Findings from the 2013 Annual Climate Study: Tenure Track Faculty Perceptions of Department Influence, Fit, and Fairness

Goal of UNH ADVANCE and the Annual Climate Study

The goal of UNH ADVANCE is to improve faculty climate and academic leadership through increased fairness, transparency, and clarity of recruitment, retention, and promotion and tenure policies and practices. UNH ADVANCE is funded through the National Science Foundation’s (NSF) ADVANCE initiative to increase the participation and promote primarily the career advancement of women faculty in the disciplines of Science, Technology, Engineering and Mathematics (STEM) and the Social and Behavioral Sciences (SBS).

In November 2013, the UNH ADVANCE research team administered an on-line survey to all full time tenure track and non-tenure track faculty members at the three UNH campuses (Durham, Manchester, and Concord). The survey asked questions about respondents’ teaching, research and service workloads, their perceptions regarding degree of influence, fit, and fairness in their departments, and their work satisfaction, work stress, networks, and intention to leave UNH. The survey was available for five weeks.

The purpose of the annual UNH ADVANCE faculty climate survey is to:

- Evaluate the impact of UNH ADVANCE initiatives on the UNH climate over time, and
- Generate a campus-wide dialogue about climate issues.

Purpose of this Report

This report is the second in a series of reports on the analysis of the data generated by the 2013 climate survey. It focuses on three variables related to perceptions of departmental climate: influence, fit, and fairness. While both tenure track and non-tenure track faculty received and responded to the survey, survey results will be evaluated and reported separately. This is due to differences in the nature of faculty workloads (e.g., full time teaching, full time research, or a mix of teaching, research and service) between tenure track and non-tenure track faculty.

In UNH ADVANCE report 2014-1, we examined response rates based on key demographic variables of the tenure track faculty who responded to the climate survey and determined that overall, they approximately reflected the makeup of the UNH tenure track faculty. One exception was that women tenure track faculty in STEM and SBS were slightly over-represented. As a result, a more similar number of men and women responded to the climate survey than their proportionate representation at UNH would suggest. With that caveat, the results indicated a satisfactory level of generalizability of the climate survey results to UNH tenure track faculty climate overall.

Results are presented for large groups of participants in keeping with requirements that data for groups less than ten will not be reported. Thus we were unable to report analyses by college because many cell sizes were too small. We hope future climate surveys will have greater respondents to enable such analyses.

Department Climate

Organizational climate is the atmosphere or ambiance of an organization or unit as perceived by its members. It is reflected in the organization or unit’s structure, policies, and practices, the demographics of its membership, the behaviors members observe getting rewarded, supported, and expected, and the quality of personal interactions. Climate is partly a function of an organization’s culture, the shared beliefs, attitudes, and assumptions that shape behavior and distinguish members of one group of people from another. While characteristics of organizational climate are relatively observable and changeable, organizational culture is often likened to an iceberg because it is deeply rooted with a substantial portion hidden under the surface. Positive climate has been linked to job satisfaction, motivation, and performance in organizations (see Schneider, Ehrhart, & Macey (2013) for a comprehensive review).
Climate often feels more chilly for underrepresented group members, especially if they represent less than 20% of total unit membership (Greene, Stockard, Lewis, & Richmond, 2010). For example, when women faculty are underrepresented in a department, they are significantly more likely than men faculty to report negative experiences, less influence, and unfair treatment, and to be less satisfied with their positions. Since women and other underrepresented groups often comprise less than 20% of the faculty in UNH academic departments, and much less than 20% in the STEM disciplines, improving department climate necessitates addressing the conditions that make the climate particularly chilly for women and members of other underrepresented groups.

Organizational climate is a multi-dimensional and complex concept. Attempts to accurately operationalize organizational climate have yielded upwards of 80 survey items in 17 constructs as disparate as autonomy, involvement, pressure to produce, and clarity of organizational goals. Due to space constraints, consistent with Greene et al. (2010), we focused on degree of influence in department decisions, fit within the department, and fairness in departmental practices as indicators of departmental climate.

**Findings**

**Influence in the Department**

Influence was measured using 16 items adapted from Settles, Cortina, Malley and Stewart (2006) and climate surveys from other ADVANCE Programs, including the University of Michigan, the University of Wisconsin, Virginia Tech, and the University Maine. The items assessed faculty members’ perception of their influence within the work environment on a scale from 1 to 4, with 4 being “tremendous influence”. For example, faculty members rated how much influence they have over curriculum decisions, selecting graduate students, selecting a new department chair, securing equipment needed for their research, obtaining money to travel to professional conferences, allocating committee assignments, which courses they teach, and which professional activities they engage in. Factor analysis with promax rotation yielded a single factor labeled ‘influence’. Scale reliability analysis yielded a Cronbach’s alpha of .94, far exceeding the .7 criterion established by Nunnally (1978).

Results indicate a significant difference (p<.05) in perceived influence by gender for UNH faculty overall, with women tenure track faculty reporting having significantly less influence (Mean = 2.75) than men tenure track faculty (Mean = 2.86) (see Figure 1). By discipline, women in STEM also reported having significantly (p<.05) less influence (Mean=2.74) than men in STEM (Mean=2.91). While women tenure track faculty in SBS and non-STEM disciplines report having somewhat less influence than men tenure track faculty in those disciplines, these differences were not statistically significant.

**Fit within the Department**

“Fit within the department” was measured using 7 items adapted from August and Waltman (2004) and surveys from other ADVANCE Programs, including the University of Illinois at Chicago, the University of Nebraska at Lincoln, and Virginia Tech. Faculty were asked to rate their agreement, on a scale from 1 to 4, from strongly disagree to strongly agree, with statements including “I feel excluded from informal networks in my department”, people in this department deliberately undermine my work”, “I receive enough feedback on my progress toward tenure and/or promotion”, and “I have considerable opportunity for independence and freedom in how I do my work”. Factor analysis with promax rotation yielded a single factor labeled ‘fit in the department’. Scale reliability analysis yielded a Cronbach’s
The difference in perceived fit within the department between women tenure track faculty (Mean = 2.92) and men tenure track faculty (Mean = 3.05) at UNH overall (see Figure 2) was not statistically significant. However, women tenure track faculty in the STEM disciplines reported significantly (p<.05) less fit within the department (Mean=2.93) than men tenure track faculty (Mean=3.13). Women tenure track faculty in SBS also reported less fit within the department (Mean=2.75) than male faculty (Mean=3.05), but this difference was not statistically significant. In non-STEM, where the representation of women tenure track faculty is 48.9%, women report a slightly higher fit (Mean = 2.98) than men (Mean = 2.93).

**Fairness within the Department**

Fairness was measured using 6 items from the University of Nebraska at Lincoln’s ADVANCE survey assessing faculty member’s perception of the fairness of the distribution of teaching, advising, and service assignments, the evaluation of their scholarly performance, salaries, and process and criteria used in promotion and tenure. Respondents rated the fairness of each item on a scale of 1 through 4, where 1 indicates “very unfair” and 4 indicates “very fair”. Factor analysis with promax rotation yielded a single factor labeled ‘fairness’. Scale reliability analysis yielded a Cronbach’s alpha of .85, exceeding the .7 criterion established by Nunnally (1978).

As shown in Figure 3, women tenure track faculty reported lower fairness across the board at UNH than men tenure track faculty. The difference was statistically significant (p<.05) for women tenure track faculty overall at UNH (Means = 2.78 and 2.97) and in the STEM disciplines (Means = 2.68 and 3.00). Again, when grouped by percentage women faculty, women perceive less fairness than men when they are underrepresented among the faculty.

**Discussion**

Our findings on gender differences in individual perceptions of departmental influence, fit, and fairness are consistent with a growing body of literature that reports that women faculty are more likely to report having less voice in the department and not being included in departmental decisions about teaching, research, and promotion (Blakemore, Switzer, DiLorio, & Fairchild, 1997; Carr, Szalacha, Barnett, Caswell, & Inui, 2000; Settles, et al., 2006). Further, women faculty are less likely to have a sense of belonging and more likely than men faculty to feel isolated in their departments (Fox, 2010; Xie & Shauman, 2003; Etzkowitz, Kemelgor & Uzzi 2000), and to feel excluded from informal departmental networks (Maranto & Griffin, 2011).

Previous research has also found that women faculty members in STEM are more likely to perceive organizational climate as less supportive compared to men faculty in STEM (Blackwell, Snyder & Mavriplis 2009). Fox (2010) found that female science faculty reported significantly less access to resources and recognition of their accomplishments, and significantly higher levels of stress in their departments than male science faculty. Gersick, Dutton and Bartunek (2000) found that female faculty were more likely to report stories
of negative treatment by colleagues while male faculty members were more likely to report stories of career help from colleagues. Settles, Cortina, Buchanan and Miner (2013) found that female faculty reported significantly more gender-based discrimination and informal gender derogation than male faculty. Consequently, female faculty members are more likely to characterize the department climate as chilly compared to male faculty (Riger, Sullivan, Stokes & Raja, 1997).

The ADVANCE team at the University of Michigan asked faculty to describe programs or behaviors that contribute to a climate that supports their academic career success and satisfaction. While they pointed to the importance of best practices in areas such as recruiting, mentoring and promotion and tenure evaluation, they stressed that academic leaders “who apply the touchstones of transparency, uniformity, and assistance when developing or reviewing policies and procedures can create environments within which all faculty can flourish” (Waltman & Hollenshead, 2007). Influence in departmental decisions and perceptions of fit and fairness in the department are important because they can buffer all faculty from the harmful effects of negative climate on motivation, performance, and job satisfaction (Schneider, et al., 2013; Settles et al., 2006).

References


Maranto, C. L., & Griffin, A. E. (2011). The antecedents of a ‘chilly climate’ for women faculty in higher education. Human relations, 64(2), 139-159.


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