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Subject: Use of Differential Tuition at Large Public Universities

Emergence of Differential Tuition at Public Universities

Historically, particularly since the Morrill Act of 1862 established land grant institutions, public higher education has been seen primarily as a public good to which all qualified citizens should have reasonable access. However, the erosion of per student taxpayer support for public universities has led to rapidly increasing tuition rates as well as the need for institutions to seek out alternative funding strategies over the last few decades, including the use of differential tuition.

Differential tuition is defined as variation in tuition rates based on student or instructional characteristics such as residency (in-state or out-of-state), level of study (undergraduate, graduate or professional), type of instruction (in class or online), class standing (under or upper classmen), or major or program of study (e.g. history or business).

Differential tuition has been implemented to varying degrees at public institutions of higher education in the US, mostly since the 1970's. While initially controversial, charging non-resident students more than resident students, and graduate students more than undergraduate students were the first types of differential tuition to become widespread. As correspondence and, increasingly, online instruction became widespread it wasn't long before institutions began charging more or less for those types of instruction as well.

Varying tuition charged to undergraduate students based on class standing or course of study is much less common and has remained somewhat controversial. However, as the recent and continuing economic crisis continues to hollow out state spending on public higher education, the practice has become much more common and is often seen as a more equitable way to maintain program excellence in particularly expensive disciplines, degrees, or courses. A study by Glen Nelson with the Wisconsin Center for the Advancement of Postsecondary Education (WISCAPE) noted that **only five institutions used differential tuition by undergraduate program prior to 1988, whereas 45 percent of all 162 public research institutions (in 35 states) had at least one undergraduate program with differential tuition by 2008¹. A recent update of this study found that the number had jumped to 57 percent over the past 3 years** (while the full study is not yet available, these updated data were published by the [San Francisco Chronicle](#) on March 13, 2011). Additionally, institutions in several states are actively discussing implementing some form of differential tuition (e.g. New York and Washington), while others are actively expanding existing differential tuition rates (e.g. Arizona, Texas and Wisconsin).

Benefits Related to Differential Tuition

Institutional survey responses in Nelson's study indicated that in addition to the basic need to generate additional operating revenue, institutions' reasoning for implementing differential tuition by program of study included:

- Ability to match revenue more fully with costs
- Ability to maintain or enhance program quality
- Ability to generate revenue for specific programs

¹ Nelson, Glen R. "[Differential Tuition by Undergraduate Major: Its Use, Amount, and Impact at Public Research Universities](#)". Ph.D. dissertation, University of Nebraska-Lincoln, 2008.

- Ability to respond to market forces (e.g. taking price sensitivity by area of study into account in pricing)

The majority of institutions return the tuition revenue generated by differential tuition rates to the home college or department. **Aligning generally with an increased movement toward activity-based budgeting, differential tuition is believed to better align resources and activities in a way that improves informed decision-making and incentivizes more efficient and effective use of resources at a local level.**

Additionally, as is the case more generally with ‘user fees’, differential tuition can be seen as a more equitable way to cover the higher costs of certain programs and/or courses, particularly for those that, on average, lead to well compensated employment. Currently, tuition paid by lower level students generally subsidizes upper level students, and the fees paid by students in lower cost majors such as the humanities subsidize students in more expensive programs like science and engineering. **While cross-subsidies are a valuable tradition within higher education, as the price of attendance continues to rise and employment prospects diverge, targeting incremental tuition increases based on programs may be more reasonable than spreading the increase evenly across all students.**

Lastly, the variation in employment and compensation outcomes associated with different levels and programs of study may also mean that price sensitivity varies by intended or declared major. If so, **differential tuition is pragmatic in that it recognizes that not every student is equally willing to pay a higher price due to differences in expected outcomes.**

Challenges Related to Differential Tuition

All institutions in Nelson’s study, those that implemented differential tuition and those that considered it but did not implement it, generally shared two basic concerns about the potential unintended consequences of the policy:

- Changes in enrollment patterns by institution and major by price.
- Changes in enrollment patterns (in institutions and majors) for students from low-income households by price.

Surprisingly, although there is a body of research (albeit not as robust or conclusive as it could be) on the impact of higher education pricing on application to and enrollment in higher education by household income and other characteristics, **there is little to no research on the impact of differential tuition on enrollment.** None of the schools that had implemented differential tuition reported that it affected enrollment patterns in significant ways, but there were no data cited to back up these claims. More research is clearly needed in this area.

One of the primary ways that institutions attempt to combat the possible unintended consequences of steering price sensitive undergraduates away from the majors that might provide them the maximum employment and earnings potential is to **dedicate a portion of the differential tuition revenue to increased financial aid for those students affected by it (e.g. make the major decision as ‘revenue neutral’ as possible for those students with financial need).** It is also important to ensure that additional charges are included in the cost of attendance calculated for financial aid purposes, qualify to be covered by financial aid programs, and are eligible for relevant tax credit opportunities.

For example, the University of California, in response to major budget cuts [considered](#) (and later postponed due to opposition) a \$900 annual fee for upper-division business and engineering students starting in 2010-11. The proposal would have required that 33 percent of all incremental tuition be returned to financial aid for students in these majors,

ensured that the extra costs would be considered an ‘educational fee’ and not a ‘campus-based fee’ so that they qualified for Cal-Grant coverage, and required that the fee would be included as part of each student’s ‘budget’ calculated by financial aid to determine aid packages.

Implementation of Differential Tuition at Public Universities

Business and engineering are by far the most common programs to which differential tuition is applied. This is unsurprising given the higher prevalence of job opportunities as well as higher average starting salaries for students in these majors. Similar distinctions already exist for these programs at the graduate level. Other programs more likely to be subject to differential tuition rates, due not necessarily to higher earning potential but the unusually high cost of instruction, include architecture, journalism, education, nursing, fine arts and the sciences.

Nelson found that the percentage and dollar amount of the tuition differential varied dramatically across institutions (from a 1% to an 82% premium paid), but, **on average, an undergraduate program subject to differential tuition was priced 10.8 percent higher than the institution’s base tuition rate in the 2007-08 academic year.** Using the most recently available IPEDS finance data at the time (2006-07), Nelson also found that while many institutions had instituted differential tuition for at least one program, such revenue **averaged 2 percent of total annual tuition revenue for a given institution.** As institutions ramp up use of differential tuition during the current economic crisis, this number would be expected to rise significantly. As an example, the [University of Arizona](#) recently approved not only general tuition increases, but more than 30 new or expanded differential tuition rates and special program fees (in some cases, more than doubling and tripling existing rates).

Examples of Undergraduate Differential Tuition at Public Universities

Ultimately, despite opposition from some and a lack of research detailing the full range of potential impacts, differential tuition has proved a promising mechanism for responding to declining operating resources coupled with increasing costs for certain disciplines. Below are some implementation examples of this rapidly growing practice.

Nelson’s 2008 study listed differential tuition as a percent charged over the base undergraduate rate by program and institution ([Appendix I](#)). The following are the **average percent charge above base tuition by major category of undergraduate program for public research institutions in 2008.**

Program of Study	# Institutions	% Differential Tuition Over Base
Agriculture	6	10%
Architecture	22	10%
Business	51	14%
Computer Science	11	115%
Dental Hygiene	3	124%
Education	17	7%
Engineering	48	15%
Fine Arts	14	19%
Health Professions	12	10%
Honors Programs	5	18%
Journalism	9	6%

Liberal Arts	4	2%
Nursing	25	19%
Other	15	10%
Pharmacy	8	80%
Sciences	17	9%

The March/April 2011 edition of Change Magazine ran an article by higher education administrators² that specifically discussed the increasing use of differential tuition as a way to address programs that are expensive to produce and whose graduates are in demand for high-paying jobs. They provide **examples of undergraduate public engineering programs that charge differential tuition.**

Table 1. Differential Engineering Tuition and Required Fees for Selected Schools, 2010–11

School	Base Undergraduate Tuition	Engineering
University of Illinois	\$13,658	\$18,386
University of Iowa	\$7,417	\$9,585
University of Michigan	\$13,154	\$16,174
Michigan State University	\$11,722	\$12,212
Univ. of Missouri—Columbia	\$7,368	\$8,268
Nebraska	\$7,312	\$8,512
Ohio State University	\$9,420	\$10,500
Pennsylvania State University	\$14,412	\$16,506
University of Pittsburgh	\$14,076	\$15,016
Purdue University	\$9,070	\$10,120
Rutgers University	\$9,926	\$11,024

Similarly, in making their own case for implementing differential tuition, the [College of Engineering at Texas A&M](#) presented **differential tuition practices for all top 10 public undergraduate engineering programs across the country.**

University	Undergrad Additional tuition for Engineering	Total Tuition Paid by Undergrad Resident Engineering	2010 USN&WR Undergrad Ranking (Public)
UC - Berkeley	\$0	\$12,461	1
Georgia Tech	\$0	\$8,328	2 (tie)
University of Illinois	\$4,728	\$15,114	2 (tie)
Michigan (lower division)	\$828	\$12,666	4
Michigan (upper division)	\$3,020	\$16,364	4
Purdue University	\$1,050	\$10,120	5
UT Austin	\$836	\$9,822	6
UW-Madison	\$1,400	\$10,387	7 (tie)
Virginia Tech	\$30/SCH for 1000 level	\$10,179	7 (tie)
Penn State (lower)	\$0	\$14,412	9 (tie)
Penn State (upper)	\$924	\$16,506	9 (tie)
Texas A&M - current	\$0	\$8,386	9 (tie)

² Capaldi, Elizabeth D. & Abbey, Craig W. "[Performance and Costs in Higher Education: A Proposal for Better Data.](#)" Change March/April 2011.

Also, although much less common than differential tuition by program, Capaldi & Abbey ([Change](#)) also present an example of an institution that has implemented differential tuition by class standing. **The University of Michigan charges upper division undergraduate students more than lower division students in certain majors.**

Table 3. University of Michigan Tuition per Semester by Division and Major, 2010

	Resident	Nonresident
Kinesiology, Lower Division	\$6,150	\$19,024
Kinesiology, Upper Division	\$7,072	\$20,809
Business Administration, Upper Division	\$7,036	\$19,452
Engineering, Lower Division	\$6,238	\$18,011
Engineering and Computer Science, Upper Division	\$8,087	\$20,227
General Undergraduate, Lower Division	\$5,284	\$17,906
General Undergraduate, Upper Division	\$6,577	\$19,170

Lastly, Penn State University provides us an [example](#) of how a fairly complex implementation of differential tuition (varying by campus, college, degree, major and semester) can be worked into cost calculators to help students determine the impact of differential tuition on their costs of attendance.

The screenshot shows the Penn State Tuition Cost Calculator interface. At the top, it features the Penn State logo and the title "Penn State Tuition". Below the title is a navigation bar with links to "University Budget Office", "Penn State Budget", "Admissions", "Office of the Bursar", and "Office of Student Aid". The main heading is "Tuition Cost Calculator | [Help](#)".

The text explains that the calculator provides an estimate of tuition and fees for undergraduate, graduate, or professional studies, customized based on the specific situation (e.g., academic program) and campus location entered. It also notes that international students must meet the [International Financial Guarantee Requirements](#) regarding visa documents.

The form includes the following fields:

- Residency:** Radio buttons for "PA" and "non-PA".
- Pursued Degree:** A dropdown menu labeled "Select a Degree".
- Semester:** A dropdown menu labeled "Select a Semester".
- Campus of Primary Enrollment:** A dropdown menu labeled "Select a Campus".
- College of Enrollment:** A dropdown menu labeled "Select a College".

A "Submit" button is located at the bottom left of the form. At the bottom of the page, there are links for "Questions or Comments?", "Join our PSU Facts Listserv", "Admissions", "University Budget Office", "Penn State's Budget", "Office of the Bursar", and "Office of Student Aid".

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