UCDAVIS

Framework for a New Campus Budget Process

Incentive-based Budget Model Introduction

Overview

The core of support for the university's instructional mission has historically come from what the university has called general fund revenue—a combination of state unrestricted funds and tuition support.

In an environment where state funding continues to decrease and student tuition continue to increase, it becomes increasingly important to distinguish between student tuition support and unrestricted state support. It is also important to allow for a budget process that creates incentives consistent with our campus vision and increases transparency. To accommodate these priorities the campus will transition to a new, incentive-based budget model effective July 1, 2012.

The following principles serve as the foundation for the university's new incentive-based budget model.

Advances the university's

Vision of Excellence

- Elevates the university's mission and goals.
- Encourages the advancement of campus strengths in interdisciplinary scholarship.
- Promotes our priority for internationalization.
- Boosts campus impact on economic development.
- Balances local autonomy with a strong sense of university-wide vision and values.

Encourages Creativity

- Provides the assurance of reasonable reserves, oversight and potential direct benefit for those units willing to engage in responsible risk-taking.
- Includes mechanisms for investment in fresh ideas at all levels.

Leads to a more

Transparent Budget Process

- Acknowledges the need for simplification.
- Links authority with accountability.
- Relies on common and easily available sources of data.
- Affords units the ability to forecast future revenue.
- Incorporates tools for future budget planning.

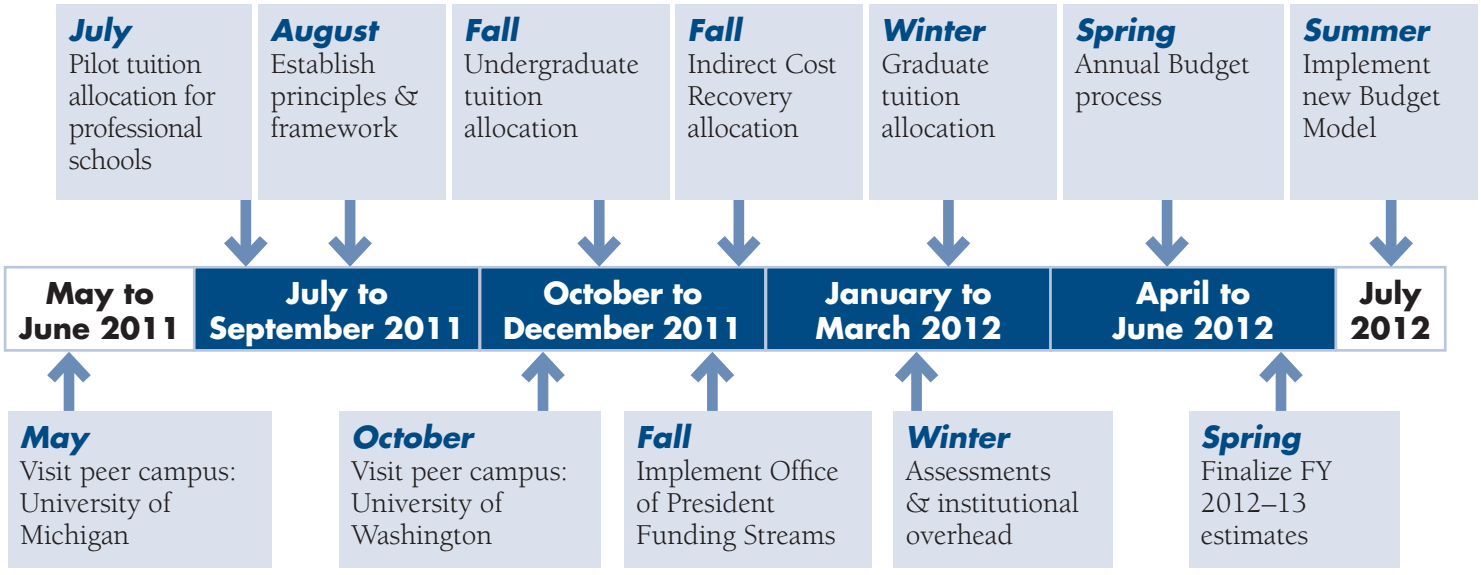
Includes a

Transition Strategy

- Changes will not happen all at once.
- Includes supplemental funding from the Provost over a period of years for departments that need a bridging strategy.

Implementation Timeline

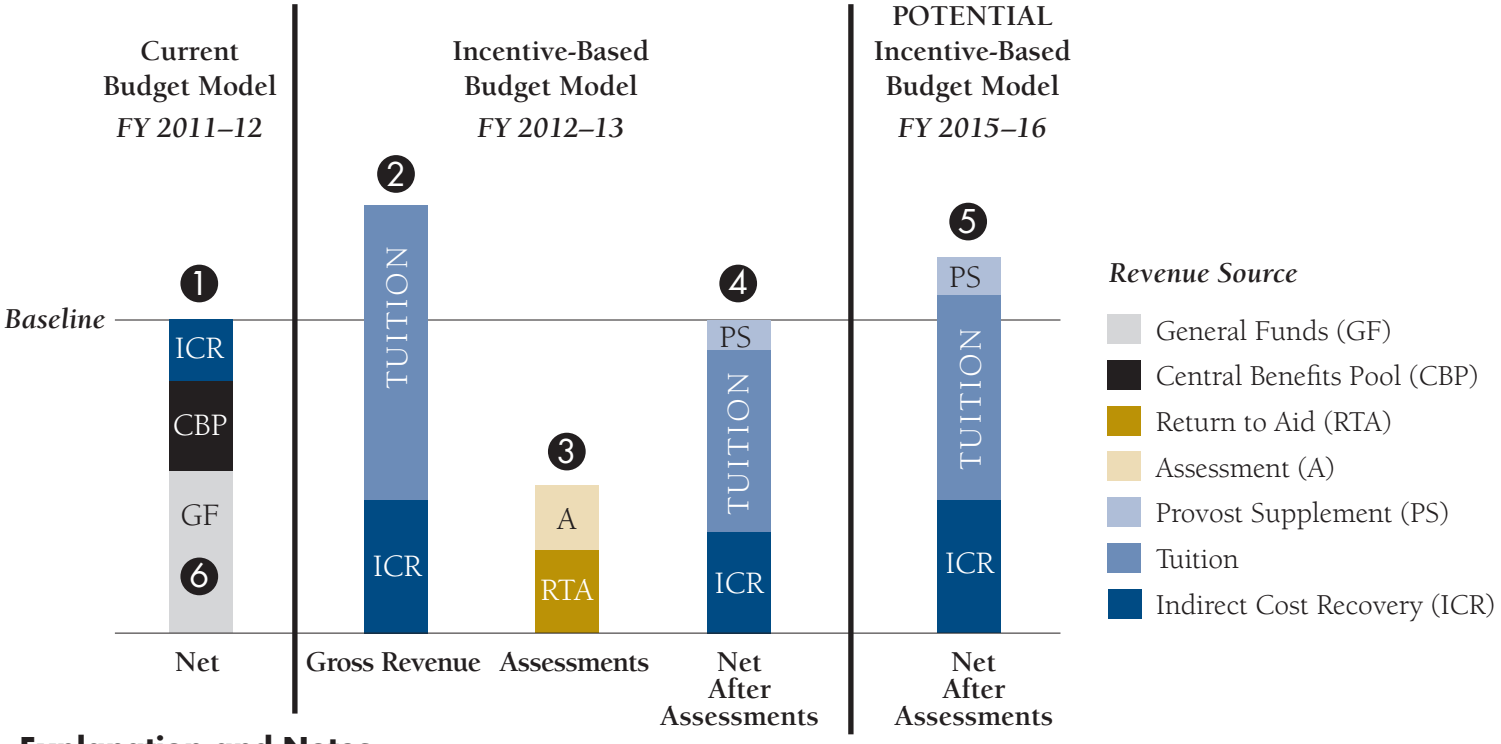
Incentive based budgets are designed to allocate revenue directly to deans and vice chancellors responsible for generating those revenues. Tuition is typically allocated based on instruction and majors and research indirect cost funds are allocated to the school or college that generates the funds. As the number of students, tuition and research grows, the allocations will reflect the increases. The budget model also includes an assessment that will be used along with state unrestricted funds for strategic reinvestments in colleges and schools and to support central academic support units (e.g., the library) and administrative services.



Budget Model Components: Transition and Future Year fund flows

A primary impact of the new budget model is on the schools, colleges, divisions and some Office of Research programs that generate revenues such as tuition and indirect costs. As part of the transition from the current allocation system to the new budget model, general funds (i.e., 19900 funds) will be replaced by tuition, indirect cost recovery and a provost's supplement. The provost's supplement is a combination of unrestricted state support and assessment funds collected through the new budget model. Initial core fund budgets for central academic support and administrative units will be comprised of provost supplement funds. During the initial transition, the provost's supplement will be allocated in an effort to keep overall budgets comparable to FY 2011–12.

Example for a School, College or Division



Explanation and Notes

1. *Our current budget model allocates revenue from 19900 general funds (a combination of state funds and tuition), the central benefits pool, and, if applicable, indirect cost recovery.*
2. *In the incentive-based budget model, funding is allocated directly to those units that generate revenue.*
3. *Return to aid and an assessment are deducted from a units' gross revenue.*
4. *A provost supplement is added or subtracted so that the net tuition and indirect cost funds (i.e., revenue (2) less assessments (3)) is comparable with existing support. In future years, the provost supplement is incrementally adjusted as part of the annual budget process to reflect overall budget needs and strategic priorities.*
5. *The budget model incentivizes schools and colleges to create programs and services to sustain and grow resources. In addition, the Provost/EVC continues to allocate the provost supplement as part of the annual budget process.*
6. *General fund money is a combination of tuition revenue and unrestricted state-funded support. In the new model, tuition funding is allocated directly to the unit that generates it, and state support is included in 'Provost Supplement' funding.*

Note: The budget model example depicted above <u>excludes</u> state fund budget reductions and/or any tuition increases implemented to offset state fund budget reductions.

Future and Related Projects

1. The implementation of the new **OP Funding Streams initiative** is a related, but separate project. For 2011–12, there will not be changes to local school, college or unit budgets.
2. Planning and analysis for the **2020 Initiative** are being carefully coordinated with the Incentive-Based budget model.
3. Incentive-based mechanisms for **space and energy resources** will be considered in the next phase of the budget model (analysis will begin in 2012–13).
4. Implement an automated Budget system to enhance budget management.

DRAFT

UCDAVIS
BUDGET AND INSTITUTIONAL ANALYSIS

WORKING PAPER, V1 October 2011

Incentive-Based Budget Model
Undergraduate Tuition Allocation

The following information is intended to provide context for a discussion on allocating undergraduate tuition revenue within an incentive-based budget. This paper includes a general overview of tuition allocation, examples from other universities, data specific to UC Davis, and a proposed methodology to serve as a starting place for deciding the specific aspects of undergraduate tuition allocation.

PRINCIPLES

Before delving into the specifics of undergraduate tuition allocation, it is important to reiterate the over-arching principles of the UC Davis budget process. These principles should help inform the decisions to be made on specific aspects of the budget model.

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.

TERMINOLOGY

For purposes of this paper, the term **tuition** includes tuition (formerly the educational fee) and nonresident supplemental tuition. For 2011-12, tuition is $11,220 per year. With the addition of the undergraduate nonresident supplemental tuition ($22,878), the total is $34,098 per year (see Appendix I for a summary of student fees). The Student Services Fee ($972 for 2011-12) is excluded, because its uses are restricted to student services and cannot be used to directly support instruction. Campus-based fees ($1,668 - without health insurance - for 2011-12) are

also excluded, because they are, in general, dedicated to specific purposes and are not available for the allocation process described in this document. And graduate academic tuition, tuition for professional degree programs and fees paid by students in self-supporting degree programs are excluded. As explained later, the topic of graduate tuition will be discussed in more detail in a separate paper.

Unless otherwise stated, the term **unit** is intended to refer to the primary campus organizational units that are led by a dean, vice provost or vice chancellor. Universities that have implemented incentive-based budgets tend to allocate funds at the highest level. There is no expectation that funds be distributed to departments using the same methodology that drive allocations to the schools, colleges and divisions.

The term **financial aid** encompasses a variety of mechanisms to help students pay education expenses. It includes federal, state and private sector support in the form of grants, loans and work-study programs. The term return-to-aid is the portion of tuition revenue that, per Regental policy, is dedicated to university-sponsored financial aid programs. Of the tuition paid by undergraduates roughly 30% is currently reserved for return-to-aid.

The term **blended tuition** refers to a pool of revenue that is the combination of resident and nonresident tuition. The amount of undergraduate tuition revenue per student that a unit receives will be based on the overall campuswide mix of resident and nonresident populations and not on a unit's specific enrollment.

TUITION ALLOCATION WITHIN INCENTIVE-BASED BUDGETS

Incentive-based budgets are designed to allocate revenue directly to the units or activities responsible for generating the revenue. In general, universities with incentive-based budgets allocate tuition between the unit of instruction and the degree major (also known as the unit of enrollment). As we will see, the exact breakdown between instruction and degree major varies from campus to campus and may also evolve over time. In a recent report by the Education Advisory Board, all ten universities surveyed reported allocating at least 50% of undergraduate tuition to the unit of instruction.

The allocation between instruction and major for undergraduate tuition is usually different than that of graduate and professional tuition. This is due to the fact that graduate and professional students generally take courses in the same unit that offers the major. However, to incentivize interdisciplinary coursework, it is important to allocate some graduate tuition to the unit of instruction. Further, at UC Davis, a significant percentage of graduate academic students (approximately 45%) are enrolled in graduate groups that cross traditional school-college boundaries, so models from other universities may not provide sufficient guidance. Therefore, the details of allocating graduate tuition revenue will be discussed in a separate paper (anticipated to be available in winter quarter 2012).

TUITION ALLOCATION AT OTHER INSTITUTIONS

For comparison purposes, Table 1 shows the variety of allocation methods that exist at selected public universities with incentive-based budgets. It is also worth reviewing how the allocation at the University of Michigan has changed.

University of Michigan

When Michigan first implemented their incentive-based budget model in 1998-99, all undergraduate tuition dollars were allocated to the degree major. In 2002-03, the attribution was modified so that 25% went to the unit of instruction and 75% to the major. In 2008-09, Michigan revised the allocation once more. Now, the revenue is evenly split - 50% to instruction and 50% to major.

Table 1: Examples of Distribution by Major and Instruction

Undergraduate Tuition		
	Unit of Instruction	Degree Major
Michigan	50%	50%
Minnesota	75%	25%
New Hampshire	100%	0%
Washington	60%	40%
Graduate & Professional Tuition		
	Unit of Instruction	Degree Major
Michigan*	25%	75%
Minnesota	75%	25%
New Hampshire	0%	100%
Washington	20%	80%

*Ph.D. candidate tuition allocated entirely to the degree major

The undergraduate revenue allocated to units is a blend of resident and nonresident tuition. That is, the actual distribution of in-state and out-of-state students within a particular unit is irrelevant, since all units get credit for the campuswide mix of resident and nonresident undergraduates. Tuition at Michigan also varies by discipline (e.g., engineering students pay more than music majors) and by lower vs. upper division courses (e.g., lower division tuition for engineering majors is $6,700 and $8,600 for upper division majors). Michigan incorporates the differential tuition rates paid by students into their allocation model.

The original justification for allocating all of the revenue to the unit offering the major was to take away the incentive for units to create duplicate courses. Michigan wanted to avoid a situation where units that had never been responsible for general education courses suddenly began offering them as a means to earn more revenue. To put it another way, engineers should take writing courses in the English department, not in engineering. While Michigan avoided the outcome of duplicate courses, their system based solely on degree majors created an incentive to enroll as many students as possible in a major while ignoring the costs necessary to teach them.

As time went on, Michigan revised the allocations to provide a better link between the revenue and the cost of providing instruction. The change also provides greater incentives to offer

courses that will benefit students from other units. As discussed in the section on incentives, there must be controls in place regardless of the apportionment between major and instruction.

WHAT ARE WE TRYING TO INCENTIVIZE?

As pointed out in a study of how the Michigan budget model is perceived by campus citizens, it is important to be clear about the intent of the incentives that are created. As stated in the report, "incentives should work only *within* the units' strategy; they should neither constrain nor encourage behavior or initiatives that do not fit the units' strategy and mission."

Ideally, the allocation of tuition revenue should

- Support the overall quality of the institution and the student experience.
- Encourage units to teach non-majors.
- Consider the relative cost of instruction and the cost of the major.

The allocation of tuition revenue should not

- Encourage units to create courses solely for the purpose of increasing revenue or to create courses already offered by another unit.
- Encourage behavior that is counter to the overall mission of the unit and the university.
- Create a barrier to cross-college teaching.

CROSS-COLLEGE INSTRUCTION

The metric most often used for determining the unit of instruction is student credit hours (SCH). For SCH at UC Davis, data systems distinguish between pay department (the department that pays for the instructor's salary) and course department (the department that offers the course). Currently, some colleges and divisions have an arrangement whereby a professor from one college teaches courses in another college. The most predominant example of this type of cooperation is between the College of Agricultural and Environmental Sciences (CA&ES) and the College of Biological Sciences (CBS). Tenure-track professors within CA&ES are able to offer their expertise and their department is still responsible for the professor's salary (pay department). Meanwhile, departments within CBS are able to provide courses that lead to a CBS degree without the financial burden of funding an instructor (course department), but CBS does pay for teaching assistants, readers and other course support (e.g., lab preparation).

For all campus units, this type of exchange currently accounts for about 4% of total undergraduate SCH, and the pay department designation has generally been used for resource allocation decisions. However, it does fulfill a need for both parties and is generally reviewed as improving the quality of the student's experience. Any new methodology for allocating tuition revenue should not discourage such arrangements. Therefore, as a starting assumption, when the pay and course departments are different, then the SCH associated with the course will be credited to both units. While this inflates the total number of SCH, cross-college instruction should be encouraged whenever possible.

HYPOTHETICAL REVENUE ALLOCATION

Table 2 is a hypothetical distribution of undergraduate tuition revenue based on a 65-35 split between SCH and degree majors, respectively. The distributions shown in this table are based on the activity from the last two years (average of 2009-10 and 2010-11). Degree majors are based on a duplicated count. This means that if a student has declared a double major, then equal credit is given to both majors. When the pay and course departments are different, the SCH are credited to both units.

Table 2: Hypothetical Distribution of Undergraduate Tuition

Unit	SCH[1]	Majors[2]	% of Total Rev with a 65-35 Allocation
CA&ES	15%	22%	17%
CBS	11%	21%	15%
ENGR	6%	13%	9%
HArCS	21%	11%	17%
MPS	18%	6%	14%
DSS	26%	27%	26%
Other[3]	3%	0%	2%
Total	**100%**	**100%**	**100%**

[1]SCH are double-counted when pay and course departments are different
[2]Duplicated count, each major of a double major is counted
[3]Other is primarily comprised of SOE, SOM and GSM

Units that have a higher distribution of SCH versus majors will receive more tuition revenue if the allocation is weighed more heavily on instruction. A shift from 65-35 to 75-25 would mean more revenue for the Division of Humanities, Arts and Cultural Studies (HArCS) and the Division of Mathematics and Physical Sciences (MPS). Conversely, a shift from 65-35 to an allocation weighed more heavily on majors (e.g., 55-45) would distribute more revenue to the College of Agricultural and Environmental Sciences (CA&ES), the College of Biological Sciences (CBS) and the College of Engineering (ENGR). The allocation split is less significant when the distributions of majors and SCH are equal or close to equal, such as with the Division of Social Sciences (DSS).

PROPOSED DETAILED METHODOLOGY

The following is a proposed methodology for allocating tuition paid by undergraduate students. Any of the points presented are open for debate and clarification. Unless noted otherwise, the specifics are taken from the University of Michigan.

1. All units receive credit for the universitywide blend of resident and nonresident tuition.

2. Revenue is split 65-35 between the unit of instruction and degree major, respectively (see hypothetical example).
3. A declared major is determined by the unit in which a student registers in a given term.
    a. An alternative is to define major by the number of degrees awarded from the prior year (University of Washington).
    b. Another university uses a three-year average to protect units from sudden shifts. In the example presented earlier, a two-year average was used.
4. For students pursuing a joint degree, each unit is allocated an equal share.
5. Unit of instruction is determined by SCH taught in the previous year (Washington).
    a. Another university uses a three-year average to protect units from sudden changes shifts. In the example presented earlier, a two-year average was used.
6. When the pay and course departments are different, each unit is given credit for the SCH (see hypothetical example).

APPENDIX I

2011-2012
UCD STUDENT FEES SUMMARY[1]
(Annual fees unless otherwise indicated.)

	Total Fees & Tuition		Fees & Tuition Components				
	Resident	Nonresident[2]	*Tuition*	*Student Services Fee*	*Professional Degree Supplemental Tuition*	*Others/ Campus Fees[3]*	*Nonresident Supplemental Tuition*
UNDERGRADUATE							
Full Time Undergraduate	$ 15,123	$ 38,001	*$ 11,220*	*$ 972*		*$ 2,931*	*$ 22,878*
Family Nurse Practitioner/ Physician Assistant[4]							
Student Entering 2011-12	$ 17,560	$ 40,438	*$ 12,912*	*$ 1,052*		*$ 3,596*	*$ 22,878*
Continuing Student	$ 17,186	$ 40,064	*$ 12,912*	*$ 1,052*		*$ 3,222*	*$ 22,878*
UC Center at Sacramento							
Full Time UCCS Undergraduate (Quarterly)	$ 5,208	$ 12,834	*$ 3,740*	*$ 324*		*$ 1,144*	*$ 7,626*
GRADUATE ACADEMIC							
Full Time Graduate	$ 15,271	$ 30,373	*$ 11,220*	*$ 972*		*$ 3,079*	*$ 15,102*
In Absentia	$ 4,909	$ 20,011	*$ 1,686*	*$ 144*		*$ 3,079*	*$ 15,102*
UC Center at Sacramento							
Full Time UCCS Graduate (Quarterly)	$ 5,257	$ 10,291	*$ 3,740*	*$ 324*		*$ 1,193*	*$ 5,034*
GRADUATE PROFESSIONAL							
Graduate School of Management	$ 37,447	$ 49,692	*$ 11,220*	*$ 972*	*$ 22,176*	*$ 3,079*	*$ 12,245*
School of Law							
Resident	$ 46,485		*$ 11,220*	*$ 972*	*$ 31,218*	*$ 3,075*	
Nonresidents		$ 54,622	*$ 11,220*	*$ 972*	*$ 27,110*	*$ 3,075*	*$ 12,245*
School of Nursing	$ 21,001	$ 33,246	*$ 11,220*	*$ 972*	*$ 5,730*	*$ 3,079*	*$ 12,245*
School of Veterinary Medicine							
1st thru 3rd Year Students	$ 32,975	$ 45,220	*$ 11,220*	*$ 972*	*$ 15,216*	*$ 5,567*	*$ 12,245*
4th Year Students[5]	$ 36,599	$ 48,844	*$ 14,604*	*$ 1,052*	*$ 15,216*	*$ 5,727*	*$ 12,245*
Master of Preventive Veterinary Medicine							
Residents	$ 21,013		*$ 11,220*	*$ 972*	*$ 5,742*	*$ 3,079*	
Nonresidents		$ 33,714	*$ 11,220*	*$ 972*	*$ 6,198*	*$ 3,079*	*$ 12,245*
School of Medicine[4]	$ 38,020	$ 50,265	*$ 14,604*	*$ 1,052*	*$ 18,636*	*$ 3,728*	*$ 12,245*
Master of Public Health							
Residents	$ 23,729		*$ 11,220*	*$ 972*	*$ 6,810*	*$ 4,727*	
Nonresidents		$ 36,430	*$ 11,220*	*$ 972*	*$ 7,266*	*$ 4,727*	*$ 12,245*
Health Informatics	$ 21,271	$ 33,516	*$ 11,220*	*$ 972*	*$ 6,000*	*$ 3,079*	*$ 12,245*
Educational Leadership	$ 19,273	$ 31,518	*$ 11,220*	*$ 972*	*$ 4,002*	*$ 3,079*	*$ 12,245*

As a result of gubernatorial, legislative, Regental, and/or campus action, these fees may change without notice

[1]For more detailed information, see the fee tables at *http://budget.ucdavis.edu/studentfees.* For an overview of the fees (descriptions and uses), see the fee table at *http://budget.ucdavis.edu/studentfees/special/student-fee-overview.pdf.*

[2]A one-time fee of $159.00 is charged to entering international students who hold a F-1 or J-1 visa, excluding UC Education Abroad and non-UC Davis sponsored students (i.e. Fulbright or Vietnam Education Fund).

[3]Includes health insurance fees of $1,263 for undergraduates and $2,166 for graduate students (except Medical School students; see below). Undergraduate and Graduate students are automatically in the Student Health Insurance Plan (SHIP) unless they are able to prove comparable coverage under another insurance plan. Approximately 40% of UC Davis undergraduates are enrolled in SHIP, while 80% of UC Davis graduate students are enrolled. More information about the SHIP is available at *http://shcs.ucdavis.edu/insurance/index.html*. Health insurance fee is $2,130 for Medical School students. More information is available from the Office of Medical Education at *http://www.ucdmc.ucdavis.edu/medschool/financialaid/cost.html.*

[3]Undergraduate course materials and services fees (CMSF) are excluded. A course material fee of up to $80 per course may apply to some courses. See *http://budget.ucdavis.edu/studentfees/special-reports.*

[4]School of Medicine and Family Nurse Practitioner/Physician Assistant (FNP/PA) students attend summer quarter and pay this fee schedule.

[5]4th year DVM students must attend summer quarter and pay this fee schedule

APPENDIX II – Budget Model Basics

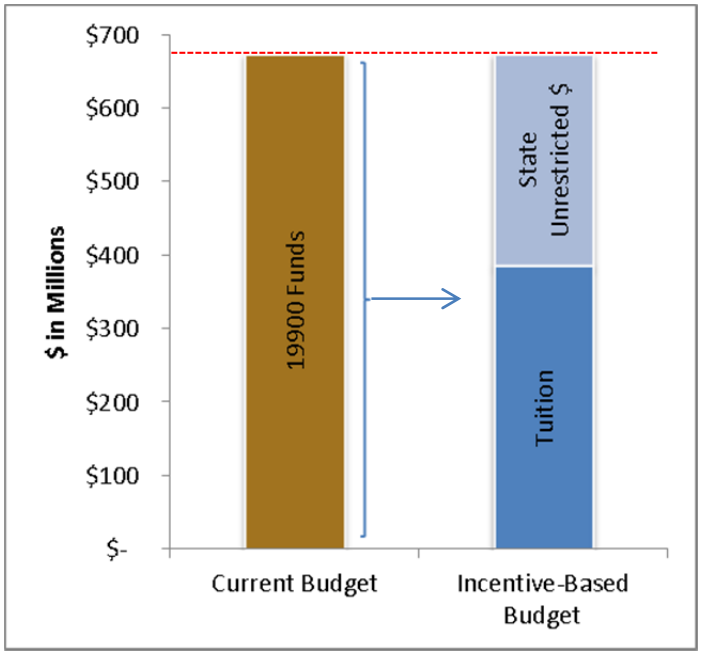
A working paper such as this one deals with a specific component of the budget model. Here are some notes on the larger context.

On Day One, No New Money

Implementing this budget model will not add resources to the system. New revenue is dependent on one or more of the following: additional students, higher tuition, increased research, or increased funding from the state. What the model will do is serve as a mechanism for revenue to flow in a more direct and transparent manner. For FY 2012-13, each campus unit will have a budget roughly equivalent to their budget for FY 2011-12. As always, this assumption is predicated on no further reductions in state support.

The Colors of Money

In the realm of fund accounting, people often talk about having different colors of money. What this budget model allows us to do is "re-color" some of the funds that units have traditionally received - the most prominent example being general funds. Going forward, we will be able to make a clear distinction between the portion of general funds that is tuition revenue and the portion that is unrestricted state support. As a technical matter, we may still refer to the combination of tuition and state dollars as general funds, and it may continue to be one fund number (19900) in the accounting system, but units will be able to forecast tuition revenue and manage the state support (or Provost Supplement – see below) on an incremental basis. In the aggregate, the campuswide transition of 19900 funds to tuition revenue and unrestricted state funds is displayed by the table on the right.



Provost Supplement

In the new model, state support goes directly to the Provost to become the foundation for the Provost Supplement. Added to this will be the revenue that comes from an assessment on units that generate tuition revenue and indirect cost recovery. The Provost Supplement will be used to help support academic and non-academic units.

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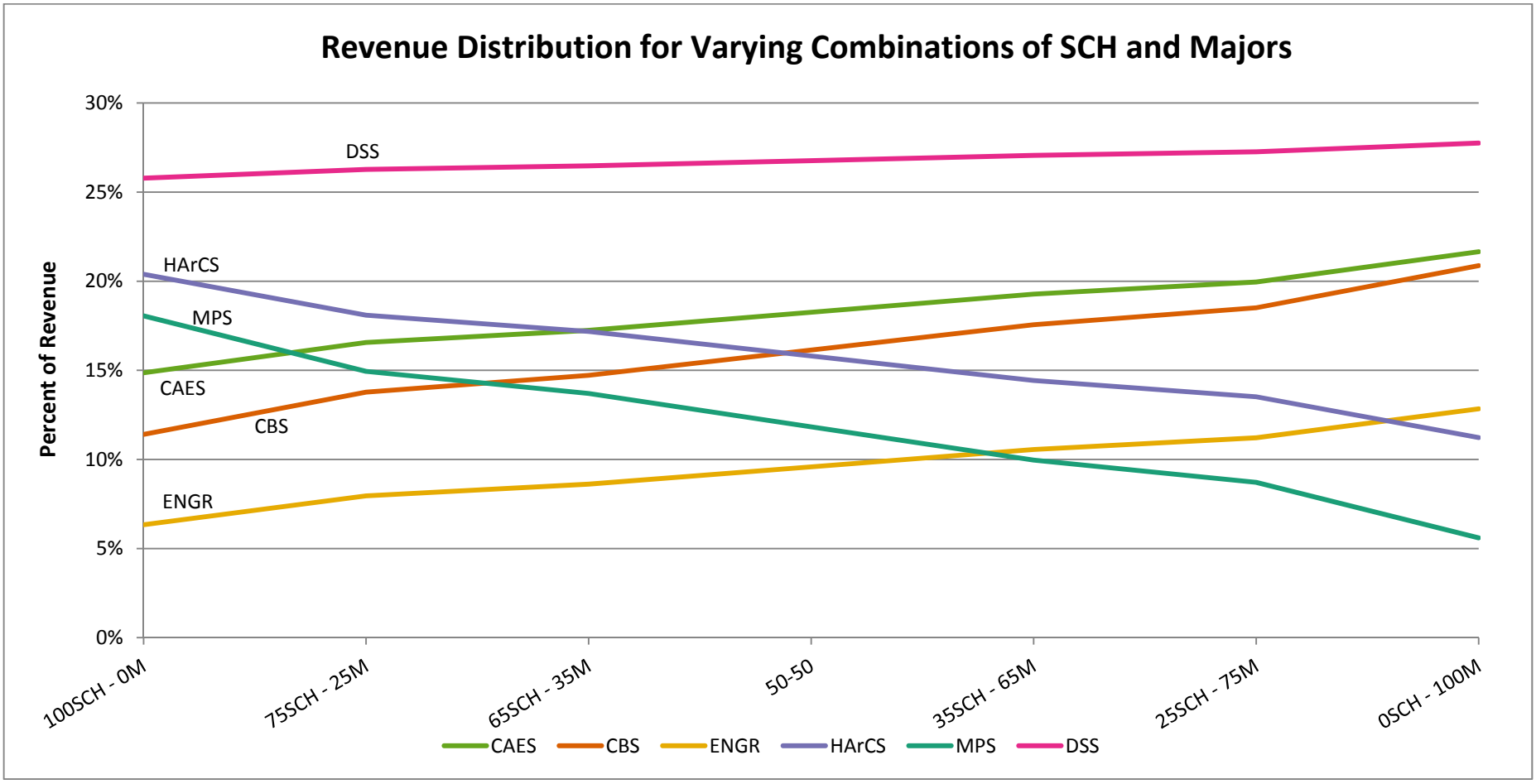
APPENDIX III – Distribution of Undergraduate Tuition Revenue by Mix of Major and SCH

The allocation of tuition revenue to campus units is often based on student hours (SCH) and the number of degree majors. The chart displays how the percentage of tuition revenue each unit would receive changes as the distribution of those two metrics is adjusted. The far left hand side represents an allocation based solely on SCH (100SCH – 0M). The far right is based entirely on degree majors (100M – 0SCH).



*Degree majors and SCH are based on a two-year average. Double-majors are counted twice as are SCH when the pay and course departments are different.