

Budget Allocation Assessment Report

Current State Findings and Future State Options

Prepared by EY
April 15, 2018



Agenda

1

Recent Context

2

Current State Funding Overview

3

Our Findings

4

Potential Future State Alternatives

5

Appendix

The RCM¹ Budget Model was put in place in 2012 to achieve a series of objectives for UC Davis

- 1** Establish a sustainable funding model with incentives that advance the Vision of Excellence and the 2020 Initiative.
- 2** Advance and encourage campus strengths and priorities such as interdisciplinary scholarship and internationalization, as well as boost economic development.
- 3** Be transparent, linking authority with accountability.
- 4** Be as simple as possible to understand, administer and implement; rely on common and easily available data sources.
- 5** Encourage creativity and responsible risk-taking while providing for reasonable reserves and oversight.
- 6** Balance local autonomy with a strong sense of unity in vision and values.
- 7** Provide mechanisms for investments in fresh ideas at all levels.
- 8** Provide for reasonable transitions and bridging strategies.

After 5 years and a number of changes at UCD, questions about the effectiveness of the model have been raised

UC Regents appoints Chancellor Gary May as new Chancellor of UC Davis

February 2017, UC regents appoint Chancellor May as the seventh chancellor of UC Davis. A new strategy is being developed, which may necessitate the examination of the alignment between the financial planning process and model with the new strategy.

Hybrid RCM budget model operating for 5 years

The hybrid RCM model, originally put in place in early 2012, has been operating for 5 years and its effects are better appreciated, providing an opportunity to identify potential enhancements to improve the existing model.

Slow growth anticipated in coming years

A combination of Regental policies and market conditions indicate a period of slow growth in the coming years, and a review of how best to allocate resources via a budget model during this period may be warranted.

Changes instituted to stabilize core funds

A structural core fund deficit of \$29 million that was closed through a series of changes to several components of the budget model raised questions about the effectiveness of the model and transparency of the process.

Seminal Rebalancing Changes

1. One time 3% tax on carry-forward balances
2. 2% base budget reduction across core funds
3. Incremental three year increase of ICR Provost share from 63% to 70%

As a result, a third party assessment was started to consider if changes should be introduced to the budget model

Assessment Objectives

1. Establish understanding of common positive and negative perceptions of the RCM budget model at UC Davis across all constituencies (e.g., Deans, Academic Senate and Administration).
2. Investigate opportunities for improvement based on these internal perceptions and leading practices.
3. Provide a point of view of the change implications the potential opportunities will have on the university.

Central Questions to be Answered

- Is the budget model effectively aligning resources to support the pursuit of our core mission as a comprehensive research university to generate, advance, disseminate and apply knowledge?
- Or does it need to be changed, if so how?

To answer those questions based on an inclusive process, the assessment was organized to include a broad set of voices and data points...

Stakeholder Groups	Number of Interviews	Number of Participants	Number of Documents
Academic Senate	7 Interviews	24 Participants	29 Documents ~250 Pages
Deans and Assistant Deans	8 Interviews	29 Participants	
Administration	6 Interviews	9 Participants	
3 Groups	21 Interviews	62 Participants	

... and divided the work into 3 main phases below:



A broad set of voices were heard...

<u>Meeting</u>		<u>Date</u>		<u>Location</u>	<u>Names</u>	<u>Invite</u>
Academic Senate						
1. Academic Senate - Kick-Off	✓	11/06	4:00 - 5:00	Mrak 402	Rachael Goodhue, Robert Powell, Edwin Arevalo & Kyle Gayman	4
2. Academic Senate - Provost Allocation	✓	11/08	1:00 - 2:00	Mrak 411	Debbie Niemeier, John Ragland, Mitchell Sutter & Alan Taylor	4
3. Academic Senate - Undergrad. Curr., Majors, & Courses	✓	11/09	1:00 - 2:00	Mrak 204	Moradewun Adejunmobi, Elizabeth Constable & Dan Potter	4
4. Academic Senate - Faculty Quality & Recruitment	✓	11/14	1:00 - 2:00	Mrak 204	Debra Long, Bruno Nachtergaele, Ahmet Palazoglu & Richard Tucker	4
5. Academic Senate - Graduate Education	✓	11/15	10:00 - 11:00	Mrak 517	Nicole Baumgarth, Andre Knoesen, Beth Levy & Kyaw Tha Paw U	4
6. Academic Senate - Research	✓	11/16	12:00 - 1:00	Mrak 517	Robert Berman, Janet Foley, Dietmar Kueltz & Kathryn Olmsted	4
7. Academic Senate - Wrap - Up	✓	12/14	11:00 - 12:00	Mrak 408	Rachael Goodhue, Kristin Lagattuta, Robert Powell & Edwin Arevalo	4
College Deans						
8. College of Ag & Environmental Sciences	✓	11/01	1:00 - 2:00	Mrak 150	Helene Dillard, Penny Herbert, Brian McEligot, Shannon Tanguay & Rob Scharf	5
9. College of Biological Sciences	✓	11/02	8:00 - 9:00	Mrak 517	Mark Winey & Donna Olsson	2
10. College of Letters & Science	✓	11/02	2:00 - 3:00	Mrak 517	Elizabeth Spiller, Steve Roth, Ian Blake & Tracy Ligtenberg	4
11. College of Engineering	✓	11/08	8:00 - 9:00	Mrak 517	Jennifer Sinclair Curtis & Jessie Catacutan	2
Davis -based Professional School Deans						
12. Veterinary Medicine & School of Education	✓	10/31	2:30 - 3:30	Mrak 204	Michael Lairmore, Lauren Lindstrom, Mary McNally & Damian Chapman	4
13. School of Law & Graduate School of Management	✓	11/01	9:00 - 10:00	Gallagher 3108B	Kevin Johnson, Brett Burns, H. Rao Unnava & James Kelly	4
Sacramento Campus						
14. UC Davis Health	✓	11/13	11:00 - 12:00	Davis Tower 14704	Tom Nesbitt, Ann Madden Rice, Tim Maurice & Brad Simmons	4
15. School of Medicine & School of Nursing	✓	11/16	10:00 - 11:00	Ed Bldg, 3101	Lars Berglund, Heather Young, Zishan Mustafa, & Emily Sansome Smith	4

A broad set of voices were heard...

<u>Meeting</u>		<u>Date</u>		<u>Location</u>	<u>Names</u>	<u>Invite</u>
Administration						
16. Provost Hexter	✓	10/25	1:15 - 2:00	Mrak Office	Ralph Hexter & Karl Mohr	2
17. Finance and BIA	✓	10/26	9:30 - 11:00	Mrak 375	Kelly Ratliff, Sarah Mangum & Karl Mohr	3
18. Finance and BIA Follow Up	✓	12/13	12:00 - 1:00	Mrak Hall	Kelly Ratliff, Sarah Mangum & Karl Mohr	3
19. Vice Provost & Faculty Advisor	✓	10/31	12:00 - 1:00	Mrak 204	Prasant Mohapatra & Ken Burtis	2
20. Chancellor May	✓	11/14	8:30 - 9:00	Mrak Office	Gary May	1
21. Office of Research - Vice Chancellor of Research	✓	11/20	1:00 - 2:00	Mrak 540	Cameron S. Carter	1
Project Management						
22. Introductory Kick-Off Planning	✓	10/24	10:00 - 11:30	Mrak Office	Karl Mohr	1
23. Project Status Update	✓	11/06	2:30 - 3:30	Mrak 575	Karl Mohr	1
24. Project Status Update	✓	11/13	2:30 - 3:30	Mrak 575	Karl Mohr	1
25. Project Status Update	✗	11/27	1:00 - 2:00	Mrak 575	Karl Mohr	1
26. Project Status Update	✓	12/12	11:00 - 12:00	Mrak 575	Karl Mohr	1
27. Steering Committee 1	✓	11/07	3:00 - 4:00	Mrak 517	Ralph Hexter, Kelly Ratliff, Rachel Goodhue, Bob Powell & Karl Mohr	5
28. Steering Committee 2	✓	11/20	3:30 - 4:00	Mrak 517	Ralph Hexter, Kelly Ratliff, Rachel Goodhue, Bob Powell & Karl Mohr	5
29. Steering Committee 3	✓	12/06	8:00 - 9:00	Mrak 517	Ralph Hexter, Kelly Ratliff, Rachel Goodhue, Bob Powell & Karl Mohr	5
30. Steering Committee 4	✓	01/25	12:30 - 1:30	Mrak 517	Ralph Hexter, Kelly Ratliff, Rachel Goodhue, Bob Powell & Karl Mohr	5

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1

Recent Context

2

Current State Funding Overview

3

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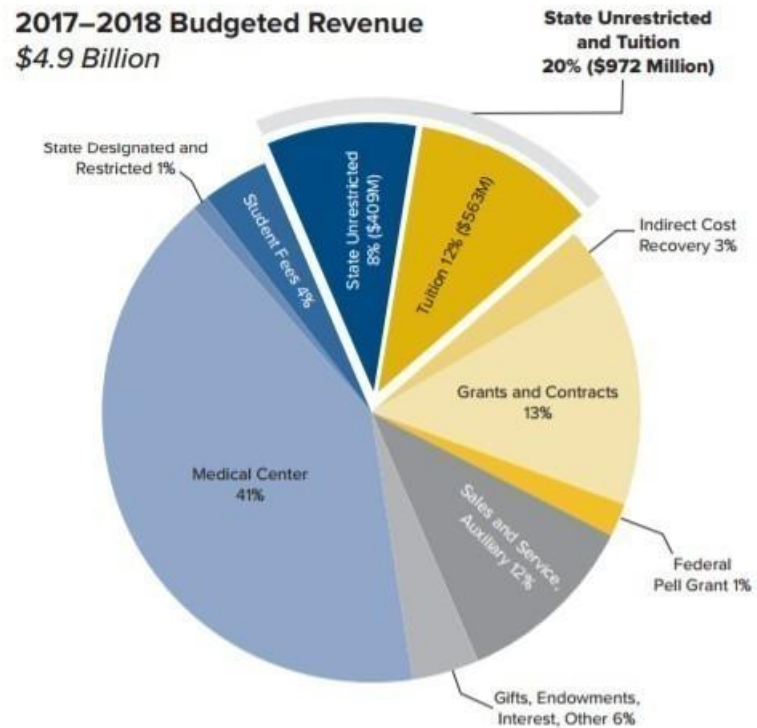
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Potential Future State Alternatives

5

Appendix

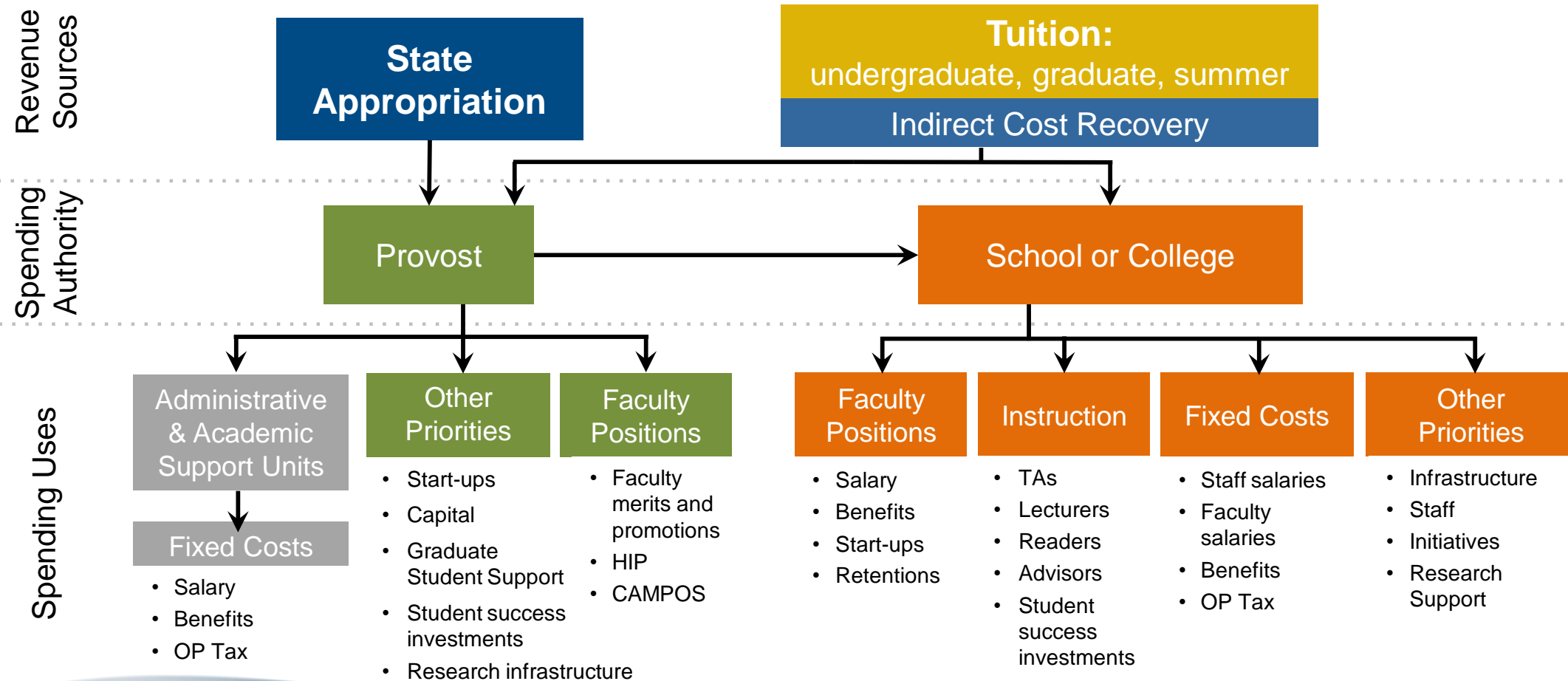
University Operations are funded primarily through two core funds: state unrestricted funds and tuition



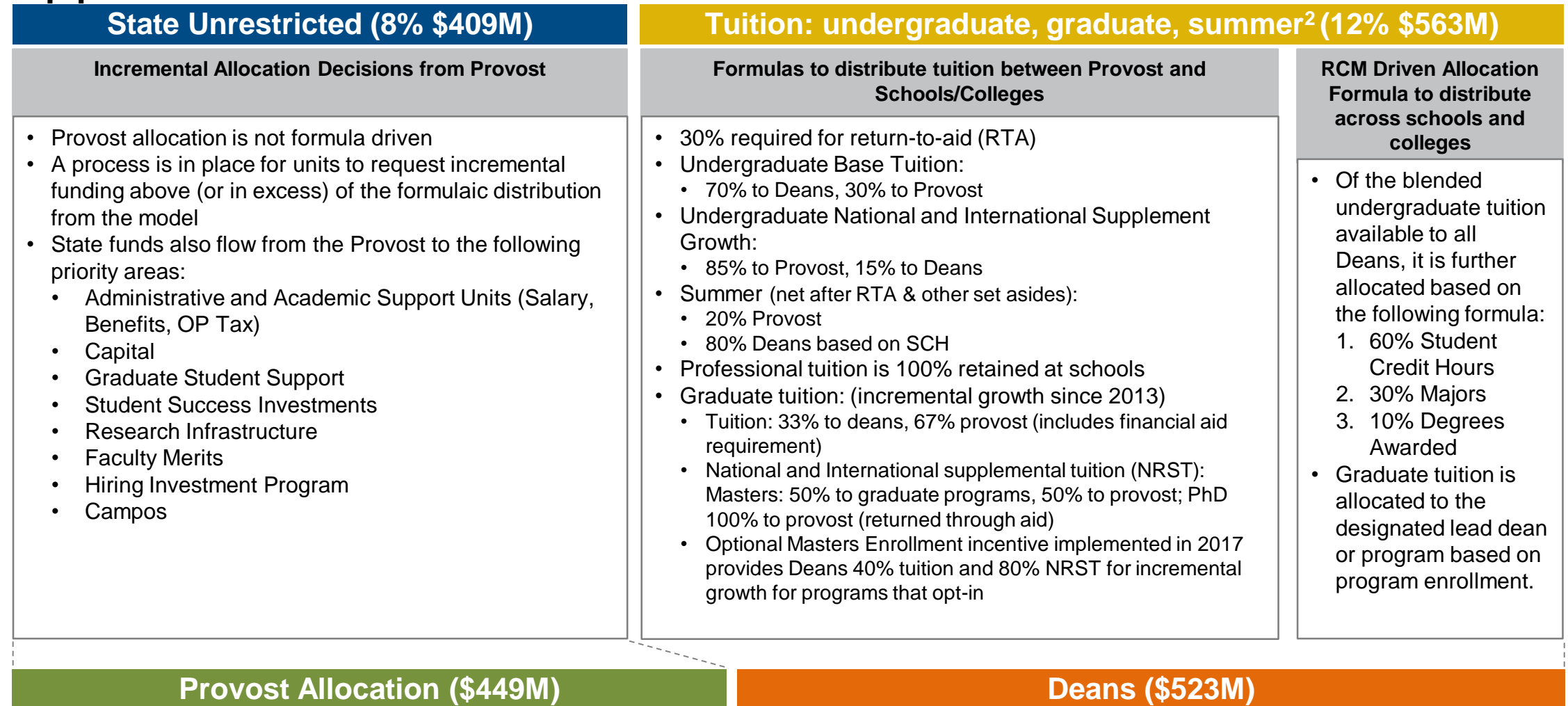
2017-2018 Budget Observations

- Total Budget for UC Davis is \$4.9 Billion, but much of it is restricted to specific uses
- The primary funds for University Operations are core funds, which total approximately \$972M or 20% of all funds
- Core funds are composed of state unrestricted funding and tuition revenue
- State appropriations/state unrestricted funds estimated at \$409M for 2017-2018

The core funds flow to the Provost and Schools for a variety of spending uses



The distribution of core funds is performed using a hybrid approach of RCM and incremental decisions from the Provost



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1

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4

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5

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Our analysis indicates that all three components of the budget system may require adjustments, not just the budget model

UC Davis Budget System

UC Davis defines budgeting as a system composed of three different but interrelated pieces:

- 1. The Budget Model:** Formula-based allocations (Specific revenue streams)
- 2. The Budget Process:**
Annual Incremental Decisions & Check-In (Core Funds)
- 3. The Budget:**
Availability of funds to allocate: Big Picture (All Funds)

Our Finding

- During the course of the analysis we identified a number of positive effects the budget model has engendered.
- However, while the analysis was focused on determining if the budget model was effective, it has become apparent that all three component pieces of the budget system may need to be adjusted to better align with the mission of the University.



Aspects of the budget model contribute positively and are in line with some of the established budget system objectives...

Transparency		Predictability	
Budget Model Benefits	<p>There is broad understanding across stakeholders of the allocation drivers for tuition revenue of the undergraduate budget model.</p> <ul style="list-style-type: none">• Many seem to understand the formulas driving the allocation of tuition revenue, there is no confusion.• People may not like the outcomes or the principles guiding the allocation, but at least they know how the outcomes were derived.		<p>Deans feel like they can make future plans based on anticipated tuition revenue.</p> <ul style="list-style-type: none">• In years past, it may have been uncertain how much funding was going to be allocated to a school.• However, since the implementation of the budget model, school's have predictability of revenue for coming years, enabling reliable funding for long term planning.
	<p><i>Internal Perspectives</i></p> <ul style="list-style-type: none">• <i>We've been more transparent over the years and [the budget model] is predictable."</i>• <i>"Generally I like the transparency of model and like having systematic methodology."</i>		<ul style="list-style-type: none">• <i>"Very pleased when I came in that there was a formula to allocate budget costs; loved the fact that there was a model, that it was transparent, and that you can do your own calculations to model growth."</i>• <i>"Don't want to keep changing the Budget Model just for sake of change."</i>

...yet there are perceived challenges that may not align with all the desired objectives of the budget system

Budget model incentives aligned to the 2020 Initiative, but there is perception that they are not as well aligned to promoting quality education

The budget model appears to disproportionately encourage schools to optimize within their own unit, and minimizes contributions to collaborative efforts like graduate groups and interdisciplinary research, which are key drivers for promoting a well rounded quality education and enhances the student experience

Decision making process and logic to support investment decisions is not consistently transparent at many levels

While tuition allocation drivers are stated, the logic and decision making process to support incremental allocations by the Provost is not always clear to unit leaders and faculty

Equally, the logic and decision making process for investment decisions is not always clear or consistently executed across school deans and the faculty

Uncertainty about recurrence of structural budget deficits and funding sources for core initiatives during slow growth

With the depletion of reserves to cover the \$29 million structural deficit, anticipated slow to flat growth in the coming years and the number of core investments needed to remain competitive, there is uncertainty that some of the recent budget corrections that are temporary (i.e., tax on carryforwards, 1x budget cut) will reoccur or become permanent

Changes in these areas could repair an existing trust gap among key stakeholders, increase incentives that directly align and promote the core mission of the University, and provide line of sight for future strategies to continue investing in core initiatives to remain competitive while maintaining a balanced budget.

Budget System Component: Budget Model

Perception exists that school leaders are primarily incentivized to grow student credit hours, seemingly at times at the expense of other University strengths and priorities

Budget model incentives are well aligned to the 2020 Initiative, but not as well aligned to campus strengths and priorities like interdisciplinary scholarship

Challenges

- Faculty is not always available to teach graduate groups, a key part of UC Davis, because they are asked to focus on undergraduate instruction to generate student credit hours
- There has been an above average demand to change class curriculum's to make them more appealing to students by reducing difficult requirements with the intent of getting more students to sign up and increase student credit hours
- Class sizes continue to increase, while instruction support is not always available for large class sizes, leaving no choice but change the examination methods from written analysis to multiple choice
- The size of upper division sections have increased, as these classes have been opened up as electives to the lower division students. Upper division sections are typically smaller with the intent of providing more focused instruction to students in the later years.

Internal Perspectives

- *"The model emphasizes undergraduates, yet UC Davis is a research powerhouse and the school needs to foster graduate programs to move up in the rankings and that's the downside of the model".*
- *"The budget model is not a good fit; UC Davis culture is collaborative and very inter-disciplinary, yet the model – since it's based on a department's Student Credit Hours – in effect leads the Colleges and Schools to be siloed".*
- *"Incentivizes Departments and colleges to hang on to students"*
- *Faculty will "breaks wall" to teach across Departments.*
- *"We haven't taken advantage of the openness of the faculty side to collaborate with Administration."*

There are a number of perceptions that connect the budget model to behavior that is in contrast to the mission

During the current state phase we heard many different perceptions of behaviors the budget model was engendering, but four were pervasively identified during our 21 interviews.

Perceptions of Behaviors We Heard	Perceived Effects	Perceived Outcome
1 <i>Class Sizes are Growing</i>	<ul style="list-style-type: none">• Less essay assignments• More standardized examinations• Less time for office hours with students	<ul style="list-style-type: none">• Less critical thinking skills developed by student• Less time to support• Less support for students
2 <i>Above Average Demand in Requests to Change Class Curriculum</i>	<ul style="list-style-type: none">• Curriculum redesigned to reduce complexity to attract more students	<ul style="list-style-type: none">• Less critical thinking skills developed by students
3 <i>Size of Upper Division Courses is Increasing</i>	<ul style="list-style-type: none">• Students receive a large share of their upper division education in large classes	<ul style="list-style-type: none">• Less critical thinking skills developed by students• Less time to support• Less support for students
4 <i>Faculty is Not Always Available to Teach Graduate Groups</i>	<ul style="list-style-type: none">• Courses are not always offered in a timely manner or logical sequence• Insufficient offerings of electives	<ul style="list-style-type: none">• Hinders ability to recruit quality graduate students who support research• Preparedness of graduate students

To evaluate if unintended consequences are occurring a series of “Campus Metrics³” are tracked and published

Establishing metrics to evaluate how the model is affecting the campus is a solid foundation, but there seem to be opportunities to enhance and improve the metrics to better evaluate if the model is in fact driving unintended consequences, providing an opportunity to correct it in a fact based manner.

Perceptions of Behaviors We Heard		Indications from Metrics	Observations
1	<i>Class Sizes are Growing</i>	<ul style="list-style-type: none"> For the University class sizes have remained flat since 2012-13 to 2015-16 at 58 Most schools are flat or on downward trend, except COE 	<ul style="list-style-type: none"> Difficult to conclude if 58 is good or bad without establishing a target Establishing targets at the class level will help validate if the perception is accurate
2	<i>Above Average Demand in Requests to Change Class Curriculum</i>	<ul style="list-style-type: none"> No data available to corroborate perception 	<ul style="list-style-type: none"> If this behavior is pervasive, it may be a good idea to track, report it and develop corrective actions
3	<i>Size of Upper Division Courses is Increasing</i>	<ul style="list-style-type: none"> There has been a steady upward trend since 2012 from 26% to 32% of upper division courses that have class sizes from 101 to 200 students 	<ul style="list-style-type: none"> Difficult to conclude without a definitive target or range of what is acceptable
4	<i>Faculty is Not Always Available to Teach Graduate Groups</i>	<ul style="list-style-type: none"> There has been a 2% increase since 2012 from 45% to 48% in ladder faculty teaching graduate class sections as a percentage of total 	<ul style="list-style-type: none"> Hard to conclude if the result is good or bad This metric, in isolation, may not be sufficient to track the behavior (i.e., need graduate group data)

A sample analysis of the metrics measuring the pervasive behavior cited revealed that it is unclear if unintended consequences are in fact taking place; however, there is a strong desire by many to: (1) accurately measure outcomes at the right levels, (2) incorporate them as part of a performance review process, and (3) make necessary corrections (including adjustments to the RCM model) to ensure the mission of the University continues to be carried out.

Budget System Component: Budget Process

While the RCM budget model promotes transparency, the part of the budget that is not formula driven leads to a lack of understanding of how outcomes are decided, creating a trust gap

Decision making process and logic to support investment decisions is not consistently transparent at many levels

Challenges

- University leaders do not understand the decision making logic behind the Provost incremental allocations, roughly 46% of the core funds, leading to a trust gap
- There is a perception that the administration is trying to “plug the shortfalls of the tuition allocation model” with the Provost incremental allocations
- There is a sense that the administration is not taking their “fair share” of the cuts and in fact may be growing
- There is a feeling that there is no clear strategy the administration is following; decisions seem tactical instead of strategic

Internal Perspectives

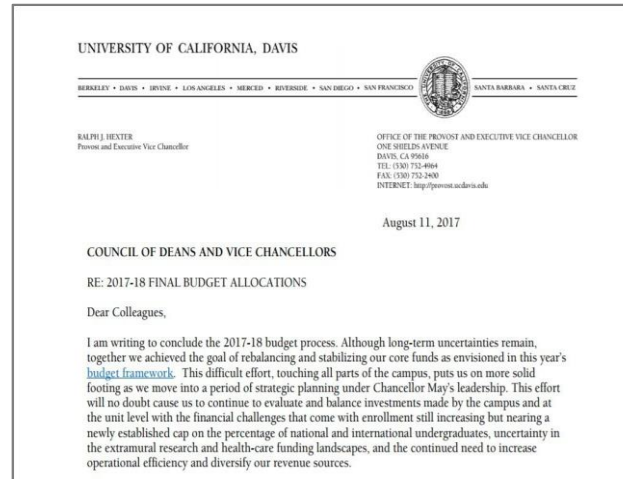
- *“Rationale for discretionary spend makes sense and is supported, but the Committee on Planning and Budget involvement in this element is totally opaque as not informed or understand how allocation decisions are made.”*
- *“I would say transparency has been “U-shaped”; not a lot at first, then a lot, and now it seems like less in the last two years.”*
- *“Lack of willingness to be accountable for decisions leads to speculation without information as to how and what is funded.”*
- *“Would be beneficial if there was communication in how Central is taking their fair share of cuts.”*
- *“Central should explain how they are justifying their fair share, perhaps by capping Central budget to a percentage of total budget.”*

Information on how the Provost Allocation is deployed is generally available & easy to access

Budget and Institutional Analysis Site



Final Budget Allocations Letter



Schedules demonstrating incremental allocations

University of California, Davis
2017-18 Incremental Budget Allocation Summary
Dollars in millions

Attachment 1

	Deans	Academic Support and Administration	Campus ¹	Total
Budget Model Allocations				
Undergraduate Tuition	\$ 6.2	\$ -	\$ -	\$ 6.2
Graduate Tuition ²	\$ 0.8	\$ -	\$ -	\$ 0.8
Indirect Cost Return ³	\$ (0.5)	\$ (0.7)	\$ -	\$ (1.2)
Subtotal, Budget Model	\$ 6.5	\$ (0.7)	\$ -	\$ 5.8
Provost Investment Decisions⁴				
Hiring Investment Program ⁵	\$ 3.0	\$ -	\$ -	\$ 3.0
Salary & Benefits Funding for Fixed Cost Increases ⁶	\$ 22.1	\$ 5.4	\$ -	\$ 27.5
Fund State Nursing Enrollment	\$ 0.8	\$ -	\$ -	\$ 0.8
Capital Debt Repayment Pool	\$ -	\$ -	\$ 2.0	\$ 2.0
Decisions-Base ⁷	\$ 3.8	\$ 5.8	\$ 6.3	\$ 15.9
Decisions-One-Time ⁷	\$ 0.8	\$ 9.5	\$ 8.7	\$ 19.0
Subtotal, Provost Investments	\$ 30.5	\$ 20.7	\$ 17.0	\$ 68.2
Total Allocations	\$ 37.0	\$ 20.0	\$ 17.0	\$ 74.0

Notes

¹ Includes Campuswide and Campaign decisions. Details provided in Attachment 2.

² Includes allocations to Deans, Grad Programs, and OES Graduate Student Support Programs.

³ ICR includes Campus Return Program and set-asides (Saramendi, CRM, CNRPC and Advance CAMPOS).

⁴ Includes all fund types allocated.

⁵ Estimate based on known hires in 17-18; distribution will be based on actual positions hired and salary amounts.

⁶ Estimated set-aside. Distribution will be on actuals.

⁷ Details provided in Attachment 2.

...However, there is a desire from key constituencies to increase transparency by enhancing information reported and opening up the decision making process for the Provost's incremental decisions to a broader set of individuals.

There is also a desire to increase the transparency of the budget process at the school and college level

An analysis revealed that there are inconsistencies on the performance management methods and budget information published within the schools and colleges.

School or College	Strategy Published?	Strategic Initiatives Published?	Budget Published?	Key Performance Metrics Published?	Observations
CA&ES – College of Agriculture and Environmental Science	✓	✓	✓	X	<ul style="list-style-type: none"> • ~ 6 of 10 schools or colleges have an articulated strategy and strategic objectives • Yet only 3 of 10 schools or colleges have a published budget to support the strategy and strategic objectives • Only 1 publishes some level of performance metrics • COE does them all and also involves many constituencies in the budget process, they may be a good benchmark to follow
L&S – College of Letters & Sciences	X	X	X	X	
CBS – College of Biological Sciences	X	X	X	X	
COE – College of Engineering	✓	✓	✓	✓	
SOE – School of Education	X	X	X	X	
Law – School of Law	X	X	X	X	
GSM – Graduate School of Management	✓	X	X	X	
SON – School of Nursing	✓	✓	X	X	
SOM – School of Medicine	✓	✓	X	X	
SVM – School of Veterinary Medicine	✓	✓	✓	X	

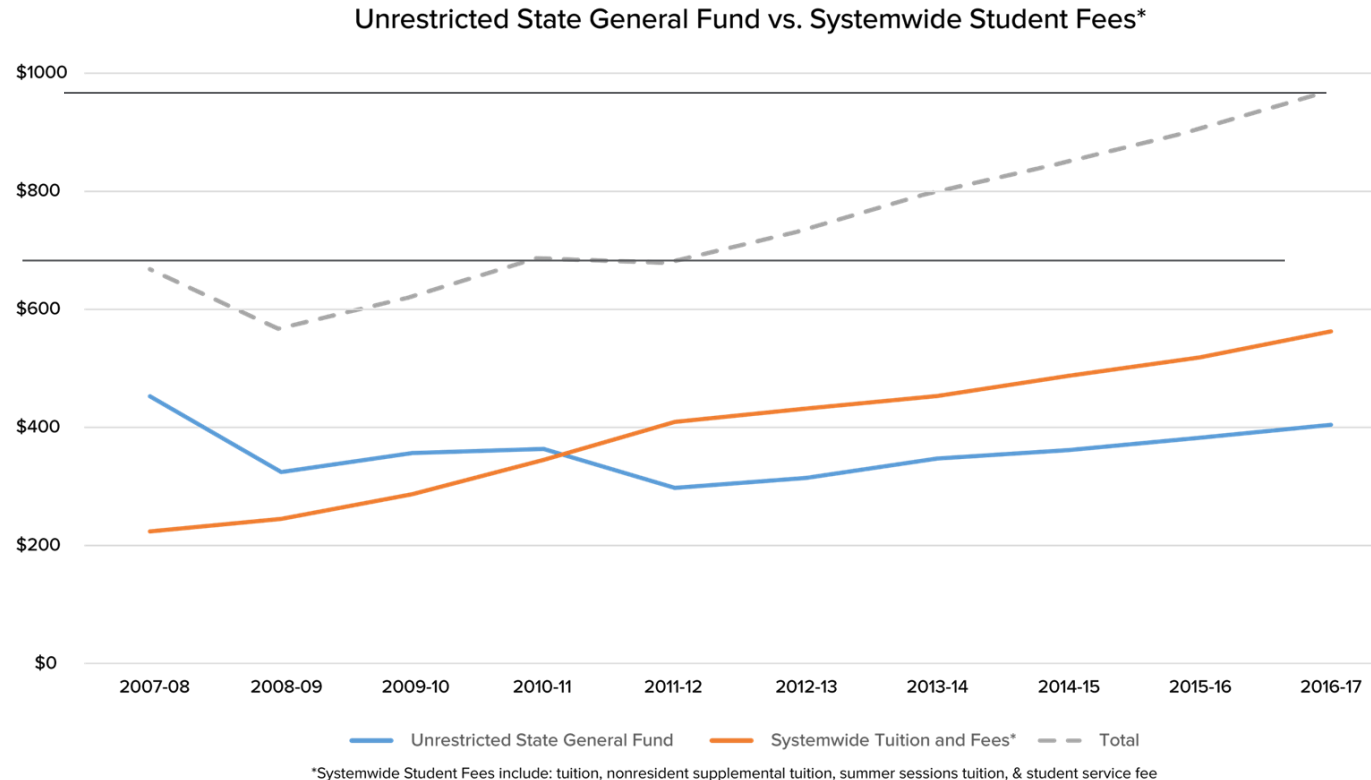
Budget System Component: Budget

There is an anticipated period of flat growth and much interest on how UCD will continue to make investments to remain competitive while having a balanced budget

Uncertainty about recurrence of structural budget deficits and sources of funding for core initiatives in a period of slow to flat growth

Challenges	<ul style="list-style-type: none">• Regental policies have placed pressure on revenue growth plans and concerns exist that the current budget model will promote zero sum game behavior unless new sources of revenue are identified• Concern that the one-time rebalancing measures taken to address budget deficits in 2017-2018 will become reoccurring measures in a period of flat or slow growth• To avoid taxes on reserves, some people are spending reserves in ways that are not strategic for their program or the university as a whole• There is a feeling from some that the academic mission of the university is in a downslope, and recognition that the model is not to blame, the resources are not there, there needs to be a robust revenue plan to keep UCD competitive
Internal Perspectives	<ul style="list-style-type: none">• <i>"You can reduce things, let's do less and do it well as opposed to growing poorly"</i>• <i>"I am not certain that the one time budget correction measures taken will not become permanent."</i>• <i>"We have an aging infrastructure and it's hard to attract top faculty when competitors are providing them with start up packages that include shiny new facilities"</i>• <i>"While units are expected to fund start-up packages, some packages are so competitive and high - at times the Provost stepped in, but most of the time it was left to the Deans and the packages available were poor and we lost candidates to Cornell that could offer 50% more than what we could."</i>

State appropriations, nearly 43% of the core funds, have been erratic since 08 with modest increases of late

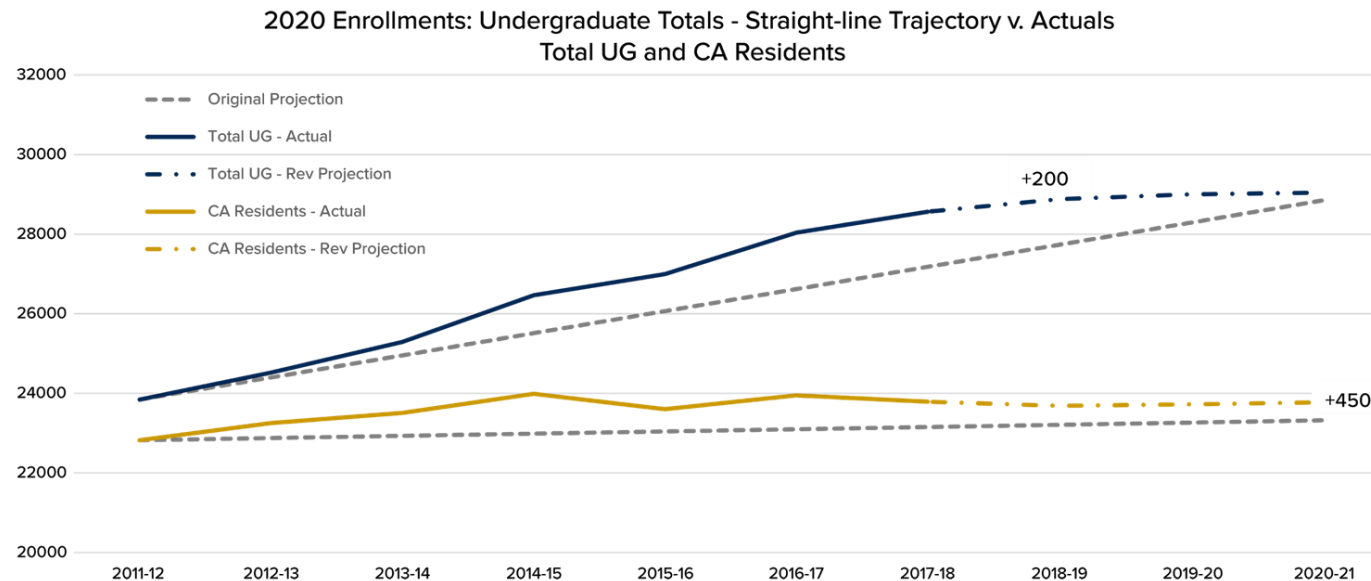


Observations

- While funding has improved since the 2008 recession, they have not reached pre-recession levels, and there is uncertainty if funding will reach pre-recession levels anytime soon
- However, funding has increased since their lowest point in 2011-12 and have been on a steady, modest, upward trend
- But state funding for undergraduate enrollment growth is at lower levels than in the past, ~\$7K compared to ~\$10K per student

Reliance on state funding introduces uncertainty in the planning process, making it difficult to reliably identify sources for key long term strategic initiatives because state funding decisions are outside the authority of UC Davis. However, the university has, in recent years, moved to reduce the dependence on state funding, in part by looking at enrollment growth.

UCD compensated for decreased State funding primarily by growing enrollment in the short term



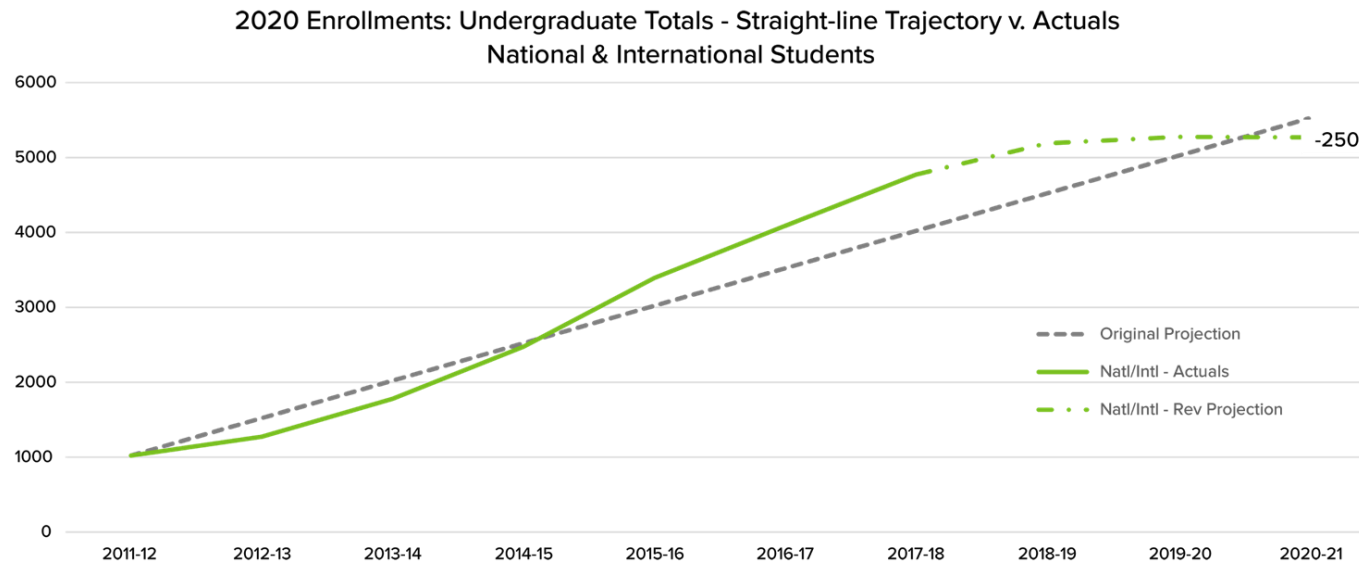
Observations

- Undergraduate enrollment increased by 4,700 since 2011-12
- National and International undergraduate students increased from 4% to 17% of total enrollment since 2012, providing for a diverse student body and increasing total revenue as national and international tuition is 3x the amount paid by residents
- Tuition revenue increased from ~\$400M in 2012 to nearly \$600M in 2017-18⁴

Enrollment growth is projected to remain relatively flat over the next three years.

⁴See chart on previous slide for data reference

Recent Regental policy changes may impact the tuition revenue sourced from undergraduate enrollment of national and international students



Observations

- Currently national and international students represent 17% of the student population at UC Davis
- Regents recently voted to cap national and international student enrollment to 18% of the total student population
- 2020 Initiative targeted growth of the UC Davis national and international student population to 20%
- Only an additional 1% of non-resident students can now be added to the base

A cap on national and international students has many impacts on the University, one of them is the slowing of anticipated revenue growth from this student population that pays three times the amount of tuition than a resident student (CA: \$14,419 vs. N&I: \$42,433 for 2017-2018), which ultimately reduces revenue that was to be used for strategic investments.

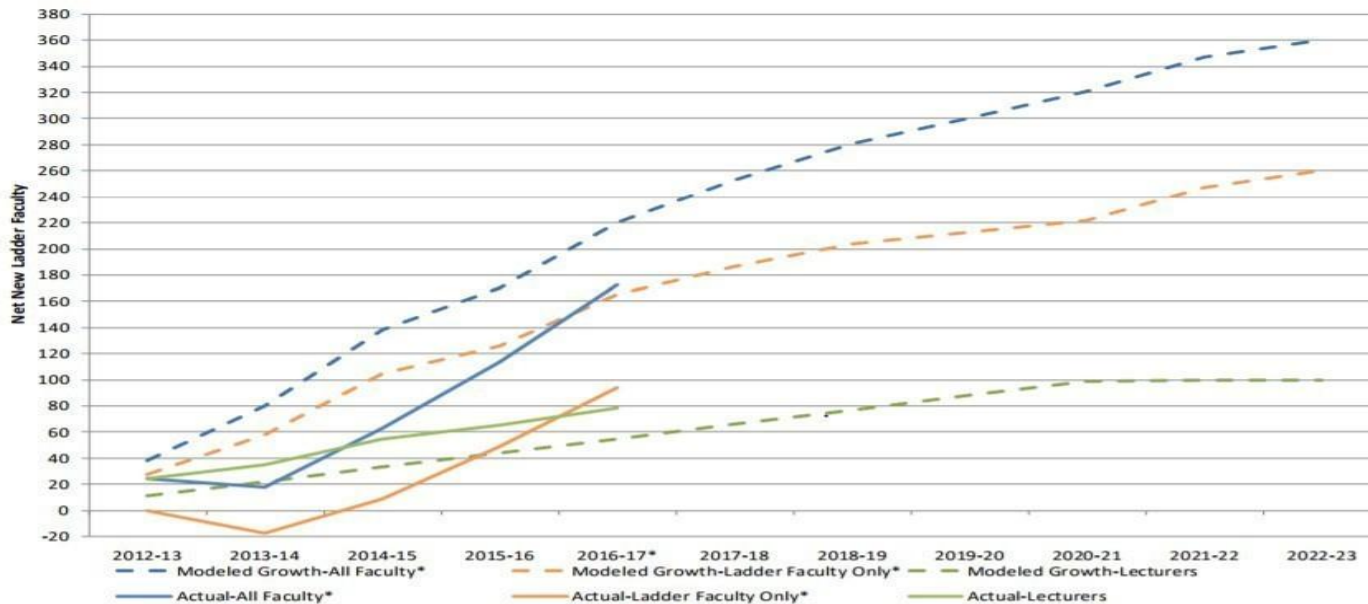
Despite headwinds, UC Davis continues to have obligations and needs to invest to remain competitive

Obligations	Investments in Instructional Space	Other Infrastructure Projects
<ul style="list-style-type: none">• Fixed Cost Increases for Employee Salaries & Benefits Continue to Grow: \$26.8M increase on core funds• \$19.5M for staff & faculty salary & benefit increases• \$6.3M for faculty merit process• \$1M for TA fee remission due to tuition rate increase• Continued need for capital investment, basic infrastructure & growth costs	<ul style="list-style-type: none">• Investing \$20 million over 4 years to renovate and improve technology in general assignment classrooms.<ul style="list-style-type: none">○ 20 classrooms completed, 15 in progress in 2017○ 48 classroom projects scheduled in 2018-20○ Location of Classrooms: Hart, Olson, Robbins, Storer, Rock Hall, Wellman; additional future projects identified• \$1 million per year for enhanced custodial and technology upgrades across all general assignment rooms	<ul style="list-style-type: none">• \$1B in deferred maintenance• California Hall: Opening fall of 2018, 600 seats 20 classrooms completed, 15 in progress in 2017• Teaching and Learning Complex, in planning, 2,000 seats• Walker Hall: Opening Fall 2019• Chemistry and Chemistry Annex, seismic, life safety, & increased laboratory capacity• Controlled Environment Facility: Opening 2019• Planning for mixed-use office and residential facilities along A Street corridor• Student Housing and Dining Projects, including West Village

Investment is also needed for new faculty to keep pace with student growth and remain competitive in instruction and research

Cumulative Faculty Hiring Compared to Growth Model (Colleges and Divisions)

* Includes Hiring Investment Program positions, 60 planned



Observations

- Target net new faculty growth for 2016-17 was ~240, actual is ~175, a shortfall of ~65
- Majority of the shortfall is ladder faculty targeted at ~180 net new faculty and coming in at ~95, shortfall of ~85
- Lecturers are above plan by ~20, the target was ~ 60, yet the actuals is coming in at~ 80
- Information as of October 2016

Ladder faculty hiring has not kept pace with student population growth, which presents a number of challenges to the University (i.e., quality of instruction and research). One rationale cited for this shortfall is that hiring ladder faculty is much more costly and competitive than lecturers, as start up packages have to be robust and funding despite increases in revenue is not always available.

Many schools and colleges are running negative annual operating positions and using reserves to fund startups and facility needs

Many are drawing from existing reserves to balance their budgets, but continually drawing on reserves may not be a sustainable budget balancing strategy over the long term

School or College	Projected Annual Operating Position ⁽¹⁾	17-18 Budgeted Expenditures by Unit ⁽²⁾	Ann Op Position as % of Budget	Rationale for Reserve Spend	Observations
1. CA&ES – College of Agriculture and Environmental Science	\$1.4	\$170.0	1%	Facilities, building upgrades, startups	<ul style="list-style-type: none"> • 5 of the 10 schools and colleges projected an annual operating deficit for 2017-18 • 8 of the 10 schools and colleges used reserves to fund startups & facility needs • Schools and colleges have varying levels of flexibility to fund deficits with reserves due to differences in the types of funds • The University recently closed a structural budget deficit of \$29M, in part by taxing reserves • Given challenges with existing sources of funding and strategic investments needed to keep UC Davis competitive, there are perceived concerns about: (1) the availability of additional sustainable sources of funding to make long term investments, and (2) maintaining focus on strategic priorities
2. L&S – College of Letters & Sciences	(\$5.7)	\$232.0	-2%	Combination of faculty start-up, capital investments, program investments, and operating deficits	
3. CBS – College of Biological Sciences	(\$2.8)	\$72.5	-4%	Faculty Start-ups	
4. COE – College of Engineering	\$2.3	\$86.3	3%	Renovations	
5. SOE – School of Education	\$0.0	\$14.1	0%	Startups, academic programs, research	
6. Law – School of Law	(\$5.4)	\$40.9	-13%	Financial Aid Commitments	
7. GSM – Graduate School of Management	(\$0.6)	\$29.5	-2%	Planned investment in new Program Start-Up	
8. BIMSON – Betty Irene Moore School of Nursing	(\$6.7)	\$21.1	-32%	Planned spend down of GBMF operating grant for school implementation, cash already received and held in reserves	
9. SOM – School of Medicine	\$26.2	\$586.5	4%	Not applicable	
10. SVM – School of Veterinary Medicine	\$4.9	\$195.5	3%	Not applicable	

Agenda

1

Recent Context

2

Current State Funding Overview

3

Our Findings

4

Potential Future State Alternatives

5

Appendix

To resolve current challenges and achieve objectives intended in 2012, corrective measures should be considered

Challenges	<u>Budget model</u> incentives aligned to the 2020 Initiative, but there is perception that they are not as well aligned to promoting quality education	Decision making <u>process</u> and logic to support investment decisions is not consistently transparent at many levels	Uncertainty about recurrence of structural <u>budget</u> deficits and <u>funding sources</u> for core initiatives during slow growth
Measures	Enhance the budget model to better balance growth and quality of education incentives	Review the budget process to improve transparency of decision making for non-RCM allocations	Identify and develop potential new sources of revenue and evaluate existing cost structure to identify reduction opportunities

There are three primary measures UC Davis can do to improve the budget system in place today

	1 Enhance the budget model to better balance growth and quality of education incentives	2 Review the budget process to improve transparency of decision making for non-RCM allocations	3 Identify and develop potential new sources of revenue and evaluate existing cost structure to identify reduction opportunities
Potential Actions	<ol style="list-style-type: none"> 1. Provide Incentives for Quality of Education Outcomes Outside the Model Construct 2. Make adjustments on the margin 3. Provide Training Resources to Deans and Department Chairs 	<ol style="list-style-type: none"> 1. Open Up Decision Making Processes at Provost, School and College Levels 2. Establish Objective Criteria to Enable Budget Decision Making Process 3. Publish comprehensive performance of the University, Schools and Colleges 	<ol style="list-style-type: none"> 1. Engage in process to develop a revenue enhancement strategy for the University and activate action plan (e.g., 3P, Online, business undergrad) 2. Complete comprehensive review of cost structure
Benefits	<ol style="list-style-type: none"> 1. Improve alignment of incentives to quality of education, not just growth 2. Ability to objectively measure and reward quality of education outcomes 3. Reduce tribal behavior and promote existing interdisciplinary culture 	<ol style="list-style-type: none"> 1. Improve transparency of Provost allocation logic 2. Enhance dean accountability 3. Remove subjectivity from decision making process by introducing criteria/metrics 4. Improve trust gap 	<ol style="list-style-type: none"> 1. Reduce reliance on flat state funding, impact of Regental policies and anticipate flat growth of enrollment in future years
Change Impact	Medium: <ul style="list-style-type: none"> • Definition of metrics will involve input from many stakeholders and will require debate • Formula change not expected to have significant change impact as framework is already in place 	High: <ul style="list-style-type: none"> • Process change will impact a large portion of the campus and many stakeholders • Process changes will require training of Deans and Assistant Deans and other school/college contributors 	High: <ul style="list-style-type: none"> • Reduction of cost structure is likely to impact many stakeholders depending on the breadth of review • There may be resistance to new sources of revenue (e.g., on-line education)

There are three primary measures UC Davis can do to improve the budget system in place today, continued

1 Enhance the budget model to better balance growth and quality of education incentives	Review the budget process to improve transparency of decision making for non-RCM allocations	Identify and develop potential new sources of revenue and evaluate existing cost structure to identify reduction opportunities
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There is a perception that the existing RCM undergraduate model is not entirely aligned to the objective of the University to advance and encourage campus strengths and priorities such as interdisciplinary scholarship. Further, there is a feeling that in some cases the quality of education is potentially being impacted by the strong focus on student credit hours that seemingly promote the proliferation of large classes, which has an impact on the ability to provide quality instruction. There are 3 options to consider to potentially neutralize the perceived negative effects of the existing RCM model:

1 Provide Incentives for Quality of Education Outcomes Outside the Model Construct	2 Make Adjustments on the Margin	3 Provide Training Resources to Deans and Department Chairs
<ul style="list-style-type: none">A. Consider enhancing the existing “Campus Metrics” available by making them more comprehensive, precise and actionable to better understand if desired outcomes are truly being achievedB. Develop method for tracking, measuring and communicating quality of education outcomesC. Develop cadence for periodic performance reviews with key stakeholders to determine if desired outcomes are being achieved and agree on remediationD. Provide bonus rewards for achieving established targets	<ul style="list-style-type: none">A. Consider making adjustments to the percentages used to allocate funds of the existing modelB. Reduce emphasis on student credit hours and increase emphasis on majors, time-to-degrees, and degrees awardedC. Run sensitivity tests to identify impacts of changes and assess potential behavioral impacts the new allocation percentages would engender	<ul style="list-style-type: none">A. Consider convening periodic meetings among all Deans, Assistant Deans and Department Chairs to share best practices on how to manage portfolio of educational priorities at the school and college levelB. Consider developing a management training program targeted to Deans, Assistant Deans and Department chairs to provide additional methods, considerations and tools to manage schools and colleges

There are three primary measures UC Davis can do to improve the budget system in place today, continued

Enhance the budget model to better balance growth and quality of education incentives

2 Review the budget process to improve transparency of decision making for non-RCM allocations

Identify and develop potential new sources of revenue and evaluate existing cost structure to identify reduction opportunities

There is a perception that the Provost allocation decision logic is not always transparent, observations have been made that the type of budget information that is published at the University level does not provide the entire picture of sources and uses and finally the transparency of the budget process at the school and college level is inconsistently transparent. A review of the process should be performed, and some or all of the actions below considered that would potentially achieve the objective of improving the transparency of the entire budget process, not just the budget allocation model.

1 Open Up Decision Making Processes at Provost, School and College Levels

- A. Consider performing a review of all components of budget and isolate areas that should be part of a more transparent process (e.g., strategic investments), if not the entire budget
- B. Consider establishing periodic performance reviews with advisory board of previously approved investments to understand performance and provide input on whether funding should continue

2 Establish Objective Criteria to Enable Budget Decision Making Process

- A. Consider developing comprehensive performance indicators/metrics that are quantitative and qualitative (e.g., financial, student, faculty, quality of education) across all levels of the University to help objectively monitor performance of administrative departments as well as schools and colleges
- B. Alongside performance metrics, develop key decision making criteria (e.g., alignment to School and University strategy, return on investment, value proposition, etc.) to help objectively consider alternative strategic investment options during decision making meetings with advisory board participants

3 Publish comprehensive performance of the University, Schools and Colleges

- A. Consider publishing complete sources and uses, not just incremental funding decisions for each year at Provost and the College and School levels
- B. Consider enhancing existing final budget allocations letter to include more information on the rationale for investment decisions
- C. Consider holding town hall type of meetings after budget decisions are final with advisory council to inform all constituencies of rationale for final budget decisions

There are three primary measures UC Davis can do to improve the budget system in place today, continued

Review the budget process to improve transparency of decision making for non-RCM allocations

Enhance the budget model to better balance growth and quality of education incentives

3 Identify and develop potential new sources of revenue and evaluate existing cost structure to identify reduction opportunities

There is a feeling of uncertainty about the recurrence of structural budget deficits at the University level which would make some of the temporary budget rebalancing actions more permanent or draconian in nature. Further fueling this concern is a feeling that there will be an upcoming period of flat growth due to market conditions, State and/or Regental actions, while at the same time the University needs to continue to make core investments (e.g., deferred maintenance, start up packages, new majors) to remain competitive. There are two potential actions that can be taken to help address this:

1 Perform Comprehensive Review of Existing Cost Structure

- A. Consider performing review of administrative units to identify potential sources of efficiencies
- B. Leverage benchmarking tactics to help establish a basis for comparison to peers and identify cost reduction opportunities
- C. Consider performing a review of all special multi year initiatives to identify non-core initiatives and/or underperforming initiatives and make determination if they should continue
- D. Establish road map of activities necessary to achieve identified reduction targets

2 Identify New Sources of Sustainable Revenue

- A. Consider developing a growth strategy to identify new and sustainable sources of revenue to help reduce dependence on state appropriations, some options to consider:
 - a) Consider public/private partnerships to help monetize existing UC Davis assets
 - b) Consider reviewing all intellectual property and identifying monetization opportunities
 - c) Consider increase on-line education capability

Appendix

1

Recent Context

2

Current State Funding Overview

3

Our Findings

4

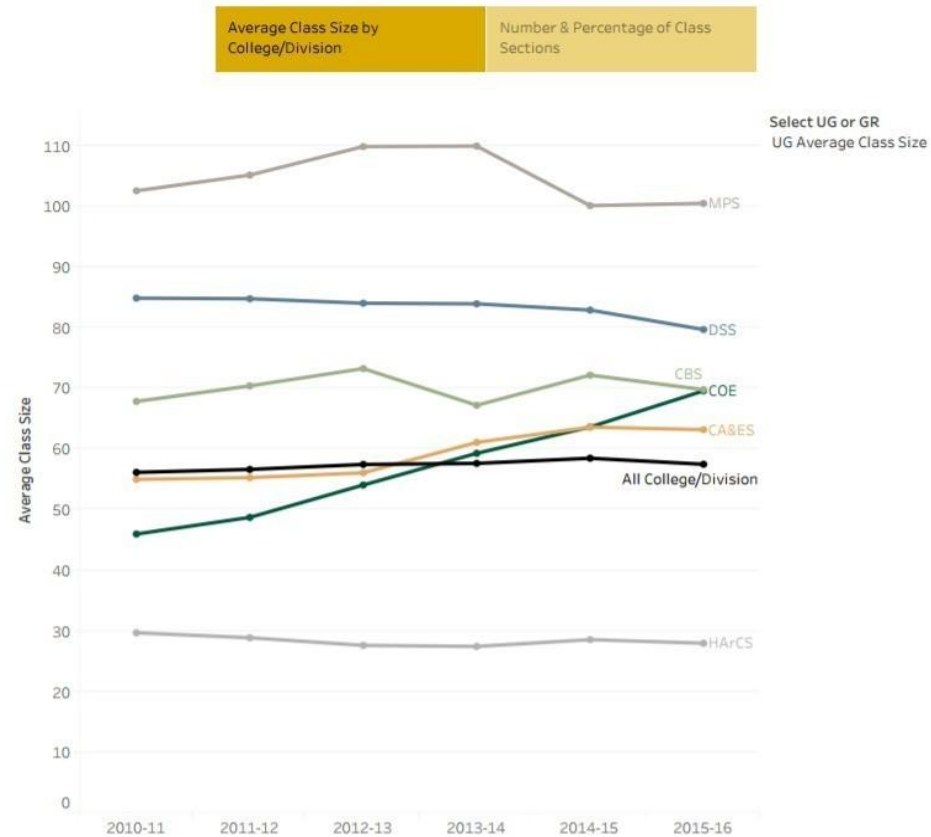
Potential Future State Alternatives

5

Appendix

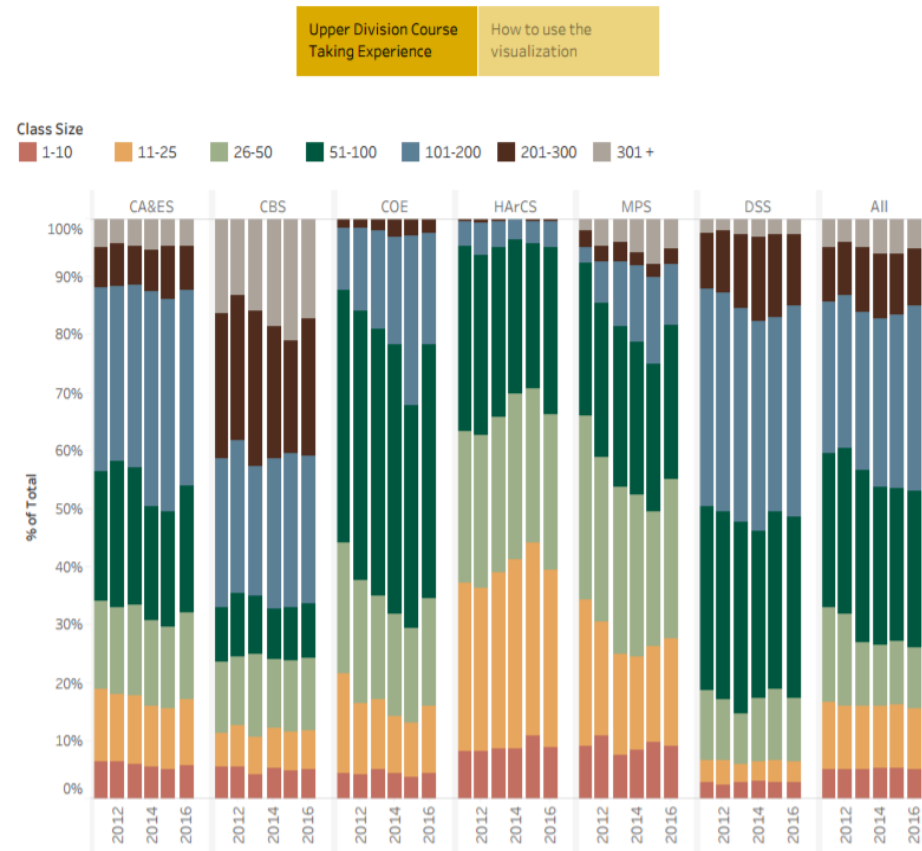
Campus Metrics: Class Size

Metric 10 dashboard: Class Size Metrics



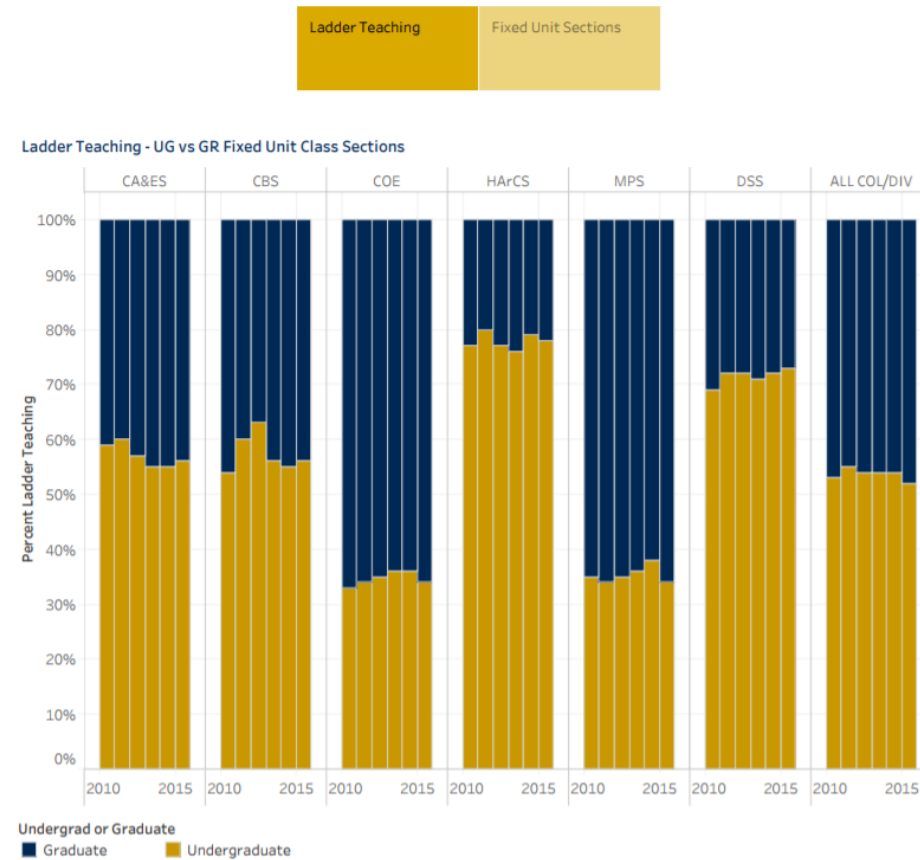
Campus Metrics: Upper Division

Metric 12: Upper Division Course Taking Experience



Campus Metrics: Teaching by Instructor Type

Metric 7: Teaching by Instructor Type - Class Sections by Instructor Groups



Change Management

1

Recent Context

2

Current State Funding Overview

3

Our Findings

4

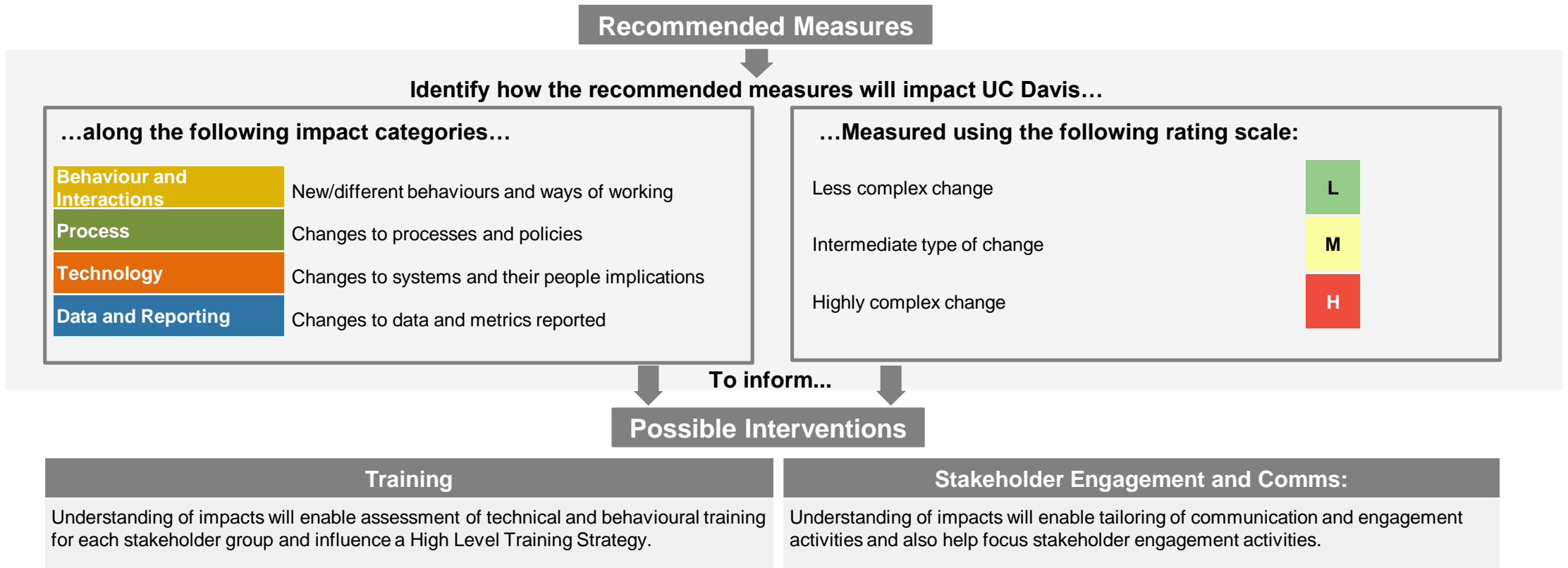
Potential Future State Alternatives

5

Appendix

UC Davis Change Impact Analysis

The change impact analysis helps develop a common understanding of the potential impact the proposed changes may have across a number of categories. It also is a tool that helps identify the appropriate interventions needed to ensure the potential changes are well accepted across all stakeholders at UC Davis.



Change Impact Summary – Measure #1

Enhance the budget model to better balance growth and quality of education incentives			
	1. Provide Incentives for Quality of Education Outcomes Outside the Model Construct	2. Make adjustments on the margin	3. Provide Training Resources to Deans and Department Chairs
BI	HIGH	LOW	HIGH
P	MEDIUM	LOW	MEDIUM
T	MEDIUM	LOW	MEDIUM
DR	MEDIUM	LOW	MEDIUM

Change Impact Detail – Measure #1

	1 Provide Incentives for Quality of Education Outcomes Outside the Model Construct	2 Make Adjustments on the Margin	3 Provide Training Resources to Deans and Department Chairs
BI	<ul style="list-style-type: none"> Definition of metrics will involve input from many stakeholders and will require debate. Broad understanding of what the agreed upon measures are and how they will be calculated is necessary. Tracking of how metrics affect behavior is needed. 	<ul style="list-style-type: none"> Change impact is relatively low, principally because the stakeholder community is already accustomed to operating with the budget model framework. Behaviors may change and monitoring those changes is necessary, but it's not an entirely new concept. 	<ul style="list-style-type: none"> Behaviors and new ways of working are expected direct outcomes of providing training to Deans and department chairs. It may require continual periodic coaching to cement desired behaviors and promote new ways of working.
P	<ul style="list-style-type: none"> Process to collect, synthesize and report on agreed upon data may undergo moderate change. To minimize impact, recommend that existing processes are leveraged and policies updated to accommodate for new incentive structure. 	<ul style="list-style-type: none"> Change impact is low; the process for tracking, synthesizing and reporting is already in place. This change would not require a dramatic overhaul of the existing budget model reporting process. 	<ul style="list-style-type: none"> Budget processes at the school and college levels may undergo changes resulting from training and coaching sessions conducted.
T	<ul style="list-style-type: none"> Technology utilized to gather, synthesize and report agreed upon metrics will not be dramatically change, assuming the existing technology is leveraged and adjusted to report on new metrics identified. 	<ul style="list-style-type: none"> Minimal change impact anticipated. Technology utilized today to collect, synthesize and report on data can be leveraged to accommodate new changes to the budget model. 	<ul style="list-style-type: none"> The technology utilized at the school and colleges may undergo changes, primarily driven by the outcomes of the training/coaching sessions and the possible process changes put in place to improve the budget process.
DR	<ul style="list-style-type: none"> Collection of data to measure, track and report on behaviors will present some degree of change. The change will be driven by the metrics agreed upon and whether the data is easily accessible and able to be integrated into the existing budget processes. 	<ul style="list-style-type: none"> Minimal change impact anticipated. Changes to the formulas calculating student credit hours, majors and degrees awarded may be necessary but this change is expected to have a relatively low impact. 	<ul style="list-style-type: none"> Data necessary to support changes to the budget process driven by training/coaching may require changes.

Change Impact Summary – Measure #2

Review the budget process to improve transparency of decision making for non-RCM allocations			
	1. Open Up Decision Making Processes at Provost, School and College Levels	2. Establish Objective Criteria to Enable Budget Decision Making Process	3. Publish comprehensive performance of the University, Schools and Colleges
BI	HIGH	HIGH	HIGH
P	HIGH	HIGH	HIGH
T	LOW	LOW	LOW
DR	LOW	HIGH	MEDIUM

Change Impact Detail – Measure #2

	1 Open Up Decision Making Processes at Provost, School and College Levels	2 Establish Objective Criteria to Enable Budget Decision Making Process	3 Publish comprehensive performance of the University, Schools and Colleges
BI	<ul style="list-style-type: none"> New behaviors and ways of working are going to be necessary to deliver on this recommendation. H Parts of the recommended framework are already in place, but opening up the decision making process to new stakeholders is new and will require adjustments. 	<ul style="list-style-type: none"> New performance indicators will drive changes in behaviors and ways of working. H Emphasis on the performance indicators to aid in the decision making process will be a new way of enabling decision making for many stakeholders. 	<ul style="list-style-type: none"> Increase in transparency will drive changes in ways working and behaviors across the schools and colleges, it will likely reduce the existing trust gap. H Transparency should promote awareness of the strategic direction taken and financial health and priorities.
P	<ul style="list-style-type: none"> A budget review process is already in place for many parts of the schools and colleges; however, the process may need to be adjusted to include additional review sessions, people and data to be discussed. H 	<ul style="list-style-type: none"> An initial process to agree on key performance indicators and decision making criteria for investments needs to be put in place. H A process needs to be established to perform data collection and reporting activities. 	<ul style="list-style-type: none"> To increase the level of transparency a number of process changes are necessary. H New meetings may be required and a new process needs to be established to publish financial information across the University in a consistent fashion.
T	<ul style="list-style-type: none"> Minimal technology changes are anticipated from this recommendation. L 	<ul style="list-style-type: none"> Minimal change impact anticipated to technologies. L Assumption that existing technologies will be able to accommodate data collection and calculation of new performance indicators. 	<ul style="list-style-type: none"> Minimal change impact anticipated to technologies. L Assumption that existing technologies will be able to accommodate new reporting requirements.
DR	<ul style="list-style-type: none"> Minimal data and/or reporting changes are required. L 	<ul style="list-style-type: none"> Data and reported detail are likely to undergo a substantial change if recommendation is adopted. H Agreed upon key performance metric data needs to be captured, synthesized, maintained and reported. 	<ul style="list-style-type: none"> Data necessary to support new reporting norms will require some level of change. M Periodic reporting policies to establish standard cadence and level of detail for reporting may need to be established.

Change Impact Summary – Measure #3

Identify and develop potential new sources of revenue and evaluate existing cost structure to identify reduction opportunities		
	1. Perform Comprehensive Review of Existing Cost Structure	2. Identify New Sources of Sustainable Revenue
BI	HIGH	HIGH
P	HIGH	LOW
T	LOW	LOW
DR	LOW	LOW

Change Impact Detail – Measure #3

1 Perform Comprehensive Review of Existing Cost Structure	
BI	<ul style="list-style-type: none"> A comprehensive review of existing cost structures will drive a change in the way stakeholders evaluate the financial priorities. H It may provide an opportunity for stakeholders to re-baseline their budgets and promote increased fiscal discipline for the future.
P	<ul style="list-style-type: none"> This is expected to be a one time review of the existing cost structures. H The process to review the cost structure will affect many stakeholders and the decision making process to prioritize areas of cost saving opportunities may require a lot of input and debate.
T	<ul style="list-style-type: none"> Minimal if any technology changes are anticipated resulting from this recommendation. L
DR	<ul style="list-style-type: none"> Data necessary to complete the one time review of existing cost structures is assumed to be available, as a result minimal impact is anticipated. L

2 Identify New Sources of Sustainable Revenue	
	<ul style="list-style-type: none"> Engaging key stakeholders in the completion of a growth strategy will drive new behaviors. H Example behaviors expected are entrepreneurial, sense of ownership, creative and evangelist.
	<ul style="list-style-type: none"> Minimal change impact anticipated to existing processes L
	<ul style="list-style-type: none"> Minimal change impact anticipated to existing technologies. L
	<ul style="list-style-type: none"> Minimal change impact anticipated on existing data and reporting. L