Cost Drivers of Graduate Education

Custom Research Brief

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I. Research Methodology

Project Challenge

Leadership at a member institution approached the Forum with the following questions:

- What is the operational budget for graduate education at other institutions, and what percentage of the total budget does it account for?
- What are the major elements of cost models for graduate program, including master’s level and terminal degree offerings (i.e., MFA, PhD)?
- How do cost models account for the following expenses:
  - Marketing of and recruitment for graduate programs
  - Graduate co-ops, internships, international experiences, and other career development opportunities
  - Development and maintenance of infrastructure for research and teaching
- How are costs shared by central administration and individual colleges and programs?
- How do cost models account for the balance of traditional, non-traditional, and online students?
- How do cost models consider extended time required for the completion of graduate degrees beyond program expectations? How does this affect the cost of graduate education?
- How is faculty involvement in graduate programs calculated and factored into cost models (e.g., the percentage of the faculty member’s workload dedicated to graduate teaching, advising, or research)?
- How do cost models account for the budget for and availability of graduate scholarships, fellowships, and teaching assistantships?
- To what extent are graduate programs subsidized by undergraduate tuition revenue and other sources (e.g., research and academic endowments, foundation support, etc.)?
- What resources, if any, do graduate programs share with those of undergraduate offerings (e.g., personnel, library resources, facilities, technology)? How is this factored into cost models?
- How do cost models plan for independence of graduate programs (e.g., whether to continue, improve, or phase out existing programs or launch new offerings)?
- How do administrators consider the balance of revenue-generating programs and programs that enhance prestige for the institution in strategic planning decisions?

Project Sources

The Forum consulted the following sources for this report:

The Forum interviewed graduate studies administrators at institutions identified as peers by the requesting member as well as other research institutions with a comparable profile.

### A Guide to Institutions Profiled in this Brief

<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>Type (Public/Private)</th>
<th>Approximate Institutional Enrollment Graduate/Total (Percentage Graduate)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>University A</td>
<td>South</td>
<td>Public</td>
<td>7,000 / 21,000 (33%)</td>
<td>Research Universities (very high research activity)</td>
</tr>
<tr>
<td>University B</td>
<td>Midwest</td>
<td>Private</td>
<td>11,000 / 21,000 (52%)</td>
<td>Research Universities (very high research activity)</td>
</tr>
<tr>
<td>University C</td>
<td>Mid-Atlantic</td>
<td>Private</td>
<td>9,000 / 37,000 (25%)</td>
<td>Research Universities (high research activity)</td>
</tr>
<tr>
<td>University D</td>
<td>Pacific West</td>
<td>Public</td>
<td>13,000 / 42,000 (30%)</td>
<td>Research Universities (very high research activity)</td>
</tr>
</tbody>
</table>

Source: National Center for Education Statistics

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The Forum interviewed graduate studies administrators at institutions identified as peers by the requesting member as well as other research institutions with a comparable profile.
II. Executive Overview

Key Observations

The primary cost drivers of graduate education include tuition scholarships, stipends for teaching and research assistantships, and operating costs for support centers and other graduate student services. At most contact institutions, departmental budgets cover the majority of funding for their students’ academic costs (including tuition coverage and assistantship stipends) and program marketing and recruitment. University A and University C maintain limited centralized budgets for funding some scholarships and assistantships, including those that target international students and domestic minority students. University C also centrally funds recruitment of international students.

Students who require additional time to complete a degree and the difference in costs between disciplines pose a challenge to predictive modeling. Students who do not complete their program within the expected timeframe pose a budgetary challenge to the institution since they often receive extensions in their tuition coverage. The difference in cost based on program (e.g., humanities or science) also creates challenges in predictive modeling.

Informed by an analysis of graduate education costs, administrators limit enrollment in highly subsidized programs and incentivize the development of revenue-generating programs. At University A, contacts offer seed money to incentivize the development of revenue-generating online or hybrid programs; they also all departments to keep all tuition revenue those programs generate. Administrators hope that University C’s upcoming transition to a responsibility-centered management (RCM) budget model will encourage graduate program leaders to develop more revenue-generating offerings since they will receive resulting revenue.

In pursuit of financial independence, graduate education leaders increase the competitiveness of fellowship awards as a means to attract more external grants to higher-quality research. At University D, two advancement officers fundraise on behalf of graduate programs to support travel and research grants.
III. Costs of Graduate Education

Components of Graduate Education Costs

Major Costs Include Grants for Assistantships, Operating Costs for Services and Resource Centers, Tuition, and Initiatives to Support Minority Students

Academic and finance leaders at contact institutions consider the following expenses when determining costs of graduate education:

- **Teaching and research assistantships:** Graduate students in teaching or research assistant roles at University A, University B, and University C receive stipends and occasionally tuition coverage. At University A, departmental budgets cover tuition and stipends for the majority of assistantships though a limited amount of centralized funding covers tuition for some assistants. University C’s cost model includes roughly $1 million to cover tuition for research assistants across departments. Administrators examine departments’ modified total direct cost (MTDC) to determine eligibility for research assistant funding; units with $75,000 in MTDC qualify for one assistantship and those with $175,000 qualify for two. Department leaders may negotiate eligibility for more than two assistants but must incur at least $150,000 MTDC for each additional assistant. Administrators award most tuition scholarships and assistantships only to full-time graduate students. Occasionally, two or more part-time students may split one fellowship or assistantship among them according to their credit load.

- **Administrative graduate student support:** University C maintains a centralized teaching and learning center and a mentoring center for graduate students and a student union serving only graduate students. The overall administrative budget for graduate education includes the operating costs of these services.

- **Mentoring and career support services:** Graduate students at University C may access a teaching and learning center that provides mentors for graduate assistants. The center receives funding from the administrative budget for graduate education. At University A, one dedicated staff member within the University’s career services office provides support for graduate students. Institutions’ central budgets for graduate education support these services.

- **Tuition coverage:** Funding for graduate student tuition represents the most significant expense within University B’s cost allocations, which includes only academic expenses rather than those for operational or support services. Graduate programs at University B promise five years of funding to all students. At University C, a fellowship budget of $2.9 million covers tuition for students in terminal degree programs (i.e., doctoral or MFA programs) with outstanding tuition costs. Another fellowship program provides $1.2 million in tuition funding for students.

- **Initiatives to support minority and international students:** Leaders at University A and University C allocate some central funding to recruit and fund tuition of international and/or underrepresented minority students. At University C, a “future faculty” budget of $450,000 covers tuition for international and domestic minority students who are underrepresented in their field of study. The central administrative budget also funds recruitment of international students, while academic departments oversee recruitment. University A offers a fellowship opportunity for international students entering any graduate program.

$750,000

**Administrative Budget**

At University C, the overall administrative budget for graduate education includes operating costs of the graduate student union.
Cost Coverage

**Individual Units Cover Marketing, Recruitment, Tuition Scholarships, and Most Assistantships**

At University A and University C, individual academic departments bear most of the financial responsibility for program marketing and recruitment, tuition scholarships, and stipend funding for research or teaching assistants. At University C, academic units pay each teaching assistant or academic intern approximately $16,500 annually in stipend funding plus $18,000 in tuition funding ($1,000 per credit). Each department also covers indirect costs associated with their programs, such as lab maintenance or art supplies, usually by charging additional fees to students. At University A, academic units offer over 850 tuition scholarships of varying amounts to cover costs of graduate programs. Departments also fund all support costs for graduate students, including program marketing and recruitment, travel expenses, and career development services.

Cost Effects of Non-Traditional Students

**Time-to-degree Extensions Pose Budgetary Challenge**

University B guarantees tuition coverage for five years of graduate education, but program directors may extend funding for students requiring more time to complete their degrees. Currently, the University lacks a mechanism to approve or track tuition extensions, creating a strain on budget resources when many programs issue them. Administrators plan to address this challenge by limiting the amount of extensions given each year and developing an approval process that will constrain the number of extensions a program can grant each year.
IV. Cost Drivers and Strategic Planning

**Graduate Program Independence**

*Graduate Programs Account for 20% of Student Credit Hours and 34% of Instructional Costs*

Graduate students account for 20 percent of all student credit hours but 34 percent of instructional costs, a difference of 14 percent. Subsidies from first-year and sophomore undergraduate students fund this difference.

**Percentage of Student Credit Hours and Instructional Cost by Level of Instruction**

| Distribution of Instructional Costs | 21% | 45% | 34% |
| Distribution of Student Credit Hours | 35% | 45% | 20% |

- First-year and Sophomore Students
- Junior and Senior Students
- Graduate and Professional Students

**Graduate Programs Achieve Financial Independence Through RCM Budget Models, Revenue-Generating Programs, and External Funding from Grants**

Graduate education administrators at University C consider independence of programs from undergraduate program subsidization a strategic goal.

**Strategies to Secure Independent Funding for Graduate Programs**

- **Develop online and revenue-generating master’s programs**
  - Online/hybrid and professional master’s degree programs generate significantly more revenue than doctoral programs, because students pay tuition to attend. University C leadership encourages deans to develop more revenue-generating programs to fund expenses of doctoral education.

- **Increase standards of doctoral fellowships**
  - Leaders increased the admissions standards for doctoral fellowships with the aim of funding higher-quality students who will be more likely to attract external research grants.

- **Hire advancement officers that target graduate programs**
  - Advancement officers contact private donors and corporations to raise money specifically for graduate programs. The graduate school at University D employs two advancement staff members; donors support programs that support travel fellowships, teaching fellowships and research in the sciences.

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University C will shift to a responsibility-centered management (RCM) budget model in 2014 as a strategy to improve budget management at the departmental level. By allowing their academic unit to use the income from each graduate program, the model may encourage department chairs to increase revenue-generating graduate offerings.

Low Revenue May Indicate Programmatic Weaknesses

During the strategic planning process, graduate program leadership review existing programs and their value to the institution. A component of this analysis includes the level of subsidization it requires from the institution’s general fund. High levels of subsidization may be indicative of faculty inability to attract external grants or students who require additional time to complete degrees because they lack advising services. At University B, administrators reviewed a program that frequently requested additional financial aid for graduate students who took more than five years to complete their degrees. During the review process, reviewers examined whether they should reallocate resources devoted to the program elsewhere. In response to these discussions, administrators placed limitations on graduate program enrollments, capping the number of students a program may enroll based on variables including the cost to educate a student. The cost of graduate education impacts strategic planning at the programmatic level, and in a reactive (e.g., analysis of previous costs and revenue) rather than predictive way.