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SANTA BARBARA • SANTA CRUZ

1111 Franklin Street Oakland, California 94607-5200 Phone: (510) 987-9074 Fax:(510) 987-9086 http://www.ucop.edu

September 1, 2011

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

At the request of Academic Council Chair Anderson, I am pleased to share with you his letter of September 1 conveying the Academic Senate's views on graduate student support. This topic will be discussed as part of Item E2 at our September meeting.

With best wishes, I am,

Sincerely yours,

Mark G. Yudof

President

Enclosure

cc:

Chancellors

bcc:

Members, President's Cabinet

UNIVERSITY OF CALIFORNIA, ACADEMIC SENATE

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Robert M. Anderson Telephone: (510) 987-9303 Fax: (510) 763-0309

Email: Robert.anderson@ucop.edu

Chair of the Assembly and the Academic Council Faculty Representative to the Board of Regents University of California 1111 Franklin Street, 12th Floor Oakland, California 94607-5200

September 1, 2011

PRESIDENT MARK G. YUDOF

Dear Mark,

The Academic Senate is very pleased to work with the Administration in preparing material for the Regents concerning UC's competitiveness for the very best Ph.D. students in the world. It would be hard to overstate the critical role played by graduate education for every aspect of the University's mission. This letter describes past Senate recommendations, organized by potential topic areas and issues before us, for both a presentation to The Regents and our ongoing collaboration on this critically important subject. I request that you transmit this information to the Regents in the agenda packet for the September meeting.

Who Pays Tuition:

All Ph.D. students are "charged" tuition, at the resident level; many students are "charged" non-resident tuition in addition. See the discussion of non-resident tuition below.

In practice, most Ph.D. students have the tuition paid for them by one of the following funding sources:

- If a Ph.D. student is appointed 25% to 50% time as a Graduate Student Instructor (GSI, typically acting as a "teaching assistant," who meets with undergraduates in small sections which supplement larger lectures conducted by faculty), then the resident tuition is paid by the department which hires the Ph.D. student. The funding source is general UC revenue, including state support, undergraduate tuition, and Ph.D. tuition return-to-aid (allocated to graduate programs as "block grant").
- If a student is awarded a UC fellowship (an award that includes no specific duties other than study), the fellowship will typically include payment of resident tuition, and possibly non-resident tuition in addition. The funding source is endowment income and block grant, as well as other campus sources.
- If a student is awarded an external fellowship, the fellowship will typically include funds that partially or entirely cover resident tuition, and perhaps even non-resident tuition. The student may receive additional support from endowment income and block grant.
- If a student is appointed 25% to 50% time as a Graduate Student Researcher (GSR) on an external research grant, the grant is charged for resident tuition on all campuses. On some

campuses, non-resident tuition is charged to the individual grant employing the student. On others every grant is charged a blended rate determined by the proportion of students charged non-resident tuition.

As the list above demonstrates, funds from a variety of sources can be combined to support an individual student. Other campus funds can play a role in graduate student support. An important part of our joint effort should be to collect better information about the relative importance of these various fund sources.

A tuition increase thus has complicated effects on Ph.D. student support. Consider first the case of a student funded on an external research grant.

- Grants are typically awarded to faculty for a multi-year period, three to five years in many cases. It is very rare for a granting agency to increase the amount of the grant in the middle of a grant. The money generated by the tuition increase is not returned to the principal investigator of the grant. Accordingly, an unanticipated increase in tuition would necessarily require the principal investigator of the grant to do one or both of the following to meet the new expense:
 - o Reduce expenditures on categories other than graduate student support.
 - o Reduce the number of graduate students supported by the grant, or reduce the amount of support provided to each graduate student.
- When a faculty member applies for a new grant, he or she may include the higher level of tuition in the grant budget request. However, the granting agency can do any one of the following:
 - o Increase the amount of the award to take into account the higher tuition level.
 - O Direct that the principal investigator reduce expenditures other than graduate student support to stay within the budget the agency is willing to provide.
 - O Direct that the principal investigator reduce the number or percentage time appointment of graduate students to stay within the budget the agency is willing to provide. (It is important to emphasize that these choices may also be made *ex ante* by the faculty member seeking to maximize the probability of a successful grant proposal.)
 - O Deny the grant, because the agency determines that the research project cannot be successfully completed within the budget the agency is willing to provide.

Thus, an increase in Ph.D. tuition is likely to reduce the number of graduate students employed as GSRs, reduce the percentage time of appointment, or divert research expenditures away from other priorities. It could also reduce the number of successful grant applications. Measuring the size of these impacts is difficult, but some estimates need to be made in order to assess the impact of a tuition increase on the competitiveness of Ph.D. programs.

50% of Ph.D. tuition is earmarked for return-to-aid. The manner in which those funds are distributed does not seem to be well understood, and collecting this information—by campus and by discipline, if not individual program—is essential for an informed set of deliberations. Moreover, it is very important to understand that return-to-aid for Ph.D. students is not at all analogous to return-to-aid for undergraduates. Return-to-aid funds are allocated to graduate programs as block grant funds, not to individual students. Programs allocate block grant funds to individual Ph.D. students, but this allocation is not generally based on financial need.

¹ While it is in principle possible for the campus to use return-to-aid money to make up for reduction in the amount of support, campuses, colleges/schools, and departments have resisted doing so.

Currently, 23% of Ph.D. students have GSI positions and 27% have fellowships that cover resident tuition, adding up to 50% of total Ph.D. students. An increase in resident tuition must be paid from block grant or other departmental resources, for these students. Thus, a 50% return-to-aid policy would provide a sufficient number of dollars to cover the increased tuition for students in these two groups. However, it is not clear whether this is what would actually happen given current institutional mechanisms. Return-to-aid money is distributed to departments through block grants from the Graduate Dean on each campus, whereas money to fund GSIs is distributed to departments through the Temporary Academic Staff (TAS) budget provided by the Deans of the various schools and colleges. The block grant money must be distributed to departments exactly proportionally to the distribution of the TAS money for the result to be neutral. Even then, departments are free to allocate TAS money among lecturers, visiting faculty, and GSIs. Accordingly, given current institutional arrangements, an increase in Ph.D. tuition is likely to reduce the number of GSI positions overall.

Finally, even if the institutional arrangements all align to direct block grant exactly where it is needed, one must also assume that there is no reduction in the number of Ph.D. students comprising the other 50%. In spite of an increase in tuition, there must be the same number of students bringing their own funding, and the same number of GSRs. Both assumptions are dubious, so the notion that graduate programs could be left unharmed by a tuition increase is doubtful. Developing the data to support careful analysis of these effects of past tuition increases is overdue, and should be a priority for our joint effort.

Non-Resident Tuition and Foreign Students:

Domestic Ph.D. students from outside California are generally charged non-resident tuition for the first year and become California residents for tuition purposes at the beginning of their second year. Foreign Ph.D. students never become California residents for tuition purposes. However, foreign Ph.D. students have the non-resident tuition waived for three years after they are "Advanced to Candidacy," a process that typically occurs in the third year of study. Thus, a typical foreign student is charged non-resident tuition for roughly the first two to three years, and any year beyond the fifth or sixth.

Non-resident tuition distorts the incentive to admit and support doctoral students based on their resident status and country of origin. On some campuses, grants that support GSRs must pay the full resident tuition, plus non-resident tuition when it is applicable. As a result, principal investigators on grants have strong incentives to hire domestic students in preference to foreign students, if the foreign students are charged non-resident tuition. This results in distortion of hiring and educational decisions, to the detriment of the foreign students and to the detriment of UC's graduate educational mission. On other campuses, all research grants pay an increment above resident tuition in order to pool revenues to fund non-resident tuition. This mitigates the more extreme bias against non-residents noted above, but the higher cost for all grants still discourages the hiring of graduate students on research grants.

A department that hires a GSI is charged only the resident tuition. If the GSI is subject to non-resident tuition, he or she must pay it unless the department spends money out of its block grant or endowment income to cover that tuition. In practice, very few students would be able to pay their own NRT, so the department's resources must be used for non-resident tuition fellowships, rather than unrestricted fellowships that might help recruit the very best applicants.

In short, the need to cover NRT reduces fellowship funds available for net stipends. This makes UC's Ph.D. programs less competitive, and also distorts admission decisions, to the detriment of foreign students. Based on communications with faculty members system-wide, I believe that most departments apply a much higher standard for admission to foreign students than to US domestic students. We believe this adversely impacts the quality of Ph.D. programs at UC.

In the 2005-06 academic year, Senate faculty adopted a Memorial to The Regents urging that the Regents "structure and advocate a budget for the University that eliminates non-resident tuition for academic graduate students." Of the 4167 members who voted, 83% of the members voted in favor of the Memorial. On each campus, a majority of voters supported the recommendation. (http://www.universityofcalifornia.edu/senate/assembly/may2006/nrtmemorial.0506.pdf). The text of the Memorial and the vote tally is presented in Appendix I below.

Following adoption of the Memorial, academic Ph.D. students who have advanced to candidacy were exempted from NRT for three years. This has helped, but it has not solved the problem, as we have noted above. With steadily increasing tuition, the burden from both in-state and non-resident tuition represents a significantly greater concern than was the case in the past. Reflecting this continued concern, at its July 2011 meeting, the Academic Council reiterated the Senate position that non-resident tuition should be eliminated for academic graduate students.

We are grateful for the Administration's recognition that UC's policies for funding foreign Ph.D. students need to be addressed. This is a complex problem that has existed for decades, and a variety of possible solutions need to be considered. However, the fiscal challenges faced by the University make it critical for us to find an appropriate solution now. We look forward to working closely with the Administration on this matter.

GSIs versus Lecturers:

Some instructional duties can be carried out by either GSIs or by lecturers. Under the current institutional arrangements, increases in Ph.D. tuition make GSIs relatively more expensive from the standpoint of departments. Thus, there is a concern that increasing tuition might result in reductions in the number of GSI appointments in many departments. Moreover, employment as a GSI is often an important component of the training of Ph.D. students; some potential employers expect applicants for faculty positions to have prior teaching experience. To the extent that tuition costs discourage the use of GSIs, these various consequences reduce the competitiveness of the University.

GSRs versus Post-Doctoral Scholars:

Many research duties can be carried out by either GSRs or Post-Doctoral Scholars. Increases in tuition make GSRs relatively more expensive from the standpoint of principal investigators on grants; this effect is particularly pronounced for foreign students for whom the grant must pay non-resident tuition as well as resident tuition. We believe that tuition increases for Ph.D. students are likely to erode the number of GSR positions, hurting UC's Ph.D. programs. Anecdotal evidence suggests that this has already occurred. If tuition increases further, measures must be developed to counteract this erosion.

Ongoing Issues of Measurement and Interpretation:

One underlying concern is a lack of clarity in definitions of the components of graduate student support. This lack of clarity leads to a lack of attention to important implications of increasing

tuition in general and the effects of NRT in particular. The first component is "net stipend," the income received from employment or a fellowship net of tuition and fees. The second measure is the total cost of supporting a Ph.D. student, including net stipend, tuition and fees, to the funding source. A simple example illustrates why these are different: if a tuition increase is paid by the funding source, the student sees no change in the net stipend. From the funding source's perspective, given the amount of funding, there will either be less money per student available for supporting graduate education, or the same per student support will be available, but to fewer students.

Tuition increases will affect UC's competitiveness in attracting the best Ph.D. students. While prospective students make enrollment decisions based on net stipend, total cost affects the university's ability to provide that stipend. An increase in tuition for an individual student that is covered by the student's funding source does not affect him or her because the net stipend is unchanged. The total cost of supporting that student increases, however. A failure to recognize that total cost affects competitiveness leads to a failure to recognize the impacts of tuition increases on graduate students. The effect of a tuition increase on graduate students cannot be assumed to be limited to the zero effect on net stipend of currently supported students who continue to receive support. As the total cost of supporting a graduate student increases, faculty with research grants cannot fund as many students, unless they can simply increase the size of grants to reflect increased costs. There is little reason to believe that most granting agencies will simply allow UC to pass on the high cost of Ph.D. students, as costs rise. It seems likely that the main effects are likely to be to displace other uses of research grant funds, to reduce the number of successful grant applications, and to reduce the employment of Ph.D. students on research projects. In short, fewer graduate students will be supported, all else equal.

Net stipend and total cost both drive competitiveness. Neither measure should be used independently to draw conclusions about the long-run ability of the University of California to maintain its competitiveness in attracting outstanding Ph.D. students. Ph.D. students are attracted to top programs; however, an important aspect of the choice of which graduate school to attend is where the funding is best. In the absence of sufficiently attractive financial offers, UC will lose the best Ph.D. applicants to other institutions. Tuition increases will reduce UC's competitiveness.

Sincerely,

Robert M. Anderson Chair, Academic Council

Robert Arden

Appendix 1 UNIVERSITY OF CALIFORNIA ACADEMIC SENATE

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SANTA BARBARA • SANTA CRUZ

Chair, Academic Council and Assembly of the Academic Senate

Telephone: (510) 987-9303 Fax: (510) 763-0309

Email: John.Oakley@ucop.edu

Faculty Representative to the Board of Regents University of California 1111 Franklin Street, 12th Floor Oakland, California 94607-5200

May 25, 2006

ROBERT C. DYNES **PRESIDENT**

RE: For Transmittal to The Regents of the University of California: The Academic Senate Memorial to The Regents on Non-Resident Tuition for Graduate Students

Dear Bob,

As you will recall, at its February 8, 2006 the Academic Assembly voted in favor of initiating a Memorial to The Regents in accordance with Academic Senate Bylaw 90 requesting "that The Regents of the University of California structure and advocate a budget for the University that eliminates non-resident tuition for academic graduate students." The ballot on the following page was soon thereafter submitted to a mail vote of all Academic Senate members.

At the May 10, 2006 meeting of the Academic Assembly, I announced that the Academic Senate Faculty had voted overwhelmingly in favor of the Proposed Memorial on Non-Resident Tuition. Of the 4167 members who voted, 83% of the members voted in favor of the Memorial. Therefore, as directed by Academic Senate Bylaw 90, and in accordance with Standing Order of the Regents 105.2e I am forwarding to you for submission to the Regents the Memorial along with a tabulation of the votes cast.

Sincerely,

John Oakley, Chair Academic Assembly

Encl: 2

Copy: Academic Assembly

María Bertero-Barceló, Executive Director

Appendix 1

MEMORIAL TO THE REGENTS NON-RESIDENT TUITION

Ballot — Memorial to the UC Regents

Should the following statement be sent to the President of the University for transmission to the UC Regents?

RECITALS:

- 1. University of California research and development activities are important economic, intellectual, social, cultural and educational drivers for the State of California.
- 2. The ability to recruit the best graduate students from around-the-world is critical to the academic and research excellence of the University of California.
- 3. Large numbers of non-resident graduate students finish their degrees and remain in California to start or become leaders in high-technology, bio-technology, and other businesses that contribute substantially to the California economy. Many also remain in California as the next generation of research scholars.
- 4. California's competition in the global marketplace requires that we compete successfully for the best graduate students from around the world.
- 5. Non-resident tuition is a serious impediment to recruitment of graduate students from outside of the State of California, and, most particularly, graduate students from outside of the United States.
- 6. Non-resident tuition charged to academic graduate students (those students with terminal academic degree educational goals such as Ph.D. and MFA programs) is typically not paid by the student but is charged to faculty grants and other university resources. Thus, charging non-resident tuition to academic graduate students is a shift of university funds depleting resources that may be used for other purposes.

THEREFORE, BE IT RESOLVED THAT:

	nia requests that the Regents of the University of California structure and es non-resident tuition for academic graduate students.
YES	NO

Appendix 1

RESULTS

CAMPUS	"YES"	"NO"	VOTES NOT	TOTAL # OF
	VOTES	VOTES	ACCOUNTED IN	VALID
			YES/NO TALLY	VOTES
Berkeley	363	130	2	493
Davis	802	141	104	943
Irvine	552	29	0	581
Los Angeles	289	107	4	396
Merced	26	5	0	31
Riverside	189	10	0	199
San Diego	317	132	12	449
San Francisco	177	107	0	284
Santa Barbara	471	22	1	493
Santa Cruz	261	37	21	298
Totals	3, 447	720	144	4,167

Appendix 2 Academic Senate Statements on the Importance of Ph.D. Education

In its review of the recommendations of the Commission on the Future of the University, (http://www.universityofcalifornia.edu/senate/reports/HCP2Yudof_FirstRound_Senate_Comment61_10.pdf) the Academic Council expressed concern over the "dearth of recommendations regarding graduate education." The Council went on to recommend that

"Graduate students are central to the quality and reputation of the University; they should not be an afterthought. The University should affirm the importance of graduate students both to faculty projects and the University's research mission, and to undergraduate education, by addressing the issues facing graduate students."

More recently, the Academic Council's Special Committee on a Plan for the University of California (the "Powell Committee") emphasized that

"Any plan for the future success of UC must aim not just to maintain, but rather to enlarge, our programs for graduate education, especially academic doctoral programs."

The Committee found that

"Graduate students are the foundation of the research enterprise and are critical to the University's teaching mission. In order to maintain its eminence, UC must reverse the trend of decreasing graduate student enrollment and provide incentives to recruit top graduate students and post-doctoral fellows. As graduate non-resident tuition (NRT) is an artificial penalty for departments that enroll international graduate students in academic programs, the mitigation of NRT may be a relatively inexpensive way to improve the pool of viable applicants."

This was one of the Powell Committee recommendations adopted by the Academic Council.

http://www.universityofcalifornia.edu/senate/reports/ds.yudofrepowellCommitteReport.pdf

At its July 2011 meeting, the Academic Council adopted unanimously a number of recommendations dealing with Ph.D. programs put forward by the Implementation Task Force (http://www.universityofcalifornia.edu/senate/ITFFinal_080211.pdf). Several of these were aimed at the proposed budget reform termed "Rebenching", but others speak directly to the issues before us concerning graduate tuition:

- 16. The Academic Council recommends that the Academic Senate oppose charging non-resident tuition (NRT) for Ph.D. students (page 20). Until the practice of charging NRT for Ph.D. students ends, the Senate should oppose policies that require that NRT be paid by the funding source for employment of the Ph.D. student. (page 19) The Academic Council requests that the administration work with CCGA, UCORP, and UCPB to study these two policies and to model their effects. (page 20)
- 17. Until the practice of charging NRT for Ph.D. students ends, the required state subsidy for Ph.D. students shall be calculated as a weighted average of the separate figures required to cover Blended Average Cost for California resident Ph.D. students and non-resident Ph.D. students. (page 23)
- 20. CCGA and UCPB should also consider whether recommendations 15 and 16 should apply to academic Master's students.