

Faculty Representative Dan Hare
Remarks to the Board of Regents
January 2016

Thank you, Chair Lozano for the opportunity to speak to the Regents on behalf of the Academic Senate. I would like to return to a subject we have heard earlier this morning: increasing resident undergraduate enrollment. To be specific, I would like to speak from a faculty perspective about the tension between access to UC and the quality of a UC education and how this affects UC's capacity to take on more students. Senate faculty welcome the change in the budget conversation from a year ago, but our perspective as faculty makes us acutely aware that our budget problems are far from solved, where enrollment is concerned.

UC has taken up the challenge of enrolling 5,000 new resident undergraduates next fall, and has proposed to add 2,500 resident undergraduates in each of the following two years. In other words, by September 2018, less than three years away, UC will increase total resident undergraduate enrollment by 10,000 students. That means we are adding the equivalent of half of a campus in students in less than three years

What does an increase of a half-campus worth of students actually mean? First, we might need another half-campus's worth of faculty, but for reasons that I will describe below, that may be the least of our worries. We also will need another half-campus's worth of staff to provide services for those 10,000 students. Areas where new staff might be needed include student support, not only in the administration, but also in the auxiliary services related to dorms and food services. In order to ensure that the students know how to make timely progress toward their degrees, we will need a half-campus's worth of student advisors. Increased staff in health services and campus safety personnel also will be required. Some may think that our current staff is so underutilized that it can absorb a half-campus's worth of new students. But as a faculty member, I see our staff employees stretched very thin even now. I also know of many cases in which staff members put in far more hours than they are paid to provide the necessary services required for our current enrolled students.

But, for me, the biggest concern is whether UC has the physical infrastructure to accommodate a half-campus's worth of students, or will have, by the fall of 2018. Registrars will tell you that UC does not have a half-campus's worth of unused classrooms. If UC hires a half-campus's worth of new faculty, then I think that those faculty members would like offices, and, in the STEM fields, sufficient laboratory space to compete successfully for federal funds supporting their research. We will need to make sure that UC has a half-campus's worth of infrastructure for power, heating and cooling, water, wastewater treatment, and solid waste disposal. These

all are big problems that need to be addressed, but I still haven't gotten to what I consider the most challenging.

As a faculty member in one of the STEM fields, I think that the biggest challenge in providing half-campus's worth of new students a UC-quality education is finding sufficient space for teaching laboratory sessions. Let me give you an example from my own experience. I teach a class in introductory ecology and evolution, with enrollment capped at 480 students. What do you suppose limits enrollment? It is certainly not my ability to prepare and give lectures, because if I can lecture to 480, then I can lecture to 680 or 880. It also isn't the size of the lecture room, because its capacity is 570, so why not raise the class limit by an additional 90 students? This class has a teaching laboratory associated with it, and teaching laboratories, as well as performance studios in the arts, provide students the opportunity to put into practice what they learn in class. The number of rooms for teaching laboratories is limited at Riverside, and my class has access to two rooms accommodating 20 students each. So what limits the size of my class to 480 is the number of times that we can recycle each of those rooms for a different laboratory session each week. Each room is re-used 12 times per week, giving a total enrollment of $12 \text{ re-uses} * 2 \text{ rooms} * 20 \text{ students} = 480 \text{ students}$. One thing that you might need to understand is that, because this is an "ecology" course, some of the labs have both field and laboratory components, so students work both indoors and outdoors during the same session. We can't schedule laboratory sessions during the evenings because some students would need to do their field work in the dark, but don't worry. Those rooms are assigned to another "indoor" laboratory class during the 7:00 PM to 10:00 PM time slot. Overall each of these two rooms is in use continuously from 10 AM to 10 PM Monday through Friday with little time for the preparation of laboratory materials. We have considered holding laboratory sessions on week-ends but that raises additional costs associated with the additional custodial and safety personnel needed on campus.

One way to escape the cap of 480 might be to reduce or eliminate the laboratory sessions. Doing so would easily allow us to enroll the additional 90 students the current lecture room can hold, and perhaps even more if we could find a larger lecture hall. But I am concerned that many of our undergraduates have little enough practical experience to compete for jobs in the current work force, and eliminating the laboratory sessions could make our students less competitive. There is simply no substitute for the hands-on experience that a lab session provides. In my labs, students gain practical experience with some of the concepts that they read and learn about in lecture. So the teaching laboratories contribute substantially to the quality of UC's education in the STEM fields. Even the suggestion that we reduce or eliminate the teaching laboratories in order to increase enrollment clearly illustrates the tension between access to UC and the quality of a UC education. What sounds like an obvious adjustment -- to start scheduling the labs in unpopular time periods--is no longer available. We did it long ago.

Many things that still seem like efficiency improvements have long ago been exploited and can't be exploited again to accommodate still more growth. To provide an analogy, it did my water company no good to encourage me to install low-flow shower heads to cope with last year's drought, because I installed those shower heads during another drought back in 1992.

I can appreciate the desire to provide more students the opportunity of an UC education, but with my faculty colleagues, I am committed to providing a "real" UC education to all the students we teach. Changing the undergraduate growth metric from students to campuses clarifies what it takes to enroll 10,000 more students in a short amount of time. Providing a quality education requires more than additional faculty to deliver lectures. It is no accident that there is a section in the UC budget called "reinvestment in quality." I encourage the Regents to think broadly, and beyond hiring more faculty, about the necessary reinvestments that need to be made in order to maintain, if not restore the quality of a UC education. Chair Lozano, that concludes my remarks.