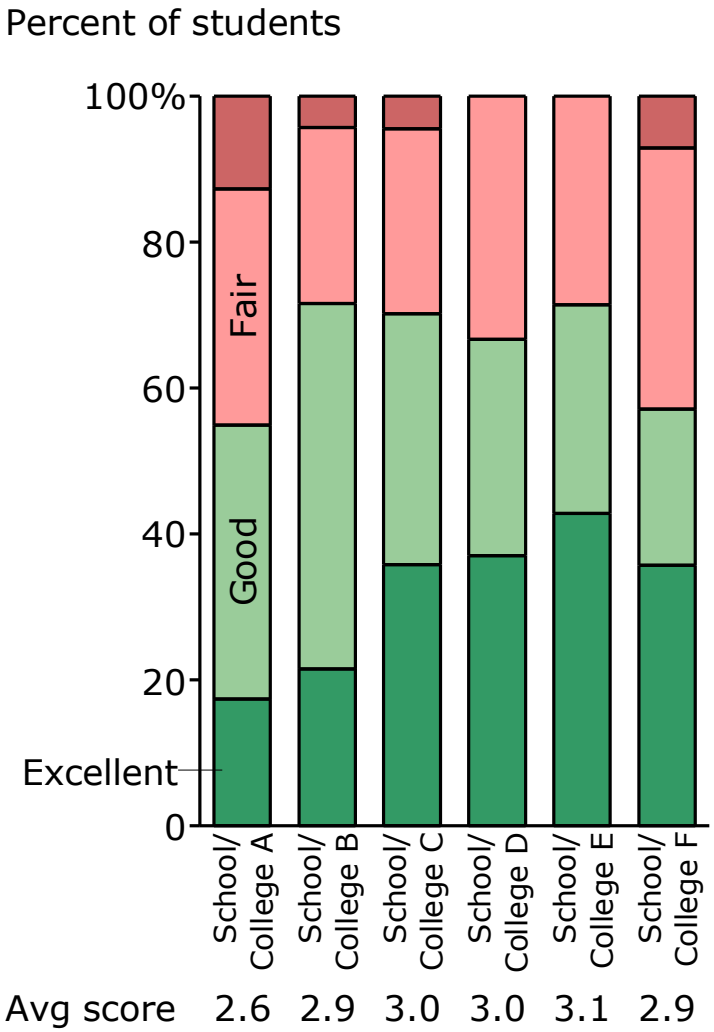
Note: Charts only show services that received more than 50 mentions. Question was free response; mentions were categorized manually. "Promotion of services" is in reference to lack of student awareness of existing services, and the need for more marketing and promotion to improve awareness

Source: OE Student Survey, Feb 2010 (n=2,281)

Respondent satisfaction with academic advising

UNDERGRAD ONLY

Satisfaction levels by school/college



Opportunities for improvement identified to date by students

- **Quality of interaction**
  - Inconsistent information
  - Lack of a personal connection
  - Low levels of customer service (e.g., friendliness, empathy)
- **Logistical obstacles**
  - Not enough accessibility (e.g., limited office hours, inconvenient locations)
  - Long wait times
- **Lack of electronic delivery**
  - Little ability for electronic communication
  - Little infrastructure for setting up appointments online

Note: Avg score is based on numerical calculation where Poor=1, Fair=2, Good=3 and Excellent=4. Students who did not use the service were excluded.
Source: OE Student Survey, Feb 2010 (n=1,316, undergrads only)

Academic advising: Detail of themes (1 of 2)

UNDERGRAD

Inconsistent information

*"Academic counseling, both departmental and school-wide, are extremely frustrating experiences--information can **change from advisor to advisor** and the waits can be very long."*

*"School and department advising is terrible. They are **inconsistent**, and I **never trust** what I am being told."*

*"I was often given **incorrect advice** or told to see **person after person** and was never given a direct answer."*

Personal connection

*"A lot of times advisors are really busy, and they **don't really get to know you**. We can't expect them to give us great advice if they don't know us that well."*

*"Advising is extremely **impersonal**."*

*"My counselor has been **changed 6 times** in the past 2 years making it difficult to maintain a steady relationship and truly see them as a source of advice."*

Customer service

*"Staff in academic advising need to be **friendlier** and **more patient**."*

*"Advising services should really be improved. They are very unhelpful, and they **do not have the passion** to help students.*

Note: Quotes in response to the open-ended question: "What are the 2-3 areas where the student service experience can be most improved?"
Source: OE Student Survey, Feb 2010 (n=1,316, undergrads only)

Academic advising: Detail of themes (2 of 2)

UNDERGRAD

Accessibility/ wait times

*"We need **more accessibility** for in-person advising."*

*"Counselors are in short supply. The wait in line is **ridiculously long**."*

*"We should have more advisors (major/career) available for **drop in sessions**."*

*"**Longer hours** and **more availability**."*

Electronic delivery

*"I've had terrible luck with electronic communication with my advisers. They take **days to get back to me**, they often can't figure out what's going on when other offices need to be involved, and I don't always have time to take care of vital things in person thanks to my schedule. The **lack of communication is frustrating**."*

*"My department **does not allow appointments** to be made, only drop-ins, which is very frustrating to deal with."*

*"It can be really **difficult getting in touch** with an advisor either for your major or college, so I think that could be improved."*

*"Make it easier to interact with advisors **online**."*

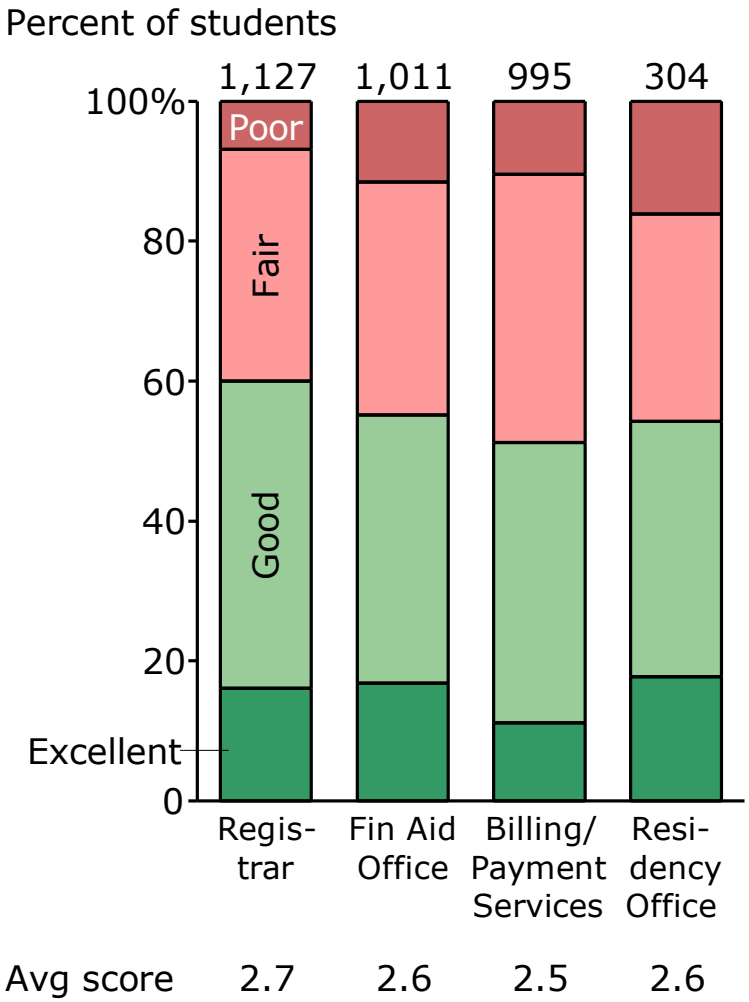
*"Make it possible to sign up for **advising appointments** in your college or department **online**."*

Note: Quotes in response to the open-ended question: "What are the 2-3 areas where the student service experience can be most improved?"
Source: OE Student Survey, Feb 2010 (n=1,316, undergrads only)

Respondent satisfaction with in-person administrative services

UNDERGRAD + GRAD

Satisfaction levels by office/service



Opportunities for improvement identified to date by students

- **Quality of interaction**
  - Lack of a "one-stop shop" to help with administrative issues/questions
  - Lack of information transfer among administrative units
  - Low levels of customer service (e.g., friendliness, willingness to be helpful)
- **Logistical obstacles**
  - Not enough accessibility (e.g., limited office hours, inconvenient locations)
  - Long wait times
- **Lack of electronic delivery**
  - Little ability for electronic communication
  - Little infrastructure for setting up appointments online

Note: Avg score is based on numerical calculation where Poor=1, Fair=2, Good=3 and Excellent=4. Students who did not use the service were excluded
Source: OE Student Survey, Feb 2010 (n=2,281)

In-person admin: Detail of themes

One-stop shop

*"Being able to get things done **in one office** rather than running around campus between all the offices."*

Information transfer

*"Improve the way departments (such as Financial Aid and Billing) interact & **share information** so there will be less work for both students and administrators."*

*"Working with the people in the administrative offices can be frustrating, as there seems to be **little communication** within departments."*

Customer service

*"It shouldn't take me **five hours to turn in a document** to the Financial Aid Office because nobody was sure who to give the form to."*

*"Customer service could be improved. Due to budget cuts, I understand that I need to wait longer for service, but the staff at the financial office or in counseling don't have to be **curt, dismissive, or cold**. This seems one fairly cheap way to make students happier."*

Accessibility

*"Some of the office hours are weird, make them **longer**. Phone lines are rarely free, they are always **busy**."*

*"**Expanding hours** because many times I work and/or have class during the hours of operation. This would also help with crowding issues."*

Electronic delivery

*"I like **submitting forms electronically** so that it reduces the amount of people coming in to just deliver a form."*

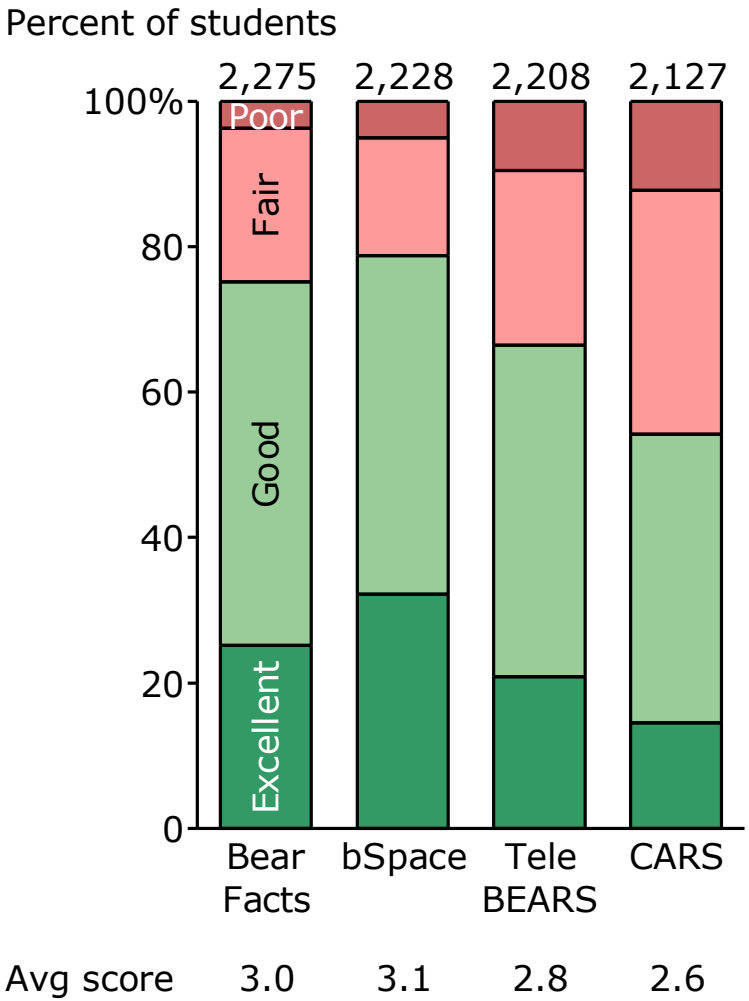
*"**Quicker response** to student emails to the Financial Aid Office."*

Note: Quotes in response to the open-ended question: "What are the 2-3 areas where the student service experience can be most improved?"
Source: OE Student Survey, Feb 2010 (n=2,281)

Respondent satisfaction with online portals

UNDERGRAD + GRAD

Satisfaction levels by portal



Opportunities for improvement identified to date by students

- **Ease of use**
  - Complex and confusing user interface
  - Limited search capabilities
  - Minimal information sharing from system to system
  - Lack of a simple resource page with important links
- **Quality**
  - Questionable levels of accuracy
  - Untimely information (e.g., some systems update on a monthly basis)

Note: Avg score is based on numerical calculation where Poor=1, Fair=2, Good=3 and Excellent=4. Students who did not use the service were excluded
Source: OE Student Survey, Feb 2010 (n=2,281)

Online portals: Detail of themes

Ease of use

*"Having to go to **multiple web pages** and sign in multiple times to access information is unacceptable, and bSpace is **cryptic, difficult to navigate**, and unreliable. There isn't even **one page that has links** to every other important page."*

*"The TeleBEARS system should be made **less confusing**. It doesn't help students design schedules easily. Currently it is a **nightmare to use**."*

*"bSpace, it's mostly functional, but the **interface/layout is terrible**."*

Quality

*"Definitely the CARS account online! It's frustrating that it is **only updated once a month**. So much time and resources can be utilized better if the online CARS bill was updated more frequently."*

*"DARS is really unhelpful and as an engineering student we are required to use it, but it is either **incorrect or confusing**."*

*"DARS **isn't updated** with new requirements (e.g., for MCB); CARS is incredibly difficult to understand and keep track of."*

*"The class enrollment should be **updated in real time**, not with a 1 day or so delay."*

*"Information on TeleBEARS and BearFacts (especially on CARS) should be **updated more frequently** so that accurate information is displayed. Notices of failure to comply are sent out even if conditions have already been met, but it is not accurately reflected online and causes more work for academic advisors as well as stress for students."*

Note: Quotes in response to the open-ended question: "What are the 2-3 areas where the student service experience can be most improved?"
Source: OE Student Survey, Feb 2010 (n=2,281)

Appendix

- Additional detail on specific opportunities
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  - Student services
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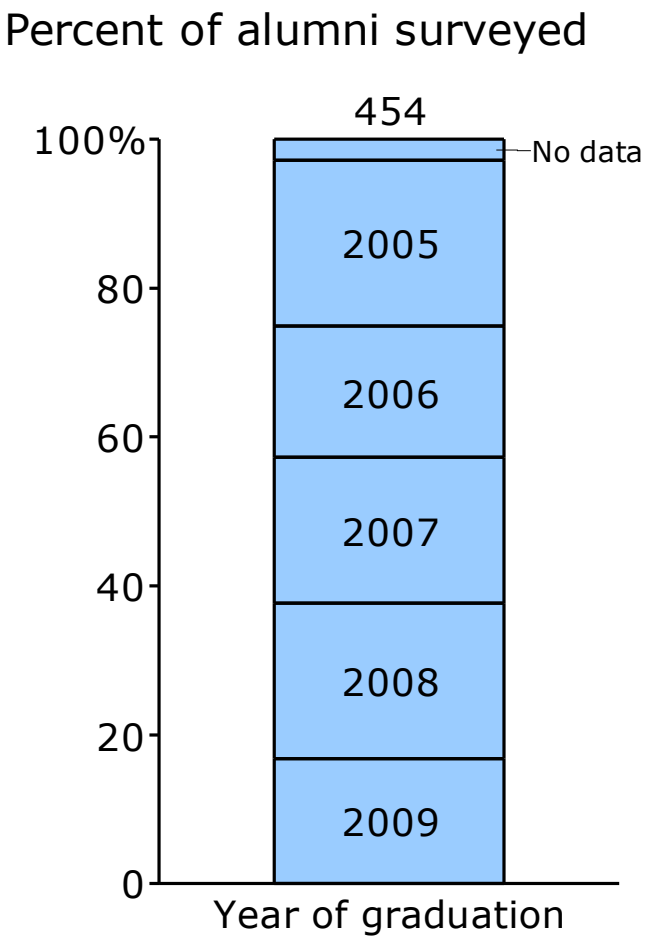
- Glossary of abbreviations

OE team also launched an undergraduate young alumni survey

Methodology overview

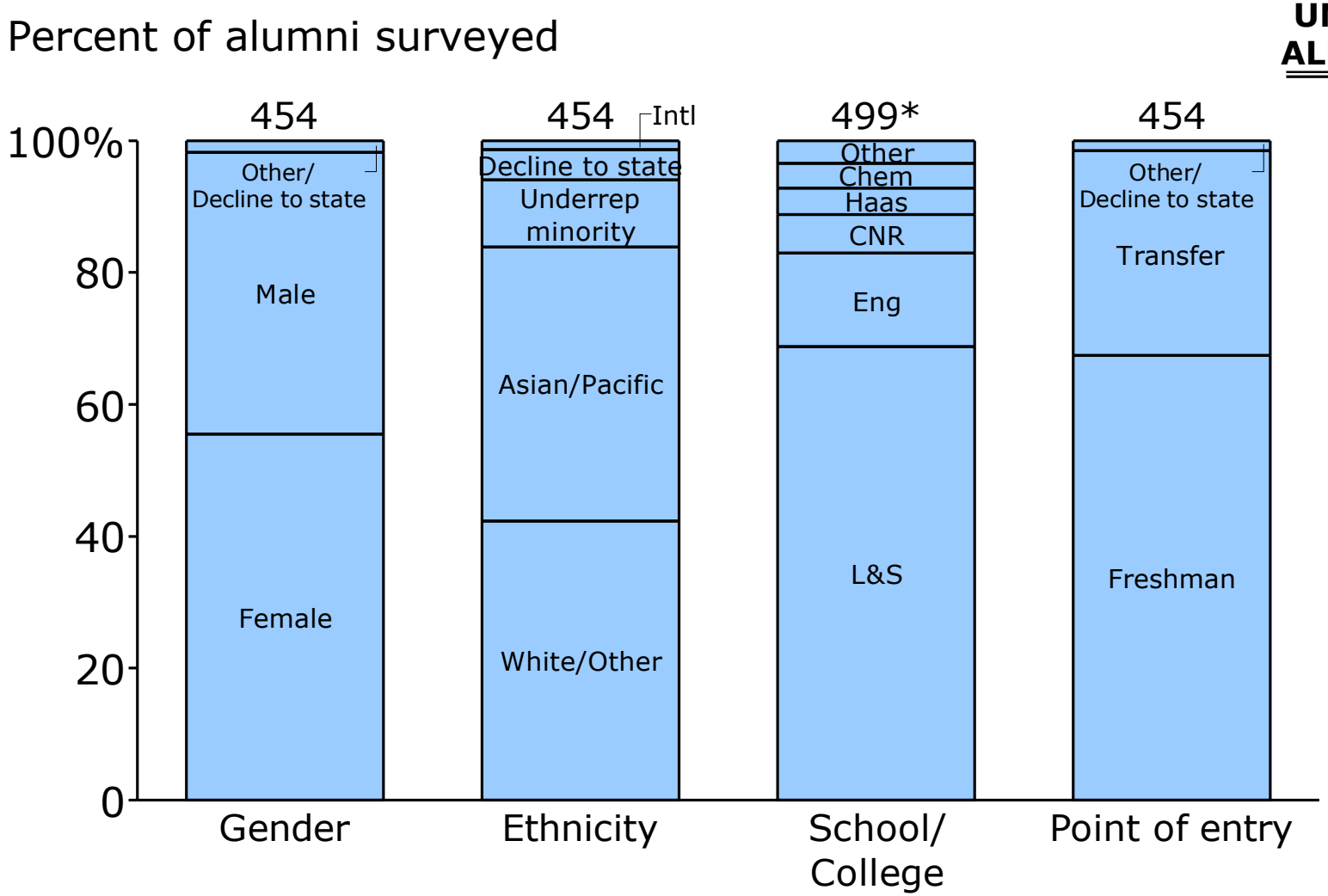
- OE launched a **young alumni survey** to quantify how alumni value student services and programs, and to understand service levels
  - Survey captures perspectives beyond the University setting
  - Preliminary analysis validates findings from student survey; additional analysis required during Detailed Design stage
- Survey was sent to **~5,000 young undergraduate alumni** and we received ~450 responses (~9% response rate)
  - Respondents graduated within last five years
- Survey structure **mimicked OE Student Survey** to allow for direct data comparisons
  - Detailed methodology overview can be found in Student Services section of this document



Source: OE Young Alumni Survey, Mar 2010 (n=454)

OE Young Alumni Survey: Demographic overview

UNDERGRAD ALUMNI ONLY



*School/college total is greater than number of survey respondents due to alumni with multiple majors in different schools/colleges. Other category for School/college includes School of Public Policy, School of Public Health, College of Environmental Design and others

Source: OE Young Alumni Survey, Mar 2010 (n=454)

Similar to current students, alumni found services helpful with areas to improve

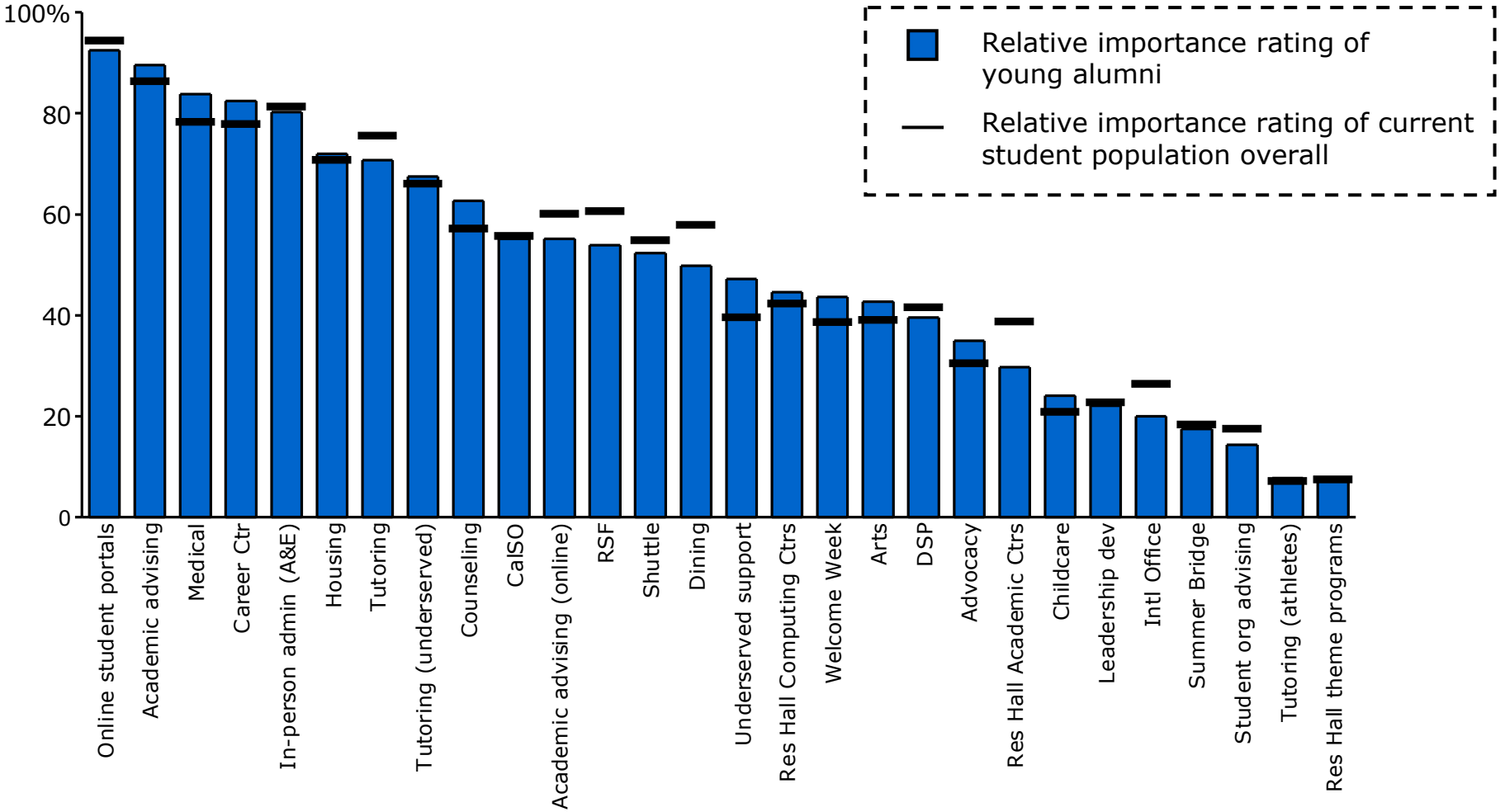
If you had to use three words or phrases to describe your general experience with student services at UC Berkeley, what would they be?

Note: Font size of words corresponds to the number of mentions; color and direction is for presentation purposes only
Source: OE Young Alumni Survey, Mar 2010 (n=454)

Alumni are generally aligned with current students on relative importance of programs

UNDERGRAD ONLY

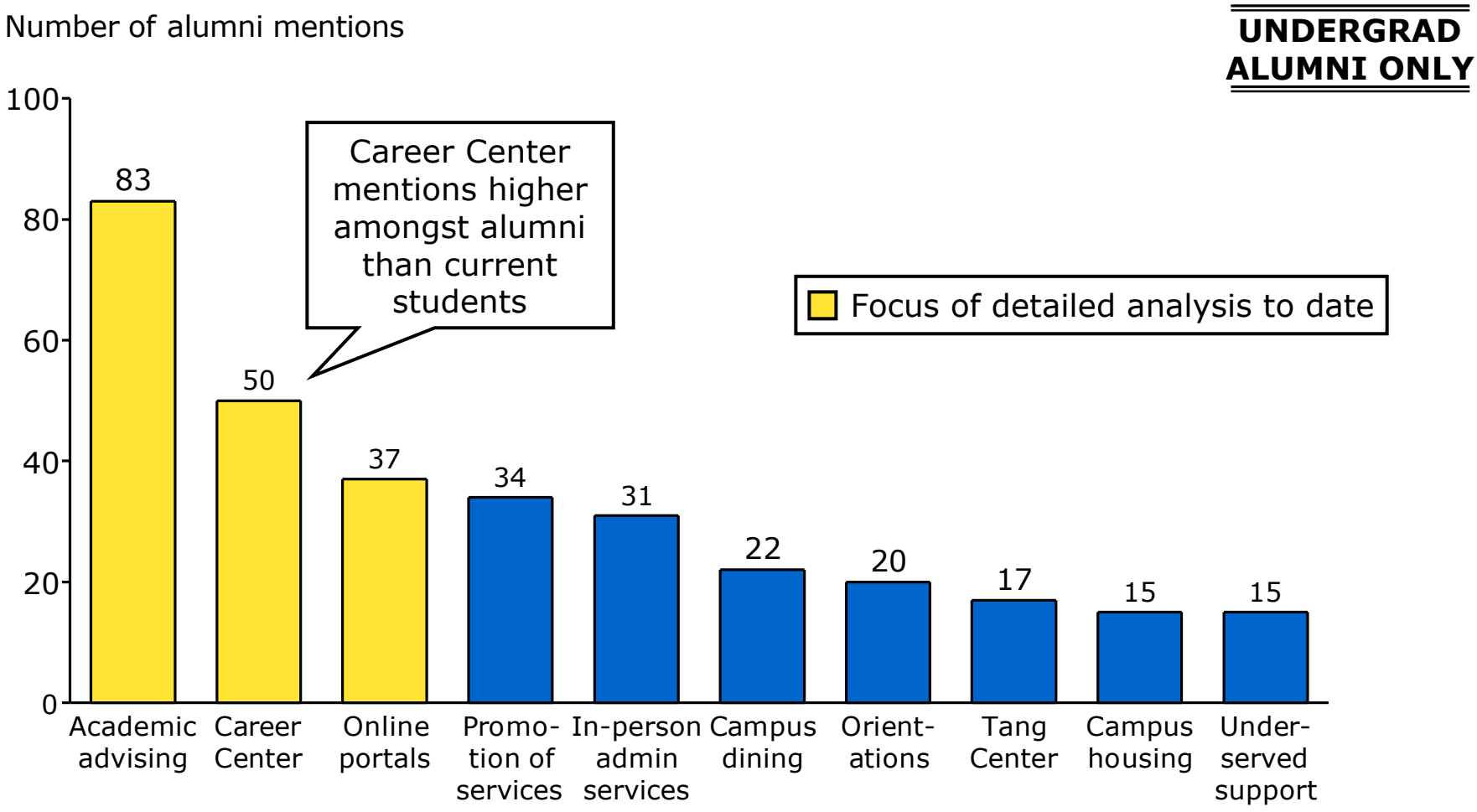
Relative importance of programs/services to alumni



Note: Please see Student Services section of the appendix for detailed descriptions of programs
Source: OE Young Alumni Survey, Mar 2010 (n=454); OE Student Survey, Feb 2010 (n=2,281)

Alumni also highlighted several high priority areas for service improvements

What are the 2-3 areas where the student service experience can be most improved?

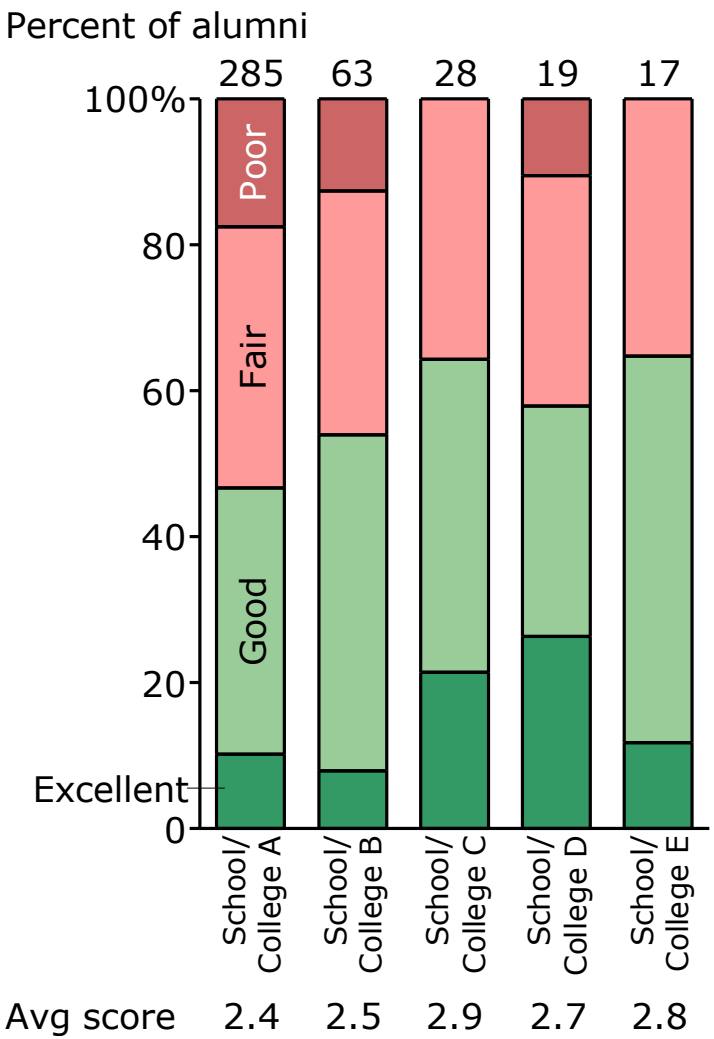


Note: Charts only show services that received 15 or more mentions. Question was free response; mentions were categorized manually. "Promotion of services" is in reference to lack of student awareness of existing services, and the need for more marketing and promotion to improve awareness.
Source: OE Young Alumni Survey, Mar 2010 (n=454)

Respondent satisfaction with academic advising

UNDERGRAD ALUMNI ONLY

Satisfaction levels by school/college



Opportunities for improvement identified to date by alumni

- **Quality of interaction**
  - Not enough focus on career and life goals (in addition to academic progress)
  - Lack of standardization across schools/colleges
  - Lack of personal connection
- **Logistical obstacles**
  - Not enough accessibility (e.g., limited office hours, inconvenient locations)
  - Long wait times
- **Lack of electronic delivery**
  - Little ability for electronic communication
  - Little infrastructure for setting up appointments online

Note: Avg score is based on numerical calculation where Poor=1, Fair=2, Good=3 and Excellent=4. Students who did not use the service were excluded
Source: OE Young Alumni Survey, Mar 2010 (n=454)

Academic advising: Detail of themes (1 of 2)

UNDERGRAD ALUMNI ONLY

Quality of interaction

*"The college advising centers should work on **helping students figure out their path** instead of taking appointments to only tell you things you already know. UC Berkeley should center on making sure students are on track and discover their passion and path for after graduation."*

*"I wish I had more **personal guidance** in terms of personal growth and academic guidance beyond what I needed to graduate."*

*"More individual guidance/attention to ensure people are on the right track in terms of **personal/academic/career/life goals**."*

"My advisor in one major was fantastic but the advisor in my other major was essentially non-existent."

*"More required check-ins with academic counselors so that there is a more **trust-based relationship**."*

*"Facilitate **person-to-person connections** through a department, and if the student is undeclared, attach them to a faculty person at first so they've got an "ally" that will help them throughout starting college."*

*"Faculty advisors could be a lot more **friendly and helpful**."*

Note: Quotes in response to the open-ended question: "What are the 2-3 areas where the student service experience can be most improved?"
Source: OE Young Alumni Survey, Mar 2010 (n=454)

Academic advising: Detail of themes (2 of 2)

UNDERGRAD ALUMNI ONLY

Logistical obstacles

*"**Less waiting time** for academic advising."*

*"In some schools, advisors are assigned, but in others, the student is on their own for getting a faculty advisor. Having an advisor should be **easy across the board**."*

Electronic delivery

*"**Online services (backed by a human) would have been wonderful**. Personally, I would've preferred for my college advisor to call me once per year and have a phone/email appointment to review my progress. It's not the preferred option for everyone, but I suspect many students would appreciate it."*

*"**Improve online services** for academic advising within departments (electronic form submission, etc.)."*

*"I was unaware of online counseling, but just **answering a few general questions by email** could point a student in the right direction."*

Note: Quotes in response to the open-ended question: "What are the 2-3 areas where the student service experience can be most improved?"
Source: OE Young Alumni Survey, Mar 2010 (n=454)

Respondent satisfaction with Career Center

UNDERGRAD ALUMNI ONLY

Satisfaction breakdown

Opportunities for improvement identified to date by alumni

- **Outreach**
  - Limited proactive outreach from career counselors
  - Not enough career-focused advising for younger students (e.g., freshmen and sophomores)
- **Expanded services**
  - Lack of support for new graduates and young alumni
  - Lack of support for graduate school advising

Note: Avg score is based on numerical calculation where Poor=1, Fair=2, Good=3 and Excellent=4. Students who did not use the service were excluded
Source: OE Young Alumni Survey, Mar 2010 (n=454)

Career Center: Detail of themes

UNDERGRAD ALUMNI ONLY

Outreach

*"Career services: I had no idea how to apply for a job or what employers were looking for when I graduated, and had to figure it out by trial and error. I strongly recommend a more **proactive approach** with the Career Center, with more staff and mandatory meetings with students."*

*"Providing career counseling for **freshmen and sophomores**."*

*"The Career Center is the number one place that needs the most improvement. I did not feel as though the Career Center **reached out to me** at all, and I did not know how to utilize its services. I felt lost upon graduation and the Career Center should have **helped guide students more for a post-graduation life**. "*

*"**More proactive** career counseling."*

*"Students need to learn **earlier on about their career opportunities** and the programs and workshops that the school offers."*

Expanded services

*"As an alum, it's one thing that I look back on and feel that there is **no support for new grads or alums**."*

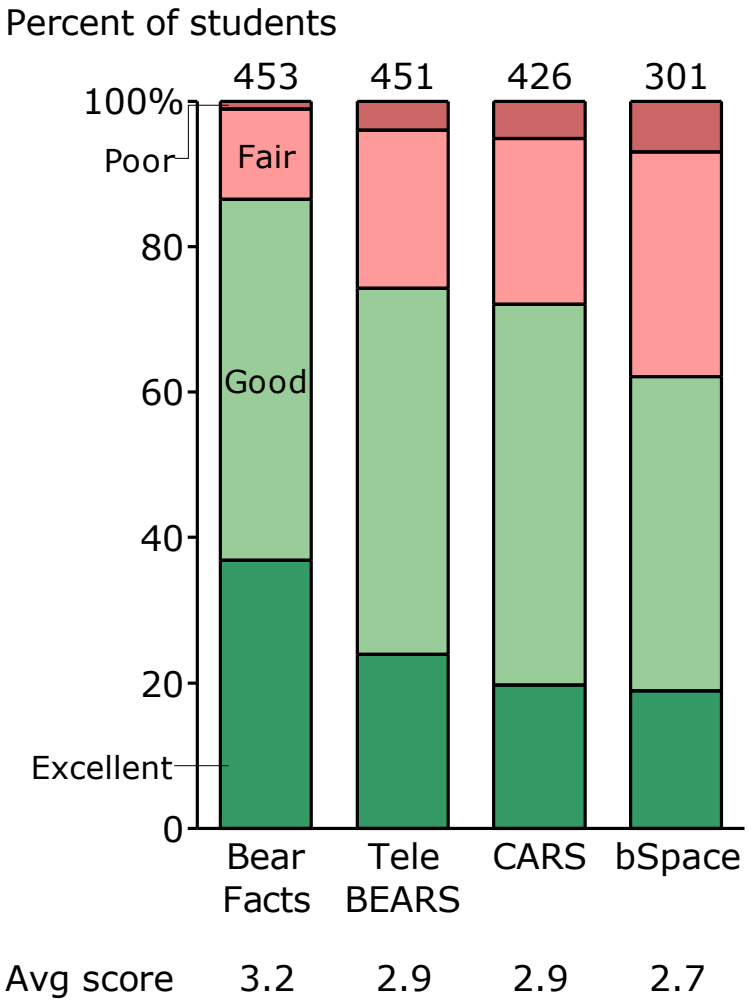
*"Career Center services for **graduate school advising**."*

Note: Quotes in response to the open-ended question: "What are the 2-3 areas where the student service experience can be most improved?"
Source: OE Young Alumni Survey, Mar 2010 (n=454)

Respondent satisfaction with online portals

UNDERGRAD ALUMNI ONLY

Satisfaction levels by portal



Opportunities for improvement identified to date by students

- **Ease of use**
  - Lack of a single entry point for online portals
  - Complex and confusing user interface
- **Quality**
  - Questionable levels of accuracy and reliability

Note: Avg score is based on numerical calculation where Poor=1, Fair=2, Good=3 and Excellent=4. Students who did not use the service were excluded
Source: OE Young Alumni Survey, Mar 2010 (n=454)

Online portals: Detail of themes

UNDERGRAD ALUMNI ONLY

Ease of use

*"Combining the DARS, TeleBEARS, etc. There were **so many websites** that every student needed/used, perhaps they can be located at **just one address**."*

*"Just too many online Bears programs that are constantly changing. It was hard to even get my grades. If you had just **one online portal** to handle everything, that'd be great."*

*"If somehow BearFacts/DARS/TeleBEARS could all be **incorporated into one program**, that would improve the student experience."*

*"I think that BearFacts/CARS/online accounts should be **integrated into one main account**.*

*"CARS online viewing platform is **not user intuitive**."*

Quality

*"Increase **reliability** of TeleBEARS (i.e. if I have a 10am appointment and I log on at 10, I don't want the system to go down)."*

*"The DARS site could be more helpful for graduating students. **It was often out-of-date**, requiring students to meet with advisors to figure out what coursework was missing."*

Note: Quotes in response to the open-ended question: "What are the 2-3 areas where the student service experience can be most improved?"
Source: OE Young Alumni Survey, Mar 2010 (n=454)

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OE IT Catalog Survey methodology

- **Survey sent to 120 IT departments university-wide in December 2009**
  - Any department which had IT-classified personnel in Career Compass received a survey
  - Survey was sent to the most senior IT professional in each department, who was responsible for filling the survey out, soliciting input from others as required
  - Department deans/directors also received the survey to ensure it was filled out

- **Goal of survey was to catalog IT assets**
  - IT personnel, by function
  - Internally developed applications and externally acquired applications
  - Applications in the pipeline
  - Servers and heating, ventilation, and air conditioning (HVAC) systems which support servers

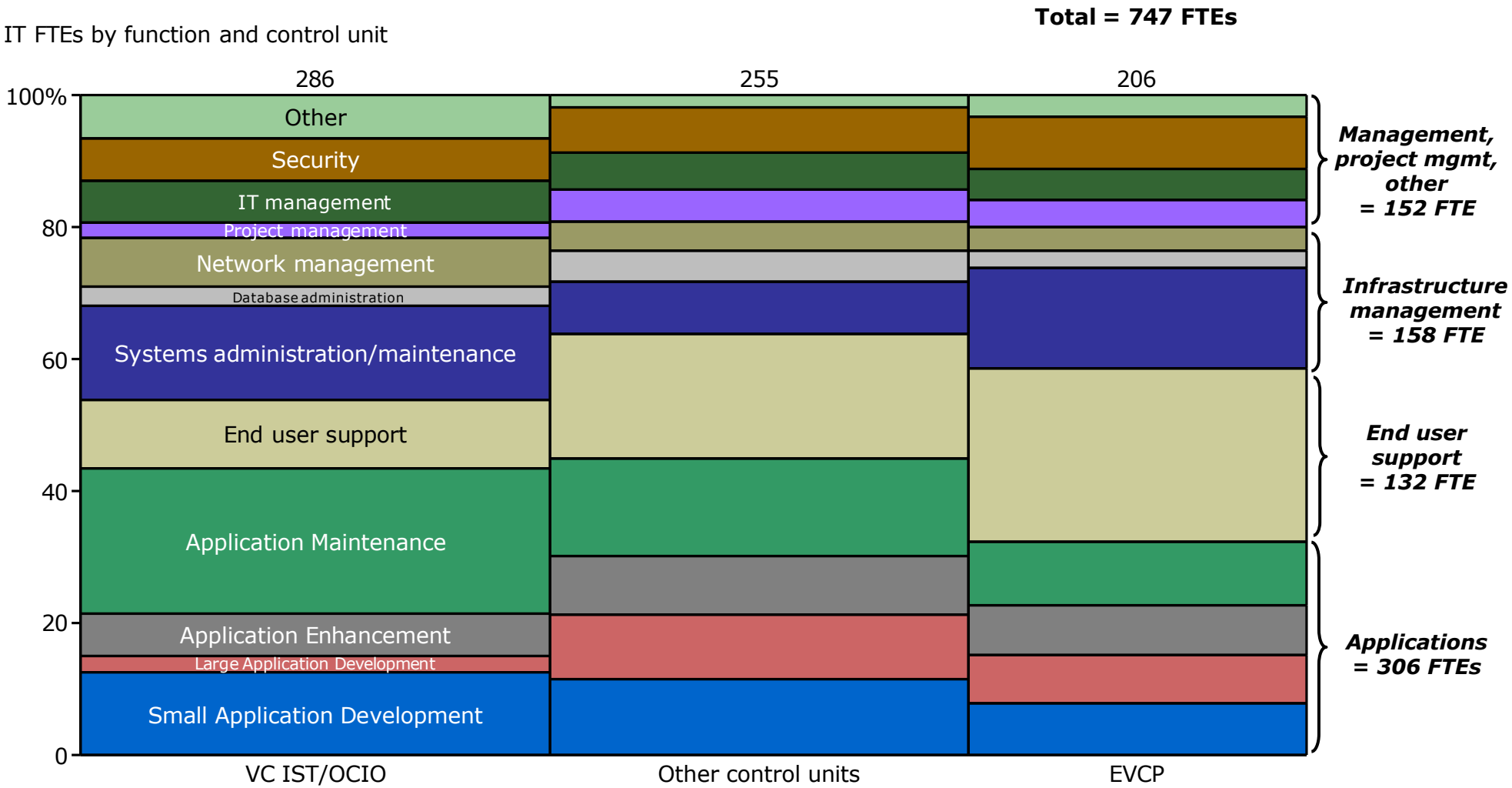
- **80 survey responses were received**, representing ~750 IT personnel university-wide
  - Responses represented ~90% of IT departments and personnel, and were therefore representative of the state of campus IT

~80 units completed the IT Catalog Survey

Academic Personnel Office
Academic Senate
Admissions & Relations with Schools
Athletic Study Center
Assoc. Vice Chancellor Fin & Control, Immediate Office
Berkeley Art Museum and Pacific Film Archive, Digital Media Unit
Berkeley International Office
Business Technology Solutions
Cal Performances
Campus Life & Leadership, Student Affairs
Career Center
Center Child Youth Policy
Center for Educational Partnerships
Center for Environmental Design Research
Client Services
College of Chemistry
College of Env. Design / Architecture
College of Letters & Science
College of Natural Resources
Computer Operations and Information Services
Data Services (IST)
Demography Dept, Center on Economics and Demography of Aging, Berkeley Population Center
Department of Astronomy
Department of Bioengineering
Department of City and Regional Planning
Department of Education
Department of Landscape Architecture and Environmental Planning
Department of Linguistics
Department of Recreational Sports
Departmental On-Campus Computing Support
Educational Technology Services
Electrical Engineering and Computer Science (EECS)
Energy Biosciences Institute
English Department
Environment Health and Safety
Experimental Social Science Laboratory
Facilities Services
Financial Aid Office
Geography Department
Goldman School of Public Policy
Graduate Division
Haas School of Business
Infrastructure Services (IST)
Inst Transportation Studies
Inst. Of Industrial relations
Institute of Industrial Relations
Integrative Biology
Intercollegiate Athletics
International House
Int'l & Area Studies Information Systems and Services
Int'l & Area Studies Information Systems and Services
L&S Undergraduate Advising
Lawrence hall of Science
Military Affairs Program ROTC
Office of Lab Animal Care
Office of the Dept Chief Information Officer (IST)
Office Of The Registrar
Philosophy
Phoebe A. Hearst Museum of Anthropology, Dept. of Research & Information Systems
Political Science
Psychology Department
Public Affairs
Residential and Student Services Program (RSSP)
School of Information - Computing & Information Services
School of Law
School of Social Welfare
Social Science Computing Lab (within Office of the Chief Information Officer)
Statistical Computing Facility
Student Affairs
Student Learning Center
Summer Sessions
The Library
UC Police Department
Undergraduate and Interdisciplinary Studies
University Extension
University Health Services
University Relations information Technology

Note: IST = Information Services and Technology
Source: UC Berkeley IT Catalog Survey, Dec 2009

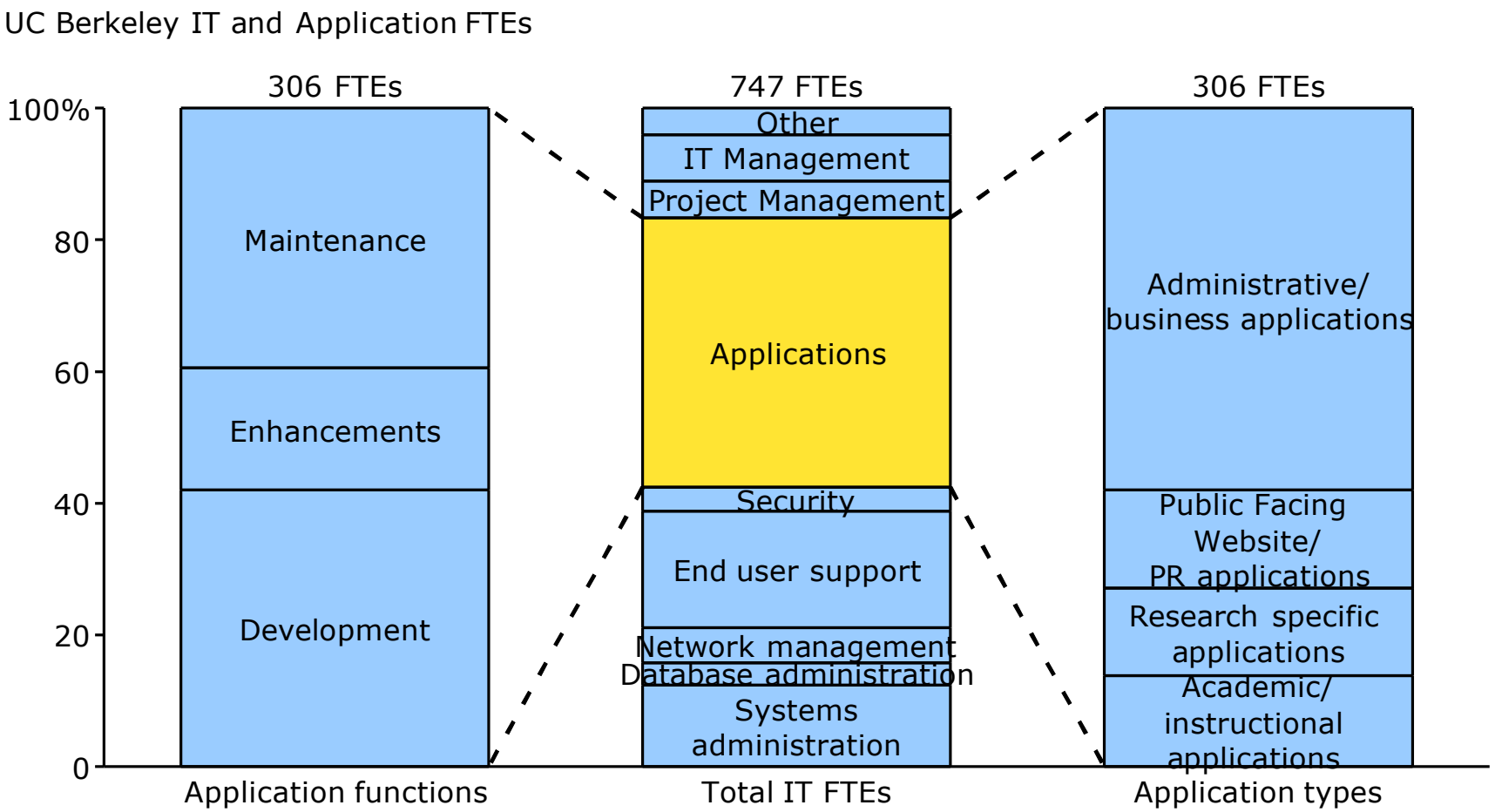
Less than 40% of IT personnel in IST; remainder distributed across other units



Note: IST = Information Services and Technology; data self-reported in IT survey; may include "shadow workforce" FTEs not categorized as IT by career compass; EVCP = Executive Vice Chancellor/Provost; large applications defined as those with over $50K in development costs; small applications defined as those with under $50K in development costs; "other" FTEs include technical trainers, audio/visual support, and other IT functions not captured in defined categories

Source: UC Berkeley IT Catalog Survey, Dec 2009

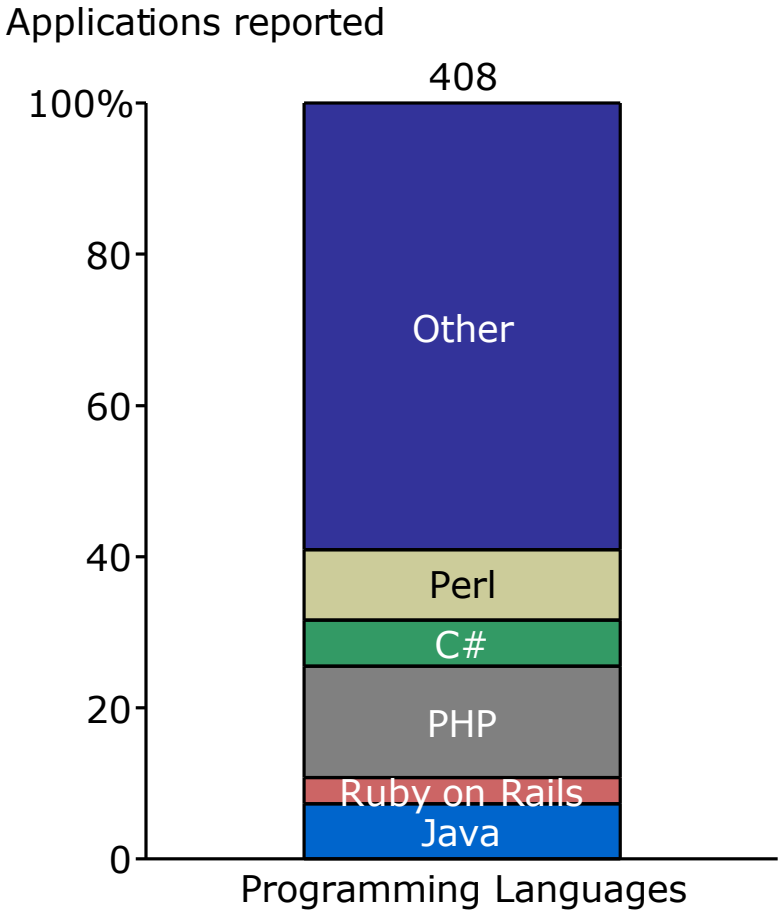
~300 FTE develop, enhance, and maintain different types of applications



Note: Survey data self-reported by IT managers across campus; not exhaustive, not all departments reported
Source: UC Berkeley IT Catalog Survey, Dec 2009

Internally developed applications have been built in more than 20 languages

Programming languages for applications



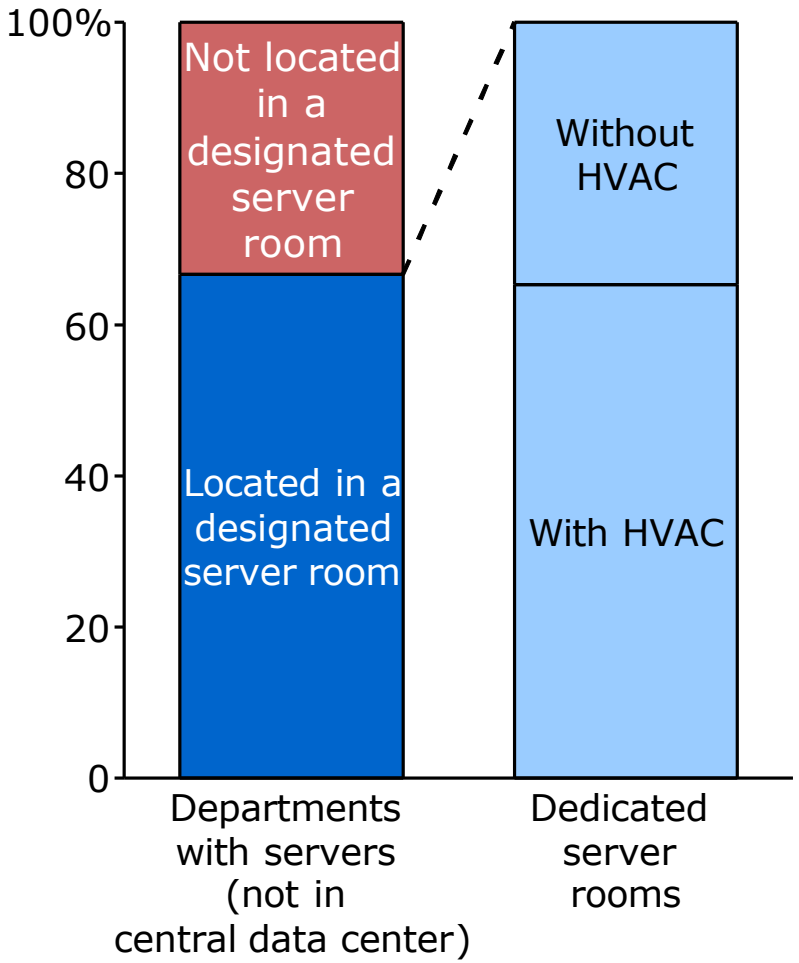
"Other" programming languages reported

- WordPress
- Witango
- Visual Basic
- Python
- Paradox
- MS Access
- Matlab
- Lasso
- IBM Universe
- Haskell
- FoxPro
- Flash
- Drupal
- Cold Fusion
- Cobol
- C, C++
- ASP
- 4D

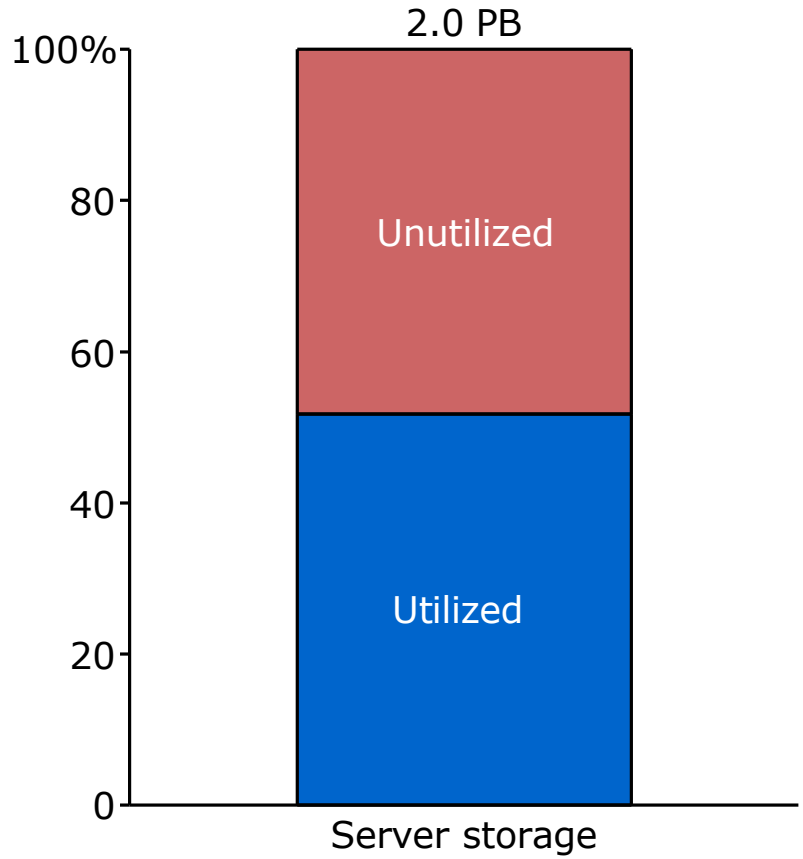
Note: PHP is a scripting language; survey data self-reported by IT managers across campus; not exhaustive, not all departments reported
Source: UC Berkeley IT Catalog Survey, Dec 2009

Servers often underutilized; many located in uncontrolled HVAC environments

Location of and HVAC conditions for servers



Utilization of campus storage capacity



*Storage data not comprehensive; total capacity is likely much higher
Note: Number of departments reporting servers = 54; number of dedicated server rooms reported by these departments = 75; PB = Petabytes, a unit of digital storage equal to 1M Gigabytes
Source: UC Berkeley IT Catalog Survey, Dec 2009

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Potential areas for additional study

Areas for additional study

- In the process of this work, the Steering Committee also identified **some potential areas for additional study,** including:
  - Space management
  - Fundraising/Development
  - Athletics
  - Capital projects
  - Academic processes and procedures

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Glossary of abbreviations

Abbreviation	Full term	Abbreviation	Full term	Abbreviation	Full term
A&E	Admissions and Enrollment	**FTE**	Full-time equivalent	**P2P**	Procure-to-pay
A/P	Accounts Payable	**FY**	Fiscal year	**PB**	Petabytes
AVC	Associate Vice Chancellor	**G&A**	General & Administrative	**PO**	Program Office
BFS	Berkeley Financial System	**HCM**	Human capital management	**PR**	Public relations
BTU	British thermal unit	**HR**	Human Resources	**RSF**	Recreational Sports Facility
CAO	Chief Administrative officer	**HVAC**	Heating, ventilating, and air conditioning	**RSSP**	Residential and Student Service Programs
CARS	Campus Accounts Receivable System	**IST**	Information Services & Technology	**SEP**	Strategic Energy Plan
CIO	Chief Information Officer	**IT**	Information technology	**SKU**	Stock keeping unit
COGS	Cost of goods sold	**ITMF**	IT managers forum	**SLA**	Service-level agreement
CP	Capital projects	**MaxDiff**	Maximum difference analysis	**SSC**	Shared service center
CTC	Campus Technology Council	**MGSF**	Maintainable gross square feet	**TSW**	The Scholar's Workstation
DARS	Degree Audit Reporting System	**NPS**	Net Promoter Score	**UC**	University of California
DHRM	Department human resources manager	**OCIO**	Office of the Chief Information Officer	**UCOP**	University of California, Office of the President
DSP	Disabled Students Program	**OE**	Operational Excellence	**UCB**	University of California, Berkeley
E&I	Equity and Inclusion	**OESC**	Operational Excellence Steering Committee	**UHS**	University Health Services
EH&S	(Office of) Environmental Health & Safety	**OpEx**	Operating expenditures	**UNEX**	University Extension
EVCP	Executive Vice Chancellor/Provost	**P.O.**	Purchase order	**VC**	Vice Chancellor