

A Rising Tide: Advancing Women and Leadership at the University of Maine Social Science Study

As part of the UMaine Rising Tide effort, the program goals, initiatives, and activities will be studied in order to expand the knowledge and literature base relative to women faculty in STEM and SBS fields. The study described below draws upon research across disciplinary fields including higher education, psychology, sociology, business, and women’s studies. This interdisciplinary approach will lend itself to a more comprehensive and multi-faceted understanding of the contexts and cultures that facilitate or impede the recruitment, retention, and advancement of women faculty at UMaine.

Conceptual Framework

The framework guiding the Rising Tide effort and the social science study is that of faculty satisfaction. Faculty satisfaction has been found to have a strong relationship with retention (August & Waltman, 2004; Blackburn & Lawrence, 1995; Gomez-Mejia & Balkin, 1984; Hagedorn, 2000; Jayakumar, Howard, Allen, & Han, 2009; Lee & Mowday, 1987; Olsen, Maple, & Stage, 1995; Rosser, 2004). Moreover, a lack of satisfaction, even among those faculty still at the institution, has also been found to have trickle-down effects for others (Ambrose, Huston, & Norman, 2005). Indeed, Ambrose et al. remarked, “It is equally important to understand the subtler dimensions of dissatisfaction that can lead even established faculty to feel disinvested and apathetic. These sorts of morale issues have implications for the retention of still other faculty” (p. 804).

In 2000, Hagedorn introduced a model of faculty job satisfaction (see Table 1), drawing widely on Herzberg’s (1957) work. She divided her framework into two constructs, triggers and mediators. A trigger is “a significant life event that may be either related or unrelated to the job” (p. 6). A mediator, on the other hand, is a “variable or situation that influences (moderates) the relationships between other variables or situations producing an interaction effect” (p. 6), including demographic characteristics and environmental conditions as well as the presence of motivating (positive) or hygienic (negative) variables.

Table 1: *Hagedorn’s (2000) Model of Faculty Job Satisfaction*

| Mediators | | | Triggers |
|----------------------------------|---------------------|---------------------------------|--------------------------------|
| <i>Motivators & Hygienes</i> | <i>Demographics</i> | <i>Environmental Conditions</i> | <i>Change or Transfer</i> |
| Achievement | Gender | Collegial relationships | Change in life stage |
| Recognition | Ethnicity | Student relationships | Change in family circumstances |
| Work itself | Institutional type | Administration | Change in rank or tenure |
| Responsibility | Discipline | Institutional culture | Transfer to new institution |
| Advancement | | | Change in perceived justice |
| Salary | | | Change in emotional state |

Taken together, the framework of faculty satisfaction is inclusive of the myriad concepts heretofore studied in relation to women faculty in STEM and SBS fields, and therefore serves as an excellent guiding framework for the UMaine Rising Tide effort inclusive of the following:

- **Achievement** – Women faculty tend to publish and present at the same rate as their male peers but existing gender bias in academia often recognizes men’s achievement over women’s (e.g., Ellemers, Van den Heuvel, De Gilder, Maass, & Bonvini, 2004; Valian, 1998) and tends to see women’s achievement as owing to something other than ability (Valian, 1998).
- **Recognition** – Women faculty tend to have their research trivialized (Johnsrud & Wunsch, 1991) and consequently receive less recognition than their male peers (Clark & Corcoran, 1986; Olsen et al., 1995). Women also express experiences of not being “heard” by peers and their ideas unrecognized (Olsen et al., 1995).

- **Work itself** - Women faculty tend to have heavier teacher loads (Austin & Gamson, 1983) and more service responsibilities (e.g., Kulis, Sicotte, & Collins, 2002; Menges & Exum, 1983; Rosser & O'Neil Lane, 2002).
- **Responsibility**- Women tend to be excluded from important committees and decision-making (e.g., Aguirre, Hernandez, & Martinez, 1994; August & Waltman, 2004).
- **Advancement** - Women faculty are tenured and promoted less often than male counterparts (e.g., August & Waltman, 2004; Smart, 1991; Umbach, 2006).
- **Salary** – Women have consistently been found to be paid less than their male colleagues (e.g., August & Waltman, 2004; Nettles, Perna, & Bradburn, 2000; Smart, 1991; Umbach, 2006).
- **Ethnicity** – Women faculty of color face all the obstacles of gender compounded by racial discrimination and bias (e.g., Knowles & Harleston, 1997).
- **Institutional type** – Women tend to be underrepresented among research university faculty and women at research universities face much more stress and competition than do women faculty at other institutional types (e.g., Olsen et al., 1995; Ward & Wolf-Wendel, 2004).
- **Discipline** – The sciences, in particular, are very male-dominated and male-centric, causing more difficulties in recruitment, retention, and advancement of women faculty (e.g., Etzkowitz, Kemelgor, & Uzzi, 2000; Fox, 2001; Kulis et al., 2002; Rosser & O'Neil Lane, 2002).
- **Collegial relationships** – Women faculty tend to face more obstacles in networking (Rankin, Nielsen, & Stanley, 2007) and sustaining positive mentoring relationships (e.g., Wasburn, 2007).
- **Student relationships** – Women also face discrimination in the classroom and encounter chilly climates (e.g., Aguirre, 2000; Aguirre et al., 1994; Hall & Sandler, 1982).
- **Administration** – Women faculty tend to feel excluded from important decision-making (Aguirre et al., 1994) at the administrative level of academia.
- **Institutional culture** – In higher education, culture is defined as “the collective, mutually shaping patterns of norms, values, practices, beliefs, and assumptions that guide the behavior of individuals and groups” (Kuh & Whitt, 1988, p. 12). These norms, values, practices, beliefs, and assumptions can serve as obstacles to women and other underrepresented faculty members (Aguirre, 2000; August & Waltman, 2004; Jayakumar et al., 2009).
- **Change in life stage** – Stages of a faculty career (early career, midcareer, late career) can play a role in faculty satisfaction (e.g., Hagedorn, 2000) and changes in life stage, particularly for women, can also trigger positive or negative feelings toward one's job (e.g., Gilligan, 1978).
- **Change in family or personal circumstances** - The academic careers of women are more likely to be affected by changes in life or familial status (e.g., Grant, Kennelly, & Ward, 2000; Ward & Wolf-Wendel, 2004) and women faculty may wait longer to have children or marry/partner (Etzkowitz et al., 2000).
- **Change in rank or tenure** - Women faculty are tenured and promoted less often (e.g., August & Waltman, 2004; Smart, 1991; Umbach, 2006) and changing rank can also play a role in faculty career satisfaction (Hagedorn, 2000) or research interests (e.g., Neumann, 2009).
- **Transfer to new institution** – Faculty who come from other institutions may experience a sense of culture shock, particularly in regard to new colleagues, new students, new institutional missions, and new responsibilities (Hagedorn, 2000). Women faculty in particular have a higher turnover rate than men faculty (Tolbert, Simons, Andrews, & Rhee, 1995).
- **Change in perceived justice** – Hagedorn (1996) also found that women faculty experienced more dissatisfaction when they perceived their salary as being less than their male colleagues. Other practices in addition to salary disparities, such as in promotion, hiring, awarding of tenure, or nomination for awards also play a role in faculty satisfaction (Hagedorn, 2000).
- **Change in mood or emotional state** – Mood has been found to play a strong role in satisfaction (Hagedorn, 2000). Given all of the issues listed above, women faculty may indeed experience negative emotions or moods in regard to their faculty positions.

Theories Guiding the Study

Several theoretical assumptions guide the social science study on the Rising Tide effort at UMaine. First, the work of Hagedorn (2000) in regard to faculty satisfaction will serve as the overarching conceptual framework for the study. The myriad studies described above support the specific components of the faculty satisfaction model and will be utilized individually and collectively to inform the investigations detailed below. Second, the social science study is guided by an understanding of the problems and issues facing women faculty as owing to multiple intersecting organizational dimensions: the individual, the disciplinary, and the institutional systems. One way through which to view the intersecting dimensions of personal, disciplinary, and institutional factors that contribute to the satisfaction of women faculty is through the lens of systems theory. A system is defined as “a set of components or elements that are interrelated, interactive, and interdependent” (Bess & Dee, 2008, p. 94). Systems theory assists in “analyzing and explaining the behavior of two fundamental complex institutions in all societies – organizations and individuals” (p. 93). A system is generally composed of three elements: (a) inputs, including environmental characteristics such as external political, social and cultural factors, resources, and competitors; (b) transformation processes, including the interplay of the organization’s design with individuals, groups, and their particular roles; and (c) outputs, which include the organizational products, or in the case of higher education, educated students, research findings, services, employee satisfaction, and employee motivation and commitment (Bess & Dee, 2008). Systems are composed of subsystems or components, which carry out specific functions or tasks and are, in effect, miniature systems, including their own inputs, processes, and outputs. Within the context of higher education, systems theory assists in understanding how inputs and system components ultimately influence outputs or products. Viewed within the dynamics of the social science study, the inputs can be viewed as the surrounding environment for UMaine, including the funding allocated from the state level and surrounding forces in the regional area. The system components of study include the individual faculty members, their departments and colleges, and university administrators, with the output represented by faculty satisfaction and commitment to the institution.

Finally, the social science study is guided by a social constructivist perspective. This perspective “suggests that the organizational world is a human creation achieved individually and in groups. Organizational reality is created and recreated every day through interpersonal interactions” (Bess & Dee, 2008, p. 14). In other words, each individual in a particular organization brings his or her own unique frame of reference, which is made up of specific values, concepts, and ideas (Bess & Dee, 2008). Therefore, the underlying assumption in social constructivism is that each individual “will construct and interpret reality in a variety of ways” (p. 14). In the context of issues relating to retaining women faculty, for example, department chairs may view the problem very differently from faculty. Moreover, a female department chair and a female faculty member may see the issue distinctly from a male department chair or faculty member. A researcher using a social constructivist approach consequently examines the “specific contexts in which people live and work in order to understand the historical and cultural settings of the participants” (Creswell, 2003, p. 8). Taken together, social constructivism will be an important underlying assumption in the social science study as it will take into account how individuals’ beliefs about the organization differ and how these understandings contribute to or detract from the recruitment, retention, and advancement of women faculty at UMaine.