

The Benefits of Routine Performance Feedback

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Introduction

Regardless of academic field, one of the key features of the socialization of all pre-tenure faculty members is gaining clarity about performance expectations for tenure and promotion. National surveys of over 8500 pre-tenure faculty at 80 colleges and universities across the United States conducted by the Collaborative on Academic Careers in Higher Education (COACHE) from 2005 to 2007 indicate that clarity on issues relating to promotion and tenure and feedback from colleagues and chairs are concerns for pre-tenure faculty (COACHE 2008). Follow up interviews of faculty and administrators at six research universities confirmed that pre-tenure faculty struggle with “vague and inconsistent tenure and promotion guidelines”, “mixed messages from senior faculty members”, and “a lack of constructive feedback regarding progress toward tenure” (Trower and Gallagher 2008).

Clarity and reasonableness of tenure policies and practices is the third strongest factor in predicting overall faculty job satisfaction, after climate and nature of work (COACHE 2006). Female faculty members perceived significantly less clarity than their male colleagues on tenure standards and process, and reported a significantly lower level of agreement that they received consistent messages from tenured colleagues about the requirements for tenure. Women reported significantly lower levels of satisfaction with almost two-thirds of the workplace dimensions measured by the COACHE study (COACHE 2008). Differences were also observed between disciplines at a STEM-dominant university that participated in the COACHE survey in 2007. Pre-tenure faculty in engineering expressed more clarity about promotion and tenure than pre-tenure faculty in the humanities. Notable differences exist on the same questions by both gender and race, with men and members of minority groups expressing more confidence than women and members of the majority group about the clarity of the expectations for earning tenure. The reasons for the confidence gap between groups are not clear.

This paper reports on results from a two-phase, multi-method study. The study used quantitative data from a climate study conducted in 2005 by the Advance program at a STEM-dominant university to test findings that emerged during the first phase from an initial longitudinal qualitative study of a cohort of new faculty in science and engineering. The qualitative study involved interviews with 13 pre-tenure faculty members in engineering (6 females; 7 males) in each of the first five years of employment at the university (2003-2008) (Creamer and Saddler 2008; Creamer, Saddler, and Layne 2008). Themes that emerged from the analysis of the longitudinal interview data were then tested with the larger population of faculty respondents to the 2005 climate survey (N=816).

Results of the qualitative analysis indicated that among pre-tenure faculty members in engineering, comments about mixed messages and the ambiguity of expectations for tenure diminished over the course of the first three years' interviews (Creamer, Saddler, and Layne 2008). At the same time, the value attributed to concrete personalized feedback emerged particularly strongly in departments where there were formal mechanisms for mentoring in place. Participants found benchmarks of the performance of candidates who had been successful in their bid for tenure helpful at first, but concrete, individualized feedback delivered in a setting that promoted interaction was particularly prized. This kind of feedback adds to a sense of "fit" and appears to reduce anxiety that there is some hidden penalty for commitments to personal and family issues (Amelink and Creamer 2007).

This paper uses results from the 2005 Advance Work-Life Survey to test the following two hypotheses and to determine if there are statistically significant differences by gender and between pre-tenure faculty members in engineering and other disciplines:

1. Concerns about the clarity of the expectations for tenure and promotion diminish between the first and subsequent years among pre-tenure faculty.
2. Concrete feedback about performance reduces concerns about the clarity of expectations for tenure and promotion.

Methods

Instrument

The questionnaire contained 130 items that were organized in sections about the university climate, departmental climate, work-life and family factors, and recruiting. Most of the questions in the survey used a response option with a 4-point scale (1=strongly disagree, 2=somewhat disagree, 3=somewhat agree, 4=strongly agree). Respondents could also select 'do not know' (0).

Procedures

Clearance from the institution's human subjects review board was secured and the study was granted exempt status. An electronic version of the survey was distributed by the institution's survey research center in February 2005 via an email from the university provost with an embedded, personalized link. Non-respondents were contacted through a wave of follow-up emails until there was almost no yield of additional respondents.

Population and Respondents

The sample included all tenured and tenure-track faculty members who were employed at the institution in January 2005. Of the 2,015 tenured and tenure-track instructional and research faculty members contacted, 1,209 completed the survey (60%). Of these, 810 respondents are tenured or on the tenure-track (males=594, females=216; Caucasian=711, non-Caucasian=99; pre-tenure=189; tenured=621). Of the tenured and tenure track respondents, 154 (of a population of 283) were from the College of Engineering.

Quantitative Analysis

Pairs of items from the survey that corresponded to the hypotheses that emerged from the qualitative analyses were identified. These are shown in Table 1. The responses to the items were treated as ordinal data. Pearson's correlation coefficient r and the linear-by-linear association measure $M^2 = (n-1)*r^2$ were calculated for these pairs of items. The M^2 test statistic follows a Chi-squared distribution with 1 degree of freedom. The analysis for the first hypothesis only used data from pre-tenure faculty. Analysis for the second hypothesis conducted the same comparisons, but used data from all faculty members (both pre-tenure and tenured).

Table 1. Questionnaire items treated as the dependent and independent variables

Hypothesis	Item Treated as Dependent Variable	Item Treated as Independent Variable
Expectations about tenure get clearer as faculty go from year 1 to year 5.	The requirements for tenure or promotion are clearly articulated in my department.	Year in pre-tenure timeline
Regularity of performance review has positive significant impact on clarity.		My job performance is reviewed in person with me at least once a year.
		I receive useful recommendations on how I can improve my job performance from my department.
		Faculty in my department receive accurate and timely information about their progress toward tenure or promotion.

Results

Results confirm the second hypothesis, but not the first. Confidence about the clarity of the expectations for tenure and promotion is not higher among pre-tenure faculty members who have been at the institution between four and seven years than for those who have been at the institution between one and three years. For all tenured and tenure track faculty, the more personalized the feedback about performance, the stronger the correlation there is to clarity about the expectations for tenure and promotion. The relationship between clarity about expectations and type of performance feedback is much weaker for women than it is for men, however. Results for each of the hypothesis are described in the following section.

Hypothesis One

Contrary to expectations, level of agreement with the questionnaire item that promotion and tenure requirements are clearly articulated was not greater among pre-tenure faculty in their fourth and seventh year than in their first, second, and third-year at the institution. (Utilization of stop-the-clock and paid and nonpaid leave policies explain why some faculty in their sixth and seventh year are still pre-tenure.) The relationship, in fact, is negative but very weak. Similarly,

there were no significant differences on this item by gender or between engineers and other faculty members. Correlations among the groups are shown in Table 2.

Table 2. Correlations for pre-tenure year and clarity of tenure expectations (N=186)

	<i>Q2T: Promotion and Tenure Requirements are Clearly Articulated in My Department</i>		
	All Respondents (N=810)	Engineering Respondents Only (N=154)	Women Respondents Only (N=216)
Pre-Tenure Year	- .063 <i>N = 181</i>	- .025 <i>N = 37</i>	- .069 <i>N = 76</i>
**$p < .01$			

Hypothesis Two

With a single exception, there was a significant, positive relationship between perceptions that the requirements for promotion and tenure are clearly articulated and three types of performance feedback (yearly performance review, recommendations for performance improvement, and information about progress toward tenure/promotion). The more personalized the feedback and the more directed toward the expectations for tenure, the stronger the relationship. The relationship is much weaker for women than men faculty members. Results of the second hypotheses are summarized in Table 3.

The middle column of Table 3 shows the correlations between different types of performance feedback for pre-tenure faculty members in engineering. The relationship is significant but modest ($r = .250^{**}$) for yearly job performance reviews, moderately strong for useful recommendations to improve performance ($r = .434^{**}$), but strong for accurate and timely feedback about progress toward promotion and tenure ($r = .722^{**}$). Possibly because of the practice of clear benchmarking of measures of productivity such as number of publications and grant dollars in most departments in the college of engineering at this institution, the correlation between the last item and clarity are stronger than it was for all respondents.

The correlation between clarity about the requirements for tenure/promotion is weaker for women than it is for men on each of the three different types of performance reviews. The correlation for all female respondents between yearly job performance reviews and agreement that the requirements for tenure and promotion are clearly articulated is weak and not significant ($r = .107$).

Table 3. Correlations of performance review factors that impact clarity of promotion/tenure expectations

Q2T: Promotion and Tenure Requirements are Clearly Articulated in My Department			
	All Respondents (N=810)	Engineering Respondents Only (N=154)	Women Respondents Only (N=216)
Yearly Job Performance Review	.313** N=758	.250** N=142	.107 N=192
Useful Recommendations for Performance Improvement	.464** N=754	.434** N=141	.396** N=197
Accurate and Timely Information about Progress towards Tenure/Promotion	.630** N=728	.722** N=137	.472** N=186
** $p < .01$			

Discussion and Conclusions

Results dispute the findings from the qualitative phase of the study in that among pre-tenure faculty members, perceptions about the lack of clarity about the expectations for tenure are significantly different between faculty members in the early and late years of a pre-tenure appointment, but otherwise are consistent with previous research that indicates that there are disciplinary and gender differences in perceptions about the clarity of policies about tenure and promotion. The relationship between different types of performance feedback and clarity about the expectations for tenure and promotion is weaker for women than it is for men, but is stronger among faculty members in engineering than in other disciplines.

The 2005 climate survey was conducted prior to the implementation of most of the major Advance program initiatives. The questionnaire was re-administered in fall 2008 after the completion of the fifth year of project funding. Multiple initiatives were launched during the interim to clarify expectations for tenure and promotion, including a formal requirement that all departments document the expectations and procedures for tenure in writing. Future research involves comparing the 2005 and 2008 data on the questions examined in this paper in order to determine if there are any measurable differences that might be attributed to the new initiatives.

Information about performance expectations for tenure and promotion come from both formal and informal sources and is a component of the on-going process of socialization that begins

long before entry into a faculty position. Formal sources include readily accessible written documentation, programs and meetings scheduled to explain policies, and a formal mechanism for mentoring where all new faculty members are assigned a mentor to advise them about the process. Sharing of information among colleagues provide an equally potent route to information.

Informal interactions are a key feature that shapes individuals' perceptions of departmental climate. Gender differences in perceptions of the clarity of the expectations for tenure and promotion are likely to be more about qualitative and quantitative differences in experiences with informal interactions than with formal policies and practices. Lower levels of interaction and lack of access to same-sex mentors may provide one explanation for the weaker link found in this study for women than men in the same environments between different types of performance feedback and perceptions about the clarity of expectations. Another possible interpretation is that in engineering, like other fields, women are concentrated in departments with less proactive practices to prepare faculty for a successful stab at earning tenure. Both of these explanations point to the need to promote not only clear documentation about tenure procedures and expectations, but also opportunities for collegial interactions during the workday, such as through seminars and colloquia.

Many of the institutions funded by the National Science Foundation's Advance program have featured initiatives to improve the clarity about tenure and promotion as one of many tools in the arsenal to promote the retention of women in science and engineering. Results presented in this paper suggest that reducing anxiety about the lack of clarity about tenure expectations requires a combination of formal and informal policies and practices. Solidifying detailed documentation and making it widely available is a crucial but not sufficient step in promoting a sense of equity. Providing concrete individual feedback about performance relative to benchmarks on a routine basis is a particularly effective strategy in increasing perceptions about the clarity of expectations. Perhaps because the element of ambiguity can never totally be removed from such a complex, multi-layered process, a system of formal and informal practices to communicate the expectations for tenure and promotion and the process of preparing documentation is one clear way a department can express its psychic and financial investment in the success of its pre-tenure faculty members.

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