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Perceptions of Requirements for and Impediments to Tenure for Construction Faculty

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Since its conception in 1915, the tenure concept and process have been equally criticized and praised by academics and non-academics alike. Arguments supporting the tenure system include academic freedom in teaching and research, as well as economic security. Criticisms of the tenure system include acceptance and encouragement of faculty to underperformance after achieving tenure, and faculty sacrificing teaching over research. Nonetheless, the tenure system widely exists across academic fields and departments in the US and being granted tenure is viewed as success in academe.

Faculty in construction programs have widely expressed concern regarding the ability to meet the necessarily high standards for tenure. Specific concerns, either real or perceived, include limited research funding opportunities, a focus on applied research, difficulties in publishing research results, and high teaching loads.

This research was to investigate the perceptions of tenure requirements and impediments faced by faculty in construction programs. Faculty in tenure-track or recently tenured positions from ACCE and ABET accredited construction programs, were surveyed regarding tenure requirements and impediments. They were asked to provide specific tenure requirements provided by their institution or their perceptions of tenure requirements, and to rank their perceptions of potential impediments to achieving tenure. Results show that tenure requirements, both stated and perceived, vary according to the type of institution. In addition to teaching load requirements, peer-reviewed journal requirements and limited funds for research, construction faculty also identified the availability/quality of students as being an impediment to tenure.

Key Words: Construction, Tenure Impediments, Tenure Perceptions, Faculty.

Introduction

Academic tenure was first introduced in US higher education institutions by a group of professors from Johns Hopkins University in 1915 who formed the American Association of University Professors¹. It is often misunderstood as a job guarantee for life. Rather, tenure does not provide complete protection from dismissal, only a measure of job protection from colleagues and the special problems present in an academic democracy².

Many arguments have been put forth both for and against tenure. Sowell³ plainly stated that “it would be hard to conceive of an institutional arrangement with more potential for irresponsibility.” Aigner⁴ argued that it promotes stagnant thinking and incompetent teaching. It has been argued that tenure is the force driving faculty to make priority selections between teaching and research¹. Other critics see tenure as outdated in light of employment protections provided through the legislative and judicial systems².

Equally, arguments have been made in favor of tenure. Pro-tenure arguments include the commonly held ideal that tenure provides freedom that promotes reasoning and research that is independent and original. Additionally, Epstein and Maclane⁵ argued that tenure bolsters the public’s confidence in academic research. Others have argued for tenure on the basis that it is economically advantageous to both faculty and academic institution⁶.

Regardless of the arguments for and against tenure, it is widely regarded by universities and faculty as a positive employment feature. Tenure is the target for which junior faculty aim and is commonly viewed as a measure of academic success.

Background

Faculty in construction programs have widely expressed concern regarding the ability to meet the necessarily high standards for tenure. Specific concerns, either real or perceived, include limited research funding opportunities, a focus on applied research, difficulties in publishing research results, and high teaching loads.

There are differences in the requirements for tenure between academic institutions, and these requirements change in magnitude with the passage of time⁷. A clear distinction between institutions is the emphasis placed on research. At non-research (teaching) oriented institutions, the emphasis is on and the basis for tenure is effective teaching. Research oriented institutions place importance on research activity in addition to teaching. In both types of institutions, faculty are also required to provide a level of service to the university, community, and profession to earn tenure and advance in rank⁷.

Many researchers and senior faculty have produced publications over the years that provide a wealth of information for junior faculty in regards to successfully earning tenure⁹⁻¹⁴. However, this information represents general guidelines and do not specifically address the concerns

expressed by construction faculty. The goal of this study was to identify, either real or perceived, the requirements for and impediments to construction faculty achieving tenure.

Methodology

Recently tenured and tenure-track construction faculty were surveyed to gather the various viewpoints of tenure requirements and impediments. Construction faculty were defined as those in construction management, construction engineering, civil engineering technology and civil engineering programs with construction concentrations that are accredited by the Accreditation Board of Engineering and Technology (ABET) and the American Council for Construction Education (ACCE). The contact information of construction faculty with the rank of Assistant Professor was compiled from internet search of the department websites.

The survey consisted of questions of identification and differentiation such as, name of institution faculty is serving, their title, and time in current position. The survey participants were also asked to identify if they were tenured or in tenure-track positions. To distinguish between research and teaching intensive positions, the participants were asked to characterize their current positions in terms of percentage of time committed to “Research”, Teaching”, “Service”, and “Other”.

Some faculty have been given specific guidelines and requirements to earn tenure. Survey participants were asked to respond if they had such information, and provide these guidelines in terms of “Teaching Performance Requirements”, “Research Dollar Amount”, “Number of Proposal Submissions”, “Number of Peer Reviewed Journal Articles”, “Participation in Conference Proceedings”, and any other guidelines.

Participants that were not provided specific guidelines were asked to state what they think these requirements were in the same categories. Both groups were then asked to state with a “yes” or “no” if they think these guidelines are “Attainable” for faculty members in Construction Engineering, Construction Management or Civil Engineering Technology Programs.

Finally participants were asked to rate the following impediments on their likelihood of influencing the tenure process:

- Teaching load requirements,
- Peer reviewed journal requirements,
- Service requirements,
- Limited funds for research in construction,
- Lack of appreciation of applied research by tenure review committees,
- Competition within department for funds,
- Availability/quality of students to employ for research, and
- Interdepartmental politics.

Results

The responses to the survey were collected using Survey Share, an online survey service to which UNC Charlotte subscribes. Participants were emailed a link to the survey along with an explanation of the purpose of the survey. After approximately two weeks, a reminder was sent to the participants who did not respond. A total of 151 participants were identified, of which 44 completed the survey. The response rate was 29.1%, and included participants from 24 states and 34 institutions. The distribution of responses per state is shown in Figure 1. Thirty-seven of the responders were Assistant Professors, while 7 were newly promoted Associate Professors.

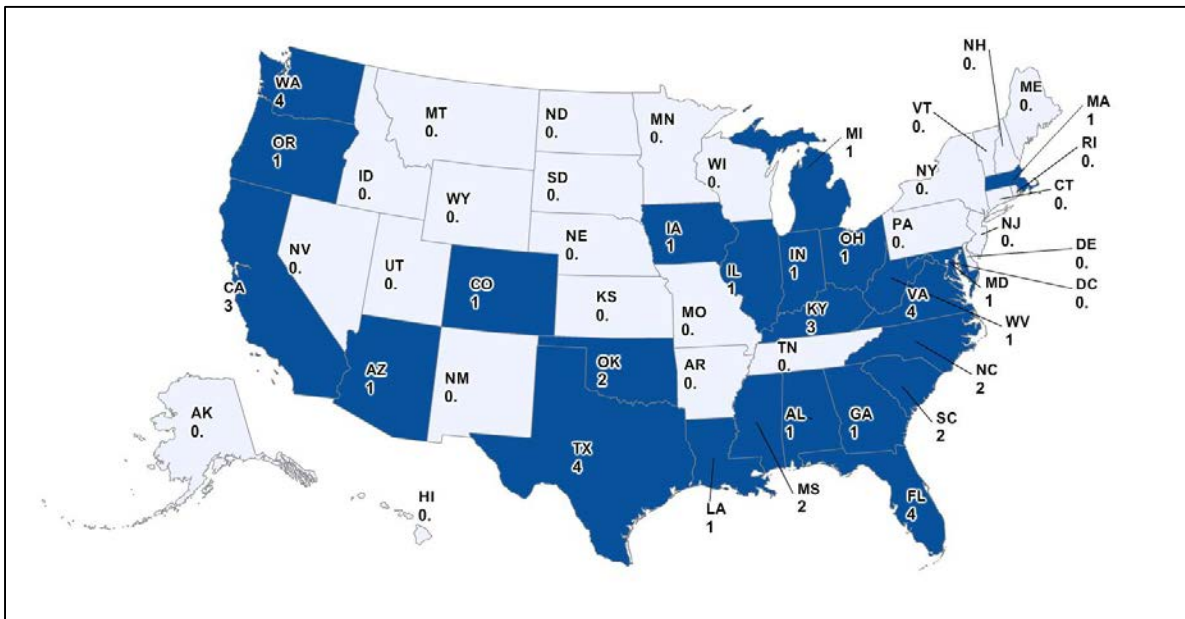


Figure 1: Distribution of Responses

Twenty-nine of the responders stated that they were provided guidelines regarding their requirements to achieve tenure, while fifteen stated that they did not.

A clear distinction between research intensive (RI) and non-research intensive (NRI) positions does not exist, the authors decided to separate the survey participants into these groups according to their self-characterization of the amount of their time spent on research. The cut-off point between RI and NRI positions was chosen to be 40% of time spent in research. Using this distinction, 23 of the faculty characterized their time as 40% or more devoted to research, and 21 less than 40%. The combination of guidelines and research intensive characterization separated the participants into four distinct groups:

- Provided Guidelines & Research Intensive Positions, n=12
- Provided Guidelines & Non-research Intensive Positions, n=17
- No Guidelines Provided & Research Intensive Positions, n=11
- No Guidelines Provided & Non-research Intensive Positions, n=4

Perceptions on tenure requirements

These four groups have different perceptions on what their requirements are regarding tenure. Their viewpoints are displayed below in the five categories of requirements provided within the survey.

As observed, there is no specific distinction in requirements for either student evaluations or teaching load. In all four groups shown in Table 1, the teaching load varies from 2 to 6 courses per year. Results indicated NRI positions expect greater teaching quality, where faculty reported “exceptional” and/or “effective” teaching is required. RI faculty tended to describe the required teaching quality as “good” or “above average” and included numerical requirements for student evaluations, which were required to be 3.5 or above out of 5.

Table 1: Teaching Requirements

	Research Intensive	Non-Research Intensive
Guidelines	“3.5/5 → 4 /5 in student reviews” “Above Average/Good Student Reviews” “3-6 course per year” “Expectation of adequacy based on student evaluations” “Improvement is taken into consideration”	"Meritorious Rating/Exceptional/Above Average/Good Teaching Evaluations" "Peer evaluation, student perception of instruction, evidence of continuous improvement" "2-3 courses per semester" "Excellence in teaching" "New course development requirements"
No Guidelines	“3.5/5 → 4 /5 in student reviews” “Good/Reasonable/Decent/Average Teaching Evaluations” “2-4 courses per year”	“Above Satisfactory Student Reviews”, “Evidence of effective teaching” “9 credits per semester”

Regarding the requirement for secured research funding for tenure, there was a great variety in responses provided across the groups, which are shown in Table 2. Both RI and NRI faculty reported that research funding is required, but RI faculty tended to provide specific goals. Annual research funding requirements at RI institutions ranged from \$50k to \$250k per year, which corresponds to a total of \$250k to over \$1M over the pre-tenure period.

As shown in Table 3, the number of proposals submitted is very vague in all groups with participants stating that “[proposal submission] does not count” to a specific requirement of 5 submissions per year. As expected, the largest variation in responses was from individuals in RI positions where no guidelines were provided. Participants in NRI positions stated the least amount of proposal requirements.

All groups reported that some level of peer-reviewed journal publications are expected for

tenure. Individuals in research intensive positions reported the greatest requirements, which ranged from 1 per year to approximately 20 total publications. NRI faculty report approximately 1 to 2 publications are required per year.

Table 2: Research Funding

	Research Intensive	Non-research Intensive
Guidelines	N/A (4) “No specific amount defined” (2) “No Specific but above \$200k/year”, “\$100k/year” (2) “500K total”, “750k total”, “Greater than \$1M”	N/A (11) “\$75k and secure funding for 2 students” “Submission of proposals only” “\$250k target by tenure” “No specific amount, but federal grants are valued” “Funded research expected but no specific amount is given”
No Guidelines	“None required, but any is beneficial” \$1.2M, \$500k – 1M, \$200k min., \$250k min in total \$50k, \$60k, \$80k-\$100k, \$150k per year N/A (2)	N/A (4)

Table 3: Proposal Submissions

	Research Intensive	Non-research Intensive
Guidelines	“No number, just expected to be submitting” N/A (4) "Excellence" amount not defined “Doesn't count” “At least one funded as a PI” “Proposal submissions are a hard requirement, but no funding is expected!” 1/year, 5/ year	0, 3, 4-5/year “One of criteria” “No specific number, but constant submission of proposals to show you are seeking funding” “Expected” “Submission of at least one external grant proposal as a PI or Co-PI” N/A (8)
No Guidelines	encouraged, but not required between 15 and 20 in total 2, 5, 6, 5-10/ year N/A(5)	N/A (3) 1/year

Table 4: Peer Reviewed Journal Articles

	Research Intensive	Non-research Intensive
Guidelines	“One peer reviewed paper published with one in development (minimum)” N/A 1/year, 2/year (3), 2-4 per year, 3/year, 4/year 10 in total (2), 14-17 in total	4 in total, 5 in total, 4-6 in total, 2-3 in total, 6 in total 1/year (5), 2/year N/A (3)
No Guidelines	1/year, 2/year (2), 2-3/year, 3-4/year, 4-6/year 10-15 in total, 10+ in total, 12+ in total, 15 in total N/A	1/year (3) N/A

Several respondents from RI and NRI institutions indicated that conference proceedings are valued less than peer-reviewed articles. Similarly, all groups reported some level of required conference publications and requirements tended to be greater for RI faculty, as shown in Table 5. Interestingly, RI faculty without specific guidelines reported greater requirements than RI faculty that had been provided guidelines.

Table 5: Conference Proceedings

	Research Intensive	Non-research Intensive
Guidelines	1/year 20+ in total “Conference proceedings are ok but journals are priority” “No specific targeted number of conference papers” “Doesn't count” “Conference papers are less valued than journal papers” N/A (6)	“These evidently don't count for much” 2/year (2) 4 in total, “It is OK to publish in peer-reviewed conferences but they do not count much towards tenure” N/A (9) “Count as other intellectual contributions”
No Guidelines	2/year (3), 1-2/year (2) 6-8 in total, 10 in total, 10-15 in total, +20 in total, N/A “participation required but no number guidance”	0 1/year, 2+/year N/A

Attainability of Tenure Requirements

Despite the variety in reported tenure requirements, participants overwhelmingly indicated that

tenure is attainable. Specifically, 37 out of the 44 (89%) stated that requirements are attainable and among the four different groups the positive responses were as follows:

- Provided Guidelines & Research Intensive Positions, 11/12
- Provided Guidelines & Non-research Intensive Positions, 14/17
- No Guidelines Provided & Research Intensive Positions, 8/11
- No Guidelines Provided & Non-research Intensive Positions, 4/4

Of the participants who responded that these requirements are not attainable, the reasons given were the following:

- “Excessive teaching and research requirements”
- “Difficulty in obtaining funds for research”
- “Difficulty in publishing”

Tenure Impediments

Table 6 shows the distribution of responses regarding the likelihood of impediments influencing the tenure outcome. The numbers show the distribution of the responses for each impediment, with the highlighted numbers showing the median response value. The impediments reported most often to influence tenure are:

- Teaching Load Requirements
- Peer-reviewed Journal Requirements
- Limited Funds for Research
- Availability/Quality of Students

Table 6: Likelihood of Impediments Adversely Influencing Tenure Process

	Extremely Unlikely	Unlikely	Neutral	Likely	Extremely Likely
Teaching Load	0	14	5	14	8
Peer-reviewed Journals	2	5	10	17	7
Service	8	15	6	8	4
Limited Funds for Research	2	5	7	9	18
Lack of Appreciation for Applied Research	1	8	14	11	7
Competition within Department	3	15	13	7	3
Availability/Quality of Students	0	5	4	16	16
Lack of Mentoring	3	6	12	15	5
Interdepartmental Politics	3	10	12	13	3

Responses indicated that service requirements have the least influence and availability/quality of students have the greatest influence on the tenure outcome. Of the 41 respondents, 32 assessed

student availability/quality as “likely” or “extremely likely” to influence the tenure process.

Observations and Conclusions

Based on the responses received, it is evident that construction faculty, regardless of RI or NRI classification, are required to:

- Be good educators,
- Develop research proposals and secure funding, and
- Publish academic articles.

Faculty in RI positions were more likely to report specific and higher goals for research funding and publications. They also reported quantitative requirements for student evaluations of teaching. Faculty in NRI positions indicated that a greater emphasis is placed on qualitative measures of teaching. It has been argued that student evaluations in their current form may not be sufficient to adequately assess teaching quality¹⁵, therefore it may be important to consider and/or develop other teaching quality metrics.

Construction faculty are expected to conduct 2 to 6 courses per year and achieve “good” to “above average” teaching evaluations. They are also expected to secure a minimum of approximately \$250k by tenure and submit the proposals necessary to achieve this goal. For both peer-reviewed journal articles and conference proceedings, the minimum requirements for each are approximately 2 to 4 per year.

Teaching, researching, and publishing were identified as likely impediments, real or perceived, to earning tenure. Additionally, the participants identified the availability and/or quality of students as the most commonly identified impediment influencing the tenure process.

Despite the noted concerns by construction faculty, the participants overwhelmingly stated that earning tenure is attainable.

Recommendations

Based on the results and conclusions, it is recommended that construction faculty pursuing tenure be prepared to “do it all” regardless of the focus of their faculty position. It does not appear that one can successfully earn tenure by focusing their efforts in one area and neglecting another. The requirements for tenure do vary by position type and faculty are recommended to inquire about specific goals for teaching, research funding, and publications.

It is recommended that tenure-track construction faculty actively encourage and recruit quality students to participate in research. Undergraduate students should not be overlooked when staffing research projects. Often undergraduate research assistants are better prepared and more likely to become successful graduate assistants.

Construction faculty should not view tenure requirements as onerous and/or unattainable. There are many success stories at a variety of institutions across the US and those in the queue clearly hold a positive view in regards to attaining tenure.

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