**TIAA** Institute

# The Working Environment Matters: Faculty Member Job Satisfaction by Institution Type

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## Introduction

Ongoing changes in higher education, including more non tenure-track positions together with a stronger emphasis on prestige-seeking behaviors, threaten the status of faculty and may discourage new doctoral recipients from pursuing academic careers. Individuals are drawn to the professoriate by a desire to seek and produce knowledge and to share knowledge with others through instruction, collaborative research, and community engagement. Recent organizational shifts to the roles and responsibilities of faculty may particularly affect core faculty who have shaped the known path for the professoriate.

An understanding of faculty satisfaction is especially important in light of the growing number of non tenure-track, including part-time, positions (Snyder, de Bray & Dillow, 2016) and of the potential for faculty attrition (Rosser, 2004; Smart, 1991). Recent economic constrictions resulting in workforce reductions (including work furloughs), as well as little or no salary increases, have contributed to low morale among faculty. If new doctoral recipients do not see value in the academic professoriate, higher education will find it increasingly difficult to recruit high-quality new faculty. That will, in turn, have implications for student learning, academic scholarship and institutional success. Existing faculty members may leave the profession as well.

Previous studies have documented substantial differences in job satisfaction among postsecondary faculty in the U.S. Factors contributing to faculty job satisfaction include demographic characteristics, life-stage issues, personal work accomplishments, collegial relationships, and an individual's institutional experience (e.g., Bozeman

& Gaughan, 2011; COACHE, 2010; Hagedorn, 2000; Kessler, Spector, & Gavin, 2014; Mason & Goulden, 2002; Sabharwal & Corley, 2009; Seifert & Umbach, 2008; Trower & Bleak, 2004; Wagoner, 2007; Ward & Wolf-Wendel, 2012; Wolfinger et al., 2008; Xie & Shauman, 2003; Xu, 2008). In particular, a number of previous studies found that women faculty report lower satisfaction than their male peers (e.g., Hagedorn, 2000, Rosser, 2004; Seifert & Umbach, 2008; Trower & Bleak, 2004), with women citing lower salaries, higher committee and other service assignments, and unhelpful policies or attitudes toward pregnancy and childcare.

Previous research found perceptions of the campus culture and environment to be especially important. For example, Kessler et al. (2014) found that women faculty reported higher satisfaction in teaching-oriented departments. This finding supports the authors' supposition that women prefer more socially oriented positions. This aligns with Pfeffer and Langton's (1993) finding that satisfaction is positively correlated with the degree of social contact among department members, in general. Further, these findings are consistent with Trower and Bleak's (2004) finding that women faculty are more likely to feel a lack of commitment to their success on the part of senior colleagues in their department, which can relate to respect, inequitable treatment, and social contact.

## Purpose of this study

This study examines how faculty member job satisfaction varies across different types of institutions (baccalaureate, master's doctoral, and research). A number of factors contribute to faculty job satisfaction, including demographic characteristics, interpersonal relationships within the department, receipt of tenure, and work-family balance (e.g., August & Waltman 2004; COACHE, 2010; Hagedorn, 2000; Mason & Goulden, 2002; Rice et al., 2000; Seifert & Umbach, 2008; Trower & Bleak, 2004; Ward & Wolf-Wendel, 2012; Willie & Stecklein, 1982; Xie & Shauman, 2003). Studies of job satisfaction can be organized by two broad themes:

1) factors related to the individual; and 2) experiences and perceptions of the work environment. Collectively, factors related to the individual, including gender, race/ethnicity, age, career stage, family, and other avocational responsibilities interact with expectations, experiences, and perceptions of one's work environment. In line with Hagedorn (2000) and Rhoades and Eisenberger (2001), it is likely that there is an interwoven nature of individual and institutional characteristics that combine to determine satisfaction.

Guided by Hagedorn's (2000) framework for job satisfaction and Rhoades, Eisenberger and Armeli's (2001) theory of Perceived Organizational Support (POS), an exploratory sequential mixed-methods design is used to examine survey data from the Collaborative on Academic Careers in Higher Education (COACHE), followed by structured interviews with a sample of respondents to explore their job satisfaction and intent to leave the profession. The following questions were explored:

- In what ways are today's faculty members satisfied with their work?

- Are there differences in satisfaction by salary, gender, race, age, tenure status, type of institution (research universities, doctoral, master's, baccalaureate colleges) and individual perceptions of fit in their campus environment?

- Have faculty members considered leaving the academic profession and, if so, why? Does their satisfaction with their institutional environment contribute to their intent to leave?

## Part I. Findings from analysis of faculty job satisfaction survey data

First, the study examined 2012-2014 data (received with permission) from the Collaborative for Academic Careers in Higher Education (COACHE). Based at Harvard University's Graduate School of Education, the COACHE survey provides information on faculty satisfaction levels

and perceptions of their work environment. The survey is fielded among full-time faculty at a number of colleges and universities across the U.S.[1] The anonymous survey covers self-reported satisfaction on a broad range of themes, including the nature of work, resources and support, tenure and promotion, collaboration, work and personal life balance, culture and collegiality, mentoring, and overall satisfaction. Most questions in the COACHE survey are framed on a 5-point Likert scale, where 1 indicates "very strongly dissatisfied" or "strongly disagree," 2 indicates "somewhat dissatisfied (or disagree)," 3 equals "neither satisfied nor dissatisfied" or "neither agree or disagree," 4 indicates "somewhat satisfied (or agree)," and 5 equals "strongly satisfied" or "very strongly agree."

In this study, two questions were used to examine faculty job satisfaction with their institution overall and with their department:

- *If I had it to do all over, I would again choose to work at this institution.* (agree/disagree)

- *All things considered, your department is a good place to work.* (satisfied/dissatisfied)

These two items were chosen to represent the respondent's broad or overall perceptions about satisfaction in their workplace. The wording of the first question positions satisfaction as a broad construct, prompting the respondent to consider the variety of roles and responsibilities he or she addresses in daily work, as well as the conditions under which he or she works. Similarly, the second question addresses global satisfaction with the respondent's department.

Although it is debated in the literature, some scholars (e.g., Jackson & Corr, 2002; Scarpello & Campbell, 1983) assert that a single-item global measure of satisfaction has greater content validity and temporal reliability than a composite measure. For example, Jackson & Corr (2002) found that measures of individual facets of satisfaction did not predict overall satisfaction well; they propose that individuals do not consider each facet with its level of importance as a moderator, but instead use cognitive heuristics to provide a global measure. Thus, when faculty members are asked to rate "overall satisfaction," it seems plausible that they implicitly consider multiple facets in providing a global value.

The dataset used in this study included responses from 30,975 faculty members over three academic years, 2011-12, 2012-13, and 2013-14. Data were weighted by race and gender. As shown in Table 1, 62% of the respondents were men and 20% of the respondents were nonwhite. Sixty-six percent of the respondents were employed in a research university and approximately 10% of the respondents were employed at baccalaureate-level institutions. Faculty respondents represented a wide range of disciplines. Respondents were distributed across all ranks: 67% were tenured, 24% were tenure-track but not tenured, and 10% were non tenure-track.

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[1]     103 institutions participated in the COACHE survey during these three years, but not all participated each year.

## Table 1. Descriptive characteristics of faculty sample (weighted by race and gender)

| Gender | Percentage |
|---|---|
| Male | 62.4 |
| Female | 37.6 |
| **Rank** | **Percentage** |
| Instructor | 3.2 |
| Assistant Professor | 25.3 |
| Associate Professor | 33.3 |
| Full Professor | 38.2 |
| **Tenure Status** | **Percentage** |
| Non Tenure-Track | 9.9 |
| Tenure-Track | 23.5 |
| Tenured | 66.7 |
| **Discipline** | **Percentage** |
| Humanities & Vis Perf Arts | 21.1 |
| Soc Sci & Education | 20.8 |
| Phys Sci, Biol, & Agricul | 17.7 |
| Engineer & Computer Sci | 13.2 |
| Med & Health & Ecology | 15.3 |
| Business | 6.5 |
| Other | 5.4 |
| **Race/Ethnicity** | **Percentage** |
| White | 76.9 |
| Black | 4.1 |
| Hispanic/Latino | 4.3 |
| Asian/Pacific Islander | 11.0 |
| Other | 3.6 |
| **Carnegie Group*** | **Percentage** |
| Research Univ | 66.1 |
| Doctoral | 6.6 |
| Master's | 17.9 |
| Baccalaureate | 9.4 |
| **Salary**** | **Percentage** |
| Less than $45,000 | 1.7 |
| $45,000 to $89,999 | 51.4 |
| $90,000 to $119,999 | 25.3 |
| $120,000 and up | 21.8 |
| Total Sample (N=30,975) | 100 |

*Institutional type was not reported for each respondent.
**More detailed salary groups combined into those shown here.

Analysis of variance with Tamhané procedure for multiple comparisons (results not shown) identified faculty satisfaction differences across institution types for a number of individual items.[2] Initial analyses also compared satisfaction between faculty at private and public colleges and universities. Respondents from private institutions had significantly higher overall satisfaction than those from public institutions (mean for private institutions= 3.97, SD=1.165; mean for public institutions= 3.70; SD= 1.267; Kolmogorov-Smirnov Z=6.082, p <.001).

Overall institutional and departmental satisfaction were then examined by institution type. As shown in Table 2, respondents at baccalaureate institutions reported significantly higher overall satisfaction with both their institution and department than respondents in other institution types.

## Table 2. Job satisfaction among faculty across institution types

**Institutional satisfaction**
**If I had it to do all over, I would again choose to work at this institution.**
**(5=strongly agree; 1=strongly disagree)**

|  | Mean | SD |
| --- | --- | --- |
| Baccalaureate | 3.97* | 1.201 |
| Master's | 3.68 | 1.201 |
| Doctoral | 3.73 | 1.292 |
| Research Univ | 3.75 | 1.244 |

**Departmental satisfaction**
**This department is a good place to work.**
**(5=very satisfied; 1=very dissatisfied)**

|  | Mean | SD |
| --- | --- | --- |
| Baccalaureate | 4.04* | 1.069 |
| Master's | 3.85 | 1.147 |
| Doctoral | 3.78 | 1.131 |
| Research Univ | 3.81 | 1.136 |

*Faculty satisfaction at baccalaureate colleges is significantly different from that at other institution types, p <.05, per Tamhané multiple comparison test.

[2]    A total of 49 items were examined.

## Identifying factors that contributed to satisfaction with the institutional environment

Following examination of descriptive statistics, a factor analysis was completed. As a data reduction technique, the factor analysis uses orthogonal transformations to convert observations of correlated variables into groups called factors. Using survey items related to aspects of work satisfaction, the analysis grouped 28 items into six factors. See Appendix A for individual items that are grouped in each factor. The six factors were: 1) perceived effectiveness of one's department chair; 2) feelings of fit in department/working as a team; 3) perceived communication and support of dean/division chair; 4) balance of work roles; 5) health and retirement benefits; and 6) advising and administrative tasks. These six factors were subsequently used in additional analyses as indicators of satisfaction with the work environment.

## Identifying variables that impact faculty satisfaction

To further explore elements that affect faculty satisfaction, multinomial regression analyses were completed for overall institutional satisfaction and departmental satisfaction. Where a binomial logit includes only two outcomes, the multinomial logit has multiple outcomes and K-1 sets of equations. The general multinomial equation can be expressed as:

$$\log (P(Y=1) / P(Y=K)) = a_1 + b_1 x$$
$$\dots$$
$$\log (P(Y=K\text{-}1) / P(Y=K)) = a_{k\text{-}1} + b_{k\text{-}1} x$$

where the log odds of Y=1 is a linear function of the variables (x's), a is the constant, and where $b_1$ measures the change in log odds of Y=1 relative to Y=K associated with a one-unit change in x. In this study, there are three outcomes (satisfied, neither or dissatisfied), so there are two sets of equations.

In the multinomial analysis, the relative odds of being in that category can be calculated. This is shown as the exp(b), the exponentiated b, or the relative risk ratio, and interpreted as the odds of being in one category relative to being in the referent category.

Explanatory variables in the analysis included a number of individual and environmental characteristics. A total of eight multinomial regression equations were estimated—an institutional and departmental satisfaction equation for each type of institution (baccalaureate, master's, doctoral and research). Responses for "strongly agree" and "somewhat agree" were grouped together, as were responses for "strongly disagree" and "somewhat disagree," thus resulting in three outcomes (satisfaction, neither, and dissatisfaction). Detailed results for overall satisfaction are included in Appendix B, and results for department satisfaction are included in Appendix C.

As shown in Appendix B, results comparing the likelihood of reporting satisfaction versus dissatisfaction showed that faculty members at private institutions were more likely to report higher overall institutional satisfaction than peers at public institutions. Except for those at baccalaureate colleges, male respondents were significantly more likely to report lower institutional satisfaction than female peers (no difference between men and women in likelihood of reporting high overall satisfaction in baccalaureate institutions). Race did not contribute to institutional satisfaction for those in master's and research institutions. However, all minority respondents at baccalaureate institutions (Black/African-American, Asian, and other minority group) had greater odds of reporting dissatisfaction compared to white peers. In doctoral institutions, respondents in the other race category were more likely to say they were dissatisfied than white peers.

Annual salary was highlighted in a few comparisons: In research institutions, those with a salary between $90,000 and $120,000 were more likely to be dissatisfied than peers who earned more than $120,000; in doctoral institutions; those who earned less than $45,000 were more likely to be dissatisfied than peers who earned more than $120,000; and in baccalaureate institutions, those with a salary between $45,000 and $90,000 were more likely to be dissatisfied than peers who earned more than $120,000. Analyses showed only one difference for the comparison of STEM versus non-STEM disciplines: STEM faculty in doctoral institutions were more likely to be dissatisfied than non-STEM peers.

Similar to analyses for overall institutional satisfaction, contributors to satisfaction with one's academic department were also analyzed, shown in Appendix C. There were a few, but notably limited number of variables that contributed to faculty member's satisfaction with their department. Compared to white peers, Black/African-American faculty in doctoral institutions were more likely to be dissatisfied, and those with salaries below $90,000 were more likely to be dissatisfied with their department than doctoral peers with salaries above $120,000. Baccalaureate faculty in public institutions were more likely to say they were dissatisfied with their department than peers in private institutions. Institution sector showed significance in department satisfaction in only one instance: respondents in public baccalaureate institutions were more likely to be dissatisfied than private peers.

Across all four types of institutions, the multinomial analyses showed that the six factors for environmental variables contributed significantly to overall institutional satisfaction, as well as satisfaction with one's department. Findings for these six factors seem to indicate that when respondents perceived greater environmental support, they were more likely to report satisfaction.

### Comparisons across institution type

A final analysis compared regression coefficients across institution type (for both the overall institutional satisfaction and department satisfaction questions). Following the method presented by Toutkoushian and Conley (2005), these t-tests comparisons used the multinomial regression coefficients shown in Appendices B and C. Results of the comparisons are shown in Appendix D. Although there were not many significant differences, some perceptions of satisfaction differed across institutional type. T-test results showed that women in research universities were significantly more likely to report low overall satisfaction than women peers in baccalaureate colleges. Conversely, instructors in research universities were more likely to report low satisfaction with their department than peers in baccalaureate institutions.[3]

Some of the factors related to the environment had greater or lesser impact on satisfaction depending on institutional type. Related to institutional satisfaction, perceptions of their department chair's effectiveness and dean's support were more important for faculty members in master's institutions compared to peers in baccalaureate institutions. T-test analyses showed that the contribution of advising and administrative tasks to institutional satisfaction was more important for faculty at research universities and doctoral institutions than at baccalaureate institutions.

T-test comparisons also were done to examine differences in satisfaction with one's department by institutional type. As shown in the lower portion of Appendix D, even fewer differences by institution were found in department satisfaction compared to institutional satisfaction, but three differences were found. Of note, the variable for salary up to $45,000 played a more important role in departmental satisfaction for doctoral institution faculty than their baccalaureate peers, and health and retirement benefits played a more important role in satisfaction differences between faculty at master's and baccalaureate institutions.

## Part II. Findings from interviews with faculty members

The second portion of this study sought to examine the lived experiences of faculty members and how their job satisfaction differs based on the type of institution where they work. This qualitative study consisted of interviews with 42 full-time tenured and tenure-track faculty members at six institutions[4] in the Southeast, Mid-Atlantic, and Midwest. Following human subjects' approval and piloting the interview questions, the researchers gathered names and contact information from each institution's public website. Faculty members to contact were chosen to ensure a mix of assistant, associate, and full professors from a variety of disciplines, as well as diversity in gender and race. The intentional selection of faculty was done to minimize possible bias. It is possible, however, that faculty

[3]   Given the small sample size of instructors, the author urges caution with regard to generalizing these results.

[4]   In all instances, institutions are referred to in plural form to further protect the confidentiality of participants and the institutions represented.

members who agreed to be interviewed were more or less satisfied than faculty as a group, but that is not known. Researchers contacted each potential participant via email and followed up via telephone to explain the purpose of the study and to request their participation. Following completion of a consent form (see Appendix E), each interview addressed the questions shown in Appendix F. Some interviews were conducted in a face-to-face setting on or near the faculty member's campus, while others were conducted via telephone or Skype.

**Participants**

Faculty interviews took place between November 2016 and February 2017. Table 3 below outlines participants' demographic information. Some participants either currently or previously held administrative positions in addition to their role as faculty, but the majority held only the faculty role. Immediately following each interview, researchers made pertinent field notes and all interviews were transcribed. Transcribed data was reviewed manually to develop general categories of responses and was further analyzed using Dedoose software (see dedoose.com).

| Table 3: Participants' demographic information | | |
|---|---|---|
| Rank | N | Percentage |
| Assistant | 13 | 30.9 |
| Associate | 18 | 42.8 |
| Full | 11 | 26.2 |
| Gender | N | Percentage |
| Male | 21 | 50.0 |
| Female | 21 | 50.0 |
| Years in Position | N | Percentage |
| 1-5 | 9 | 21.4 |
| 6-10 | 11 | 26.2 |
| 11-20 | 11 | 26.2 |
| 21+ | 10 | 23.8 |
| Unknown | 1 | 2.4 |
| Participants by Institutional Type | N | Percentage |
| Baccalaureate | 10 | 23.8 |
| Master's | 10 | 23.8 |
| Doctoral | 12 | 28.6 |
| Research | 10 | 23.8 |

## Findings from faculty interviews

Overall, faculty members demonstrated a relatively high level of job satisfaction. Forty-one of the 42 participants expressed clear satisfaction in their faculty role, and the majority reported high levels of satisfaction. When asked to rate their satisfaction on a 10-point scale, where 10 represented the highest level of satisfaction, the mean satisfaction score was 7.65 (SD=1.16). Faculty members at baccalaureate institutions had the highest satisfaction with a mean of 8.05, followed by master's institutions at 7.85, and doctoral institutions at 7.58. Research universities had the lowest satisfaction rate, at 7.15. Responses ranged between 5.0 and 9.5. An examination of interview responses revealed several key factors that influenced satisfaction across institution types. Findings are outlined and supported by participant quotes in the sections that follow.

## Findings across institution type

Analysis of the interview data revealed a number of findings that differed by institutional type. However, four findings were consistent across institutional type: 1) participants were critical of their employer despite their high levels of satisfaction; 2) autonomy plays a large role in job satisfaction; 3) participants desired higher salary levels, but generally their salary had little impact on their overall satisfaction; and 4) having a family was seen as a deterrent to a successful career in academia. Each finding is outlined and supported by representative interview excerpts below.

**Critical yet content.** Overall, participants eagerly identified factors that impacted their satisfaction when asked, and could critique their employers in detail with little effort. However, their detailed critiques generally did not demonstrate dissatisfaction. Instead, their critiques were representative of faculty members who are adept at inquiry, analysis, and ultimately, balanced perspective.

**Autonomy.** Participants identified autonomy as one of the strongest influences in their job satisfaction. This encompassed flexible schedules, freedom to create

programs and curriculum, and the ability to set their own research agenda. For example:

> "In academia, you have this sense of academic freedom where you can pursue your interest. So I'm not coming into a place that's just saying you have to do this research—it's open to me to be able to pursue the research that I'm focused on, so I'm very satisfied with that."

**Salary.** Contrary to previous studies (Howell, Load, Callahan, Servis, & Bonham, 2009; Pfeffer & Langton, 1993), salary levels did not demonstrate high impact on faculty satisfaction for most participants interviewed. Many stated they would appreciate a higher salary (especially those at master's institutions) and two (at doctoral-level institutions) spoke strongly about salary compression that had affected him or her adversely. However, other participants generally gave salary less weight among the overall factors that contribute to their satisfaction. Several participants who had been employed as faculty members for many years expressed appreciation that their salaries had grown over time. Overall, participants commented that the benefits of a faculty lifestyle far outweighed their concerns about salary. A comment typical of responses on salary:

> "Everybody wishes their salary was more—me included —but I have to say that I am satisfied with my salary. I think, you know, I've always viewed my job as a faculty member, that I am paid to pursue my own interests…I have always felt very privileged to be a faculty member."

Despite salary having relatively little impact on satisfaction, feelings of frustration were verbalized when participants had data for the salary of peers or peer institutions, and when they were paid below those benchmarks. In addition, some participants identified comparisons between disciplines as a source of dissatisfaction.

**Families.** A fairly consistent perception that having a family and/or children was a hindrance to success as an academic was common across institutional types. Fifteen individual excerpts expressed frustrations that their institutions did little to support families. For examples:

> "I think the best thing that they could do to improve life on campus would be to have a more robust parental leave policy and more adequate and accessible child care. I used my sabbatical to have one child and I used an outside grant to have my second child. So I paid for my own maternity leave both times—I'm still resentful!"

## Findings that varied by institution type

Although there were similarities among participants regardless of institution type, three thematic areas emerged that differed by institution type, including: 1) sense of belonging; 2) work expectations; and 3) power and politics. Each finding is described in detail and supported by representative interview excerpts below.

**Sense of Belonging.** Belonging, focused on institutional, community, and regional fit, emerged as a thematic area throughout the data analysis. This theme also encompasses the connection individuals felt with their institution and the people with whom they work. Some developed a sense of belonging quickly; for others, it took years. A few participants mentioned that they took the only job offered to them, but nevertheless they came to enjoy their institution and colleagues. Some participants said they sought or remained at a specific institution type or in a specific region of the country based on where they wanted to raise their family. For others, their sense of belonging was achieved through engagement with colleagues at an institution that shared their values. Some comments related to belonging broadly in the community, while others focused on a sense of community with colleagues. Interviewees at baccalaureate and master's institutions particularly valued colleagues and identified this theme more frequently than did participants at doctoral and research institutions. Examples include:

> "I was interested in a liberal arts setting…I was looking for a place that valued both high-quality teaching and high-quality scholarship. I was interested in small classrooms and developing genuine mentoring relationships with students."

> "My wife is a local. I went to school here. This job opened up and it was as much about a lifestyle choice and where we wanted to live as anything else."

Some participants were willing to make concessions regarding fit due to their life circumstances. This was prevalent across institutional type and often motivated by dual-career searches, spousal/partner hires, a difficult job market, or, at times, uniformed search processes. It is noteworthy that spousal hires were referenced most frequently at research institutions. While the institution, city, or regional fit contributed to a sense of belonging for many, it also had a negative impact on job satisfaction for other participants due to a low sense of belonging, which was most common at baccalaureate and master's institutions. In some cases, the negative impact was identified as isolation, often because of a specialized research agenda and no colleagues at their institution doing related work. A comment that illustrates this point:

> "There is no real community here of professional people who share my interests like there would be at a big school or there would be even if I was at a small school in a major metro area."

*Colleagues.* Colleagues contributed to one's sense of belonging and had a notable impact on satisfaction levels. Many interviewees noted colleagues as a top factor that positively impacted their overall job satisfaction (colleagues were mentioned a total of 43 times by 24 interviewees). However, nine of these comments indicated that colleagues had a negative impact on their job satisfaction. More specifically, responses from participants at master's, doctoral, and research institutions noted an overall positive impact of colleagues on job satisfaction. At baccalaureate institutions, however, responses were bifurcated: some

respondents reported that colleagues occasionally had a strong positive impact, while others said that colleagues had a negative impact on their job satisfaction. Examples of the range in responses include:

> "My colleagues are exceptional. It's the best working environment I've ever had. Fellow faculty here at this university have been second to none. They've been good friends—colleagues—so I think that's been very satisfying."

> "The whole concept of incivility and civility and behavior–that kind of stuff is often overlooked… there's a huge amount of ego in academia…you get beaten down enough with people not being nice and the egos—it makes it not as much of a nice place to work."

*Mentoring.* Individualized mentoring also appeared to a have high impact on job satisfaction. Mentoring programs have increased in recent years, as assistant professors described more focus on mentoring and more in-depth mentoring programs than full professors who often received little or no mentoring. Overall, when mentoring fit the needs of the mentee, it was a large positive contributor to participant's job satisfaction. Examples include:

> "I could not be who I am today, or be the mentor to others that I hope I am, without the influence of the strong mentors that I had."

> "The mentoring has been an important piece, and has impacted my satisfaction and made me feel more satisfied here."

Results regarding mentoring varied by institutional type. Participants at master's and doctoral institutions were consistent in the ways they valued mentoring; however, they articulated specific expectations of mentors, including that they have the time and skills necessary to engage in a long-term mentoring relationship. Absent appropriate mentoring skills and availability, the mentoring relationship had a negative impact on

satisfaction. At baccalaureate institutions, mentoring seemed to be most often focused on acculturation to the campus environment and teaching. Participants reported that having a mentor who shared their discipline was helpful, but not required to have a positive impact on their job satisfaction. Results varied at research institutions: Generally, participants at research institutions desired more mentoring than they were provided. In addition, participants wanted a mentor who could specifically assist with the challenges of research, securing grants, and navigating the tenure process within their discipline, yet few were provided that. Participants' experiences with mentoring at research institutions also varied greatly by department.

*Student Interactions and Teaching.* While student interactions and teaching were not specifically addressed in the questions that comprised the semistructured interviews in this study, they were among the most commonly raised topics throughout the responses. Of the excerpts that were coded for student interaction and teaching, the majority (78%) were positive in nature, while only 17% were negative and 5% were neutral. Positive responses were most common at baccalaureate and master's institutions. Examples include:

> "I never ran into a situation where my soul was being served by doing [research]. I couldn't see the world changing much—I see the world change a lot more when I see a light bulb go on over a student's head."

The impact of student interactions and teaching varied at doctoral and research institutions, having both positive and negative influence on job satisfaction. At doctoral institutions, the results skewed positive, but at research institutions, student interactions and teaching were nearly equal in their positive and negative impact on participants' job satisfaction. In addition, at research institutions, faculty articulated that teaching was not emphasized or rewarded in their role.

"The least satisfying is when students aren't interested, they don't care, they don't want to be there."

"Teaching is done at a service level. So anyone who spends time trying to be a good teacher— there are consequences for that."

**Work Expectations.** The second thematic area that emerged in the findings centered on work expectations, which played a substantial role in participants' satisfaction. This thematic area encompasses expectations from employers, the ability to balance work realities with outside life, and navigating the tenure and promotion process. Many participants articulated frustration and dissatisfaction with increasing levels of bureaucracy at their institutions. Of the three thematic areas, work expectations varied the most across institutional types. Due to this variation, this theme is reported below by institutional type.

***Work Expectations at Baccalaureate Institutions.***
Participants at baccalaureate institutions noted pressure to fulfill very high or perhaps unrealistic expectations as a teacher, researcher, advisor, mentor, and administrator—a finding that seemed incongruent with quantitative survey results from Part I of this study. Participants who were interviewed appeared to have a bifurcated relationship with service, understanding that it was both essential to maintaining academic freedom and faculty governance, but frustrated that much of their work was not rewarded. The excerpts below provide examples of work expectations at baccalaureate institutions:

"One of the things that is different about liberal arts colleges from other places is how much we are expected to run things…no one teaches you about that in graduate school."

"We're constantly confronted with the fact that if everyone did just what's required, we'd be in terrible shape in about a day."

Participants at baccalaureate institutions described a unique relationship with their work-life balance. For some, the college encroached on their personal life in unhealthy ways, while others chose a baccalaureate institution specifically due to the blurred lines between work and life. Overall, participants at baccalaureate institutions connected with the values of their institution, including placing a high value on both teaching and research. They appreciated the flexibility their work allowed, but noted that the balance was challenging and impacted satisfaction, as evidenced below:

"I keep thinking that I'm going to figure out how to do research during the semester, and I just so far have not figured that out. So most of my scholarship happens during summer."

"I don't think of my work as like transactional… they've given me this very comfortable setup; there's going to be sixty-hour weeks in that. There's going to be coming in on weekends and working nights occasionally."

Participants at baccalaureate institutions also consistently noted that unrealistic expectations were placed upon them, particularly expectations outside of the tenure process and reward structures. Their concerns ranged from advising undeclared majors to administrative tasks or extensive committee work. Tenure and promotion committees at the baccalaureate institutions in this study were comprised of faculty members from across campus, and unlike larger universities, the tenure and promotion process did not appear to be dictated by the school or department. Because of this, the tenure and promotion processes at the baccalaureate institutions seemed vague to some participants; perhaps this reflects each discipline's nuances and expectations. Lack of clear expectations and guidelines seemed to lead to confusion among participants about what was expected, and concern over rising expectations for tenure and promotion. Examples include:

"Everybody wants a checklist…if I just do these things, I'm all set. And our institution doesn't work that way…different factors all come into play—it's not a quantitative decision and it's not a qualitative decision. It's a comprehensive, holistic decision, and I just think the nature of it is that it's frustrating."

***Work Expectations at Master's Institutions.*** Unlike findings from the survey results in Part I of this study, interviews with faculty at master's institutions demonstrated the highest level of overall satisfaction regarding their work expectations. Despite their positive attitude, interviewees at master's institutions said they had large teaching loads, and research expectations varied at the institutions in this study. They commented that they did not have enough time to be the type of teacher they wished they could be and that they had to adjust their own expectations to better manage their work-life balance. For example:

> "My daughter drew a picture of me—when she was 9—they had to draw a picture of what your mom does at work and she drew a picture of me answering email…that's not what I thought I was going to be doing with my PhD."

Unlike interviewees at baccalaureate institutions, participants at master's institutions articulated an ability to adjust their own expectations and still meet their employers' expectations. In addition, they reported that as they progressed in their careers, they saw their employers' expectations as realistic and attainable, and that they were able to achieve a strong balance between work and life. For example:

> "This is a great place to work to have kids. That was one of the reasons why I took the job, because I knew this was not going to be a publish-or-perish university…this job has really afforded me time to spend with my family."

> "I have a really great work-life balance and that impacts positively. That was a reason why—one of the major reasons why—I chose the smaller college setting vs. the R1 institution…I have a 6-year-old and I want to be a better parent."

Regarding clarity of the promotion and tenure process, participants at master's institutions varied in their opinions. However, overall they identified tenure and promotion as low sources of stress. The general ethos regarding tenure at master's institutions appeared to be that the institution wanted to support faculty through the process and clarify any confusion so that they achieve tenure and can be promoted.

***Work Expectations at Doctoral Institutions.*** Similar to participants at master's institutions, participants at doctoral institutions struggled with their overall workload, but reported that their work was manageable and that they were able to achieve a satisfactory work-life balance. Unlike participants at baccalaureate institutions, participants at doctoral institutions desired distinct separation between work and life, and appreciated that their positions allowed them the flexibility to manage the work-life balance in a way that worked for them. For example:

> "I wish there were more time in the day…it's not that I don't like teaching, I absolutely love teaching. I love mentoring—I love all of that. I just find it very hard to do it all."

> "I live just outside of the city—I need to have some balance…I need to have some time away from the university. I'm also married and have small children…we need to have a life that's separate."

Faculty interviewees at doctoral institutions stood out from other interviewees in their frustration with their institutional leaders' decisions to manage with a more business-model approach. Examples of this perspective include:

> "The emphasis is on producing a product that can be counted. And that's not how you measure success in education. It's what satisfies [the] state legislature…it becomes an attitude that the students are here for the benefit of the university."

> "Our faculty are still involved in everything, but increasingly I just have this feeling that everything is a foregone conclusion…it's more of that corporate mentality of the CEO and everything is top-down."

***Work Expectations at Research Institutions.*** Although teaching expectations were mentioned less frequently by faculty members at research institutions than by participants at other types of institutions, many discussed the rigor of academic positions and their preparation for the pace and rigor. Service was mentioned, but not as frequently as by participants at other institutional types. Generally, for participants at research institutions, the overall high employer expectations matched their own expectations, and did not seem to have a notable impact on their satisfaction levels. However, some participants noted frustrations with their work, including additional administrative tasks or classroom accommodations that were beyond their expectations. An example of these experiences includes:

> "I work all the time—but I expect that. Like I said, I [we] chose [the institution] because the community offered the most opportunity for family life."

While working expectations and work-life balance were not a top concern for participants at research institutions, comments on the tenure process ranged widely. For some, it was a great source of frustration and at times, dissatisfaction. For others, tenure and/or promotion appear to be taken in stride. Examples that show the range of responses include:

> "I would say [promotion and tenure] was clear because when I came here there was a Provost that really pushed each department to write very clear guidelines."

> "I had a terrible experience with tenure…they put me forward early and I was shot down, and I just thought, oh my God, I have to utter the words I didn't get tenure… It's kind of a ritual hazing."

**Perceptions of politics and power.** The third thematic area of findings encompasses power and politics, which seemed to play an integral role in participants' satisfaction. This thematic area includes perceptions of privilege and oppression; the level of voice or agency participants felt that they had at their institution;

perceptions of institutional leadership; and the impact of state and national politics.

***Perceived Privilege and Oppression.*** Perceptions of privilege and oppression, as described by participants, includes how individuals felt their social identity impacted their experiences, as well as how various systems were benefiting specific privileged individuals. While participants at all institutional types discussed the ways in which privilege and oppression impacted their experience on campus, the theme was most common with interviewees at baccalaureate institutions. Of the 39 excerpts coded for privilege and oppression, 21— more than half—were from faculty at baccalaureate institutions.

The interview excerpts within this theme illustrate the sense of marginalization various participants felt. Further, there was a noteworthy difference in overall satisfaction scores between white participants and participants of color. As noted previously, the average satisfaction score for all participants was 7.65 on a 10-point scale. White participants' satisfaction averaged 7.87, while participants of color had an average satisfaction rate of 7.27. Examples include:

> "I realized that when I got here, there are very few minorities and that started to affect me and I began to feel very isolated…it was hard for people to acknowledge or recognize my experience…They hadn't had a person of color before, so they didn't know to anticipate the additional work that faculty of color perform by mentoring students of color."

> "I'm gay, and I've been openly gay almost from the first day I walked on this campus…but I never really felt that our University does much to help their lesbian, gay, transgender faculty or students."

> "It is very hard to ask prospective students of color to come to a university where they don't see anyone like themselves."

*Agency and Voice.* Participants at each institutional type commented on ways in which they felt their voice mattered or how they could impact positive change on campus. The ability to impact change appeared to be a positive influence on job satisfaction. Participants varied in the levels of agency they felt they had at their institutions. (In this context, agency refers to the set of behaviors and perceptions held by an individual, and one's ability to be intentional in influencing actions in life.)

At baccalaureate institutions, participants generally felt as though they had the agency necessary to impact change at any level within the campus. Participants identified this process as neither particularly good nor bad, but required for positive change to occur. An example from a baccalaureate institution includes:

> "I wouldn't say that I go around being outraged all the time, but nor do I feel like everything is just fine…I don't feel completely satisfied, for example, with student evaluations. But there's a working group meeting about that actively right now."

Participants at master's and doctoral institutions described agency and voice similarly. In general, participants at these institutions felt that they had the ability to impact change within their departments, and occasionally their colleges, but very limited ability to impact university-level change. Participants often noted that only if elected or promoted to positions of power, or by gaining the trust of key administrators, could they impact change at the institutional level. While this was frustrating to many participants, as an isolated factor it had little impact on satisfaction overall. Examples include:

> "My personal experience is that when I want to get engaged and when I want to get involved in the issue, I'm listened to."

> "I feel like what goes on in the department is much more transparent than what goes on at higher administrative levels."

At research institutions, some participants said that they felt they had little agency or voice in decision making.

Participants at research institutions seemed to have less trust in faculty governance processes at their universities than did those at other institutional types. The only instances identified where participants felt they had the ability to impact change appeared to be when they were in a position of leadership, including department chair or a position within a dean or provost's office. Examples supporting this finding include:

> "University senate and that sort of thing are just sort of sham operations—they don't do anything productive as far as changing real policies or importance."

> "I feel that my voice counts for decision making mainly because I make a lot of the decisions [in my role]. But when it comes to the university senate, I believe we have a very, very weak senate."

*Leadership.* Leadership was a key factor influencing how participants felt power and politics played out on their campuses. Leadership defined herein included department chairs, deans, provosts, presidents, and where applicable, state university system leaders. Throughout the data collected, 53 excerpts contained a reference to leadership. Of those 53, 16 (30%) noted a positive impact on job satisfaction, 22 (42%) identified leaders as having a negative impact on job satisfaction, and 15 (28%) were neutral with regard to the impact of leadership on satisfaction levels.

Participants at baccalaureate institutions had no comments that were distinctly negative, a finding that supports the overall high levels of satisfaction among faculty at baccalaureate institutions:

> "We have a president who is very interested in these issues and we've also hired a new provost who cares deeply about diversity. If these weren't there—probably I wouldn't be as hopeful about the future. Leadership matters in how faculty [and] staff feel, especially junior faculty."

"I would say sometimes the college priorities don't align with the department priorities. But I appreciate and understand why the college is making the decisions it is making."

Responses from faculty members at master's and doctoral institutions were mixed. The responses from participants at master's institutions were one-third positive. At doctoral institutions, there was an even split between the ways leadership positively and negatively impacted job satisfaction. Examples include:

"I get the feeling from the administration of a sort of erosion of respect for faculty. Faculty are often viewed as a nuisance."

"I find myself increasingly at odds with the policies developed by the upper administration…I don't know that I fully trust them to be in the best interest of the students. It's in the best interest of the university and administration."

At research institutions, there was just one comment among the 12 within the theme of leadership that was positive. All others were negative or neutral, including:

"Since I've been here, several people have left and almost every one of them left because of the previous chair."

"I think it is crippling for an institution to have an autocratic leader who really does not care for the history or the expertise of the place."

***State/National Politics.*** This study was conducted during a turbulent time in American politics. A new U.S. president, as well as gubernatorial shifts that directly impacted specific institutions within this study, may have played a notable role in participants' satisfaction levels. Responses related to state and national politics were made mostly by faculty participants at master's and doctoral institutions. Specifically, 22 of the 25 excerpts coded for politics came from faculty at master's and doctoral institutions. It is quite possible that the skewed responses had little to do with institution type and instead are a result of state politics and/or general

perceptions of national leadership that may be impacting specific institutions and individuals. It is also important to note that none of the semistructured interview questions asked about politics, yet on 25 occasions participants expressed concern about how politics were impacting their satisfaction. Examples of how politics impacted faculty satisfaction include:

"Another challenge has been responding to cultural climate in the classroom and feeling like at least in certain fields…[the government and board of governors are] saying it's not valued…I have to justify why you should learn this material."

"It's the subject of news reports—we're losing faculty because our salaries are low."

"We've been told that if there's an opportunity for you, take it at any university [outside of the state]."

## Limitations

The quantitative portion of this study is based on self-report and it does not include responses from part-time faculty members. Although respondents were fairly evenly distributed by rank, the sample is not evenly balanced across all tenure levels, and may not represent the nontenured or tenure-track faculty as well as tenured faculty. The choice to use the two questions herein, *overall satisfaction* and *the department as a good place to work*, align with recommendations on global satisfaction measures by Jackson & Corr (2002) and Scarpello & Campbell (1983), but it is possible that other questions, or a combination of other questions, might provide other insights into faculty members' work satisfaction.

Findings from the qualitative portion of this study are not generalizable, but it appears that they are reasonably representative of faculty member perceptions across four-year institution types. The study assumes that participants shared honest comments in their interviews; they could have given socially acceptable answers, but that did not appear to be the case. This study stratified by institutional type, but only minimally

explored satisfaction for individuals at public vs. private institutions, and the sample size was too small to explore intersections of identity (Black women, Asian men, queer people of color, etc.). A larger sample of interviews stratified by specific demographic and institutional characteristics would be needed to do so. Based on interviewee comments, it seemed clear that mentoring plays a vital role in satisfaction levels, yet just which factors impact the success of the mentoring relationship remain unclear from our limited discussions. Findings from both portions of this study are limited in that data was gathered only from those who remained in an academic appointment; we do not know if satisfaction levels were a major or the deciding factor for those who left academia.

## Discussion and implications

Postsecondary institutions invest substantial resources in their faculty. Leaders of these institutions, which are highly dependent on their human resources to achieve their missions, need to better understand satisfaction of faculty members and associated dimensions of productivity. Because faculty members serve as role models and mentors to students who will become future leaders in society, it is especially important that we understand their work roles, how satisfaction affects attrition, and how faculty members can continue to contribute to student learning, community improvement, and broader knowledge production. Overall, results from this mixed-methods study illuminate factors that affect satisfaction levels of today's faculty, and clearly indicate that institutional culture is a key influence.

Findings from this study show that although some faculty report lower satisfaction and a few expressed enough dissatisfaction to consider leaving their current institution, the majority of full-time faculty members were reasonably satisfied with their work. Quantitative survey data showed that about two-thirds to three-quarters of the respondents indicated that, overall, they were "somewhat" or "very satisfied." It is noteworthy that women reported lower salaries but did not report lower overall satisfaction. This was also true in the interview portion of the study, although interview comments did not indicate large perceived differences in salary by gender.

The majority of interviewees mentioned the desire for higher salaries, but only a few said they had considered leaving due to factors such as low salary or salary compression. These findings seem to reflect components of relative happiness (Veenhoven, 1991), which proposes that a main postulate of happiness is one's ability to participate in the conscious mental process that assesses the degree to which one's actual life aligns with the standards of what one's life should be. In other words, the better the fit, the happier the person. If salary is seen as a reasonable fit with what one expects, then job satisfaction may be more positive.

Although it was not evidenced strongly in the survey data, a few women interviewees spoke passionately about the need for greater family-friendly policies. Several interviewees (both men and women) spoke about the added challenge of having children while on the tenure track. Senior leaders should examine policies related to work-life balance such as stop-the-clock policies. They also should continue to monitor satisfaction levels and the percentage of women who move successfully through promotion and tenure, provide mentors, and develop clear guidelines for the promotion and tenure process.

A few differences were found by faculty member race/ethnicity, and some interviewees expressed clear concerns about the lack of embrace they felt from leaders of their institutions. Perhaps the differences seen, or lack thereof, were due to the limited sample of interviewed individuals, the survey sample, or interviewees' hesitancy to speak up strongly. Because they were not a focus of the study, however, these issues were not pursued in depth.

Qualitative interviews with faculty members generally confirmed the overall satisfaction levels found in the survey data; however, many of the qualitative participants were quite articulate about their areas of concern. It is difficult to know if their concerns generalize to other faculty beyond this small sample, but these individuals reflected on their high quality of life and contentment with their career choice. Individuals in baccalaureate and master's institutions seemed to be able to balance work-life activities better than those in doctoral and research universities. Across the board, many interviewees spoke

of an increase in overall work, and quite a few spoke of dissatisfaction with the increasing bureaucracy that seemed to be penetrating their higher education setting. These faculty interviews indicate the importance of one's work environment, which also was indicated in the quantitative analysis of factors that contributed to respondents' reports of satisfaction. These findings also resonate with previous works by Deiner (1994) and Judge and Hulin (1993) on the links between subjective well-being and job satisfaction.

Findings from both survey data and faculty interviews indicate that mentoring junior faculty is important. The level and perceived effectiveness of mentoring varied by type of institution. Interview data appeared to show the happenstance nature of some faculty mentoring programs: some participants said they received and benefitted from such interactions, while others had negative experiences. Although it is difficult to make generalizations about mentoring from the data collected here, there were many more general comments from faculty in baccalaureate institutions than from other institution types that spoke to their positive interactions with colleagues and how that benefitted their work and their satisfaction. These findings are generally consistent with those from Rice and Austin (1990).

Faculty interviewees from doctoral or research universities spoke of a high workload; indeed, a few said they "work all the time," which seems counter to achieving a satisfactory work-life balance. This finding is consistent with previous reports on hours devoted to work in the *National Survey of Postsecondary Faculty* (e.g., Schuster & Finkelstein, 2006; Webber, 2011). The culture and work expectations at doctoral and research universities appear to require faculty to expend more hours per week on their work tasks than do those at master's and baccalaureate institutions. Although interviewees at master's and baccalaureate institutions said they were involved in a range of tasks beyond teaching, none mentioned a high focus on research. The findings herein are consistent with general differences and expectations of faculty by institution type (Schuster & Finkelstein, 1986); in general, faculty in baccalaureate institutions apportion greater amounts of time and effort

to instruction, while faculty in doctoral and research universities typically apportion more time and effort to research.

Higher education leaders at colleges and universities should continue to monitor indicators of faculty satisfaction on a regular basis. Senior leaders may also wish to examine how organizational changes such as the move to more part-time and fewer full-time and tenure-track faculty affect faculty satisfaction levels, as well as the students with whom these faculty interact. Even if institutions see a positive financial gain in the shift to more part-time or non tenure-track faculty, they also may experience unintended consequences such as lower extramural grant funding, lower levels of faculty morale, lower levels of student learning, less interaction with community members, and, ultimately, higher faculty attrition rates. In addition, future studies may wish to explore differences in salary by gender in greater depth, as well as the fact that lower salaries did not appear to adversely affect women's reported satisfaction levels. Salary and gender (as well as race) are intertwined and influenced by many factors, including academic discipline, geographic region, and institution type and sector. Finally, because salary levels directly affect current and future financial security, future studies may wish to delve into this issue as well.

Ensuring that early career faculty members fully understand what is expected of them in their work role is critical. Work environments that support collegial relationships among faculty members can positively affect not only satisfaction levels, but also the decision whether to stay in place or move to another position—either within or outside academe. Ongoing mentorship, discussions, and workshops can help address faculty concerns, and systematic reviews of salary levels by gender and race within departments and across state systems (where applicable) is encouraged. Further, regular reviews of current policies, work roles, and performance expectations can help ensure that all faculty fully understand how to seek assistance, where to go if questions arise, and what is expected of them to achieve success.

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## Appendix A

| Principal components analysis factor loadings and reliabilities | Factor Loadings | Internal Consistency (alpha) |
| --- | --- | --- |
| **Effectiveness of the Department Chair** | | 0.949 |
| My department head's or chair's pace of decision making[a] | 0.846 | |
| My department head's or chair's stated priorities[a] | 0.889 | |
| My department head's or chair's communication of priorities to faculty[a] | 0.878 | |
| My department head's or chair's ensuring opportunities for faculty to have input into departmental policy decisions[a] | 0.851 | |
| My department head's/chair's fairness in evaluating my work[a] | 0.769 | |
| **Feelings of Fit and Mentoring** | | 0.854 |
| Mentoring from someone in your department[b] | 0.436 | |
| The intellectual vitality of tenured faculty in your department[a] | 0.733 | |
| The intellectual vitality of pre-tenure faculty in your department[a] | 0.635 | |
| How well you fit in your department (e.g., your sense of belonging in your department)[a] | 0.723 | |
| The amount of professional interaction you have with tenured faculty in your department[a] | 0.749 | |
| My departmental colleagues "pitch in" when needed[c] | 0.682 | |
| On the whole, my department is collegial[c] | 0.746 | |
| **Communication from the Department Chair** | | 0.934 |
| In adapting to the changing mission, I have received sufficient support from my dean or division head[c] | 0.559 | |
| My dean's or division head's pace of decision making[a] | 0.866 | |
| My dean's or division head's stated priorities[a] | 0.900 | |
| My dean's or division head's communication of priorities to faculty[a] | 0.902 | |
| My dean's or division head's ensuring opportunities for faculty to have input into school/college priorities[a] | 0.861 | |
| **Ability to Balance Work Roles** | | 0.754 |
| Portion of time spent on teaching[a] | 0.601 | |
| Portion of time spent on research[a] | 0.780 | |
| I am able to balance the teaching, research, and service (and clinical, if applicable) activities expected of me[c] | 0.776 | |
| I have been able to find the right balance, for me, between my professional life and my personal/family life[c] | 0.688 | |
| **Health and Retirement Benefits** | | 0.839 |
| Health benefits for yourself[a] | 0.896 | |
| Health benefits for your family (e.g., spouse, partner, and dependents)[a] | 0.887 | |
| Retirement benefits[a] | 0.700 | |
| **Advising & Administrative Tasks** | | 0.753 |
| The number of committees on which you serve | 0.788 | |
| The discretion you have to choose the committees on which you serve[a] | 0.719 | |
| The number of students you advise/mentor (including oversight of independent study, research projects, internships, study abroad)[a] | 0.443 | |
| Portion of time spent on service (e.g., department/program administration, faculty governance, committee work, advising/mentoring students, speaking to alumni or prospective students/parents)[a] | 0.640 | |

[a] Five-point scale: Very dissatisfied=1 to Very satisfied=5; [b] Five-point scale: Very ineffective=1 to Very effective=5;

[c] Five-point scale: Strongly disagree=1 to Strongly agree=5

## Appendix B

| Multinomial regression results, overall satisfaction | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Research Universities | | | | | Doctoral Universities | | | | |
| | Coef. | RRR | Std. Err. | z | p | Coef. | RRR | Std. Err. | z | p |
| **Strongly + Somewhat Disagree** | | | | | | | | | | |
| Gender-Female | -0.555 | 0.574 | 0.173 | -3.20 | *** | -0.2430 | 0.7843 | 0.1136 | -2.14 | * |
| Rank-Instructor | -1.636 | 0.195 | 1.273 | -1.29 | | -0.9209 | 0.3982 | 0.4074 | -2.26 | * |
| Rank-Associate | 0.010 | 1.010 | 0.230 | 0.04 | | -0.4351 | 0.6472 | 0.1392 | -3.13 | ** |
| Rank-Assistant | -0.232 | 0.793 | 0.310 | -0.75 | | -0.5527 | 0.5754 | 0.1723 | -3.21 | *** |
| Race-Black/AfrAm | 0.028 | 1.028 | 0.379 | 0.07 | | 0.0366 | 1.0372 | 0.2184 | 0.17 | |
| Race-Asian | 0.186 | 1.205 | 0.291 | 0.64 | | 0.3516 | 1.4213 | 0.2155 | 1.63 | |
| Race-Other | -0.077 | 0.926 | 0.272 | -0.28 | | 0.3409 | 1.4062 | 0.1802 | 1.89 | * |
| Marital status-Single | 0.090 | 1.094 | 0.206 | 0.44 | | -0.1651 | 0.8478 | 0.1369 | -1.21 | |
| Sector-Public | 0.492 | 1.636 | 0.206 | 2.39 | ** | 0.2953 | 1.3435 | 0.1306 | 2.26 | * |
| Salary up to $45K | 0.585 | 1.796 | 1.386 | 0.42 | | 1.2570 | 3.5149 | 0.5199 | 2.42 | * |
| Salary $45 to$90K | 0.538 | 1.713 | 0.301 | 1.78 | | 0.1822 | 1.1998 | 0.1979 | 0.92 | |
| Salary $90K to $120K | 0.552 | 1.737 | 0.287 | 1.93 | * | 0.1839 | 1.2020 | 0.2031 | 0.91 | |
| STEM discipline | 0.211 | 1.235 | 0.184 | 1.15 | | 0.3198 | 1.3768 | 0.1146 | 2.79 | ** |
| Age | 0.017 | 1.017 | 0.011 | 1.44 | | -0.0001 | 0.9999 | 0.0063 | -0.02 | |
| Factor 1-Chair Effectiveness | -0.528 | 0.590 | 0.091 | -5.79 | *** | -0.3235 | 0.7236 | 0.0505 | -6.41 | *** |
| Factor 2-Fit & Mentoring | -1.149 | 0.317 | 0.086 | -13.38 | *** | -1.0501 | 0.3499 | 0.0547 | -19.21 | *** |
| Factor 3-Dean Communic | -1.004 | 0.366 | 0.176 | -5.70 | *** | -0.6221 | 0.5368 | 0.0497 | -12.52 | *** |
| Factor 4-Role Balance | -1.028 | 0.358 | 0.084 | -12.17 | *** | -0.8500 | 0.4274 | 0.0566 | -15.02 | *** |
| Factor 5-HR Benefits | -0.632 | 0.531 | 0.086 | -7.37 | *** | -0.4936 | 0.6104 | 0.0518 | -9.54 | *** |
| Factor 6-Advising & Admin | -0.785 | 0.456 | 0.084 | -9.38 | *** | -0.6234 | 0.5361 | 0.0522 | -11.93 | *** |
| constant | -3.375 | 0.034 | 0.745 | -4.53 | *** | -1.7917 | 0.1667 | 0.4250 | -4.22 | *** |

RRR=relative risk ratio
base group=Strongly+ Somewhat Agree
*** p <.001, ** p< .01, * p <.05

## Appendix B, cont.

### Multinomial regression results, overall satisfaction

| | Research Universities | | | | | Doctoral Universities | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Coef. | RRR | Std. Err. | z | p | Coef. | RRR | Std. Err. | z | p |
| **Neither Disagree Nor Agree** | | | | | | | | | | |
| Gender-Female | -0.213 | 0.808 | 0.172 | -1.24 | | -0.5947 | 0.5517 | 0.1234 | -4.82 | *** |
| Rank-Instructor | 0.374 | 1.453 | 0.714 | 0.52 | | -0.6223 | 0.5367 | 0.4225 | -1.47 | |
| Rank-Associate | 0.168 | 1.183 | 0.243 | 0.69 | * | -0.0875 | 0.9162 | 0.1460 | -0.60 | |
| Rank-Assistant | 0.449 | 1.566 | 0.306 | 1.47 | | -0.1698 | 0.8438 | 0.1819 | -0.93 | |
| Race-Black/AfrAm | -0.161 | 0.852 | 0.399 | -0.40 | | 0.3233 | 1.3817 | 0.2165 | 1.49 | |
| Race-Asian | 0.389 | 1.475 | 0.279 | 1.40 | | 0.7993 | 2.2240 | 0.1923 | 4.16 | *** |
| Race-Other | 0.493 | 1.638 | 0.241 | 2.05 | * | 0.2216 | 1.2481 | 0.1988 | 1.11 | |
| Marital status-Single | 0.152 | 1.164 | 0.203 | 0.75 | | 0.0376 | 1.0383 | 0.1419 | 0.27 | |
| Sector-Public | 0.685 | 1.983 | 0.198 | 3.45 | *** | -0.1712 | 0.8426 | 0.1289 | -1.33 | |
| Salary up to $45K | -12.741 | 0.000 | 455.221 | -0.03 | | 1.1727 | 3.2306 | 0.5237 | 2.24 | ** |
| Salary $45 to$90K | 0.377 | 1.458 | 0.327 | 1.15 | | 0.0601 | 1.0619 | 0.1992 | 0.30 | |
| Salary $90K to $120K | 0.594 | 1.811 | 0.309 | 1.92 | * | 0.1050 | 1.1107 | 0.2056 | 0.51 | |
| STEM discipline | 0.238 | 1.268 | 0.182 | 1.31 | | 0.0509 | 1.0522 | 0.1209 | 0.42 | |
| Age | 0.007 | 1.007 | 0.011 | 0.64 | | 0.0015 | 1.0015 | 0.0064 | 0.23 | |
| Factor 1-Chair Effectiveness | -0.389 | 0.678 | 0.092 | -4.22 | *** | -0.2261 | 0.7977 | 0.0543 | -4.16 | *** |
| Factor 2-Fit & Mentoring | -0.591 | 0.554 | 0.088 | -6.74 | *** | -0.6512 | 0.5214 | 0.0571 | -11.41 | *** |
| Factor 3-Dean Communic | -0.408 | 0.665 | 0.174 | -2.34 | * | -0.3884 | 0.6782 | 0.0519 | -7.48 | *** |
| Factor 4-Role Balance | -0.509 | 0.601 | 0.083 | -6.16 | *** | -0.5278 | 0.5899 | 0.0586 | -9.00 | *** |
| Factor 5-HR Benefits | -0.476 | 0.621 | 0.088 | -5.42 | *** | -0.3628 | 0.6957 | 0.0548 | -6.62 | *** |
| Factor 6-Advising & Admin | -0.503 | 0.605 | 0.083 | -6.04 | *** | -0.4226 | 0.6554 | 0.0551 | -7.66 | *** |
| constant | -3.164 | 0.042 | 0.735 | -4.31 | *** | -1.5149 | 0.2198 | 0.4292 | -3.53 | *** |

RRR=relative risk ratio
base group=Strongly+ Somewhat Agree
*** p <.001, ** p< .01, * p <.05

## Appendix B, cont.

| Multinomial regression results, overall satisfaction | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Master's Institutions** | | | | | **Baccalaureate Institutions** | | | | |
| | Coef. | RRR | Std. Err. | z | *p* | Coef. | RRR | Std. Err. | z | *p* |
| **Strongly + Somewhat Disagree** | | | | | | | | | | |
| Gender-Female | -0.7485 | 0.4731 | 0.1996 | -3.75 | *** | -0.0970 | 0.9075 | 0.0613 | -1.58 | |
| Rank-Instructor | -0.3073 | 0.7355 | 0.6710 | -0.46 | | -0.4240 | 0.6544 | 0.1908 | -2.22 | * |
| Rank-Associate | -0.3806 | 0.6835 | 0.2359 | -1.61 | | -0.1197 | 0.8872 | 0.0740 | -1.62 | |
| Rank-Assistant | -0.4214 | 0.6561 | 0.3155 | -1.34 | | -0.1421 | 0.8675 | 0.0960 | -1.48 | |
| Race-Black/AfrAm | 0.4088 | 1.5051 | 0.4378 | 0.93 | | 0.4323 | 1.5407 | 0.1498 | 2.89 | ** |
| Race-Asian | 0.1849 | 1.2031 | 0.3103 | 0.60 | | 0.6922 | 1.9981 | 0.0869 | 7.96 | *** |
| Race-Other | 0.1723 | 1.1880 | 0.3222 | 0.53 | | 0.2543 | 1.2895 | 0.1037 | 2.45 | ** |
| Marital status-Single | -0.0799 | 0.9232 | 0.2288 | -0.35 | | 0.0875 | 1.0914 | 0.0757 | 1.15 | |
| Sector-Public | 0.4455 | 1.5612 | 0.2001 | 2.23 | * | 0.3090 | 1.3620 | 0.0888 | 3.48 | *** |
| Salary up to $45K | -0.5863 | 0.5564 | 1.2426 | -0.47 | | 0.1247 | 1.1328 | 0.2591 | 0.48 | |
| Salary $45 to$90K | 0.0831 | 1.0867 | 0.2718 | 0.31 | | 0.2708 | 1.3111 | 0.0791 | 3.43 | *** |
| Salary $90K to $120K | 0.0693 | 1.0717 | 0.2755 | 0.25 | | 0.1309 | 1.1399 | 0.0744 | 1.76 | |
| STEM discipline | 0.2497 | 1.2836 | 0.1831 | 1.36 | | 0.0648 | 1.0670 | 0.0584 | 1.11 | |
| Age | 0.0124 | 1.0125 | 0.0103 | 1.21 | | 0.0146 | 1.0147 | 0.0033 | 4.47 | *** |
| Factor 1-Chair Effectiveness | -0.4941 | 0.6101 | 0.0792 | -6.23 | *** | -0.5695 | 0.5658 | 0.0259 | -22.02 | *** |
| Factor 2-Fit & Mentoring | -1.3152 | 0.2684 | 0.0994 | -13.23 | *** | -1.2868 | 0.2762 | 0.0300 | -42.94 | *** |
| Factor 3-Dean Communic | -0.5390 | 0.5834 | 0.0849 | -6.35 | *** | -0.8177 | 0.4414 | 0.0274 | -29.82 | *** |
| Factor 4-Role Balance | -0.9319 | 0.3938 | 0.0949 | -9.82 | *** | -0.8780 | 0.4156 | 0.0305 | -28.80 | *** |
| Factor 5-HR Benefits | -0.5127 | 0.5989 | 0.0906 | -5.66 | *** | -0.5236 | 0.5924 | 0.0269 | -19.47 | *** |
| Factor 6-Advising & Admin | -0.3760 | 0.6866 | 0.0869 | -4.33 | *** | -0.5994 | 0.5491 | 0.0280 | -21.39 | *** |
| constant | -2.5426 | 0.0787 | 0.6757 | -3.76 | *** | -3.0615 | 0.0468 | 0.2177 | -14.06 | *** |

RRR=relative risk ratio
base group=Strongly+ Somewhat Agree
*** p <.001, ** p< .01, * p <.05
reference categories: fulll professor, white race, salary > $120K

## Appendix B, cont.

| Multinomial regression results, overall satisfaction | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Master's Institutions** | | | | | **Baccalaureate Institutions** | | | | |
| | Coef. | RRR | Std. Err. | z | *p* | Coef. | RRR | Std. Err. | z | *p* |
| **Neither Disagree Nor Agree** | | | | | | | | | | |
| Gender-Female | -0.4441 | 0.6414 | 0.1836 | -2.42 | * | -0.1887 | 0.8280 | 0.0601 | -3.14 | ** |
| Rank-Instructor | -0.4053 | 0.6668 | 0.6294 | -0.64 | | -0.2151 | 0.8064 | 0.1818 | -1.18 | |
| Rank-Associate | -0.4317 | 0.6494 | 0.2328 | -1.85 | | 0.0948 | 1.0994 | 0.0714 | 1.33 | |
| Rank-Assistant | -0.4469 | 0.6396 | 0.2952 | -1.51 | | -0.1064 | 0.8991 | 0.0933 | -1.14 | |
| Race-Black/AfrAm | 0.2775 | 1.3198 | 0.4110 | 0.68 | | 0.1325 | 1.1417 | 0.1575 | 0.84 | |
| Race-Asian | 0.9134 | 2.4928 | 0.2665 | 3.43 | *** | 1.0015 | 2.7224 | 0.0763 | 13.13 | *** |
| Race-Other | 0.5438 | 1.7225 | 0.2856 | 1.90 | * | 0.2352 | 1.2652 | 0.1032 | 2.28 | * |
| Marital status-Single | 0.0243 | 1.0246 | 0.2124 | 0.11 | | 0.1064 | 1.1123 | 0.0745 | 1.43 | |
| Sector-Public | 0.6289 | 1.8755 | 0.1902 | 3.31 | *** | 0.3007 | 1.3508 | 0.0847 | 3.55 | *** |
| Salary up to $45K | 0.9708 | 2.6400 | 0.8434 | 1.15 | | 0.1232 | 1.1311 | 0.2524 | 0.49 | |
| Salary $45 to$90K | 0.3475 | 1.4155 | 0.2667 | 1.30 | | 0.2153 | 1.2403 | 0.0762 | 2.83 | ** |
| Salary $90K to $120K | 0.0038 | 1.0038 | 0.2809 | 0.01 | | 0.1047 | 1.1104 | 0.0716 | 1.46 | |
| STEM discipline | 0.1262 | 1.1345 | 0.1744 | 0.72 | | 0.1428 | 1.1535 | 0.0568 | 2.52 | ** |
| Age | -0.0008 | 0.9992 | 0.0095 | -0.09 | | 0.0093 | 1.0093 | 0.0032 | 2.94 | *** |
| Factor 1-Chair Effectiveness | -0.2595 | 0.7714 | 0.0785 | -3.30 | *** | -0.4080 | 0.6650 | 0.0257 | -15.86 | *** |
| Factor 2-Fit & Mentoring | -0.8150 | 0.4426 | 0.0936 | -8.70 | *** | -0.8156 | 0.4424 | 0.0289 | -28.20 | *** |
| Factor 3-Dean Communic | -0.3366 | 0.7142 | 0.0808 | -4.17 | *** | -0.4966 | 0.6086 | 0.0264 | -18.84 | *** |
| Factor 4-Role Balance | -0.6787 | 0.5073 | 0.0883 | -7.69 | *** | -0.5764 | 0.5619 | 0.0295 | -19.53 | *** |
| Factor 5-HR Benefits | -0.3672 | 0.6927 | 0.0861 | -4.27 | *** | -0.3968 | 0.6725 | 0.0262 | -15.16 | *** |
| Factor 6-Advising & Admin | -0.4742 | 0.6224 | 0.0839 | -5.65 | *** | -0.4391 | 0.6446 | 0.0275 | -15.95 | *** |
| constant | -1.9313 | 0.1450 | 0.6281 | -3.07 | ** | -2.6357 | 0.0717 | 0.2091 | -12.61 | *** |

RRR=relative risk ratio
base group=Strongly+ Somewhat Agree
*** p <.001, ** p< .01, * p <.05
reference categories: fulll professor, white race, salary > $120K

## Appendix C

| Multinomial regression results, satisfaction with department | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Research Universities** | | | | | **Doctoral Universities** | | | | |
| | Coef. | RRR | Std. Err. | z | p | Coef. | RRR | Std. Err. | z | p |
| **Strongly + Somewhat Disagree** | | | | | | | | | | |
| Gender-Female | 0.2271 | 1.2549 | 0.2467 | 0.92 | | 0.2492 | 1.2830 | 0.1693 | 1.47 | |
| Rank-Instructor | -2.9778 | 0.0509 | 1.2220 | -2.44 | ** | -0.7905 | 0.4536 | 0.5341 | -1.48 | |
| Rank-Associate | -0.4996 | 0.6068 | 0.3360 | -1.49 | | -0.3210 | 0.7254 | 0.2179 | -1.47 | |
| Rank-Assistant | -0.7511 | 0.4718 | 0.4525 | -1.66 | | -0.2132 | 0.8080 | 0.2562 | -0.83 | |
| Race-Black/AfrAm | -0.4524 | 0.6361 | 0.5762 | -0.79 | | -0.6386 | 0.5280 | 0.3329 | -1.92 | * |
| Race-Asian | -0.2909 | 0.7476 | 0.4136 | -0.70 | | 0.0781 | 1.0812 | 0.3474 | 0.22 | |
| Race-Other | 0.1808 | 1.1982 | 0.3563 | 0.51 | | 0.1592 | 1.1725 | 0.2726 | 0.58 | |
| Marital status-Single | 0.1827 | 1.2005 | 0.2916 | 0.63 | | 0.2659 | 1.3046 | 0.1937 | 1.37 | |
| Sector-Public | 0.2567 | 1.2927 | 0.3069 | 0.84 | | -0.0615 | 0.9404 | 0.1888 | -0.33 | |
| Salary up to $45K | -1.9054 | 0.1488 | 2.0148 | -0.95 | | 0.5479 | 1.7296 | 0.7415 | 0.74 | * |
| Salary $45 to$90K | 0.4260 | 1.5310 | 0.4233 | 1.01 | | 0.6898 | 1.9934 | 0.3191 | 2.16 | * |
| Salary $90K to $120K | 0.1148 | 1.1216 | 0.4043 | 0.28 | | 0.4445 | 1.5597 | 0.3256 | 1.37 | |
| STEM discipline | -0.2668 | 0.7658 | 0.2890 | -0.92 | | -0.2111 | 0.8097 | 0.1772 | -1.19 | |
| Age | 0.0072 | 1.0073 | 0.0166 | 0.44 | | 0.0079 | 1.0079 | 0.0095 | 0.83 | |
| Factor 1-Chair Effectiveness | -1.7537 | 0.1731 | 0.1418 | -12.37 | *** | -1.6727 | 0.1877 | 0.0858 | -19.49 | *** |
| Factor 2-Fit & Mentoring | -3.1131 | 0.0445 | 0.1776 | -17.53 | *** | -2.8913 | 0.0555 | 0.1160 | -24.93 | *** |
| Factor 3-Dean Communic | -0.8026 | 0.4482 | 0.2511 | -3.20 | *** | -0.8249 | 0.4383 | 0.0786 | -10.50 | *** |
| Factor 4-Role Balance | -1.1501 | 0.3166 | 0.1251 | -9.20 | *** | -0.9946 | 0.3699 | 0.0872 | -11.41 | *** |
| Factor 5-HR Benefits | -0.2663 | 0.7662 | 0.1251 | -2.13 | ** | -0.6459 | 0.5242 | 0.0805 | -8.02 | *** |
| Factor 6-Advising & Admin | -0.9031 | 0.4053 | 0.1217 | -7.42 | *** | -0.7126 | 0.4904 | 0.0779 | -9.15 | *** |
| constant | -4.1508 | 0.0158 | 1.0682 | -3.89 | *** | -4.5127 | 0.0110 | 0.6589 | -6.85 | *** |

RRR=relative risk ratio
base group=Strongly+ Somewhat Agree
*** p <.001, ** p< .01, * p <.05

## Appendix C, cont.

| Multinomial regression results, satisfaction with department | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Research Universities | | | | | Doctoral Universities | | | | |
| | Coef. | RRR | Std. Err. | z | p | Coef. | RRR | Std. Err. | z | p |
| **Neither Disagree Nor Agree** | | | | | | | | | | |
| Gender-Female | -0.0718 | 0.9307 | 0.2019 | -0.36 | | -0.0107 | 0.9893 | 0.1289 | -0.08 | |
| Rank-Instructor | -2.4619 | 0.0853 | 1.2125 | -2.03 | * | -1.6104 | 0.1998 | 0.6111 | -2.64 | ** |
| Rank-Associate | -0.4050 | 0.6670 | 0.2709 | -1.49 | | -0.0708 | 0.9317 | 0.1604 | -0.44 | |
| Rank-Assistant | -0.5875 | 0.5557 | 0.3575 | -1.64 | | -0.2064 | 0.8135 | 0.2001 | -1.03 | |
| Race-Black/AfrAm | 0.2983 | 1.3475 | 0.4180 | 0.71 | | 0.5541 | 1.7405 | 0.2143 | 2.59 | *** |
| Race-Asian | 0.2319 | 1.2610 | 0.3226 | 0.72 | | 0.6106 | 1.8416 | 0.2155 | 2.83 | ** |
| Race-Other | 0.0938 | 1.0984 | 0.3085 | 0.30 | | 0.3674 | 1.4440 | 0.2053 | 1.79 | |
| Marital status-Single | 0.0434 | 1.0443 | 0.2479 | 0.17 | | 0.1217 | 1.1294 | 0.1521 | 0.80 | |
| Sector-Public | 0.2895 | 1.3358 | 0.2375 | 1.22 | | 0.0662 | 1.0685 | 0.1459 | 0.45 | |
| Salary up to $45K | -13.2388 | 0.0000 | 716.5627 | -0.02 | | -0.4691 | 0.6256 | 0.6899 | -0.68 | |
| Salary $45 to$90K | 0.7680 | 2.1555 | 0.3633 | 2.11 | * | -0.2793 | 0.7563 | 0.2081 | -1.34 | * |
| Salary $90K to $120K | 0.5542 | 1.7406 | 0.3429 | 1.62 | | -0.1456 | 0.8645 | 0.2123 | -0.69 | |
| STEM discipline | 0.0510 | 1.0523 | 0.2151 | 0.24 | | -0.2436 | 0.7838 | 0.1332 | -1.83 | |
| Age | 0.0098 | 1.0099 | 0.0132 | 0.75 | | -0.0011 | 0.9989 | 0.0071 | -0.16 | |
| Factor 1-Chair Effectiveness | -1.0093 | 0.3645 | 0.1174 | -8.59 | *** | -0.8556 | 0.4250 | 0.0650 | -13.16 | *** |
| Factor 2-Fit & Mentoring | -1.9610 | 0.1407 | 0.1323 | -14.83 | *** | -1.7007 | 0.1826 | 0.0814 | -20.89 | *** |
| Factor 3-Dean Communic | -0.3773 | 0.6857 | 0.2072 | -1.82 | | -0.4855 | 0.6154 | 0.0588 | -8.25 | *** |
| Factor 4-Role Balance | -0.7093 | 0.4920 | 0.0982 | -7.22 | *** | -0.5713 | 0.5648 | 0.0646 | -8.84 | *** |
| Factor 5-HR Benefits | -0.3482 | 0.7059 | 0.1014 | -3.44 | *** | -0.3553 | 0.7010 | 0.0608 | -5.84 | *** |
| Factor 6-Advising & Admin | -0.5561 | 0.5735 | 0.0999 | -5.57 | *** | -0.4189 | 0.6578 | 0.0592 | -7.08 | *** |
| constant | -3.2947 | 0.0371 | 0.8547 | -3.86 | *** | -1.7045 | 0.1819 | 0.4666 | -3.65 | *** |

RRR=relative risk ratio
base group=Strongly+ Somewhat Agree
*** p <.001, ** p< .01, * p <.05

## Appendix C, cont.

| Multinomial regression results, satisfaction with department | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Master's Institutions | | | | | Baccalaureate Institutions | | | | |
| | Coef. | RRR | Std. Err. | z | p | Coef. | RRR | Std. Err. | z | p |
| **Strongly + Somewhat Disagree** | | | | | | | | | | |
| Gender-Female | 0.2308 | 1.2595 | 0.2578 | 0.90 | | 0.1131 | 1.1197 | 0.0792 | 1.43 | |
| Rank-Instructor | -0.4772 | 0.6205 | 0.8961 | -0.53 | | -0.2976 | 0.7426 | 0.2335 | -1.27 | |
| Rank-Associate | -0.1866 | 0.8298 | 0.3250 | -0.57 | | -0.1751 | 0.8394 | 0.0953 | -1.84 | |
| Rank-Assistant | -0.1944 | 0.8233 | 0.4268 | -0.46 | | -0.3770 | 0.6859 | 0.1246 | -3.03 | ** |
| Race-Black/AfrAm | -0.7968 | 0.4508 | 0.6544 | -1.22 | | 0.2829 | 1.3270 | 0.1937 | 1.46 | |
| Race-Asian | -0.4948 | 0.6097 | 0.3974 | -1.25 | | 0.1767 | 1.1933 | 0.1145 | 1.54 | |
| Race-Other | -0.5283 | 0.5896 | 0.4374 | -1.21 | | 0.1558 | 1.1686 | 0.1314 | 1.19 | |
| Marital status-Single | -0.5384 | 0.5837 | 0.3061 | -1.76 | | 0.0755 | 1.0784 | 0.0979 | 0.77 | |
| Sector-Public | 0.3427 | 1.4087 | 0.2735 | 1.25 | | 0.2794 | 1.3224 | 0.1153 | 2.42 | ** |
| Salary up to $45K | 2.7719 | 15.9888 | 1.2961 | 2.14 | * | -0.6457 | 0.5243 | 0.3242 | -1.99 | * |
| Salary $45 to$90K | -0.1836 | 0.8323 | 0.3775 | -0.49 | | 0.0600 | 1.0618 | 0.1027 | 0.58 | |
| Salary $90K to $120K | 0.1958 | 1.2163 | 0.3812 | 0.51 | | 0.0156 | 1.0157 | 0.0978 | 0.16 | |
| STEM discipline | -0.0352 | 0.9654 | 0.2483 | -0.14 | | -0.0688 | 0.9335 | 0.0766 | -0.90 | |
| Age | -0.0022 | 0.9978 | 0.0141 | -0.16 | | 0.0067 | 1.0067 | 0.0042 | 1.58 | |
| Factor 1-Chair Effectiveness | -1.9563 | 0.1414 | 0.1330 | -14.71 | *** | -1.7907 | 0.1668 | 0.0401 | -44.71 | *** |
| Factor 2-Fit & Mentoring | -2.9423 | 0.0527 | 0.1788 | -16.46 | *** | -2.8071 | 0.0604 | 0.0526 | -53.34 | *** |
| Factor 3-Dean Communic | -0.8151 | 0.4426 | 0.1214 | -6.72 | *** | -0.8521 | 0.4265 | 0.0365 | -23.38 | *** |
| Factor 4-Role Balance | -1.0227 | 0.3596 | 0.1306 | -7.83 | *** | -1.1347 | 0.3215 | 0.0408 | -27.79 | *** |
| Factor 5-HR Benefits | -0.4392 | 0.6445 | 0.1265 | -3.47 | *** | -0.3612 | 0.6968 | 0.0354 | -10.21 | *** |
| Factor 6-Advising & Admin | -0.7016 | 0.4958 | 0.1152 | -6.09 | *** | -0.7054 | 0.4939 | 0.0363 | -19.43 | *** |
| constant | -3.3673 | 0.0345 | 0.9295 | -3.62 | *** | -3.9170 | 0.0199 | 0.2827 | -13.86 | *** |

RRR=relative risk ratio
base group=Strongly+ Somewhat Agree
*** p <.001, ** p< .01, * p <.05
reference categories: fulll professor, white race, salary > $120K

## Appendix C, cont.

| Multinomial regression results, satisfaction with department | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Master's Institutions | | | | | Baccalaureate Institutions | | | | |
| | Coef. | RRR | Std. Err. | z | p | Coef. | RRR | Std. Err. | z | p |
| **Neither Disagree Nor Agree** | | | | | | | | | | |
| Gender-Female | -0.0361 | 0.9645 | 0.1948 | -0.19 | | 0.1184 | 1.1257 | 0.0629 | 1.88 | |
| Rank-Instructor | -0.0024 | 0.9976 | 0.7341 | 0.00 | | -0.1449 | 0.8651 | 0.1851 | -0.78 | |
| Rank-Associate | 0.3357 | 1.3990 | 0.2564 | 1.31 | | 0.0018 | 1.0018 | 0.0767 | 0.02 | |
| Rank-Assistant | 0.0976 | 1.1025 | 0.3280 | 0.30 | | -0.0295 | 0.9709 | 0.0972 | -0.30 | |
| Race-Black/AfrAm | 0.0798 | 1.0831 | 0.4244 | 0.19 | | 0.2077 | 1.2309 | 0.1570 | 1.32 | |
| Race-Asian | 0.2387 | 1.2697 | 0.2862 | 0.83 | | 0.4271 | 1.5328 | 0.0855 | 5.00 | *** |
| Race-Other | -0.1648 | 0.8481 | 0.3248 | -0.51 | | 0.0988 | 1.1038 | 0.1096 | 0.90 | |
| Marital status-Single | -0.4069 | 0.6657 | 0.2386 | -1.71 | | 0.0228 | 1.0230 | 0.0798 | 0.29 | |
| Sector-Public | 0.0934 | 1.0979 | 0.2023 | 0.46 | | 0.0627 | 1.0647 | 0.0876 | 0.72 | |
| Salary up to $45K | -12.6278 | 0.0000 | 672.5276 | -0.02 | | -0.1843 | 0.8317 | 0.2589 | -0.71 | |
| Salary $45 to$90K | 0.2140 | 1.2386 | 0.2900 | 0.74 | | 0.2327 | 1.2620 | 0.0822 | 2.83 | *** |
| Salary $90K to $120K | 0.2308 | 1.2596 | 0.3010 | 0.77 | | 0.1404 | 1.1507 | 0.0785 | 1.79 | |
| STEM discipline | 0.0494 | 1.0507 | 0.1905 | 0.26 | | 0.1207 | 1.1283 | 0.0611 | 1.97 | *** |
| Age | 0.0033 | 1.0033 | 0.0104 | 0.32 | | 0.0065 | 1.0065 | 0.0034 | 1.93 | *** |
| Factor 1-Chair Effectiveness | -0.9429 | 0.3895 | 0.1004 | -9.39 | *** | -1.0031 | 0.3668 | 0.0315 | -31.83 | *** |
| Factor 2-Fit & Mentoring | -1.8106 | 0.1636 | 0.1308 | -13.84 | *** | -1.7162 | 0.1797 | 0.0397 | -43.21 | *** |
| Factor 3-Dean Communic | -0.4149 | 0.6604 | 0.0905 | -4.58 | *** | -0.5074 | 0.6021 | 0.0290 | -17.48 | *** |
| Factor 4-Role Balance | -0.5998 | 0.5489 | 0.0967 | -6.20 | *** | -0.6861 | 0.5035 | 0.0323 | -21.21 | *** |
| Factor 5-HR Benefits | -0.3805 | 0.6835 | 0.0948 | -4.01 | *** | -0.2825 | 0.7539 | 0.0286 | -9.87 | *** |
| Factor 6-Advising & Admin | -0.4527 | 0.6359 | 0.0899 | -5.04 | *** | -0.4738 | 0.6227 | 0.0298 | -15.88 | *** |
| constant | -2.4532 | 0.0860 | 0.6930 | -3.54 | *** | -2.6232 | 0.0726 | 0.2209 | -11.88 | *** |

RRR=relative risk ratio
base group=Strongly+ Somewhat Agree
*** p <.001, ** p< .01, * p <.05
reference categories: fulll professor, white race, salary > $120K

## Appendix D

| Testing for significant difference in coefficient values, overall satisfaction | | | |
|---|---|---|---|
| | Research to Baccalaureate | Doctoral to Baccalaureate | Master's to Baccalaureate |
| Gender-Female | 2.4892** | -0.7328 | 1.5042 |
| Rank-Instructor | 0.9418 | 0.9236 | 0.5353 |
| Rank-Associate | -0.5364 | -1.1856 | -1.6567 |
| Rank-Assistant | 0.2772 | -0.4275 | -0.9030 |
| Race-Black-Af/Am | 0.9925 | 0.6582 | 0.0204 |
| Race-Asian/PacIs | 1.6625 | -0.0037 | 0.4554 |
| Race-Other | 1.1374 | 0.5907 | 1.2804 |
| Marital Status-Single | -0.0111 | -0.5516 | -1.0309 |
| Sector-Public | -0.8158 | -0.1623 | -0.8063 |
| Salary up to $45K | -0.3267 | -0.6295 | 0.4538 |
| Salary $45-90K | -0.8573 | -1.1208 | -0.9869 |
| Salary $90-120K | -1.4225 | -1.2148 | -1.0484 |
| STEM disciplines | -0.7593 | 0.1481 | 0.5011 |
| Age | -0.1597 | -0.2684 | -1.2751 |
| Factor 1-Chair Effectiveness | -0.4366 | 0.2818 | 1.9625** |
| Factor 2-Fit & Mentoring | -1.5142 | -1.2644 | 0.9716 |
| Factor 3-Dean Support/Commun | 1.0441 | 2.3772** | 2.0854** |
| Factor 4-Role Balance | 1.6669 | 0.7544 | 1.7480 |
| Factor 5-Health & Retirement Ben | 1.2088 | 0.9578 | 1.3836 |
| Factor 6-Advising & Admin | 2.1043** | 3.3924** | 1.6390 |
| constant | 0.4041 | 0.8277 | 1.8455 |

**p <.05

## Appendix D, cont.

| Testing for significant difference in coefficient values, satisfaction with department | Research to Baccalaureate | Doctoral to Baccalaureate | Master's to Baccalaureate |
|---|---|---|---|
| Gender-Female | -0.4399 | 0.0103 | 0.0739 |
| Rank-Instructor | 2.1544** | 1.6502 | 1.6401 |
| Rank-Associate | 0.9293 | 0.6698 | 0.4461 |
| Rank-Assistant | 0.7972 | 0.8950 | 1.0344 |
| Race-Black-Af/Am | 1.2095 | -0.3950 | -0.2799 |
| Race-Asian/PacIs | 1.0896 | -0.3556 | 0.6830 |
| Race-Other | -0.0659 | -1.2571 | -0.0483 |
| Marital Status-Single | -0.3485 | -1.7055 | 0.2376 |
| Sector-Public | 0.0693 | 0.2092 | -0.8829 |
| Salary up to $45K | 0.6173 | 1.9524** | 1.1427 |
| Salary $45-90K | -0.8401 | -1.0746 | 0.4978 |
| Salary $90-120K | -0.2384 | 0.1458 | 0.6351 |
| STEM disciplines | 0.6622 | 0.6078 | 0.1642 |
| Age | -0.0322 | -0.4340 | 0.0327 |
| Factor 1-Chair Effectiveness | -0.2510 | -1.0420 | 0.4888 |
| Factor 2-Fit & Mentoring | 1.6524 | 0.6778 | 1.0461 |
| Factor 3-Dean Suppt & Commun | -0.1953 | -0.0450 | -0.0848 |
| Factor 4-Role Balance | 0.1170 | 0.7044 | 1.0200 |
| Factor 5-Health & Retirem Ben | -0.7298 | -0.9716 | -2.5510** |
| Factor 6-Advising & Admin | 1.5567 | 1.2023 | 1.3182 |
| constant | 0.2116 | 0.5533 | -0.2884 |

**p <.05

Following the method used by Toutkoushian and Conley (2005), t-tests were calculated using the following formula:

$$t(df_1 + df_2) = \frac{\hat{\beta}_{RU} - \hat{\beta}_{BACC}}{\sqrt{s^2_{RU} + s^2_{BACC}}}$$

Additional comparisons for other institution types (e.g., baccalaureate to master's institutions) were done, but a limited number of comparisons were significant, thus for brevity, they are not included here.

## Appendix E

<div align="center">

**UNIVERSITY OF GEORGIA**
**CONSENT FORM**
**Faculty Satisfaction in Today's Higher Education**
**Researcher's Statement**

</div>

I am asking you to take part in a research study. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. This form is designed to give you the information about the study so you can decide whether to be in the study or not. Please take the time to read the following information carefully. Please ask the researcher if there is anything that is not clear or if you need more information. When all your questions have been answered, you can decide if you want to be in the study or not. This process is called "informed consent." A copy of this form will be given to you.

Principal Investigator:     Karen L. Webber, Ph.D.
Associate Professor, Institute of Higher Education
kwebber@uga.edu, 706-542-6831

### Purpose of the study

This study seeks to better understand faculty member satisfaction at a variety of U.S. colleges and universities. I will gather information from individual faculty to answer these broad questions:

- In what ways are today's faculty members satisfied with their work?

- Are there differences in satisfaction by salary, gender, race, age, tenure status, level of institution (research universities, doctoral, master's, baccalaureate colleges) and individual perceptions of fit in their campus environment?

- Have they considered leaving the academic profession and if so, why? Does their satisfaction with their environment and institution's mission contribute to their intent to leave? and

- Are there policies (such as retirement benefits, stop-the-clock tenure, or imbalances in teaching versus research) that faculty members would like to see changed and if so, what changes do they suggest?

### Study procedures

If you agree to participate, you will be asked to:
Participate in a face-to-face interview on your campus (OR a Skype interview) with me or my doctoral-level graduate assistant. The interview will take approximately 40-50 minutes and will be audio recorded. All comments will be confidential. [Neither your?] name nor specific name of your department or institution will be used; if individual comments are reported, a general descriptor will be used. For example, I will say that the comment comes from "a tenure-track minority female from a physical sciences department at a medium-sized comprehensive college" (or some similar description). All data will be analyzed via qualitative methods to categorize comments and report findings collectively for the group of 40-50 faculty members who will be interviewed. A copy of the final report will be sent to each interviewee after approval from the granting agency, TIAA Research Institute.

Total time for participant's involvement is about an hour (for the interview) plus the opportunity to review a draft of the summarized findings (later, once the summary has been produced). There are minimal risks for participation in this study, no incentives, and no purposeful manipulations or hidden treatments. Questions to be asked in the interview will seek to determine your satisfaction with your work environment, what challenges you face, how you apportion your work time, if you intend to stay or seek employment elsewhere in the future, and any other comments you wish to include.

## Risks and discomforts

There are minimal risks or discomforts. Since all comments will be held confidential, no individuals will be identified. The only risk known is the small possibility that a colleague might see you with the interviewer and assume you are engaged in an interview for research.

## Benefits

Satisfaction from one's work affects life goals as well as retirement plans. Recent economic constrictions resulting in few or no salary increases, work furloughs, and/or workforce reductions have contributed to low morale and possible lower productivity. In addition to possible loss of student mentoring and knowledge production, early departure from the specific institution or the professoriate altogether contributes to lower return on investment (ROI) for institutions that dedicate start-up resources for entering faculty. A better understanding of faculty member job satisfaction is important to mitigate early departure and ensure a continued strong professoriate in the U.S.

## Alternatives

There are no experimental treatments, interventions, or nonexperimental alternative treatments.

## Incentives for participation

There are no incentives for participation.

Audio/Video Recording. An audio or video recording will occur to be used for subsequent transcription of the interview and coding analysis. All data will be held in strict confidence, will be kept in a secure location in the researcher's office, and will be destroyed 3 years after completion of the study.

Please provide initials below if you agree to have this interview (specify audio or video) recorded or not. You may still participate in this study even if you are not willing to have the interview recorded.

  ___ I do not want to have this interview recorded.

  ___ I am willing to have this interview recorded.

## Privacy/Confidentiality

Interviewees will be asked for their gender, race/ethnicity, tenure status, department, length of time in employment at current and previous employment. Data will be held confident. Interviewees will be given pseudonyms or described in broad general terms in ways that will not reveal their true name or specific department. Only Dr. Webber and the graduate assistant will have access to the interview data. If the PI received a request from the granting agency, data shared with the granting agency would be shared in aggregate format or further anonymized to ensure individual confidentiality (removing participant department affiliation, sharing only gender, race (white or minority), tenure status, and time status)-.

## Taking part is voluntary

Participant involvement is voluntary; participants may refuse to participate before the study begins, and discontinue at any time, with no penalty or loss of benefits to which he/she is otherwise entitled.

If an interviewee decides to withdraw from the study, Dr. Webber will honor the interviewee's decision to: 1) destroy the subject's data or that the investigator exclude the subject's data from any analysis; OR 2) use the information/data collected from or about you up to the point of your withdrawal; it will be kept as part of the study and may continue to be analyzed.

## If you have questions

The main researcher conducting this study is Dr. Karen L. Webber, associate professor at the University of Georgia. Please ask any questions you have now. If you have questions later, you may contact Dr. Webber at 706-542-6831 or kwebber@uga.edu. If you have any questions or concerns regarding your rights as a research participant in this study, you may contact the Institutional Review Board (IRB) chairperson at 706-542-3199 or irb@uga.edu.

## Research subject's consent to participate in research

To voluntarily agree to take part in this study, you must sign on the line below. Your signature below indicates that you have read or had read to you this entire consent form, and have had all of your questions answered.

| | | |
|---|---|---|
| Name of Researcher | Signature | Date |

| | | |
|---|---|---|
| Name of Participant | Signature | Date |

Please sign both copies, keep one and return one to the researcher.

## Appendix F

### Interview questions

1.  How long have you worked at this institution?
    a. Probes about any other tenure-track positions held and reason(s) for leaving

2.  What about this institution attracted you?
    a. Did you pursue other institutions/positions?
    b. What influenced your decision to work at this institution over other opportunities?

3.  Has your experience here differed from your expectations of it?
    a. If Yes, please identify how it has differed.

4.  Please estimate the proportion of your time spent respectively on teaching, research, service, or administrative tasks?
    a. Of your teaching time, what portion is undergrad, graduate, and doctoral students?
    b. Are you satisfied with how your time is appropriated?

5.  What aspects of your position do you find most satisfying?

6.  What aspects of your position do you find least satisfying?

7.  Do you feel a stronger connection to the overall institution or your department?
    a. To what do you attribute the stronger connection?

8.  Do you agree with the majority of institutional policies? Why or why not?

9.  Do you believe your voice counts in decision making?

10. I'm going to identify some factors that may impact faculty satisfaction. Please comment how each factor impacts your satisfaction currently:
    a. To what extent does work-life balance impact your satisfaction?
    b. To what extent do salary and benefits impact your satisfaction?
    c. To what extent has mentoring you've given and/or received impacted your satisfaction?
    d. To what extent has clarity of tenure and promotion processes impacted your satisfaction?
    e. Are there additional factors that have impacted your satisfaction? (If so, please identify those)

11. How would you rate your satisfaction in your work role overall on a scale of 1 to 10?

12. Have you considered leaving and/or are you planning to leave (X institution)?
    a. If so, why?
    b. What would change your mind about leaving?

13. Is there anything additional you'd like to share regarding your work satisfaction?