UNIVERSITY OF CALIFORNIA, ACADEMIC SENATE

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August 5, 2009

LAWRENCE PITTS
INTERIM PROVOST AND EXECUTIVE VICE PRESIDENT – ACADEMIC AFFAIRS

Re: UCEP White Paper on Impacted Majors

Dear Larry:

The University Committee on Educational Policy (UCEP) recently wrote a white paper on impacted majors at UC. In brief, the paper notes that a clear set of policies does not exist on any of the campuses whereby pressures on impacted majors can be relieved. The paper provides UCEP's definition of an impacted major, and highlights factors that result in an impacted major. The paper also documents current mitigation strategies used by various departments and makes the recommendation that the timely and accurate counseling of students is probably the most effective tool to minimize the impaction of various majors on UC campuses.

At its July 29, 2009 meeting, the Academic Council unanimously endorsed UCEP's request to the Provost to distribute its white paper on impacted majors to deans, deans of undergraduate education, CEPs, UG Councils, and directors of student affairs.

Please do not hesitate to contact me if you have any questions regarding Council's request.

Sincerely,

Mary Croughan

Mary Croughan
Chair, Academic Council

Copy: Academic Council
Martha Winnacker, Academic Senate Executive Director

Encl. 1

Best Practices for Managing Impacted Majors

UCEP
July 2009

Every established campus of the University of California has a number of majors where the student/faculty ratio is inordinately high and where the students' educational experience suffers because of insufficient instructional support. The reasons for these situations vary as do the approaches to remediate; however, especially in the extreme budget climate in which we find ourselves, these overenrolled programs generally are found to be under extreme pressure, often serving their students relatively poorly.

Definition

In general we have found that a clear set of policies does not exist on any of the campuses whereby pressures on impacted majors can be relieved. This is exacerbated by the fact that there is not even a clear definition of what an impacted major is. To our thinking, if any of the following problems pertain, then a major is impacted:

- Students are unable to declare their desired major even though they are 'in good standing'
- Significant numbers of students are turned away from required courses due to insufficient numbers of seats
- Number of laboratory stations are insufficient
- Required classes are inordinately large
- Inordinate number of lecturers are needed to cover classes needed for graduation
- It is difficult to find qualified lecturers to cover required classes
- Use of temporary lecturers leads to a lack of consistency in the program
- Insufficient numbers of trained TAs are available to cover discussions/labs
- Insufficient funding for TAs
- Ladder faculty are unable to teach graduate courses because of need to cover required undergraduate classes

Causes

- <u>Students find the major interesting, challenging and fulfilling</u>.
  This is a proper and fitting reason to have high demand for a major and one that should be accommodated as much as possible.
- <u>Students and/or their parents perceive the major as valuable</u>.
  A bachelor's degree earned in many majors will directly lead to lucrative job offers at the close of an undergraduate's career. Other majors are seen as good preparation for entrance into a professional school. In either case there is a natural draw toward those majors. However, in some cases the perception may not be correct. Because a bachelor's degree usually takes about four years, the whims of the free market can cause whole professions to go from boom to bust over that

time period. Also sometimes perceptions may be flawed; the name of a major may seem to indicate it is a good preparatory path when others might be better.

- Students perceive the major as easy.
  Though we might hope that the 'ease' of a major would not drive a student's decisions, human nature being what it is, this will happen. Sometimes, this is arises because some students are simply gifted in that particular field; however, one would hope that instructors in any given major would be able to challenge the gifted as well as the average student.
- Students' talents are not matched with the major.
  It is not unusual for students to choose a major based on pressure from family. If a major is perceived by the family as good preparation for a profitable career, subtle and not so subtle urging may result in a student pursuing an education in a field in which they have neither the passion, nor the talent to succeed. Again these perceptions themselves may be incorrect, but in this case there is a double tragedy in that the student also may be following a path for which she/he has no gift and/or passion.
- Student demand is not given enough consideration in the distribution of FTE.
  None of us feel that student demand should drive the allocation of FTE, especially given the vicissitudes of the job market and student interests. Nevertheless it seems that some consideration based on student numbers should be applied in the allocation FTE, perhaps in the form of temporary or continuing lecturers, or even lecturers with security of employment, especially for programs with long records of consistent impaction but with high general levels of satisfaction among their majors.
- Poor management by department/program.
  Some programs simply do not exercise sufficient control over student enrollment, faculty teaching distribution, or curriculum to assure adequate coverage of course offerings or a sufficiently challenging program of study to discourage those who choose a major based on ease of completion.
- Unreplaced retirements/separations.
  In these extreme budget times it is commonly the case that retirements and separations are left unfilled for a number of years. The untimely loss of instructors, especially when several may be involved, can almost instantaneously cripple what previously was a healthy and vibrant program.
- Inadequate budget support.
  Again our present budget situation has led to reductions in temporary sub-0 funds, which often has meant fewer lecturers and less TA support. This tends to have an especially deleterious effect on impacted majors.
- Students are studying longer.
  In these tough economic times some students are staying in school rather than graduate, thus students are accumulating more course units, increasing the demand for seats in classrooms. Also many students pursue double majors, which also increases demand on instructional resources.

One important factor that must be kept in mind is that many impacted majors reside within departments but some of these majors are Interdepartmental Programs (IDP) that may

have no or just a handful of FTE. For departments, the impacted major is typically central to their mission, the number of faculty involved is relatively constant, and requests for replacement or augmentation of FTE are made through a single dean. Also majors residing in a department tend to have a more stable demand for the major. Many IDPs focus on areas of study that are more faddish in nature or their themes are in emerging fields where few if any departments exist nationwide and a track-record for employment possibilities does not exist. By nature they tend to be more unstable in student demand. Also, for IDPs the director typically has little authority, with few, if any, permanent FTE, and the program is dependent on voluntarism of faculty, which may or may not be encouraged or supported by their home department. If FTE reside in the program, replacement/augmentation of faculty participants often must pass through more than one dean. If no FTE exist, participating faculty must be recruited on a voluntary basis, which is by nature more volatile. Credit for service in an IDP is uneven; some departments might reward a participating faculty member, others might 'punish' or at least offer no course relief to teach within the IDP.

Current mitigation strategies

A simple definition of an impacted major is a situation where resources are insufficient to handle the total workload. Total workload is the product of the number of students times the work required for each student. One solution is to reduce the latter. For example, in majors where laboratory courses are a regular part of the curriculum, there is a temptation to dilute the requirement: offer fewer laboratory courses, conduct fewer experiments. In programs where significant writing is required and resources aren't available to mark those papers, fewer or shorter assignments are given. In both of these cases the educational process is compromised to the detriment of the student. Consequently, a more common approach is to reduce numbers of students.

The most common strategy to deal with student numbers in impacted majors is to limit enrollment into the major and the establishment of a pre-major is generally the method by which that is accomplished. The pre-major typically includes a series of lower division courses that may or may not be courses within the major. Often they include prerequisites taught in other departments. Frequently this series of courses must be completed with a minimum average GPA that is considerably above the 2.0 that is required for graduation. In some majors a portfolio of work may be judged for admission to a major.

The pre-major often, but not always, has the advantage of demonstrating to the student who is denied admission to the major that perhaps this is not the major she/he should be pursuing, thus providing valuable feedback early in the education process. This is likely true for the student who chooses a major based on family pressure rather than on their own interests and talents. For them a pre-major experience offers them evidence to support a decision to change majors, one that is more fulfilling and provides more motivation. In general colleges should establish a policy such that when a department or program proposes a pre-major or changes to their pre-major, they must provide justification for how those requirements predict or contribute to success in the major.

What is generally not included in the establishment of pre-majors is an exit-strategy for the students who do not gain entrance into the major. Programs should look for ties with other majors and work together to establish some common pre-major requirements thus providing more options for students who may be denied admission to a particular major.

These mitigation strategies can, however, carry some downsides that need to be considered before adoption. The most obvious is that students who are denied admission must choose another major and perhaps be exposed to yet another pre-major requirement. This often results in a longer time-to-degree, therefore any pre-major requirement should be limited in scope to provide feedback as soon as possible so that it will not severely disadvantage those who are denied admission but rather allow them to choose another path that will not require a virtual 'start over.' Also the more courses that are included in the pre-major requirement, the larger enrollment those courses will have. This is especially important for departments outside the major whose courses are included in the pre-major courses, thus they must be consulted before including their courses in the pre-major.

Another straightforward means to limit enrollment in a major is to limit enrollment in specific classes. This 'sledge hammer' approach may take the form of limiting classes to majors only, or might limit enrollment in a given class to a specific number of students. Generally such an approach is applied to upper division courses, but it obviously limits the opportunity for students in other majors to broaden their horizons and in the case of limiting numbers of students in a class it can again lead to longer time-to-degree as students wait their turn to take required classes. In some cases students may proceed in a timely manner to graduation but will not be able to take courses that interest them and thus create dissatisfaction with the program.

Some departments do not require a pre-major but simply limit the number of students entering as freshmen. Students can transfer into these departments but they must take required courses as non-majors (typically requiring instructor approval on an individual basis) and have a minimum GPA in those courses. Those students who are admitted as freshmen must only maintain the 2.0 minimum GPA. This approach can work if only a few departments choose such an approach, but were every department to choose this method then a very systematic approach would need to be developed.

For the student who is simply pursuing the wrong major, pre-majors can be a blessing, but for some, setting limits on enrollment into impacted majors means they must choose a major not their first choice and thus lack motivation and engagement. These majors sometimes develop relatively poor reputations. 'You can always be a _____ major, they'll take anyone.' And these alternate majors may themselves become impacted.

A very different strategy and one that is extremely unlikely in the present budget climate is to increase FTE in the impacted majors. Again this should not occur based on student numbers alone, but this can certainly be a factor. The best approach would be to add ladder faculty, but this is an expensive way to reduce student/faculty ratios. A more cost effective way that also lends stability to a program is to hire lecturers with (at least possibility of) security of employment. These lecturers carry a much heavier teaching load, but will also tend to be longer term faculty members. The negative side is that these positions require a line in the FTE count of the department, which makes this a hard sell when annual FTE requests are made. Because they have security of employment, they will remain in a program even if student demand decreases to the point where they are no longer needed. Hiring temporary lecturers is a common strategy because they teach almost three times as many courses as a ladder faculty member but quality control is more of a challenge and length of employment is highly variable often leading to a lack of cohesion in the curriculum. Utilizing visiting faculty also detracts from the ability of the program to provide a consistent education to their students. Some departments also have established a practice of using ABD graduate students in the roll of instructor of record in order to reduce the pressure on faculty in teaching lower division courses in their major. This practice

can provide the graduate student with valuable experience, but it can also be a heavy burden on them. Graduate student instructors can provide undergraduates with a high quality educational experience but at times this has resulted in poor instruction. Again quality control can be a problem with this approach.

Recommended approaches

In looking at the causes of impacted majors, it appears that timely and accurate counseling of students is probably the most effective tool that we could employ to minimize impaction of the various majors on UC campuses. This counseling need not always take the form of face-to-face encounters, it can also come in written form in catalogs and on-line. It would need to cover a variety of topics:

- Reasons the student is choosing a given major.
  When pressure being applied by family or peers, how can they be given tools to push back? Help them understand where their gifts, interests, and passions lie and the importance of enjoyment and fulfillment in the career they choose.
- Making good class choices that maximize flexibility.
  What courses should a student take when they don't know where their interests lie? There are many courses that satisfy general education requirements that also provide an introduction to a field a student might want to pursue. Some courses provide fundamentals that are needed in a variety of majors.
- Importance of general education.
  Why should a student take courses that are not related to their interests? In spite of the express goal of GEs to broaden and enrich the perspectives of our students, those students often try to tailor their GE requirements such that the courses relate as closely as possible to their chosen major. By broadening their palette of GE courses a student may find that a field that differs radically from their major may turn out to be more to their liking and a better fit to their skills and talents.
- Facts about the program.
  What are the chances of entering the program? Students should be told how many begin the pre-major, what percentage gain entry into the major and what percentage graduate in the major and how long does it take on the average. 'Truth in advertising' should always be adopted. If there is a sequence of pre-major courses, which one(s) are most indicative of whether a student will succeed in the major? Students should be encouraged to take this course or these courses early on in their educational program, not other courses that most students do well in.
- Facts about the skills that a given major will supply.
  Given the student's interest, what program will provide the best background? Sometimes the name of a major can be misleading and often other majors that might not come to mind might be more valuable. For example English and philosophy provide good background for Law and more and more engineers end up working in the field of medicine. As programs and departments improve their assessment of their objectives for their students, more information regarding the specific educational goals of the major will be available. Students can then be

aided in matching specific program objectives against skills needed for their career choice.

- Facts about employment opportunities that exist for graduates of given majors. How many jobs are available? What are the entry salary levels? For example, according to NACE in 2004 the starting salary for Psychology majors with a bachelor's degree was $27,791; for a biology major it was $29,750; but for an English major it was $31,169. What are the opportunities for advancement?

Most campuses have trained staff and faculty who know the answers to most of these questions. However, experience tells us that students often do not seek such advice from those advisors and they are often overworked in impacted majors; just getting an appointment can hard. It is likely that peers would be more effective in conveying to the students the information that is needed. Recent graduates working in careers related to the major are the best possibilities for such service, but they would obviously need screening and training. Graduate students could also be used for advising as well. Roundtables where undergraduates can ask questions and hear answers and opinions are quite valuable as long as the information is accurate and honest. Clubs associated with majors can also be an effective means of disseminating information as well.

The earlier such advice can be offered to students the better. For example freshman orientation would be ideal. For transfer students, it is harder to provide such counsel because generally the counselors at community colleges simply do not have enough detailed information about specific UC campus programs and the counselor to student ratio at California community colleges is currently running at about 2000:1. For both transfer students and students who come in as freshman it is important that counseling opportunities come regularly. Not every student is prepared to listen to advice at the same time so there needs to be a number of opportunities to hear it.

General suggestions

Each campus should actively seek to make the names of majors, minors, programs and emphases accurately reflect their content. Furthermore in their online and catalogue descriptions, programs must provide information about the goals and objectives, and what skills the student will learn. Also they should include accurate information about the kinds of careers that their graduates pursue. For professional tracks such as pre-medicine and pre-law and for those interested in pursuing a career in business, it is important to integrate information from a spectrum of majors that share objectives that are valuable in these career paths. Good websites with this information are invaluable. Many campus websites have information that aid in selecting majors but few go into detail about how learning outcomes for a given major map into skills needed for a given career. Also, providing lists of alumni from a number of different majors who have gone on in these professional careers and business, including testimonies, would perhaps encourage dissemination of students among a greater variety of majors.

For impacted majors where temporary lecturers are used extensively, for some cases, hiring of lecturers for longer terms of employment, for example two or three years would engender more consistency in instruction as LSOEs do, but could at the same time have much more flexibility. However, there is always risk in such longer contracts. Again if demand drops, personality conflicts arise or lecturer performance slips, it is more difficult to terminate, than with short term lecturers. Another idea that might be pursued is *postdoctoral teaching fellows.* For example those receiving doctorates in programs in which impacted majors reside (or closely

aligned programs) who intend to pursue teaching careers could spend two or three years in a secure lecturer position further developing their teaching skills. Furthermore they would be persons with whom the program is familiar, with known backgrounds.

Over-enrollment in specific programs might be reduced by using a more systematic approach than is currently employed. Every campus has an enrollment committee of some kind to determine how many students they should have. If these campus committees were to expand their current practice to include working with both impacted and under-utilized programs to encourage more uniform selection of majors, through providing more accurate and germane information. Departments should be encouraged to work together. Furthermore there is a new systemwide committee that is overseeing the overall system enrollment. By collecting (and publishing online) information from individual campuses regarding large majors (impacted or not) and what their emphases are, it might help students better select the appropriate campus (and major) at the outset.

Finally, it is imperative that deans establish a proper balance between weight given to undergraduate enrollment in its historical context, quality of management of the department or program, and its scholarly merit when it comes to providing FTE. Phase out programs/departments that consistently under-serve students regardless of resources available to them. Reward departments/programs with large numbers of satisfied student demand, who demonstrate good stewardship of their resources, and who demonstrate scholarly achievement in spite of high undergraduate student demand.