Chapter 4E: Graduate Recruiting

Starting Points

The College of Engineering makes important contributions to graduate education. With only 9.2% of CSU’s tenured and tenure-track faculty, the College is home to 14.8% of CSU’s graduate students and confers 12.3% of CSU’s master’s degrees and 17.6% of CSU’s doctoral degrees (Table 4E.1). Our ability to recruit and retain excellent graduate students is directly related to our research productivity and scholarship. The College of Engineering is one of CSU’s strongest research units and is responsible for 20.6% of CSU’s research expenditures.

Graduate enrollments in the College of Engineering are similar to enrollments within other top-ranked Colleges of Engineering (Chapter 2). CSU’s College of Engineering graduates an average of 1.3 masters and 0.33 doctoral students per year per tenured or tenure-track faculty member. This is similar to other colleges with national rankings between 31 and 60 (Table 2.2, page 2-3), but less than institutions ranked in the top 30. Top-thirty colleges graduate an average of 1.9 masters students/faculty member and 0.48 doctoral students/faculty member annually.

Graduate enrollments in the College of Engineering have remained relatively constant over the last decade (Figure 4.4, reproduced on page 4-26), while national graduate enrollments are increasing (Table 4.2, page 4-2). Given our objectives to foster excellence in research and scholarship and our mission to provide graduate education, it is important that we continue to build our graduate programs. Our objective is to:

**Objective:** Enhance the quality of graduate education in the College of Engineering.

The purpose of this strategic plan is to develop strategies that improve our ability to recruit M.S., M.E., and Ph.D. students. Our goal is to:

**Goal:** Increase graduate student enrollment in the College of Engineering.²

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1 2005/2006 Fact Book
2 The diversity plan includes strategies to increase the recruitment of a diverse graduate student body.
Figure 4.4. Historical College of Engineering Enrollments

Strategies:

Faculty and Research
- Increase the number of faculty in the College of Engineering to a level consistent with our peers (Chapter 2),
- Hire faculty in areas of strategic research strengths,
- Support the College’s research enterprise (Chapter 5) to maintain our excellent record of research expenditures/faculty,

Financial Support
- Offer competitive stipends,
- Provide fellowships or scholarships to increase our ability to recruit graduate students (signing bonuses),
- Encourage students to compete for national scholarships and fellowships (provide information about opportunities),
- Create differential incentives for PhD recruiting (fellowships, GTAs, etc.),
- Continue to support the Graduate School to develop a tuition premium strategy that adequately supports graduate education,

Programs
- Develop and promote 5-year B.S./M.S. programs,
- Build interdisciplinary programs around areas of strengths (such as biomedical engineering),
- Develop collaborations with other excellent departments and programs at CSU by identifying students with an interest in both areas, thus giving them an incentive to collaborate and produce results across the disciplines,
- Integrate PhD students into strong collegial research clusters,
Increase the number of 600 and 700 level courses offered within each research area,
Provide sequences of courses that allow students to gain in-depth knowledge beyond the introductory graduate level,
Develop a mechanism to better prepare PhD students for college-level teaching, including training, evaluation, and mentoring,
Set the expectation and provide mentoring such that all PhD students publish articles in peer-reviewed journals,

Facilities
- Develop adequate research facilities,
- Develop adequate graduate student office space,
- Upgrade research equipment through strategic investment of resources,

Recruiting
- Use current graduate students to recruit new graduate students at professional conferences,
- Host targeted activities at professional conferences and participate in graduate recruiting fairs,
- Recruit through targeted announcements to undergraduate programs (include specific demographic groups),
- Work with the Office of International Programs to leverage their international recruiting activities,
- Send recruiting materials to specific, known contacts at other institutions in addition to directors, department heads and deans,
- Utilize faculty at other institutions to help identify outstanding undergraduate students and recommend them to our programs,
- Utilize faculty traveling to other institutions and conferences for recruiting (develop and send recruiting information with them; encourage them to meet with potential students),
- Provide travel funding to allow prospective students to visit CSU,
- Host “graduate visit days,” where appropriate,
- Develop special recruiting strategies targeting qualified CSU juniors and seniors,
  - Identify the “top 10” CSU juniors and seniors in each major, provide special recognition, enlist faculty to help recruit these students for graduate school,
  - Engage undergraduate students in research groups,
- Identify potential students through multiple methods:
  - Survey publications, websites, and newsletters of other institutions to identify student award winners,
  - Identify a diverse group of potential applicants by identifying winners of special awards (such as the National Society of Black Engineers (NSBE) award winners),
  - Improve marketing and recruiting (by updating the COE web site, etc.),

Planning
- Conduct exit interviews or surveys with graduating students to determine factors affecting decisions concerning their choice of graduate institution and program, and
- Conduct exit interviews or surveys to develop recommendations for improvements in our graduate programs.
Metrics:

- Yield rate,
- Graduate student/faculty ratio (target 6.5/1),
- M.S. and M.E. degrees awarded per tenured and tenure track faculty member per year (target 1.9/1), and
- Ph.D. degrees awarded per tenured and tenure track faculty member per year (target 0.5/1).