Instructional Needs Funding in the Incentive-Based Budget Model

The purpose of this document is to articulate a framework and process for providing supplemental undergraduate instructional needs (IN) funding in the campus incentive-based budget model that became effective for the 2012-13 academic year. (IN funding has also been known as temporary teaching funding and supplemental instruction funding.)

(Terminology: Unless otherwise stated, in this document the term unit refers to the primary campus organizational units that are led by a dean, vice provost or vice chancellor.)

SECTION I. HISTORY AND DESCRIPTIONS

Instructional Needs Funding History

For several years prior to academic year 2010-11, funds were held centrally to supplement instructional needs funding on an annual basis. These funds were intended to cover the costs of lecturers, teaching assistants and readers. The amounts distributed to the colleges and divisions were determined through the use of a quantitative model that took into account projections of student enrollment, instructor availability, faculty to student ratios and teaching assistant to student ratios, among other metrics. The funds held centrally did not meet all instructional need so colleges and divisions were expected to contribute funding from their resources.

For academic year 2010-11, IN funding was decentralized by permanently allocating the funds to the colleges and divisions. Decentralization was in part intended to provide deans of colleges and divisions with additional flexibility to implement budget reductions assigned for the academic year. In addition, the campus included continuing lecturer positions in the faculty merit funding process, ensuring regular funding for these actions. These allocations – permanent decentralization of IN funding and continuing lecturer merits – were intended to ensure a more stable funding source for the deans. At the same time the campus augmented the pool funds to provide additional resources to the deans to support TA positions.

The decentralization resulted in minimal funds held centrally and therefore reduced ability of the central administration to respond to changes in student demand for courses. In 2010-11, Undergraduate Studies (now Undergraduate Education (UE) began to issue course availability reports each quarter that highlighted critical courses for which demand was not being met. This led to an informal definition of critical courses that served as gateways to meeting degree requirements.
In order to address the problem of critical courses for which demand was not being met, the provost allocated additional funding to the Vice Provost of Undergraduate Education (VP-UE) for 2010-11 and subsequent years. In addition, allowable uses of the funds were expanded beyond lecturers, teaching assistants and readers to include academic coordinators for multiple sections of instructional labs. Colleges and divisions submitted requests for IN funding to UE, where the academic needs for the requests were assessed. Funding decisions were made by the vice provost and one-time funding was allocated by Budget and Institutional Analysis (BIA). In most cases, it appeared that the increase in demand supported by the one-time funding in 2010-11 and 2011-12 would be ongoing so base funding was provided in the following academic year. However, the one-time funding provided to units in 2012-13 was not provided as base the following year because most ongoing funding will be generated through the budget model.

**Incentive-Based Budget Model**

Incentive-based budgets are designed to allocate resources directly to the units or activities responsible for generating the revenue instead of holding most or all of the resources at the central campus. The new UC Davis budget model is a hybrid approach that uses both formula allocations and strategic decisions to allocate resources.

**Principles.** Before delving into the specifics of instructional needs funding in the budget model, 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.
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.

Additionally, specific to instructional needs funding the model should:

1) Allow units to prioritize instructional resources with undergraduate student success being a high priority.
2) Recognize that budget model funds are distributed at the unit level and that responsibility and authority for management of the full portfolio of courses is at that level.
3) Recognize that since the metrics to determine the distribution are for prior years, the budget model funding to a unit may lag an increase in student demand and therefore some transition funding may be appropriate to maintain the same number of courses provided in prior years, if needed.

4) Recognize the role of teaching assistantships as both support for undergraduate programs and training and financial support for graduate students. (During 2013-14, the campus community will consider whether changes should be made for graduate tuition allocation in the budget model effective for 2014-15. A discussion issue will be degree of decentralization of TA, AI and GSR fee remission.)

Undergraduate Tuition Distribution. In the incentive-based budget model, undergraduate tuition revenue is allocated to schools and colleges based on a formula. The formula for allocation is 60% based on student credit hours (SCH), 30% based on degree majors and 10% based on degrees awarded. The metrics are based on the averages of two prior years; for example, the 2013-14 distribution uses 2011-12 and 2012-13 SCH and degree majors and uses 2011-12 degrees awarded (2012-13 degrees awarded data are not available in time to be used in the model). The metrics are applied to the projected 2013-14 undergraduate tuition revenue. Generally, total tuition revenue is expected to increase as enrollment grows under the 2020 Initiative and if there are future tuition rate increases. In the budget model, a college or division's resources will increase if enrollment and teaching activity increase relative to the other colleges and divisions or as campus wide tuition revenue increases. Thus, if additional sections and/or seats are provided in courses having high student demand, the increased SCH will lead to increased budget model funding that should sustain course availability in most cases. Since the metrics to determine the distribution are for prior years, the budget model funding to a unit may lag an increase in student demand. However, tuition revenue growth may compensate in a given year. (For further information see Undergraduate Tuition Allocation, Version 3 - January 2012)

The incentive-based budget model is a revenue distribution model, and does not consider whether the tuition funding allocated is sufficient to cover the costs of instruction. The extent to which any individual course can be supported by the revenue generated by the enrollments in that course is a function of the cost of offering the course and the size of the course. All units are expected to manage their course offerings as a portfolio and provide critical courses addressing the instructional needs of all students. Funding derived from some course offerings will exceed the associated costs and the positive net revenue from these courses will help offset the cost of providing other critical courses that are net revenue negative.

SECTION II. INSTRUCTIONAL NEEDS FUNDING IN CONJUNCTION WITH THE BUDGET MODEL

Current Purposes and Management of IN Funding

As noted earlier, the new budget model is a hybrid approach that uses formula allocations and strategic decisions; the IN funding is a component of the strategic decisions. If funding for IN increases, funding available for other purposes decreases. The formula-driven undergraduate tuition allocations to schools and divisions for 2013-14 total $141 million; the
expectation is that almost all instruction issues are long-term and are covered by this formula-driven funding and the Provost Allocation. Beginning in 2012-13, the provost provided a base allocation of about $2.0 million IN funding to the VP-UE, available to distribute to colleges and divisions on a one-time basis to ensure that instructional needs for all students can be met. In addition, the vice provost can use these funds for limited-term investments that support the overall infrastructure for meeting these needs. Examples of the type of costs that can be funded include: lecturers, TAs, readers, instructional lab coordinators, materials, space modifications, and investment in systems to facilitate improved projection of course demand. The vice provost has discretion in determining the use of these funds annually. The vice provost could also choose to use some of these funds to incentivize certain behaviors that could influence the availability of courses, such as support for adding certain courses during summer, developing different course delivery models (e.g., hybrid or online) or offering larger courses when appropriate.

The objective of the IN funding process has been, and continues to be, ensuring the availability of courses needed for students to meet degree requirements on a timely basis. Course availability, in turn, improves time-to-degree. The IN funding process must interact properly with the budget model, by providing funding only when the amount generated by the model plus appropriate carryforward balances are projected to be inadequate for the necessary instructional investments. As mentioned above, the budget model metrics lag could result in inadequate unit funding in the short run for a particular unit; however, overall campus revenue may increase due to increased tuition campus wide. In addition, units may have carryforward balances that can help support the one-time needs until the budget model distributes revenue in line with the increased course demand.

Possible interactions of IN and the budget model include:

1) Typical growth demand:
   a. One-time IN funding leads to SCH increase which in turn leads to increased funding from the budget model the following year which fully satisfies the funding need, providing adequate course availability. ⇒ Budget model works quickly.
   b. One-time IN funding leads to SCH increase which in turn leads to increased funding from the budget model the following year and improves course availability, but a second year of one-time IN funding is needed to provide adequate course availability. ⇒ Budget model works within two years.
   c. One-time IN funding leads to SCH increase which in turn leads to increased funding from the budget model in the following year allocations but an analysis shows that the cost of instruction is such that increased ongoing funding for the course is needed. ⇒ Budget model not the solution. Note: if the budget model is not the solution, the course delivery model and portfolio of courses offered in the college or division should be considered. A base increase in Provost Allocation might be considered as well.

2) Backlogged courses demand:
   a. One-time IN funding needed to resolve the backlog for one year and possibly two leads to SCH increase which in turn leads to increased funding from the
budget model the following year, with IN funding no longer needed when steady-state is achieved (a recent example is BIS 2, which had a backlog that is expected to be fully resolved by the end of 2013-14). → Budget model works within one or two years.

3) Temporary enrollment spike:
   a. One-time IN funding leads to SCH increase which in turn leads to increased funding from the budget model the following year but increased funding not needed for those courses because it was a one-year spike. → Budget model overfunds slightly and temporarily.

Given changing enrollments, we anticipate an ongoing need for IN funds to help manage fluctuations and growth by discipline. It appears that the budget model will usually work in a reasonably timely fashion for most situations.

**Instructional Needs Approvals during First Two Years of Budget Model**

For 2012-13, the first year of the budget model, budget model funds were distributed so that the distribution of undergraduate tuition and provost allocation summed to approximately the base budget the unit would have received under the prior model. It was almost immediately apparent that IN funds would be needed to provide additional sections to cover course enrollment backlogs and incoming student growth in key biology, university writing program (UWP), foreign language, English as a second language (ESL), chemistry, math, physics, statistics, psychology, and communications courses. Based on UE and BIA analysis of need, prior to academic year start the VP-UE approved a total of $1.6 million one-time funding, predominantly for lower-division courses. Later in the year, the VP-UE approved an additional $400,000 one-time funding for additional chemistry, math, physics and statistics sections. Of the $2.0 million, CBS and DSS each received $400,000, HArCS received $225,000, and MPS received $975,000.

For 2013-14, as of December 2013 the VP-UE had approved $1.7 million one-time as follows: in CBS, $185,000 for BIS 2; in HArCS, $306,000 for UWP instructors and $425,000 for ESL instructors, plus $95,000 related to office space retrofit; in MPS, $571,000 for chemistry, math, physics and statistics; and in DSS, $96,000 predominantly for communications and $23,000 for graduate student ESL. The 2013-14 approval decisions have been based on the principles and criteria in this paper, including consideration of a unit’s funding from the budget model and appropriate carryforward balances. Most approvals required that the college or division provide a match or fund a portion of the initial request.

**Instructional Needs Course Funding Priorities**

IN funding priorities are to be based on the unit’s ability to fund its courses and the extent to which a course assists students in meeting degree requirements. Along with the unit’s ability to cover the cost or at least a reasonable part of the cost, the following prioritized list should guide IN funding decisions:
1) Freshman-level courses that are prerequisites for staying on track in majors chosen by large numbers of students. Examples are mathematics MAT 16, 17 and 21 series; chemistry CHE 2 series; biology BIS 2 series; physics PHY 7 and 9 series.

2) An undergraduate course at any level that is a degree requirement in a major in another college or department but that cannot be sustained with adequate resources from its own unit. An example is statistics STA 100, recently made a requirement for biological sciences, necessitating a large increase in enrollments.

3) Freshman-level courses required of large numbers of students. An example is the freshman writing requirement (University Writing Program UWP 1, English ENL 3, Comparative Literature COM 1-4, Native American Studies NAS 5). Meeting student demand for the freshman writing requirement courses has not been a problem in recent years, partially due to provision of some IN funding.

4) Upper division writing courses required of large numbers of students that are important to time-to-degree. These courses are UWP 100, 102 series and 104 series.

5) Lower division courses offered in one department that are required by large numbers of students majoring in another department, but which are generally not prerequisites for courses in the major. Examples are Communication CMN 1 and 3.

For almost all of the priorities above, if the enrollment plateaus or nearly plateaus, the IN funding will have provided seed money and the budget model should take over. However, if enrollment continues to grow year after year, some one-time IN funding might be appropriate for several years.

The following would not be considered for IN funding:

1) General education (GE) courses that are extremely popular with students, but many alternative courses are available to meet the GE requirements. Examples include Nutrition NUT 3, Food Science and Technology FST 3 and FST 10, and Human Development HDE 12.

2) Courses intended for majors, offered by the department administering the major and not required of students from other majors. If an analysis of course delivery and portfolio management within the unit shows that there are insufficient funds to support them, the unit could request Provost Allocation funding.

SECTION III. FUNDING REQUEST SUBMISSION REQUIREMENTS

Request Format

Requests for IN funding should be submitted by a dean’s office to the VP-UE and must include the following information:

1) The name and number of the course to receive additional funding, with an explanation of how the course fits into the course funding priorities above.

2) The number of additional credit sections and non-credit sections to be added and the justification for this number of sections.

3) The resources requested and the costs of each:
a. Instructors  
b. Teaching assistants  
c. Readers  
d. Academic coordinators  
e. Physical resources such as lab remodeling  
f. Supplies  
g. Other

4) Total request.

5) The unit value of the course and the anticipated SCH increase to be achieved from the funding.

6) An explanation of why the funds managed by the unit (budget model funds plus appropriate carryforward) are not adequate to meet the course demand. This might include an explanation of higher priority investments the unit made.

7) Other alternatives explored such as online or hybrid instruction, having ladder faculty from other schools, colleges or divisions provide instruction, hiring lecturer SOEs.

8) A plan for offering the course in the future using the budget model allocation that results from the SCH increase generated by the one-time IN funding.

**Reporting Requirement**

By the fifth week of the quarter in which the supported course is being offered, the dean’s office is required to provide a short report of the results achieved. The report should provide detail regarding the final costs of item 3 above, the number of additional credit and non-credit sections added and the resulting SCH increase. An update is to be provided for the plan for offering the course in the future using the budget model allocation that results from the SCH generated by the one-time IN funding.

**Criteria for Approving a Request**

The criteria for approving a request for IN funding include:

1) Funding priorities described above.
2) An assessment of the college or division’s resources, especially tuition and Provost Allocation distributed through the budget model and carryforward balances.
3) Availability of IN funding.

**SECTION IV. CONCLUSION**

IN funding continues to play a small but important role in meeting course demand under the incentive-based budget model. The understanding of the interaction of IN funding and the budget model and the clearer processes for requesting and approving IN funding should facilitate administration of the funds and help colleges and divisions develop effective strategies to work within the budget model to meet student course demand to lead to timely completion of degree requirements.