

UCOP Survey of Graduate Applications, Admissions, and Enrollment Issues

Student Financial Support, Student Affairs

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Summary

- Financial support availability drives overall enrollment of Ph.D. students into two ways: by influencing the number of students a department admits and by influencing the competitiveness of the offers extended to admitted applicants
 - Departments must stay within their budgets for financial support
 - They must offer a high level of support to attract top quality students
- One mechanism that some departments use to save money is to admit fewer international students and more domestic students
 - All departments report that financial support availability influences the mix of domestic and international students
- SEVIS and visa issues probably have had an effect on the number of international student applications, but this has not had a negative impact on the quality of the applicant pool
 - International students have always been high quality, and there have always been more applicants than departments can afford to accept
 - Domestic student quality seems to be rising in some areas
- NRT increases influence international applications in some cases because in many departments, NRT is not covered for all Ph.D. students, and students probably take this into account when considering whether or not to apply
 - In some cases, departments do not even consider international students because they don't want to pay for non-resident tuition

Background

At the November 2004 C.O.G.D. meeting, graduate division staff shared data on graduate applications, admits and new enrollment that showed a serious drop in international participation at all three stages. Systemwide, international applications, admits and new enrollment dropped by 20.9%, 15.8% and 21.4%, respectively, between fall 2003 and fall 2004. Similar results were reflected at all campuses. Applications were steady among the remaining domestic students, however domestic admits and new enrollment were down 4.0% and 4.5% respectively, indicating the problem might not only be confined to international students.

Anecdotal information from faculty, graduate deans, and graduate division staff suggested that factors related to fees, tuition and student support were the main driver behind these outcomes. A survey was developed in order to collect information in a more systematic way and to disentangle the effects of these factors from other possible factors, including new Federal visa regulations that are correlated with a nationwide decline in international applications. (The Council of Graduate Schools conducted a survey of American Universities that showed declines international applications, admits and enrollment nationwide in 2004 of 28%, 18% and 6% respectively.)

Methodology

Six departments with significant international enrollment were selected for this survey to loosely represent six broad disciplines: Mechanical Engineering, Computer Science, Economics, History, Physics and a biological science. These departments were surveyed at each of the nine campuses. First contact was through a written electronic survey form that was distributed to department chairs or graduate program advisors. In cases of non-response, departments were contacted by phone. We also followed up on some written responses by phone to gain richer information. Because the departments were not randomly selected, we can not make broad generalizations about the University as a whole. We do, however, have systematic information about each of the departments chosen. Written responses were obtained from over 85% of selected departments (42 of 48), and phone interviews were conducted with about 50% of these (23 of 42). This paper summarizes the frequency that particular experiences were reported among departments that responded using either mode.

Results

Applications

Nearly twice as many departments reported a decrease in applications for fall 2004 than reported and increase (18 vs. 10, see Table 1). The decrease was

primarily attributed to a drop in international applicants; all but one of these reported a drop in international applications while only about a third reported a drop in the number of domestic applications received. In addition, seven departments that reported no change in the total number of applications in both years reported that they received fewer international applications, but more domestic applications for fall 2004.

**Table 1
Respondents Reporting Changes in the Number of Ph.D. Applications Between
Fall 2003 and Fall 2004**

| Change in Fall 2004 Applications | Student Type | | | | | |
|--|--------------|---------|---------------|---------|----------|---------|
| | Overall | | International | | Domestic | |
| | n | percent | n | percent | n | percent |
| Fewer | 18 | 43% | 21 | 50% | 6 | 14% |
| Same | 14 | 33% | 13 | 31% | 14 | 33% |
| More | 10 | 24% | 8 | 19% | 22 | 52% |

What drove this drop in international applications? Two main hypotheses are new visa regulations and recent increases in non-resident tuition (NRT).

Among departments experiencing drops in international applications, three quarters (16 of 21) of the respondents believe that SEVIS and visa issues are contributing factors. Departments related specific instances of problems with visas, such as admitted students unable to obtain visas to attend, currently enrolled students having their visas lapse, or students and professors being afraid to leave the country for conferences or to visit relatives. To the extent that such experiences are commonplace, they represent experiences that would dissuade applications from abroad to American universities. New visa rules were first implemented in spring 2003, making the fall 2003 class the first major enrollment cycle to deal with the new requirements. It is quite possible that students applying for fall 2004 might have heard about visa difficulties from 2003 admits that discouraged them from applying to U.S. institutions.

Four respondents cited increases in non-resident tuition as a factor in decreasing international applications. These respondents were in Economics and History departments, where fewer students are supported than in other departments surveyed. Their descriptions imply that in the initial process of researching UC graduate programs, students applying in those fields at some campuses learn that they may be expected to pay NRT themselves. As a related issue, increases in NRT are leading departments to accept fewer international students, which may lead international students to believe they have less chance of admission than in prior years.

Admits

Overall, more departments reduced, rather than increased, the number of students admitted for Fall 2004 compared to Fall 2003, particularly among international students (see Table 2).

Table 2
**Respondents Reporting Changes in the Number of Ph.D. Admissions
 Between Fall 2003 and Fall 2004**

| Change in Fall 2004 Admissions | Student Type | | | | | |
|--------------------------------------|--------------|---------|---------------|---------|----------|---------|
| | Overall | | International | | Domestic | |
| | n | percent | N | percent | n | percent |
| Fewer | 18 | 43% | 24 | 57% | 13 | 31% |
| Same | 10 | 24% | 12 | 29% | 10 | 24% |
| More | 14 | 33% | 5 | 12% | 19 | 45% |

Many departments indicated that they feel limited in their ability to admit international students due to the cost of covering tuition. Sixty-four percent of respondents (27 of 42) reported that changes in student support resources in the last three years have caused them to admit fewer students (domestic or international, see Table 3). Over half the departments report that they have recently lowered the number of international admits in order to keep support costs down (22 of 42). More generally, 90% of respondents (38 of 42) say that financial support available influences the mix of international and domestic students they admit.

Table 3
Responses to Admissions Policies and Practices Questions

| | | |
|---|----|---------|
| Have any changes in student support resources on your campus in the last three years caused you to change the number of students admitted? | n | percent |
| Has raised the number admitted | 3 | 7% |
| Has not affected the number admitted | 12 | 29% |
| Has lowered the number admitted | 27 | 64% |
| Have you instituted any changes in admissions policies in the last three years in order to keep support costs down? (e.g. have limits or caps been established for international students?) | n | percent |
| No, we have not made changes | 13 | 32% |
| Limits on international students already existed | 6 | 15% |
| Yes, we have recently lowered international admits | 22 | 54% |
| Does the financial support available to your department influence the mix of domestic vs. international students that you admit? | n | percent |
| Yes | 38 | 90% |
| No | 4 | 10% |

Cost increases particularly affect international student admissions. Whereas domestic students usually become California residents after one year, international students must pay non-resident tuition in each year of their graduate program. In the context of budget reductions, departments are aware of the risks involved in guaranteeing multi-year support to international students. At least 20 departments indicated that they are reducing the ratio of international to domestic students admitted (see Table 4). Of those decreasing the ratio of international admissions, 75% (15 of 20) cited increases in non-resident tuition or cost considerations generally as the reason for the shift. Respondents do not feel it is worthwhile to admit unsupported students because it is unlikely that they will enroll. One department representative shared that they are hesitant to enroll international students even without offers of support because, quite often, those students and their faculty members later appeal for new support.

Table 4
**Changes in the Number of International by Domestic Ph.D. Admissions
 Between Fall 2003 and Fall 2004**

| | | International Admits | | |
|-----------------|-------|----------------------|------|------|
| | | Fewer | Same | More |
| Domestic Admits | Fewer | 11 | 1 | 0 |
| | Same | 6 | 4 | 0 |
| | More | 7 | 7 | 5 |

Note: Cells in which there appears to be a decrease in the ratio of international to domestic students are shaded

Responses suggest that the drop in the number of applications has not negatively impacted the quality of the admit pool. The perceived quality of the international applicant pool is steady and very high, while 43% of departments (18 of 42) reported that domestic admit pools are higher quality than in the past few years (see Table 5). Several respondents mentioned that there is no shortage of high quality international applicants. Several other respondents theorized that the poor economy is leading more people to apply to graduate school who might otherwise have chosen to work, leading to more high quality domestic applicants.

Table 5
**Respondents Reporting Changes in Quality of Ph.D. Admissions Pools
 Between Fall 2003 and Fall 2004**

| Change in Fall 2004 Admit Quality | Student Type | | | | | |
|--|--------------|---------|---------------|---------|----------|---------|
| | Overall | | International | | Domestic | |
| | N | Percent | n | percent | n | percent |
| Lower | 1 | 2% | 1 | 2% | 1 | 2% |
| Same | 22 | 52% | 31 | 74% | 23 | 55% |
| Higher | 19 | 45% | 10 | 24% | 18 | 43% |

Enrollment

The most critical stage of the admissions process from the University perspective is getting admitted students to ultimately enroll at UC. Attracting top students from their applicant pool is particularly important to faculty members. Many respondents were unsure about changes in the quality of enrolled students. By and large, however, the results did not indicate a general decline in the University's ability to attract top students. Twenty-two departments reported that the same number of top admits were choosing to enroll as in the past; seven reported that fewer top students chose to enroll; and eight reported that more top students are now choosing to enroll (see Tables 6 and 7) . There is no discernible relationship to discipline in this result.

Tables 6 and 7
**Number of Students Choosing to Enroll among Top 5 Admits, and Changes in
 the Number of Top Admits Choosing to Enroll
 Between Fall 2003 and Fall 2004**

| Number Choosing to Enroll | Respondents | |
|---------------------------------|-------------|---------|
| | n | percent |
| 0 to 1 | 17 | 50% |
| 2 to 3 | 15 | 44% |
| 4 to 5 | 2 | 6% |
| unknown | 8 | n/a |

| 2004 Change in Number Choosing to Enroll | Respondents | |
|---|-------------|---------|
| | n | percent |
| Fewer | 7 | 17% |
| Same | 22 | 52% |
| More | 8 | 19% |
| Unknown | 5 | n/a |

Notwithstanding any perceived change in UC departments' ability to enroll top students, many respondents report that their competitor institutions are able to offer larger, multi-year financial support packages which regularly outcompete the offers they make to admits. The 2004 Graduate Student Support Survey indicates that financial support is highly correlated with enrollment decisions.

Only two departments reported that four or five of their top five applicants chose to enroll, while 7 of 34 respondents (20%) reported that zero of the top five admits chose to enroll in 2004. The specifics of competitive issues vary by department, but most seem concerned that their support offers often caused them to lose potential enrollers.

By Discipline

The departments chosen for this survey were selected because they have a significant number of international Ph.D. student enrollment, and to loosely represent six broad disciplines. To obtain systematic information, the same departments were surveyed at each of the nine campuses.

The percentage of international students enrolled and the average net stipend support level varies by department, which is part of the context in which changes reported in this survey need to be understood. In computer science, mechanical engineering and economics, international students constitute about half of Ph.D. enrollment. In history and physics, international student enrollment is about 10% and about 30%, respectively, while in the biological sciences it can range from 0% to about 30%, depending upon the campus and department. The biological sciences and physics departments provide the highest average net stipend to their students, as a mix of research assistant, teaching assistant, and fellowship support. In computer science and mechanical engineering, average net stipends are somewhat lower, and support is heavily weighted towards research assistantships. In economics and history, average net stipends are still lower, and the majority of support is in the form of teaching assistantships, which, unlike other forms of support, cannot be used to cover non-resident tuition.

Biological Sciences

In the biological sciences slightly different variations of Cellular, Molecular or Developmental biology departments were surveyed at each campus. Nearly all these departments reported decreases in the number of international student admits (8 of 9). Most of these admitted fewer international students to deal with financial concerns. Both departments surveyed at UCSF, biochemistry and biophysics, admitted zero foreign students for fall 2004. At San Francisco and Santa Barbara, faculty members, not the department, are responsible for supporting international students from the very beginning, unlike domestic students who don't join a lab until their second year.

Maintaining or increasing the level of students' net stipends seems more important to these departments than admitting international students. At Santa Cruz, the MCDB Department has been raising stipends while admitting fewer students. They consider recruiting competitively for top students more important than maintaining enrollment. The San Diego division of Biological Sciences also

reported that they have been raising stipends while new enrollment is slightly lower.

Computer Sciences

Nearly all the computer science departments received fewer applications in fall 2004 than fall 2003, most of which was due to decreases in international applications. Some campuses cited difficulties with visas as a significant issue for them, especially for students from China. Several respondents shared particular stories about students unable to obtain visas, or to maintain their visa status. Students are sometimes afraid to leave the country to visit relatives or attend conferences because they are not certain they will be allowed back. CS departments are also aware of growing competition from Chinese universities for students.

Some campuses have lowered the proportion of international students among admits due to the cost of non-resident tuition. Although these evaluations are not systematic, respondents do not perceive a drop in the quality of the admit pool, nor in the quality of the students choosing to attend. One respondent believed, however, that the quality of the students could have been higher had they been able to afford to support more international students. The Irvine CS department specifically mentioned that they are admitting fewer students overall in order to be able to support every student. The UCSB Computer and Information Sciences Department recently stopped guaranteeing support to master's students. They are very concerned about the availability of extramural funding, which makes up a large portion of their funding.

Mechanical Engineering

Mechanical Engineering departments experienced a mix of increases and decreases in the number of applications, international applications, and total admits. Four of five respondents (80%) reported that their department admitted fewer international students for fall 2004 than for fall 2003. Three campuses reported that fewer students were admitted due to changes in the amount of financial support available.

Physics

Physics programs are different from the other departments surveyed in that several campuses reported an overall trend of growth in their department. All responding departments were able to support all their admits, and three departments reported that recent changes in financial support resources have raised the number of students admitted to their department. They do have limits on the number of international students, however, and about half have recently reduced the number of foreign students that they admit in order to keep support

costs down. Respondents mentioned that there have been visa problems, but those problems seem to have subsided recently.

History

UC History departments offer a limited number of multi-year fellowships, some of which are funded at the campus level and some of which are funded at the department level. These departments often measure their ability to compete based upon how many of these fellowship recipients accept their offers. They have the impression that competitor institutions are able to offer multi-year support packages to all their admits; in contrast, UC departments must choose only a few students to receive multi-year packages. They want to offer more multi-year support offers, but when there are funding declines or fee increases, large proportions of their funding is used on these guarantees. Some continuing students who are not guaranteed support are not able to obtain TA-ships.

SEVIS has not had a large effect for most of these departments, possibly because history is not a field that is sensitive from the perspective of homeland security, and partially because international students make up a smaller proportion of enrollment than they do in other departments surveyed.

Economics

Visa issues were cited as a concern by 6 of 8 respondents at economics departments. At Riverside, several students have cited visa problems as factors in their decisions not to enroll. Several respondents attributed the rise in domestic applications to a slowdown in the U.S. job market.

Four of eight campuses reported that they have lowered the number of students admitted due to changes in the amount of student support resources. Two campus departments recently admitted fewer international students to keep support costs down. Despite these issue, 6 of 7 departments reported that the quality of their admit pool is the same or higher than it had been in the past.

Conclusion

At the national level, new visa requirements related to the SEVIS information system have contributed to depressing the number of international graduate applications and admissions. At UC, international student and scholars' offices have helped to reduce these barriers, but these requirements are probably still affecting the number of international students choosing to apply.

While SEVIS has decreased the number of international applications, no there is no indication that this has resulted in a shortage of high quality international applicants. Hence, SEVIS alone does not explain the reduction in the number of international students who were admitted and who enrolled in fall 2004.

At UC, fee and tuition increases have outpaced increases in student support resource. In response, many departments have elected to admit and enroll fewer international students, whose support costs are high. In some cases, this has been offset by a corresponding increase in domestic enrollment. In others, the overall number of admitted and enrolled students declined. Departments seemed more likely to admit and enroll fewer students than to reduce the value (and hence the competitiveness) of their award.

These findings suggest that any plan to increase graduate student enrollment – international or domestic – must address anticipated changes in student fees, tuition, and the availability of competitive student support funding, all of which will affect the University's ability to meet its enrollment goals.