

Serving the Customer in Texas' Elite Universities

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*This paper is the 3rd in
a series on the state of
higher education in Texas.*

The university's essential and irreplaceable function has always been the exploration of knowledge.... The exploration must go on through what has been considered the 'teaching' function as well as the traditional 'research' function. The reward structures in the modern research university need to reflect the synergy of teaching and research—and the essential reality of university life: that baccalaureate students are the university's economic life blood and are increasingly self-aware.

– Boyer Commission Report

INTRODUCTION

In 1995, the Carnegie Foundation for the Advancement of Teaching established the Boyer Commission, named after the late president of the foundation, to conduct an assessment of the current state of undergraduate education. Three years later, the Boyer Commission issued a report questioning the current practices in many of the nation's elite research universities. Instead of being focused on the student, who is the end customer of higher education, the Boyer Commission notes that these universities too often relegate teaching as a “necessary evil” whereby rewards to faculty are driven not by teaching, but by research productivity.

Although research generates knowledge that is often shared across the university community, the dispersion of knowledge may not be sufficiently broad. These highly learned members of the university community may not be bestowing their considerable knowledge

onto the next generation of undergraduates. Rather, at many institutions, teaching is often relegated to inexperienced graduate students, while professors spend the bulk of their time conducting “research for hire” via grants or contracts or writing reports for academic journals. Oftentimes professors—especially the more junior assistant professors—are faced with a “publish or perish” choice, where the academic rewards of promotion and tenure are not driven by quality teaching, but by obscure research.

The major research universities in Texas, such as the University of Texas-Austin and Texas A&M University, are not immune to this. Professors there are influenced by the incentives of the system; the pursuit of tenure in particular, driven almost exclusively by research output, is of paramount concern.

The purpose of this paper is to discuss the manifold issues related to the purpose of the two major universities in Texas, the University of Texas-Austin and Texas A&M University. First, this paper will discuss the balance between teaching and research, and how research universities have moved away from this balance over the past several years. Second, this paper will focus on examples of this from the University of Texas-Austin and Texas A&M. Third, a discussion of the role of teaching in universities will ensue, and how rewards for quality teaching can be enhanced. Finally, the role of graduate teaching assistants will be discussed and recommendations offered.

STRIKING A BALANCE BETWEEN TEACHING AND RESEARCH

Large research universities, such as the University of Texas–Austin and Texas A&M, have prided themselves on the amount of extramural research support they garner, and widely communicate the size and scope of these research grants whenever possible. For example, the University of Texas–Austin boasts that in Fiscal Year 2005, some \$417 million flowed into the university for research, up 48 percent (in nominal terms) from Fiscal Year 1999.¹

Obviously, research funding is quite important to a university, as research is a legitimate aim of any institution of higher learning. However, the need for professors to conduct research is often at odds with the need for professors to teach, especially at the undergraduate level. To that end, it is important for the university to strike a balance between research and teaching. Sadly, too often teaching is pushed aside in favor of a research focus at many research institutions.

As noted above, the 1998 Boyer Commission argued very persuasively that research is too often stressed at top research universities, while teaching—in particular undergraduate teaching—is given mere lip service. The Commission explains:

The typical department in a research university will assert that it does place a high value on effective teaching at the baccalaureate level. It will be able to cite faculty members among its ranks who take conspicuous pride in their reputations as successful teachers; it may be able to point to student evaluations that give consistently high ratings to many of its members. At the same time, however,

discussions concerning tenure and promotion are likely to focus almost entirely on research or creative productivity. The department head when making salary recommendations may look almost exclusively at the grants or publication record.²

There is other statistical evidence on the idea that these universities are not well-engaged in undergraduate teaching. In August 2002, the National Center for Education Statistics released the results from the 1999 National Study of Postgraduate Faculty, which indicated that full-time faculty at 4-year doctoral granting institutions—these same research-focused universities—were less likely to teach an undergraduate class. Only 57 percent of full-time instructional faculty at 4-year, doctoral institutions taught undergraduates.³

These statistics, however, do not show the full picture because it limits the population to full-time faculty. Over the past several decades, an increasing proportion of instructional faculty consists of part-time lecturers, adjuncts, and other professors. Indeed, as Chart 1 (next page) shows, the percent of part-time instructional faculty in degree-granting institutions has been steadily increasing for at least 30 years. As of 2003, nearly 48 percent of instructional faculty was part-time, up substantially from 23 percent in 1971.

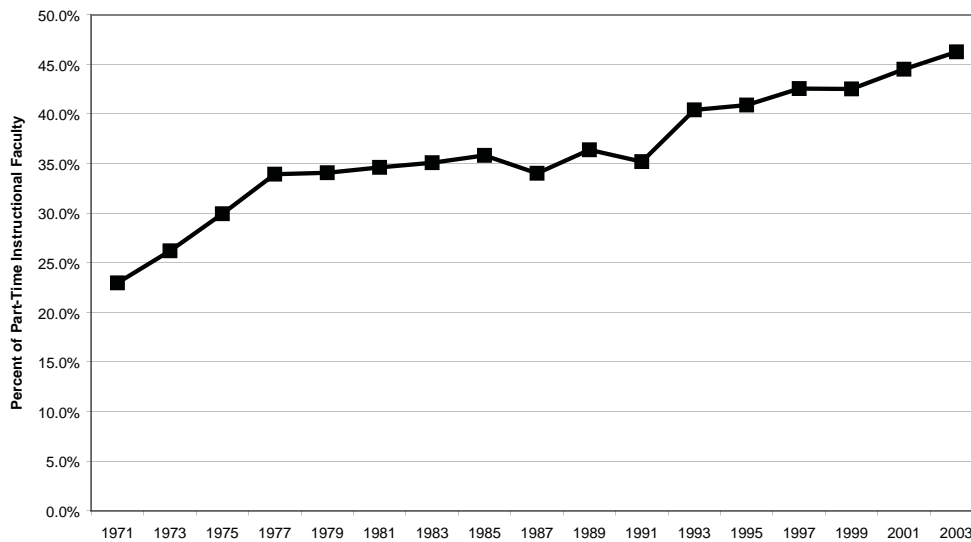
The use of part-time faculty may not, by itself, be of substantial concern. After all, many universities use highly-skilled practitioners with full-time employment outside of the university to teach classes.¹ Few would argue that these practitioners would be unqualified to teach these classes, and may in fact bring practical experience with them to the classroom.

QuickFact:

Only 57 percent of full-time instructional faculty at 4-year, doctoral institutions taught undergraduates.

¹ Indeed, over the past two academic years, the author of this report taught a class every semester at George Mason University in Virginia, while maintaining full-time employment outside of the university.

CHART 1: USE OF PART-TIME FACULTY RISING OVER TIME



Source: Digest of Education Statistics, 2004, Table 227.
 Figures starting in 1987 not directly comparable to older data because of revised survey methods.

More problematic is the common use of inexperienced graduate teaching assistants at many large universities. Roughly 1 out of 12 classes at 4-year doctoral institutions are taught by a graduate student.⁴ This figure may be low, given that it is not based on a survey of faculty and teaching assistants who actually taught the classes, but of the institutions' estimates of undergraduate credit hours, information which may not readily exist.

Drilling down to what kinds of faculty at doctoral institutions are teaching undergraduates shows that the highest ranked professors are the least likely to teach undergraduate classes.ⁱⁱ Only about 70 percent of assistant and associate professors taught undergraduate classes at these institutions, while only 63.3 percent of full professors taught undergraduate classes.

By itself, this may not be a concern. After all, parents and students should be interested in taking classes from the best instructors available, who may not be a full professor, but a lower-level assistant professor or even an adjunct. Titles, therefore, may be irrelevant if the goal is to have quality instructors teaching well-structured classes. But the practice does come at a cost—hiring lower-level professors and adjuncts to teach undergraduates, in addition to a staff of full professors, adds substantially to the cost of an undergraduate education.

EVIDENCE FROM TEXAS

Descending upon Austin and College Stationⁱⁱⁱ next fall will be roughly 15,000 new freshmen arriving to begin classes, but who will be teaching them? A quick review of past class schedules reveals that many students will

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ⁱⁱ A noteworthy exception to this is for honors sections of classes. See below for a discussion of this.

ⁱⁱⁱ As well as some of the other satellite campuses.

likely learn their core classes not from regularly tenured or tenure-track university professors, but by largely inexperienced graduate students.

Consider a few examples of common freshman-level classes offered at Texas A&M University during Spring 2006. Typical core freshman classes (e.g. English, history, biology, political science, philosophy, to name a few) are, generally speaking, taught in one of two ways. First, some departments will allow graduate students to be the sole instructor for most, if not all, sections of a particular core class. For example, there were 28 sections of Composition and Rhetoric (English 104) at Texas A&M University in Spring 2006. Twenty-five of them were taught by graduate students in the English department, while the remaining three were taught by assistant lecturers, the latter who are almost certainly not tenure-track professors. Another example is Public Speaking (Communication 203), where across the 29 sections, graduate students taught at least 23 of them.^{iv}

More common, however, is the “lecture hall/lab” format where a tenured/tenure-track professor or contract lecturer will present course material to a few hundred students part of the week, followed by a lab section taught by a graduate student at some other time during the week. Introductory Biology I (Biology 111) at Texas A&M is an example of this. In Spring 2006, one associate professor and one lecturer taught two large lecture hall classes with roughly 250 and 450 students enrolled, respectively. A lab section of 24 students followed. Undergraduates in these mammoth classes therefore receive little ability to interact with the professor, and therefore receive the education largely from the graduate teaching assistant.

A review of the following common lower level classes from the Spring 2006 schedule of classes at Texas A&M show one of these two basic instructional models.⁵ The only exception to this seems to be for honors versions of these classes, where a professor or lecturer will teach to a small group of elite students

Common Lower-Level Classes offered at Texas A&M University, Spring 2006

Accounting 209: Survey of Accounting Principles
Biology 111: Introductory Biology I
Chemistry 101: Fundamentals of Chemistry I
Communication 203: Public Speaking
History 105: History of the United States
Management 105: Introduction to Business
Philosophy 240: Introduction to Logic
Physics 201: College Physics
Political Science 206: American National Government
Psychology 107: Introduction to Psychology
Statistics 302: Statistical Methods

While this discussion focuses on Texas A&M University, a similar experience can be found at the University of Texas-Austin. For example, the two class sequence History of the United States (History 315K and 315L) at UT-Austin is taught using the lecture hall/lab format, where the smaller group interaction only happens with the graduate teaching assistant. By no means is this list exhaustive; examples such as these abound across programs.

Some may wonder if this is a problem in the first place. Why should policymakers and university trustees be concerned about the prevalence of graduate teaching assistants conducting many of these classes? The reason is put best, again by the Boyer Commission:

Talking Point:

Generally speaking, a “tenure clock” is seven years, after which time tenure is granted or denied.

^{iv} A full professor and a senior lecturer taught the two honors sections, a senior lecturer taught two of the standard sections, and instructor status could not be ascertained for the remaining two sections.

Many students go directly from their bachelor's degrees into graduate school. Suddenly they are expected to be experts in their fields; we forget that last year they were mere seniors.⁶

Freshmen level—and oftentimes higher level classes as well—are therefore being taught by graduate students who may only be a few years older than their students, and obviously lack the true depth of the subject matter as compared to standard faculty.

INCENTIVES IN PROMOTION POLICY

The original purpose of the tenure system was to grant men and women “of ability” the academic freedom to teach and research without fear of reprisal or censorship while providing a dependable financial reward for such freedom. The American Association of University Professors (AAUP) in 1940 (updated in 1970) approved a statement of policy spelling out the ideals of tenure, which state that after a probationary period, professors should enjoy continuous employment until retirement. Only where a legitimate “financial exigency” occurs, or some moral indiscretion, is there sufficient cause to terminate a professor with tenure.⁷ Outside of education and perhaps government, no such guarantee of lifetime employment exists.

The standards for granting tenure vary from one university to another, and even vary across departments within a university. Generally speaking, a “tenure clock” is seven years, after which time tenure is granted or denied. Professors who are denied tenure often leave their university and seek employment elsewhere.

Tenure is almost always based on research output and productivity, not teaching acumen. Texas A&M's recent policy on the subject makes this painfully obvious. Now, a professor may use patented inventions to justify tenure, where appropriate.⁸ This only furthers the substantial research focus of the

tenure procedure, which puts a premium on research output over teaching.⁹

It would be easy and expedient to merely blame the tenure system as the root of the problem, when in reality it is only, at best, a relatively small part. The basic problem with the system has more to do with incentives. For many new assistant professors, research output is rewarded while teaching is not. Indeed, one need not be an economics professor to realize that if research is rewarded, more energy will be devoted to research.

Professors will spend more time and effort on teaching if it is properly rewarded. If a majority of new tenure-track positions are available only to academics with a record of quality teaching, that would be a way to use incentives to encourage better teaching at Texas' universities. Both the University of Texas-Austin and Texas A&M have teaching faculty designated as Lecturers, Senior Lecturers or Distinguished Senior Lecturers who are not on a tenure-track. The best of these Lecturers could easily be placed on equal footing with tenure-track professor positions. Even though “The primary responsibility of non-tenure-track teaching faculty at The University of Texas-Austin is the enhancement of instruction,” it should be that way for all faculty.¹⁰ Indeed, it can be with the right incentives.

Further incentives for teaching could easily be established via merit pay for quality teaching. The best instructors could be rewarded via bonuses and improved annual raises. Since students are the final consumers of the classroom teaching product, their opinion on the class should be given great weight via their evaluations. This, by itself, is not a panacea, however. In constructing such a merit system, administrators would want to assure that professors who teach popular classes would not be more likely to attain high marks for their classes.

TalkingPoint:

Outside of education and perhaps government, no such guarantee of lifetime employment exists.

Finally, such incentives would also tend to motivate graduate students and teaching assistants to learn the craft of instruction. Currently, graduate students are, in essence, taught that research is rewarded. As the Boyer Commission noted:

They might claim otherwise, but research universities consider 'success' and 'research productivity' to be virtually synonymous terms.¹¹

TalkingPoint:

Universities should place the most qualified individuals in front of classes to best serve the customer.

Moving from this paradigm would re-energize graduate student interest in teaching.

For such an incentive system to work adequately, objective criteria must be established in advance in order to be equitable to the professor and shield the university from liability. This could be done via contract terms, but could also be handled via university policy within the current tenure system. Performance standards simply need to be sufficiently objective, whereby a professor could move up the ranks if he or she fulfilled the university's stated expectations.

Obviously, trustees or other policymakers that propose such a plan may face some resistance. Phasing in such a plan among newer faculty, grandfathering in currently tenured professors, and changing policy only for newer non-tenured professors would be a way to transition without a wholesale disruption.

Important in a discussion of change is what to do with the current system of graduate teaching assistants. Obviously, learning the craft of teaching is important, and recent surveys of freshly-minted Ph.D.s show that at least half of these new graduates will go into academia where they will need to teach at the post-secondary level.¹²

Teaching of core courses, however, should not be relegated to graduate students who may

not have the breadth and depth of knowledge necessary to adequately teach the subjects. Additionally, these individuals are teaching while at the same time attempting to complete a rigorous degree program where the teaching may get short-shrift.

Nothing in this paper should imply that there is not a role for the graduate teaching assistant. Indeed, teaching should be a part of any budding academic's professional training regimen. Relegating many of these freshman-level courses to graduate students is, at worst, a dereliction of responsibility on the part of the university. The university's customer should always be the student—and the lifeblood of these two large universities is the undergraduate student—and universities should, whenever possible, place the most qualified individuals in front of classes to best serve the customer.

When graduate students do teach class, it should be in conjunction with a mentor faculty member, but in a somewhat different way than is currently the norm at the University of Texas-Austin and Texas A&M. Currently, a professor with a large lecture hall class of 450 students may be directly supervising as many as 15 graduate students who lead the smaller lab sections. The professor would be hard pressed to even visit every lab section once in a given semester to connect to his or her students and adequately supervise the graduate teaching assistants in his or her charge.

RECOMMENDATIONS

Clearly, the focus on the student has been lost at many prestigious research universities in recent years, and the University of Texas-Austin and Texas A&M are not exceptions to that. These universities have unfortunately departed from serving the primary customer of the institution—the student and in particular the undergraduate student.

Too often at institutions of higher learning, the most learned members of the university community—research-focused professors—are inaccessible to many undergraduates because either they do not teach required core classes or they teach classes in mammoth sections of hundreds of students.

The University of Texas-Austin and Texas A&M are prime examples of this. Instead of catering to the needs of the student/customer, too often the teaching of core undergraduate classes is either relegated to inexperienced graduate students, or taught in impersonal lecture halls that seat upwards of 450 students or more where the interaction between student and professor is next to impossible.

University trustees, whose job is to set policy for their institutions, should rightly initiate some needed reforms. Chief among them should be the following:

- **Reaffirm that the university's first purpose is to serve the student/customer.** These universities will continue to enroll tens of thousands of undergraduates each year, whose numbers will consistently outpace graduate students. Trustees should realize that these customers need to be served well.
- **Provide more opportunities for interaction with top professors.** While fiduciary concerns may require larger classes in the short-term, students should be afforded a number of opportunities to interact with professors. The best place to do so is obviously in the classroom, but this can also take place via undergraduate seminars and colloquia.
- **Provide more incentives and rewards for high-quality teaching.** Obviously, research will continue to be important to any diversified university, and no one would suggest that universities forgo hundreds of millions of dollars in re-

search grants and contracts. Compensation policies for professors that require both teaching and research could be structured to strike a balance between these two competing university interests.

- **Ensure that graduate student instructors work more closely with mentor professors who also have a vested interest in the class the student teaches.** A “team teaching” method where both the professor and the graduate student lecture to the same relatively small class would give the graduate student needed teaching experience, while allowing undergraduate access to the professor.

These reforms would move the university back to the historical purpose of teaching the next generation of young people who will continue to be a substantial source of recurring revenue for the university. It would also reconnect the university's highly talented professors with teaching students directly. Refocusing efforts in this direction would be a way for university trustees to assure that the next generation of graduates is better served than the last. ★

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Dr. Kirk Johnson is a former Senior Research Fellow at the Texas Public Policy Foundation and a former Senior Policy Analyst, Center for Data Analysis, at the Heritage Foundation. Dr. Johnson has worked at the Mackinac Center for Public Policy, the U.S. Census Bureau, and George Mason University. He holds a B.A. in economics from California State University, Sacramento, an M.S. in applied economics from the University of North Texas in Denton, and a Ph.D. in public policy from George Mason University. Tiffany Johnson, his wife, is a freelance researcher and does public policy research and consulting.

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