Job Satisfaction Survey of Faculty in the Sciences 2013

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Job Satisfaction Survey of Faculty in the Sciences at UMaine 2013
Executive Summary

In January 2013, an online survey was distributed to the faculty in the STEM (science, technology, engineering, mathematics) and social-behavioral science (SBS) academic units at the University of Maine (UMaine), or a total of 398 individuals. Of these 398, a total of 202 individuals completed the survey, resulting in a 51% response rate.

Respondents included 150 individuals from STEM and 39 individuals from SBS, representing a 45% and a 53% overall response rate from those groups respectively. Regarding gender, 59 women responded (or 56% response rate) while 131 men responded (or 43% response rate). When asked about their time at UMaine, faculty respondents indicated having served in their position for an average of 18 years. The majority of faculty surveyed teaching 1-2 courses per semester on average.

Faculty were asked questions ranging from their awareness of the Rising Tide Center to their job satisfaction at UMaine. In regard to the Rising Tide Center, 82% of respondents stated that they were aware of the Rising Tide Center on campus, while 50% indicated having attending at least one Rising Tide event. Faculty also expressed the overall positive impact of the events sponsored by the Rising Tide Center for their professional careers, and referring to these events as a learning experience and a way to network on campus.

This year's survey put a special emphasis on two new areas: promotion to full professor and the recruitment of diverse pools of faculty members in searches. Associate-level professors were surveyed about their average time in rank – men reported being at the rank an average of 10.67 years in comparison to the women respondents with 4.77 years. These faculty were also asked about their intentions to pursue promotion to full professor, with 66% overall reporting such an intention. By gender, more women expressed intentions to pursue promotion when compared to men. When asked about any concerns related to this process, four main areas were discussed: (1) Unclear Expectations, (2) Research Productivity, (3) Paperwork, and (4) Grants. Then, when asked about what would make the process more helpful, faculty responded in four areas: (1) Guidance, (2) Clarity of the Process, (3) Institutional Support, and (4) Fair Process.

Regarding the recruitment of a diverse pool of faculty, faculty were asked to identify the strategies that they would use if involved in a search committee. Most faculty indicated they would feel most comfortable with traditional strategies such as advertisements and personal encouragement of diverse individuals to apply.

In regard to their overall job satisfaction, faculty were asked to rate their level of satisfaction with their job at UMaine and their overall career progression. Of those who responded, 68% expressed moderate to high satisfaction with their jobs, with 15% expressing moderate to strong dissatisfaction. Some differences within and among groups were apparent. Women tended to express lowest satisfaction compared to men with their career progression *($p<0.05$)*, whereas associate professors expressed significantly less satisfaction than full professors *($p<0.05$)*.

Items related to personal and emotional well-being were addressed again in the 2013 survey. Overall, the majority of faculty reported their physical health to be excellent (31%) to very good (46%), with emotional well-being rated as excellent (32%) to very good (41%). Regarding stress levels of the faculty, women tended to rate themselves as feeling more "used up" at the end of the day when compared to men.

Climate for Faculty in the Sciences at UMaine 2013

Funded by the National Science Foundation's ADVANCE Rising Tide Center at the University of Maine (NSF Award # HRD-1008498), the following report details the results from a 2013 survey related to organizational climate in STEM and Social-Behavioral Science units at the University of Maine.

Demographics

Total number of faculty = 398
Total number of respondents = 202
Overall response rate = 51%

General Disciplinary Area *Based upon categories established by the NSF	**Respondents**
STEM - Computer science, engineering, environmental science, life science, mathematics, physical science	150 (74%)
Social Science - Anthropology, economics, political science, psychology, sociology	39 (19%)

Did not respond = 13

Rank	**Tenure-Stream**	**Non-Tenure-Stream**
Assistant Professor	23	8
Associate Professor	57	5
Full Professor	67	2
Instructor	0	11
Lecturer	0	15

Did not respond = 14

Dual Appointment	**Respondents (% of total)**
Yes	37 (19%)
No	157 (81%)

Did not respond = 8

Gender	**Respondents (% of total)**
Female	58 (29%)
Male	131 (65%)

Did not respond = 11

Race	Respondents (% of total)
Person of Color	5 (3%)
White	185 (92%)

Did not respond = 12

Sexual Orientation	Respondents (% of total)
Gay, Lesbian, Bisexual, or Transgender	5 (3%)
Heterosexual	185 (92%)

Did not respond = 12

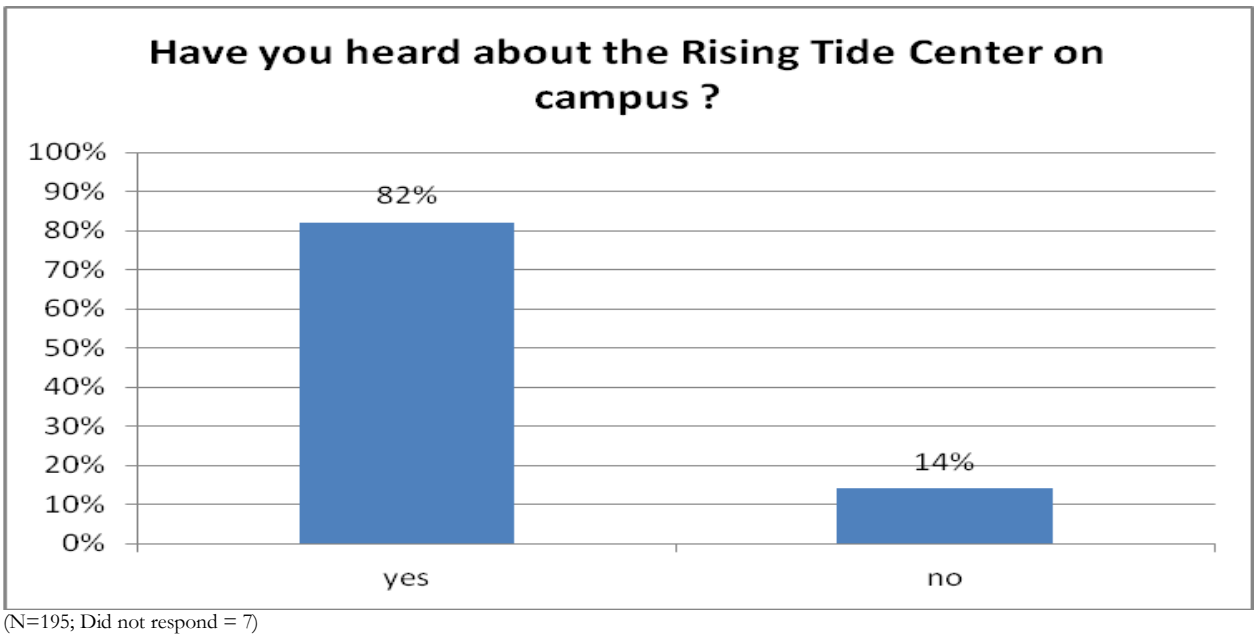
Marital Status	Respondents (% of total)
Married/Partnered	173 (86%)
Single	18 (9%)

Did not respond = 11

Rising Tide Center Awareness

First, faculty were asked about their awareness of the Rising Tide Center. More than 80% of all respondents have heard about the Rising Tide Center on campus. **Among women faculty in STEM-SBS, the target audience for the Rising Tide Center, 91% reported being aware of its existence.**

Figure 1: *Rising Tide Center Awareness*



(N=195; Did not respond = 7)

Rising Tide Events

Then, faculty were asked to indicate which events sponsored by the Rising Tide Center they had attended. Of the 34 events sponsored by the Rising Tide Center since its inception in 2010, a total of 101 individuals had attended at least one, representing 50% of all respondents. Among women faculty in STEM-SBS, the target audience for these events, 40 individuals reported attending at least one event. **In other words, of the possible 102 women faculty in STEM-SBS at UMaine, at least 39% of the entire target audience on campus attended at least one event.**

Responses are organized by frequency of attendance.

Table 1: *Rising Tide Center Events Attended*

Which of the following Rising Tide events have you attended?	**Percent**
Virginia Valian talk or training	10.4
Challenges to Interdisciplinary Research and Lessons Learned	8.4
Promotion and Tenure Workshop Part II (discussion with newly tenured faculty)	7.4
Promotion and Tenure Workshop Part I	6.9
Department Chair/Unit Director Training	6.4

Which of the following Rising Tide events have you attended?	Percent
Leadership Training: Is it for me? Workshop	6.4
Distinguished Climate Scholars Series – Dr. Kathleen Morrison	5.9
Advancing Women in Academia Conference	5.9
Advancing to Professor Workshop	5.4
Joann Moody Workshops	5.4
Soliciting Ideas for the UMaine Strategic Plan	5
The Taste of Place: Dr. Gary Nabhan	4.5
New Faculty Orientation	4
Interdisciplinary Graduate Programs – A User's Guide	3.5
New Faculty Orientation - 8/30/12	3.5
New Faculty Mentor Program Session	3.5
The ABCs of Students with Disabilities Workshop	3.5
Advancing to Full Professor Workshop	3.5
Environmental Anthropology Lecture Series – Dr. Flora Lu	3
Balancing Teaching and Research Workshop	3
Carving Out Time for Research and Writing	3
Interdisciplinary Research Collaboration Fair	3
The Mindful University: Stress Reduction for the UMaine Community	3
Student Professionalism Workshop	2.5
Theda Skocpol: Connecting Scholarly Work to Public Dialogue	2.5
Peer Mentor Meet and Greet	2
Mid-Career Assessment Workshop	2
The Administration and Fiscal Organization of UMaine	1.5
A Vision for Renewable Fuels - Dr. Jane Davidson	1.5
Tips for Effective Communication Workshop	1.5
Targeted Mentoring Session for Mentees	1
The Mindful University: Stress Reduction for the UMaine Community	0.5
Mentor Training	0.5
UMaine After Hours	0

Impact of Attending Rising Tide Center Events

Faculty were then asked to describe the impact these events had on their personal and professional experiences. Ninety five individuals provided comments, including 8 who specified that attending had little to minimal impact (8.4%), 8 who said it had no impact (8.4%), 3 who said they hadn't attended any events (3.2%), and 12 who remarked it wasn't applicable (12.6%).

The remaining 64 individuals (67.4%) indicated a positive impact from attendance. From these comments, two main themes emerged, including: (a) learning experience, and (b) improved connections. A few comments below illustrate these themes:

Learning Experience

- "I especially found the preparation for tenure events to be helpful in getting my files organized for tenure at an early stage and strategizing how to approach the triple roles of teaching, research, and advising."
- "I learned a lot about the tenure process that I previously had not known."
- "The Promotion and Tenure Workshop was extremely valuable and gave great tips for preparing early."

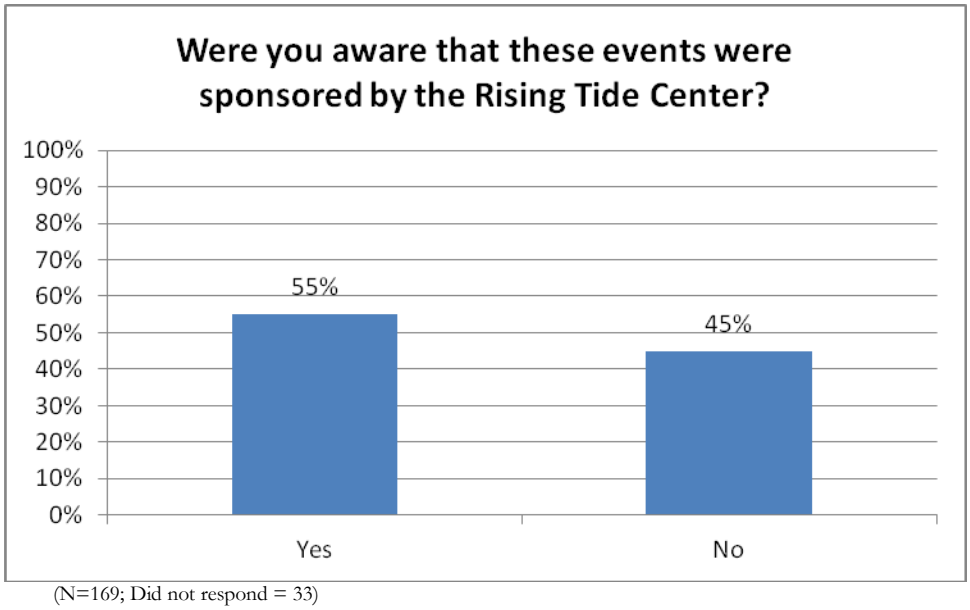
Improved Connections

- "Good connections with other faculty across campus."
- "It was good to meet with other faculty across campus and disciplines to discuss workplace issues."
- "The event was an excellent experience where not only useful information was conveyed, but where I also met and networked with some of the people in attendance."
- "Networking was valuable."

Rising Tide Center Event Sponsorship

Faculty were asked if they were aware that the aforementioned events were sponsored by the Rising Tide Center. More than half of the respondents (55%) were aware of the sponsorship of these events.

Figure 2: *Event Sponsorship Awareness*



(N=169; Did not respond = 33)

Position Description

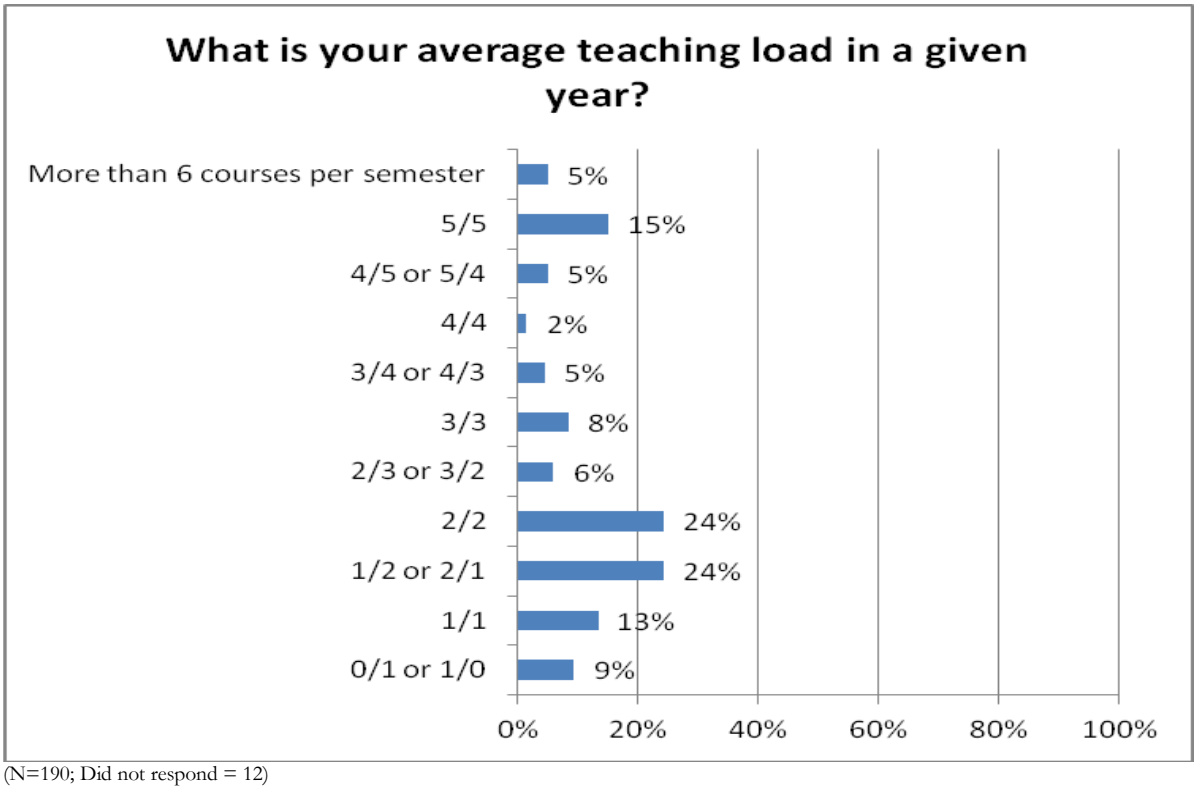
Average Tenure

Faculty were then asked to indicate how many years they have been employed in their current position at UMaine. Of those 175 faculty members who responded (27 did not respond), they have been employed in their current position for **an average of 16.74 years**. Among the 54 women who responded (4 did not respond), the average length of time in their current position was 10.05 years.

Teaching Load

Faculty then were asked to indicate their average teaching load in each semester, ranging from 0/1 or 1/0 – or one course per year – to more than 6 courses per semester. Almost half of all respondents indicated that their average teaching load ranged from 1/2 or 2/1 and 2/2, or an average of one course in one semester and two in the following, or two courses per semester. This disbursement was consistent across gender.

Figure 3: *Average Teaching Load*



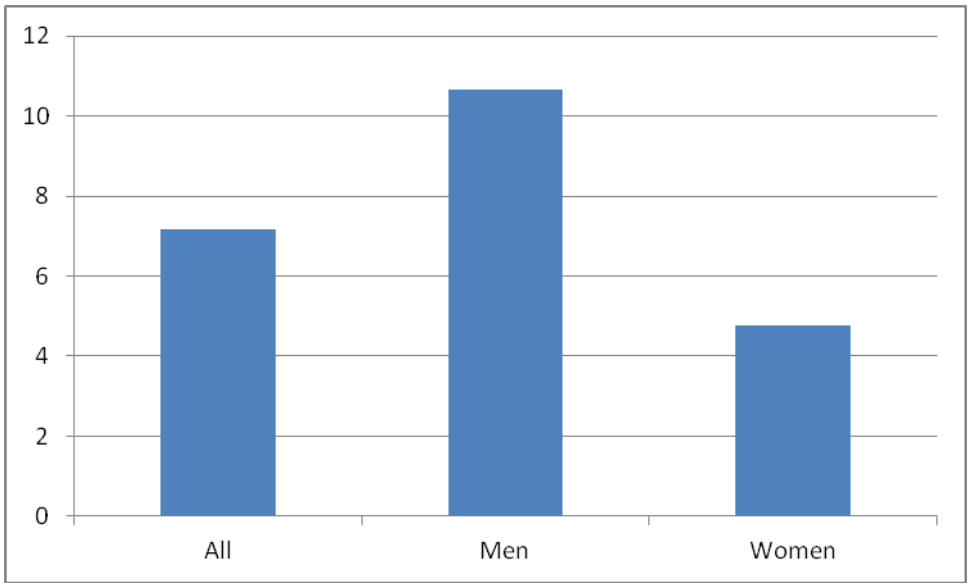
(N=190; Did not respond = 12)

Promotion to Full Professor

To those faculty who indicated they were at the rank of associate professor (N=63), several questions about the promotion process were asked.

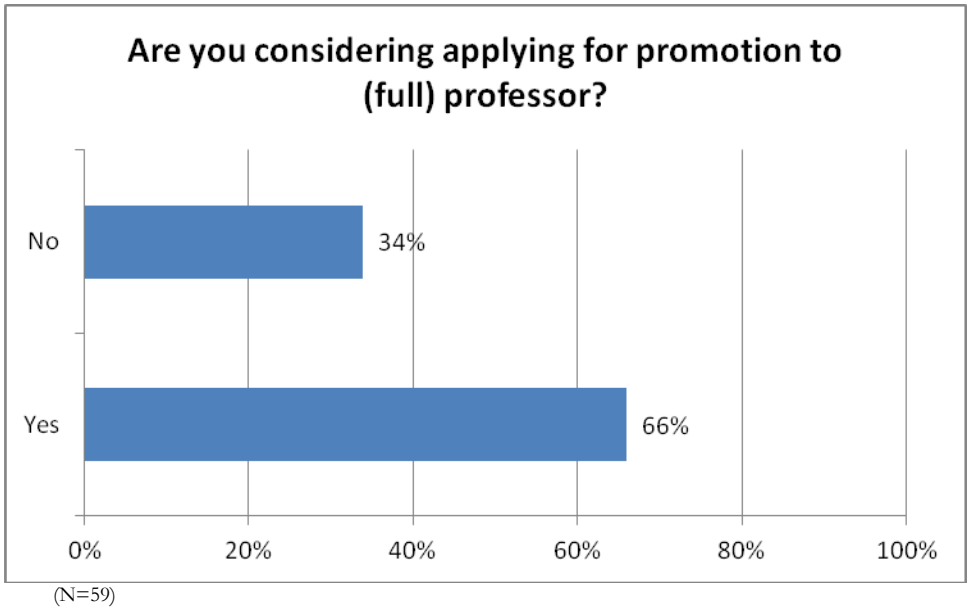
First, faculty were asked to indicate how many years they have been at the rank of associate professor. Faculty who responded reported being in the rank for an average of 7.17 years. By gender, men (N=46) reported being at the rank an average of 10.67 years, while women (N=13) reported an average of 4.77 years.

Figure 7: *Average Years in Associate Rank Overall and By Gender*



Then, associate-level faculty were asked if they were considering applying for promotion to full professor. From the 59 faculty who responded, 39 or 66.1% indicated that they were considering applying for promotion.

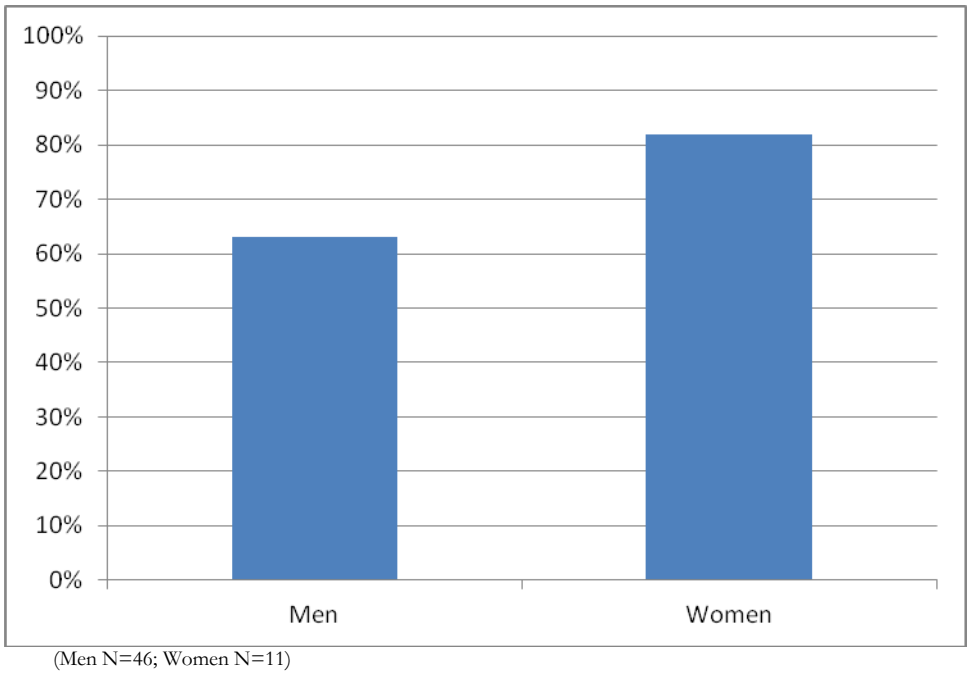
Figure 8: *Consideration of Application for Full Professor*



(N=59)

When compared by gender, a higher percentage of women (81.8%) compared to men (63%) indicated that they were considering applying for full professor.

Figure 9: *Consideration of Applying for Professor by Gender*



(Men N=46; Women N=11)

Concerns About Application to Full Professor

Faculty were then asked to describe their concerns about applying to full professor. Of the 38 faculty who responded, 10 or 26.3% indicated having no concerns about the process. The remaining 28 individuals or 74% of faculty who responded indicated concerns in four main areas: (1) Unclear Expectations, (2) Research Productivity, (3) Paperwork, and (4) Grants. A few comments below illustrate each area:

Unclear Expectations

- "Criteria in my department are exceedingly unclear"
- "I have not received much guidance or information about the process for applying for full professor compared to applying for tenure. It would be nice to receive more feedback from my peer committee on my activities and whether they are relevant on a more frequent basis until I have reached this goal. Receiving feedback once every three years does not give one much time to make changes or improvements if necessary"

Concern about research productivity/ expectations

- "Decline in number of of publications each year due to increasing teaching load. My teaching load is not commensurate with my appointment but due to loss of faculty in the department we cannot cover the curriculum"
- "Whether my research productivity is sufficient"

Paperwork

- "Amount of paperwork involved"
- "Finding the time to put together the paperwork"

Grants

- "Renewing grants"

Assistance in Gaining Full Professor

Then, faculty had the chance to describe what would be most helpful for them in the application process. Responses were grouped into four main themes: (1) Guidance, (2) Clarity of the Process, (3) Institutional Support, and (4) Fair Process. A few comments below illustrate:

Guidance

- "Advice/mentoring by a female full professor in the sciences"
- "Continuing the mentoring process would be helpful"
- "I have a good relationship with several colleagues in my department so I will use them as mentors, but additional workshops campus-wide would be helpful"

Clarity of the Process

- "Clarity regarding benchmarks, and guidance"
- "Getting appropriate administrative support before the process starts. Having clear guidelines within the department"
- "Greater clarity in our promotion criteria; more useful feedback from senior colleagues"

Institutional Support

- "Having a lighter teaching load would help my chances of success; I can't think of much that would be helpful with the application process itself"
- "More time to carry out research"

Fair Process

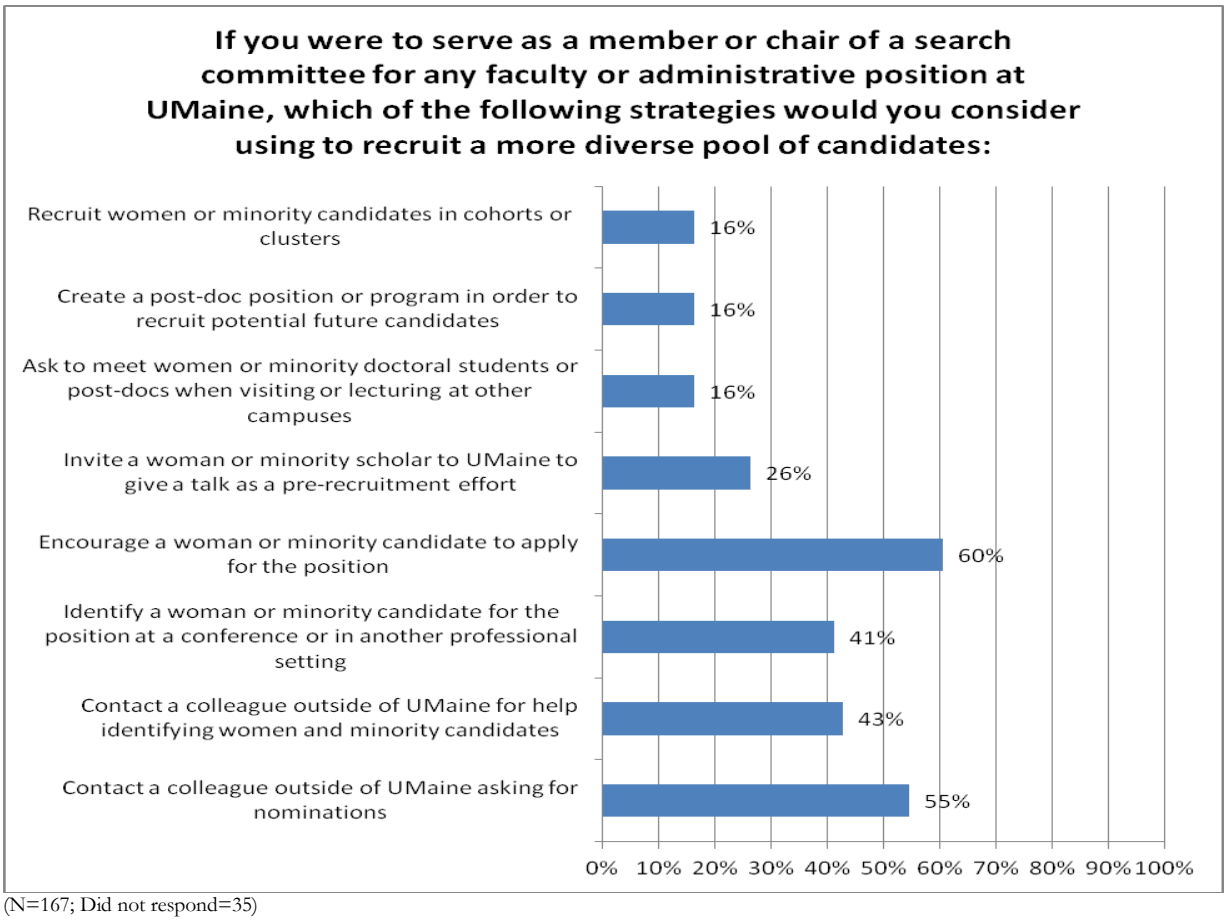
- "A fair process"
- "If we could have unbiased reviewers from outside of dept, but within UMaine, it would be a great help. Even if they just observe the process"

Hiring and Recruitment

The faculty were then asked to indicate their comfort level in using particular strategies to recruit a more diverse pool of faculty candidates on search committees.

From a list of eight potential strategies, faculty were asked to select those they might employ. As illustrated in Figure 11, faculty chose three predominant strategies: (1) Encourage a woman or minority candidate to apply for the position, (2) Contact a colleague outside of UMaine asking for nominations, and (3) Contact a colleague outside of UMaine for help identifying women and minority candidates.

Figure 11: *Strategies for Recruiting a Diverse Pool*



(N=167; Did not respond=35)

In addition, 17 individuals provided other suggestions for recruiting a diverse pool, including postings in newspapers and the Internet (23.5%), networking with colleagues (11.8%), and networking at conferences (11.8%).

Career Commitment

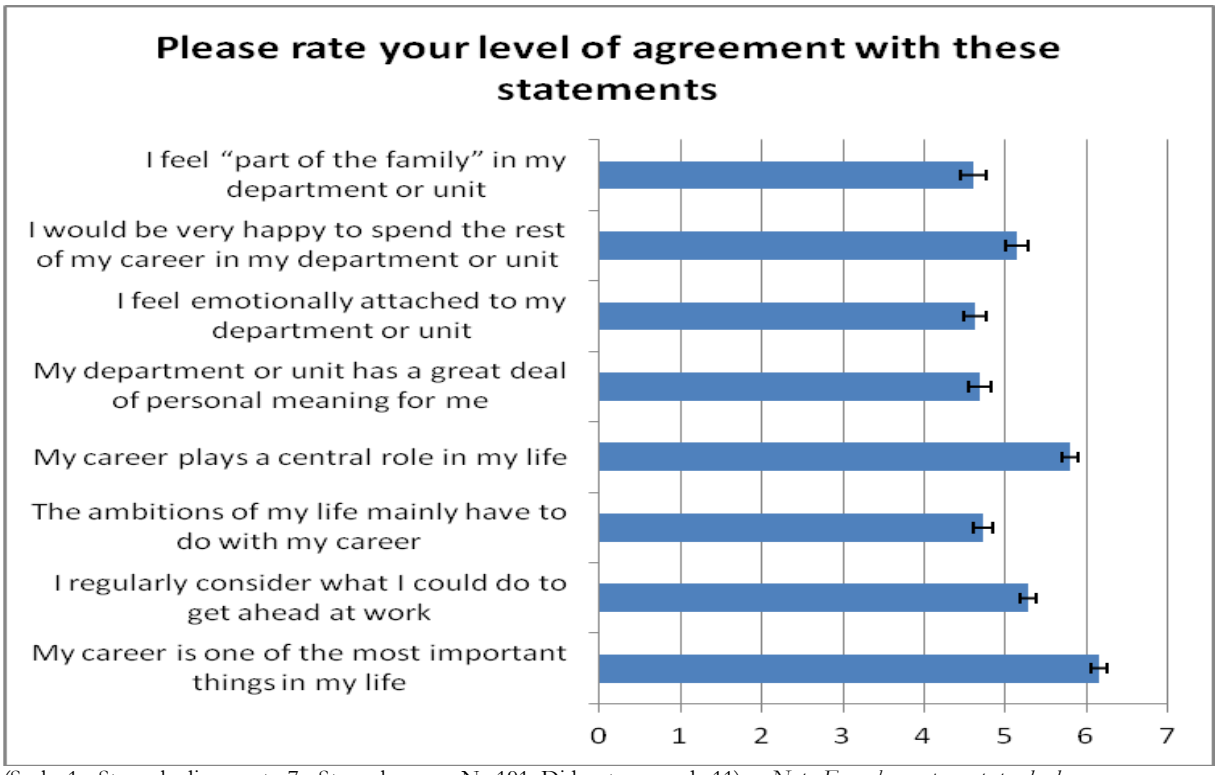
The faculty were then asked to rate their career commitment on a scale of 1 (very uncommitted to 6 (very committed). On average, faculty reported being slightly to moderately committed to their careers, with an average rating of 4.39 across the 187 individuals who responded (SD=2.05, 15 did not respond). No statistically significant differences were found between groups.

Then, faculty were asked to indicate their level of agreement with the following statements related to career commitment on a scale from 1 (strongly disagree) to 7 (strongly agree): (1) I feel "part of the family" in my department or unit, (2) I would be very happy to spend the rest of my career in my department or unit, (3) I feel emotionally attached to my department or unit, (4) My department or unit has a great deal of personal meaning for me, (5) My career plays a central role in my life, (6) The ambitions of my life mainly have to do with my career, (7) I regularly consider what I could do to get ahead at work, (8) My career is one of the most important things in my life.

Overall

The majority of faculty reported that their career is one of the most important things in their lives, that their career plays a central role in their lives, and that they would be happy to spend the rest of their career in their department or unit.

Figure 12: *Career Commitment Indicators*

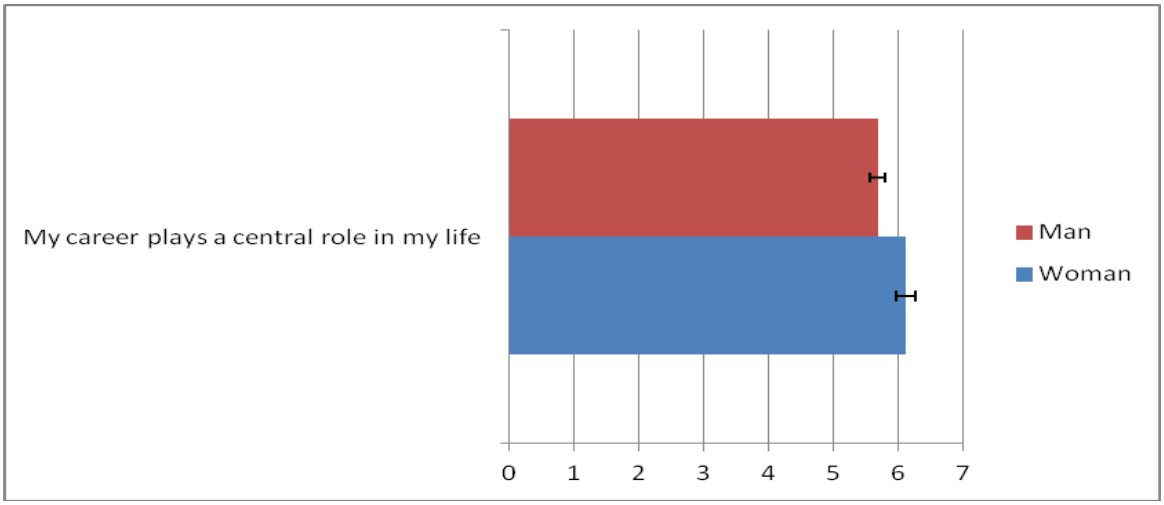


(Scale: 1 - Strongly disagree to 7 - Strongly agree; N=191; Did not respond=11) *Note: Error bars represent standard error.*

By Gender

When viewed by gender, women rated the role of their career in their lives significantly *(p<0.05)* higher when compared to men.

Figure 13: *Gender Comparison of Career Commitment*

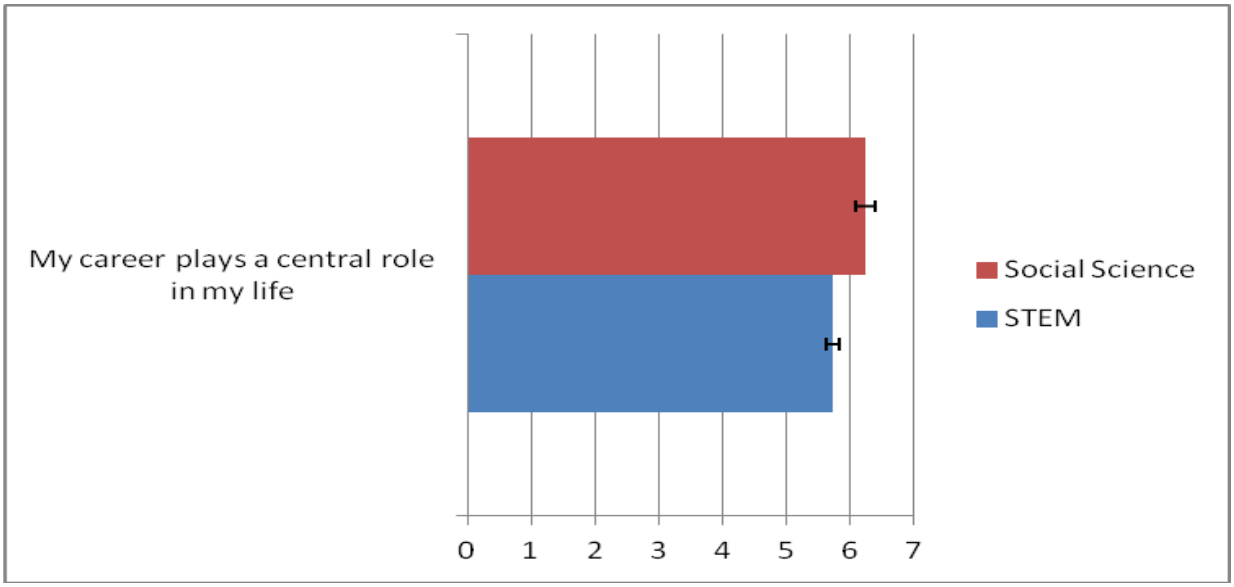


(Scale: 1 - Strongly disagree to 7 - Strongly agree; N=191; Did not respond=11) *Note: Error bars represent standard error.*
**My career plays a central role in my life- Cohen's d= 0.353, R2=0.030*

By Discipline

When viewed by discipline, social-behavioral science faculty rated the role of their career in their lives significantly *(p<0.05)* higher than that of STEM faculty.

Figure 14: *Disciplinary Comparison of Career Commitment Indicators*

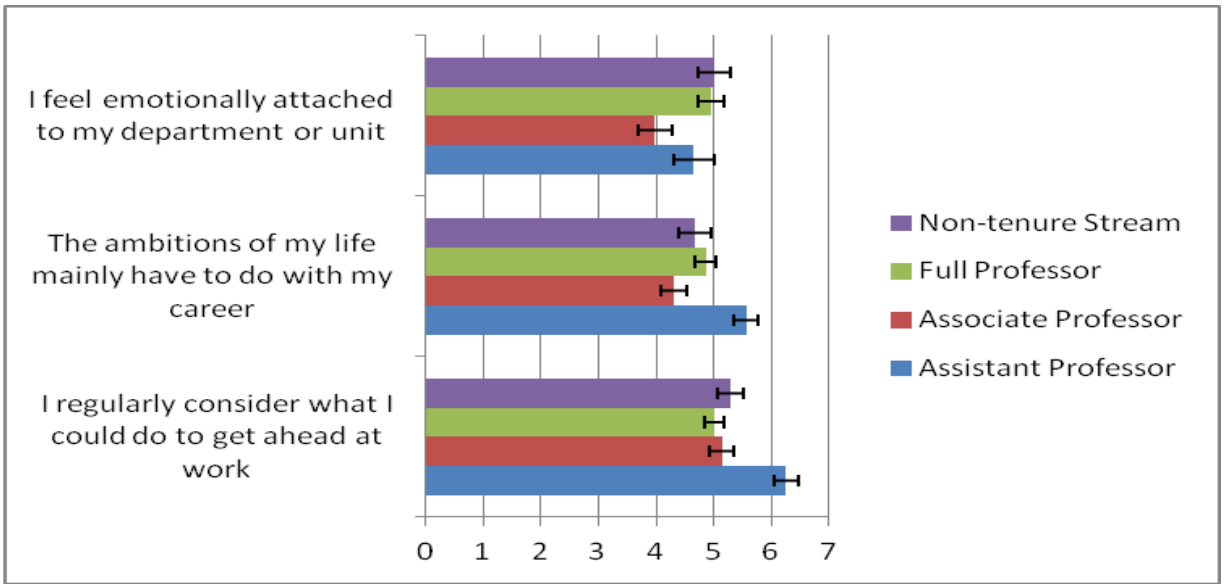


(Scale: 1 - Strongly disagree to 7 - Strongly agree; N=191; Did not respond=11) *Note: Error bars represent standard error.*
**My career plays a central role in my life- Cohen's d= 0.426, R2=0.043*

By Rank

When considered by rank, associate professors tended to have statistically significant *(p<0.05)* lower levels of agreement when compared to non-tenure-stream faculty and full professors in regard to the statement, "I feel emotionally attached to my department or unit." Assistant professors tended to express statistically significant *(p<0.05)* higher levels of agreement when compared to associate professors in regard to the statement, "The ambitions of my life mainly have to do with my career." Assistant professors also expressed statistically significant *(p<0.05)* higher levels of agreement compared to associate and full professors in regard to the statement, "I regularly consider what I could do to get ahead at work."

Figure 15: *Rank Comparison of Career Commitment Indicators*



(Scale: 1 - Strongly disagree to 7 - Strongly agree; N=191; Did not respond=11) *Note: Error bars represent standard error.*
**I feel emotionally attached to my department or unit -Cohen's d= 0.456, R2=0.049*The ambitions of my life mainly have to do with my career- Cohen's d= 0.504, R2=0.059 *I regularly consider what I could do to get ahead at work - Cohen's d= 0.560, R2=0.035*

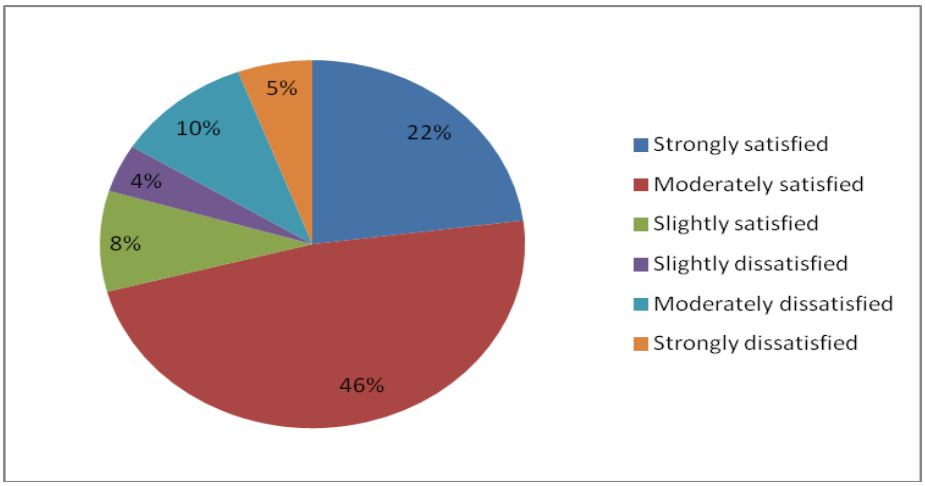
Satisfaction at UMaine

Faculty were then asked to rate their level of satisfaction with their job at UMaine and their overall career progression.

Overall

Sixty-eight percent of the faculty expressed moderate to high satisfaction with their jobs, with 15% expressing moderate to strong dissatisfaction.

Figure 16: *Faculty Job Satisfaction at UMaine*

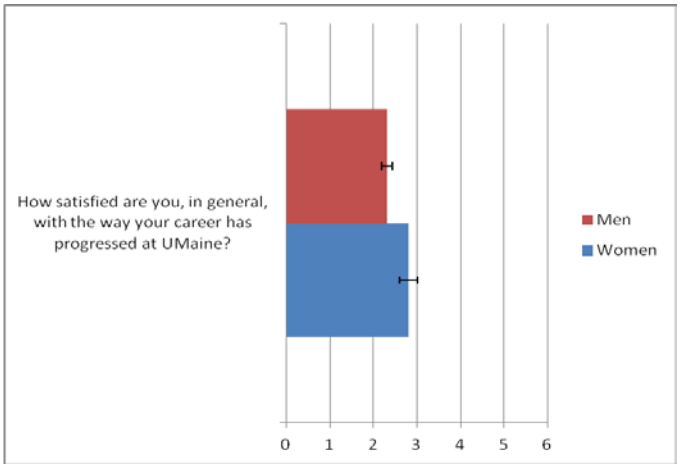


(N=192; Did not respond=10)

By Gender

When examined by gender, there were statistically significant differences (*p<0.05)* between men's and women's responses regarding their career progression, wherein women tended to express lower satisfaction with their career progression.

Figure 17: *Job Satisfaction by Gender*

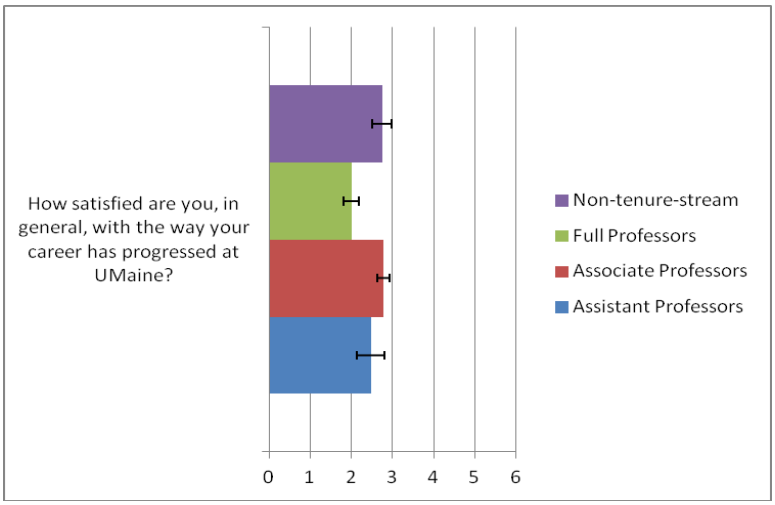


(Scale: 1 - Strongly disagree to 7 - Strongly agree; N=191; Did not respond=11)
*Note: Error bars represent standard error. *How satisfied are you, in general, with the way your career has progressed at UMaine? - Cohen's d= 0.3, R2=0.027*

By Rank

When examined by rank, faculty at the full professor level expressed statistically significant (*p<0.05)* higher satisfaction in regard to overall career progression when compared to associate level professors.

Figure 18: *Job Satisfaction by Rank*



(Scale: 1 - Strongly disagree to 7 - Strongly agree; N=191; Did not respond=11)
*Note: Error bars represent standard error. *How satisfied are you, in general, with the way your career has progressed at UMaine? - Cohen's d= 0.511, R2=0.061*

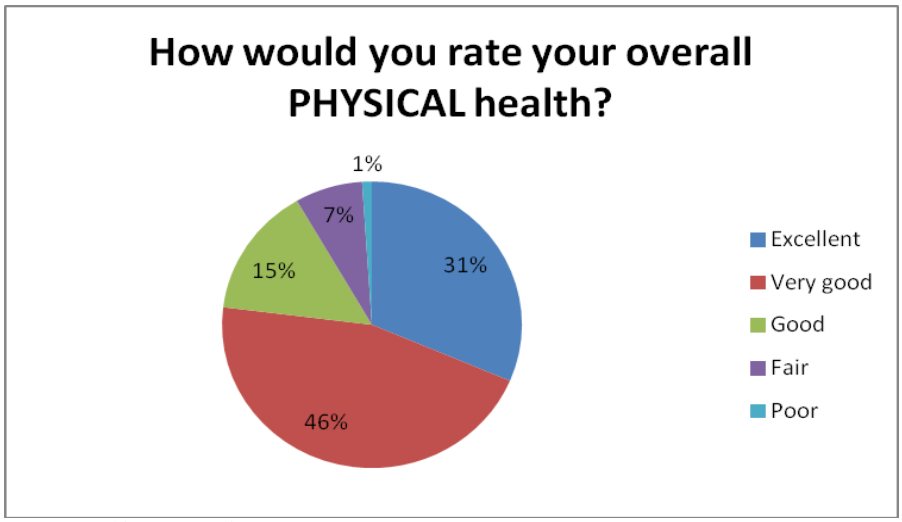
Personal Health

Faculty were asked in the next section of the survey to rate their physical health and emotional well-being.

Overall

Overall, the majority of faculty reported their physical health to be excellent (31%) to very good (46%).

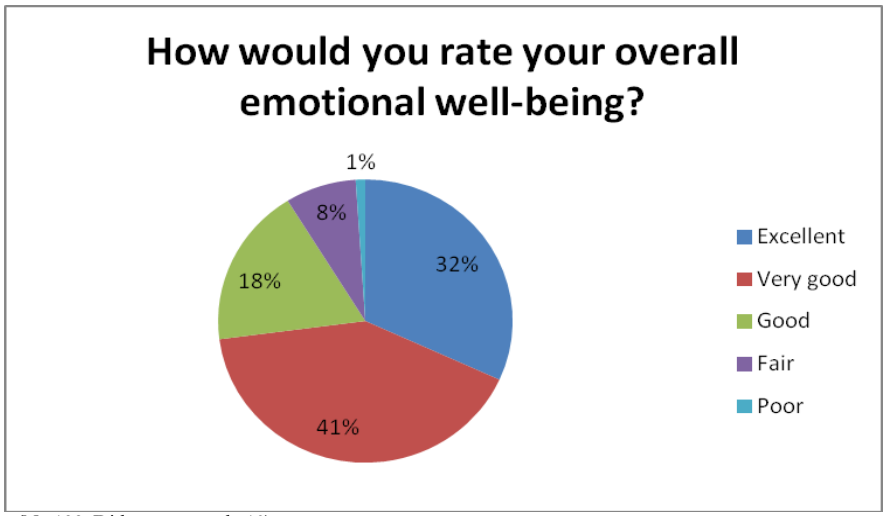
Figure 19: *Physical Health*



(N=191; Did not respond=11)

Similarly, faculty overall rated their emotional well-being as excellent (32%) to very good (41%).

Figure 20: *Emotional Well-Being*

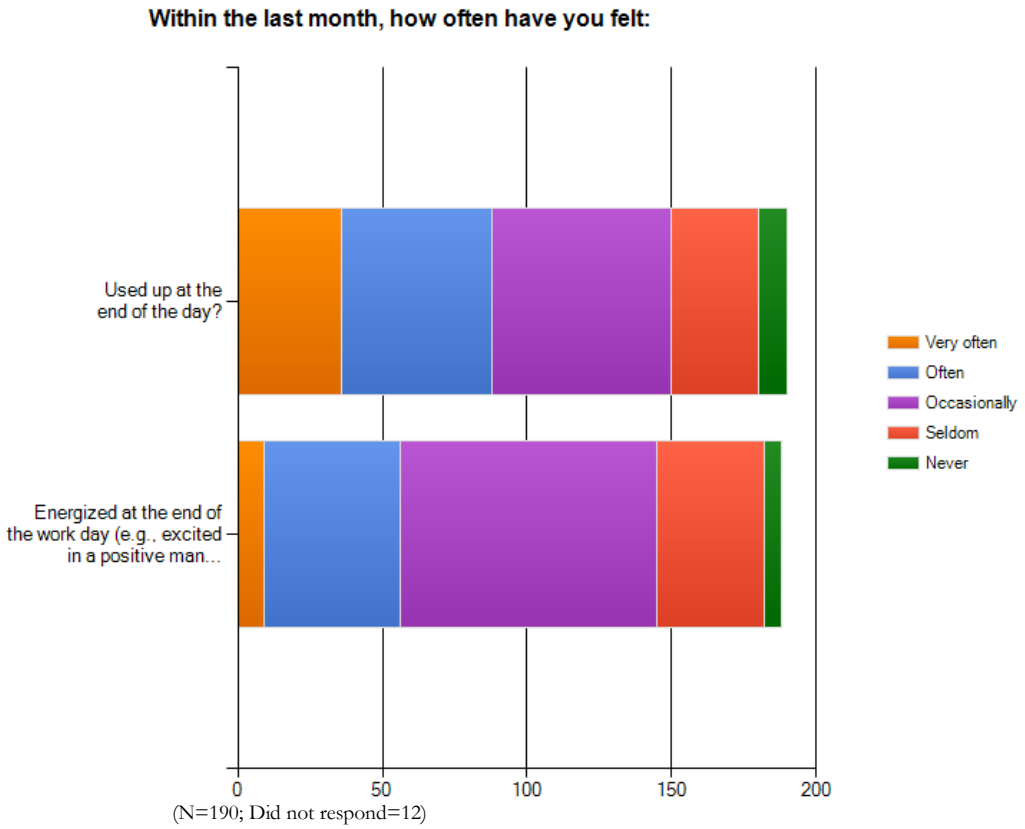


(N=192; Did not respond=10)

Faculty and Stress

Faculty were asked to rate how often they have felt within the last month: (1) used up at the end of the day, or (2) energized at the end of the work day (e.g., excited in a positive manner by the work experience of the day). Most of the faculty occasionally felt energized at the end of the day and often used at the end of the day.

Figure 21: *Feelings of Stress*

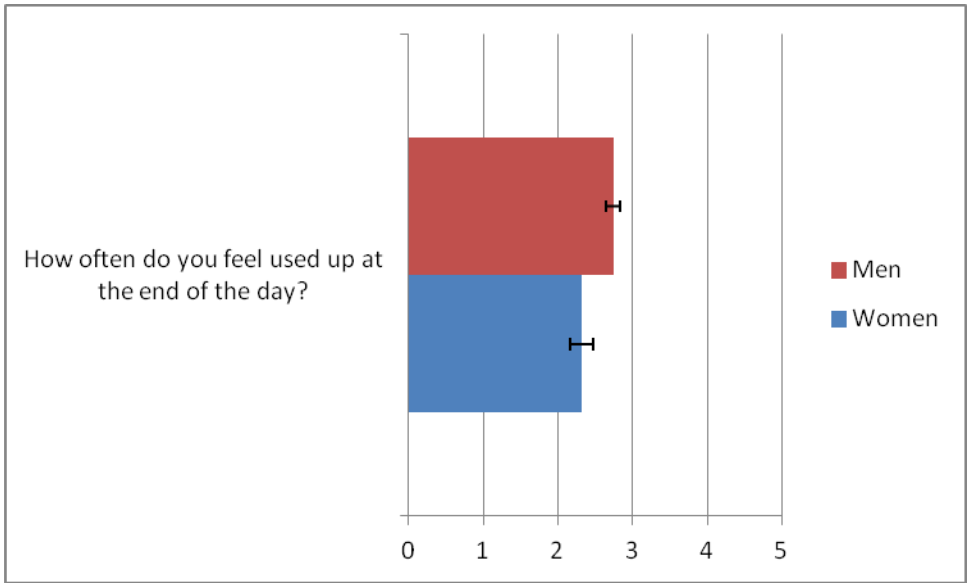


(N=190; Did not respond=12)

By Gender

There were discrepancies between men's and women's responses regarding feelings of stress at the end of the day, wherein women tended to report statistically significant *($p<0.05$)* more feelings of feeling "used up" at the end of the day when compared to men.

Figure 22: *Indicators of Stress by Gender*

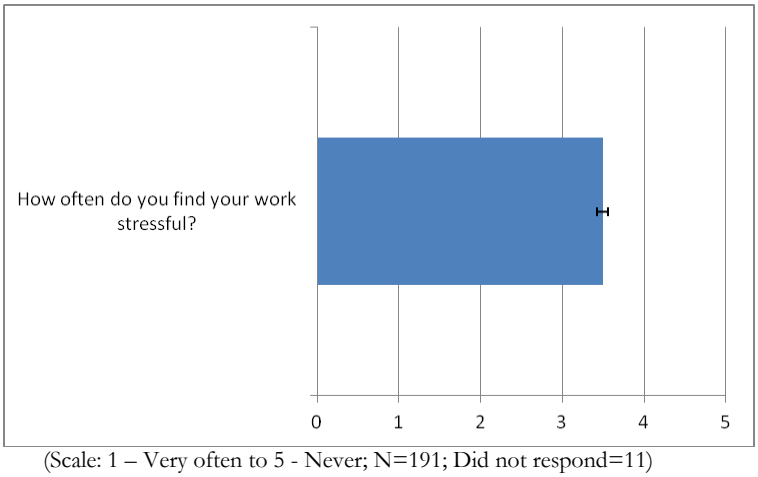


(Scale: 1 – Very often to 5 - Never; N=188; Did not respond=14)
*Note: Error bars represent standard error. *Used up at the end of the day?- Cohen's d= 0.382, R2=0.032*

Stress and Work Environment

Then faculty were asked to rate how often they find their work stressful. Overall faculty reported to occasionally (M=3.49, SD=0.88) find their work stressful.

Figure 23: *Overall Ranking of Stress*



(Scale: 1 – Very often to 5 - Never; N=191; Did not respond=11)
Note: Error bars represent standard error.

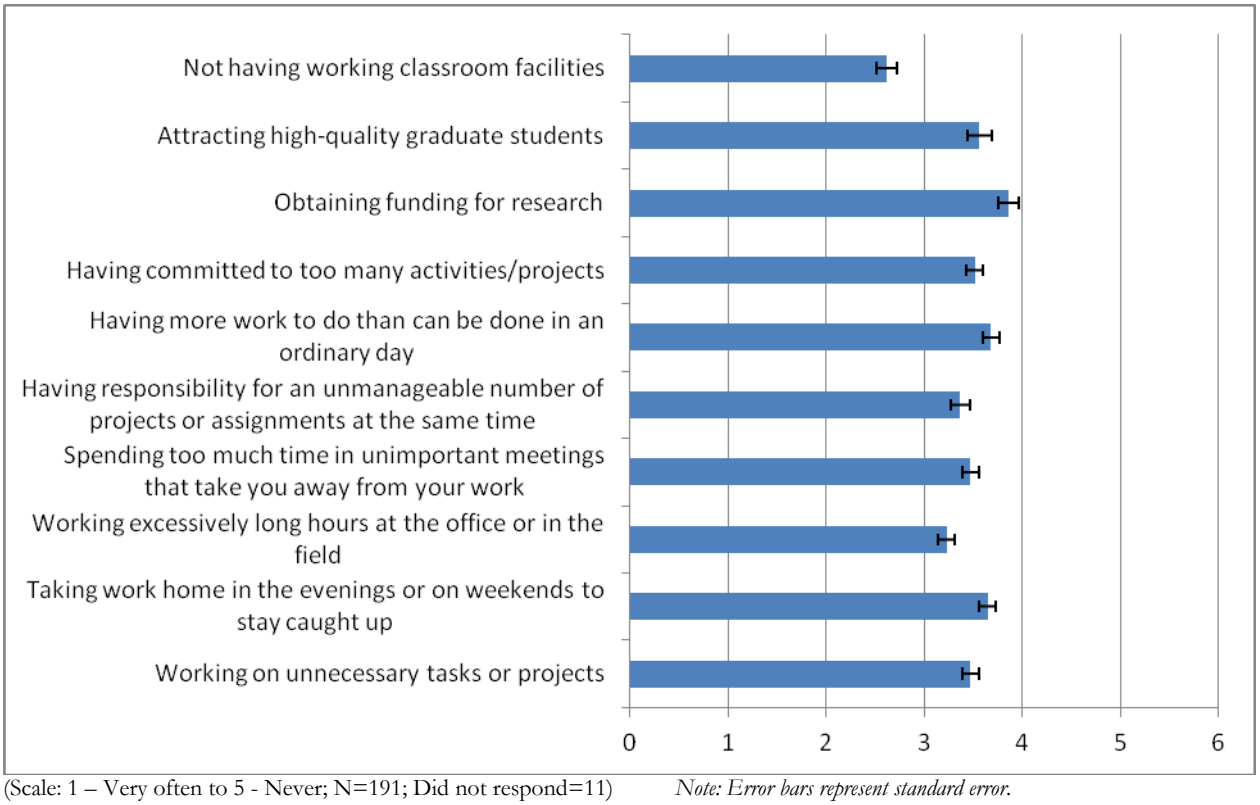
Contributors to Stressful Work Environment

Lastly faculty were asked to rate how often different factors contributed to feelings of stress in their work environment, including: (1) working on unncessary tasks or projects, (2) taking work home in the evenings or on weekends to stay caught up, (3) working excessively long hours at the office or in the field, (4) spending too much time in unimportant meetings that take you away from your work, (5) having responsibility for an unmanageable number of projects or assignments at the same time, (6) having more work to do than can be done in an ordinary day, (7) having committed to too many activities/projects, (8) obtaining funding for research, (9) attracting high-quality graduate students, and (10) not having working classroom facilities.

Overall

Faculty reported that the top three activities causing stress include: (1) obtaining funding for research (M=3.86, SD=1.43), (2) having more to do than can be done in an ordinary day (M=3.68, SD=1.22), and (3) taking work home in the evenings or weekends to stay caught up (M=3.64, SD=1.23).

Figure 24: *Contributors to Stress*

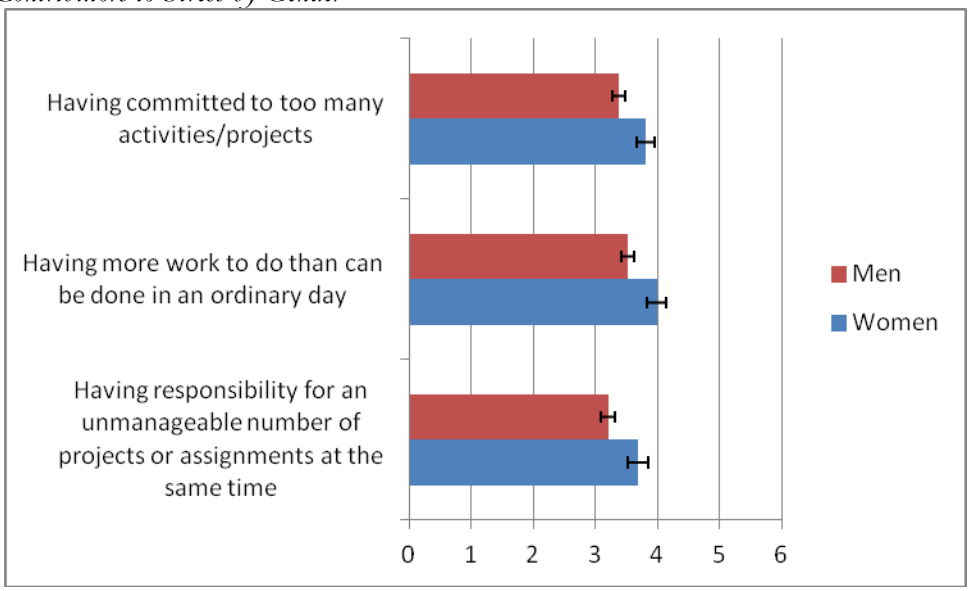


(Scale: 1 – Very often to 5 - Never; N=191; Did not respond=11) *Note: Error bars represent standard error.*

By Gender

When viewed by gender women faculty reported experiencing statistically significantly (*p<.05)* more stress when compared to men faculty in relation to (1) having committed to too many activities/projects (Men M=3.37, SD=1.15; Women M=3.81, SD=1.14), (2) having more work to do than can be done in an ordinary day (Men M=3.52, SD=1.18; Women M=3.98, SD=1.23), and (3) having responsibility for an unmanageable number of projects or assignments at the same time (Men M=3.21, SD=1.31; Women M=3.68, SD=1.29).

Figure 25: *Contributors to Stress by Gender*



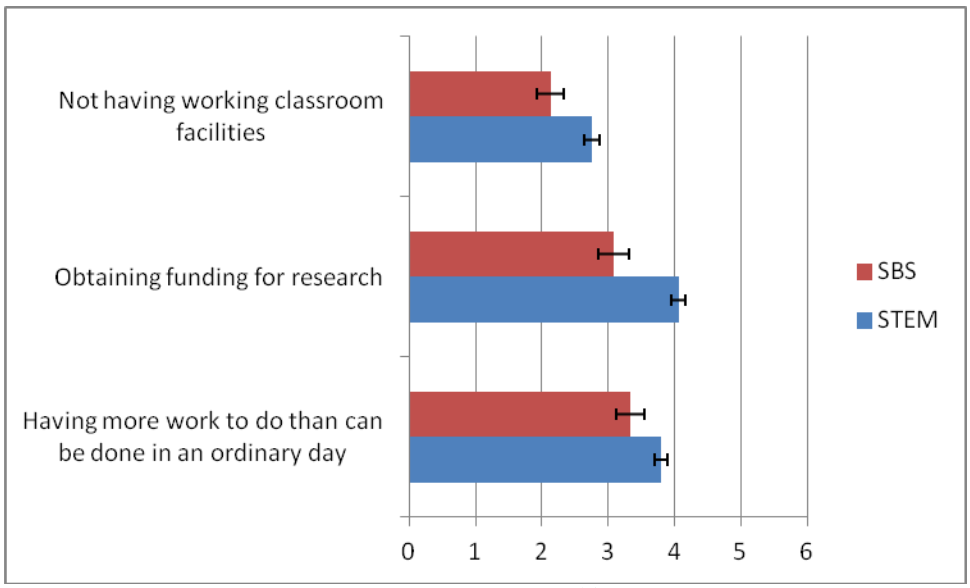
(Scale: 1 – Very often to 5 - Never; N=57 Women; N=131 Men; Did not respond=11)

*Note: Error bars represent standard error. *Having committed to too many activities/projects Cohen's d= 0.379, R2=0.034*
**Having more work to do than can be done in an ordinary day -Cohen's d= 0.387, R2=0.036 * Having responsibility for an unmanageable number of projects or assignments at the same time -Cohen's d= 0.367, R2=0.032*

By Discipline

When viewed by disciplinary group, STEM faculty reported experiencing statistically significantly more stress when compared to Social-Behavioral Science faculty in relation to (1) not having working classroom facilities (STEM M=2.76, SD=1.40; SBS M=2.13, SD=1.28; *p<0.05*), (2) obtaining funding for research (STEM M=4.06, SD=1.37; SBS M=3.08, SD=1.46; *p<0.01*), and (3) having more work to do than can be done in an ordinary day (STEM M=3.79, SD=1.18; SBS M=3.33, SD=1.28; *p<0.05*).

Figure 26: *Contributors to Stress by Discipline*



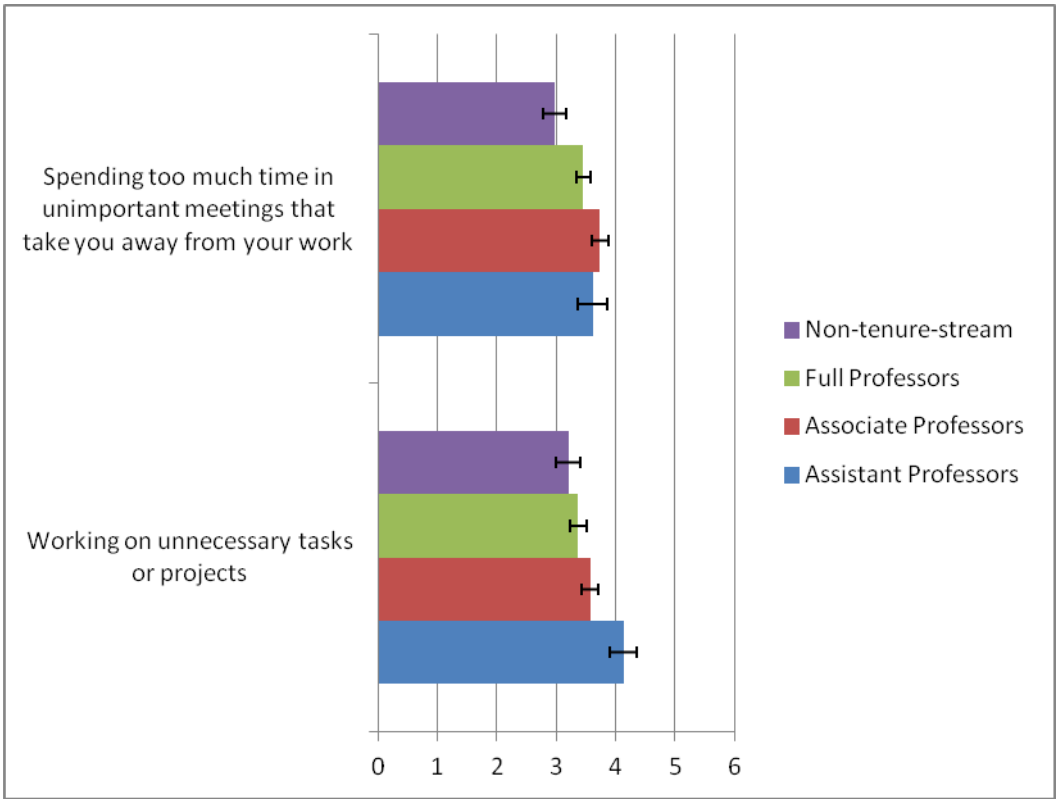
(Scale: 1 – Very often to 5 - Never; N=39 SBS; N=150 STEM; Did not respond=11)

*Note: Error bars represent standard error. *Not having working classroom facilities -Cohen's d= 0.47, R2=0.052 * Obtaining funding for research -Cohen's d= 0.696, R2=0.10 *Having more work to do than can be done in an ordinary day -Cohen's d= 0.371, R2=0.033*

By Rank

When considered by rank associate professors reported statistically significantly ($p<0.05$) more stress when compared to non-tenure-stream faculty, whereas assistant professors reported statistically significantly ($p<0.05$) more stress when compared to non-tenure-stream faculty and full professors.

Figure 27: *Contributors to Stress by Rank*



(Scale: 1 – Very often to 5 - Never; N=39-150; Did not respond=11)

*Note: Error bars represent standard error. *Spending too much time in unimportant meetings that take you away from your work-Cohen's d= 0.502, R2=0.063 * Working on unnecessary tasks or projects-Cohen's d= 0.495, R2=0.058*