



Canadian Natural Sciences & Engineering (NSE)

Faculty Workplace Climate Survey Results - Atlantic Canada

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This report was prepared as part of the NSERC Chair for Women in Science and Engineering program, with involvement from the Chairs in the Atlantic and Prairie regions.

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Key Findings

- The majority of faculty feel valued by their department heads/chairs and students; and are generally optimistic about the climate of their home departments/units (pp. 5-6). However, most faculty do not have enough time to complete all of their work; and nearly half of both men and women are unsatisfied with their work-life balance (pp. 7-8)
- NSE departments remain mostly white, heterosexual, male-dominated spaces (pp. 4-5)
- Though female faculty are less likely to be married/in a common-law relationship; and are less likely to have children than their male colleagues, the gender differences are not statistically significant (p. 5). However, among faculty with children, women are significantly more likely than men to take leave for birth/adoption; and only half of all faculty who took parental leave (female and male) felt supported by their department/unit while on leave (p. 8)
- There is evidence of a gendered division of academic labour. Even though women report relatively more service activities than men at every career rank, female full professors engage in significantly more service work than their male colleagues (pp. 7-8)
- Female faculty continue to have significantly more negative workplace experiences (pp. 9-10); and substantial proportions of faculty report stressful interactions with students disclosing a variety of serious personal problems. Many feel unequipped to handle such encounters but, again, women are significantly more likely to have these encounters and experience more stress, as a result (p. 10)
- Even so, few faculty members (male or female) are planning on leaving their universities in the next 2 years and even less are considering employment outside of academia (p. 11)
- Regardless of gender, faculty strongly recommend increased financial and ideological support for each of the traditional core areas of academic excellence: research, teaching, and service but comments also suggest a desire to modernize the traditional definition and assessment of faculty success (pp. 11-12)
- Refocusing university priorities would, ideally, include streamlining the administration, hiring more full-time faculty members and support staff, increasing internal support for research and teaching, and a general retreat from a corporate governance model rooted in business principles (pp. 11-12)
- Female faculty face additional, unique barriers that include gendered student expectations of women's behaviour and time allocation (p. 12)
- To improve their workplace environment, female faculty call upon universities to institute more effective anti-bias and equity training and enforce consequences for discriminatory/disrespectful behaviours and speech (p. 12)

■ **Sample Description**

A total of 395 natural sciences and engineering (NSE) faculty from seven universities responded to the Atlantic Faculty Workplace Climate Survey (Table 1). The majority of respondents are tenured (75%), with approximately 40% having already advanced to the rank of full professor (Figure 1).

Table 1: Participating Universities

University	Percent
Dalhousie University	25.8%
University of New Brunswick (Fredericton and Saint John)	24.7%
Memorial University	23.7%
Saint Mary's University	10.1%
University of Prince Edward Island	4.9%
Mount Allison University	6.6%
Sant Francis Xavier University	4.2%
Total	100%

On average, faculty have had tenure for 12 years (standard deviation, sd = 9 years). Just under 20% also hold an administrative position, the most common being department head/chair (52%). The majority of the respondents work in science-based colleges or faculties (67%), followed by engineering/related (20%), agriculture/related (8%), and other fields (6%), such as forestry or ocean/fisheries. Not surprisingly, the vast majority engage in NSERC-related research and teaching activities (76%). The remaining work in CIHR (14%), and SSHRC-related areas (11%).

The gender, ethnicity, and age characteristics of the sample are similar to population data for full-time Canadian university teachers (CAUT 2018; Statistics Canada 2017). In addition, the gender and age distribution of the sample is also similar to some NSE faculties, specifically (CAUT 2014). Nearly two-thirds of the sample are male (62%), 86% identify

Figure 1: Rank

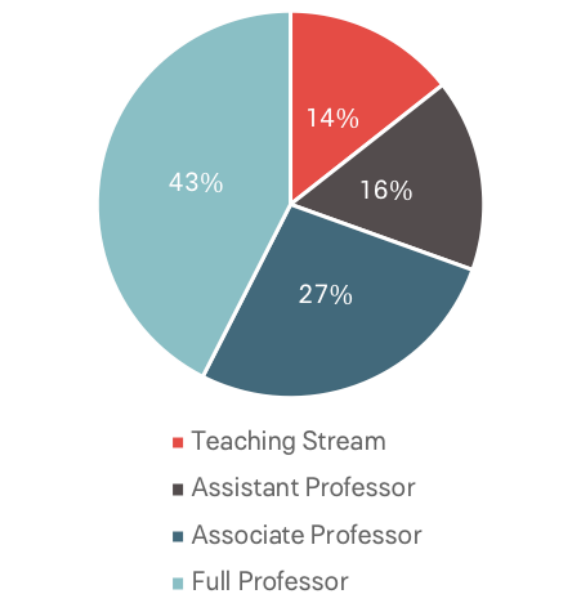
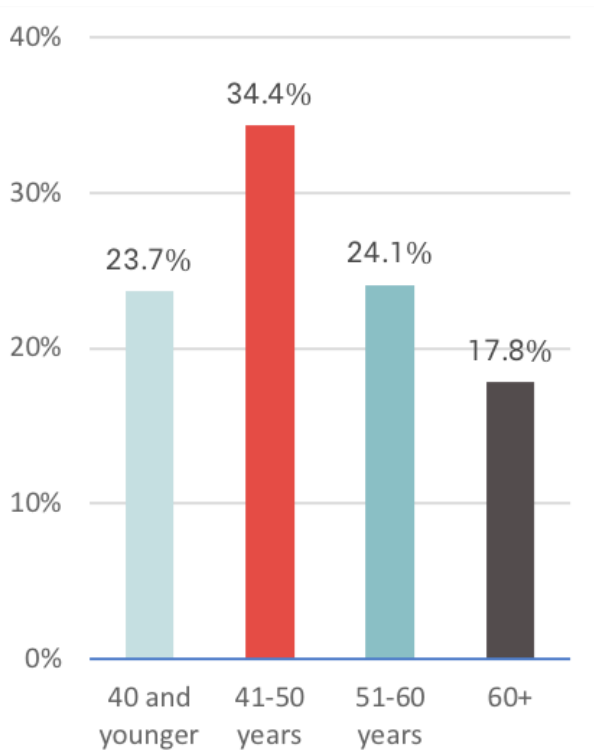


Figure 2: Respondant Age



as white/Caucasian, and 95% as heterosexual. The average age of participants is 49 years old (sd = 11 years, Md = 48 years) (Figure 2).

The majority are either married or in a common-law relationship (86%); and have children (71%). Less than a third have children under the age of 13 (29%). Female faculty are less likely to be in a married/common-law relationship than their male colleagues (82% vs. 90%); and women are also less likely to have children than men (65% vs. 76%). However, neither of the gender differences in relationship or parental status are statistically significant¹.

■ Workplace Climate Results

Overview: analyses suggest that Atlantic NSE faculty are generally more optimistic about the climate of their own departments/units relative to the broader university climate. The data indicate that female faculty members have more negative day-to-day

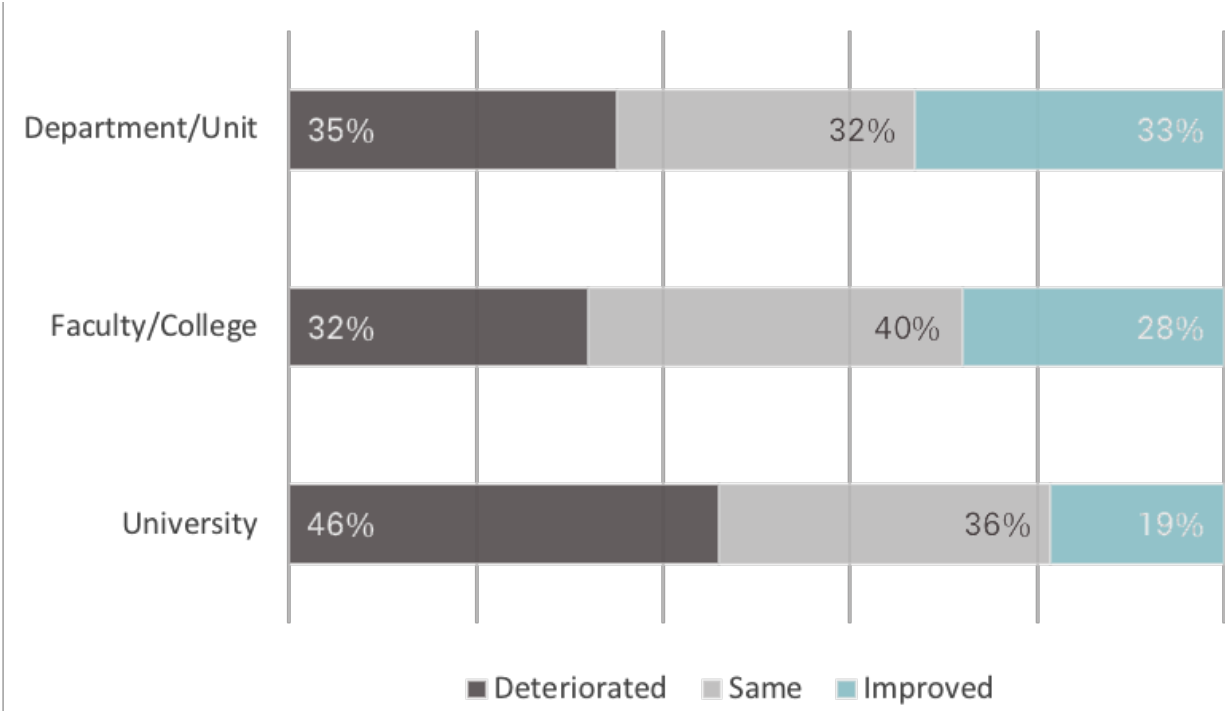
workplace experiences (e.g., harassment and discrimination) and have higher levels of job-related stress. Nevertheless, both male and female faculty are generally satisfied with their own career progress and most plan to continue working at their current university.

Department/Unit, Faculty/College and University Climate

As illustrated in Figure 3, two-thirds of faculty (65%) indicate that the general climate of their department/unit has either stayed the same (32%) or improved (33%), while 35% feel their immediate work environment has deteriorated. Respondents are slightly less optimistic about their faculty/college climate (28% say it has improved), but least favourable toward their university climate. Nearly half (46%) report that the climate at their university has deteriorated².

Most faculty feel they have access to a leadership position in both their own department/unit (75%) and within their larger faculty/college (65%); how-

Figure 3: Perceptions of Work Climate



¹ Values for tests of significance are greater than the .05 alpha level (p-value).
² Chart total for university climate exceeds 100% due to rounding.

ever, they are less likely to agree that the process for recruiting and appointing leaders within their faculty/college is transparent (53%). Less than half (43%) of respondents agree that there is sufficient gender diversity among faculty in their department/unit and only slightly more feel that women are well represented in leadership positions in their faculty/college (49%) or at their university (52%). Perceptions of racial/ethnic underrepresentation are even stronger. Specifically, only 33% of participants feel there is sufficient racial/ethnic diversity among faculty within their department/unit, and even fewer believe that racialized minorities are well represented in leadership positions in their faculty/college (21%) and at their university (17%).

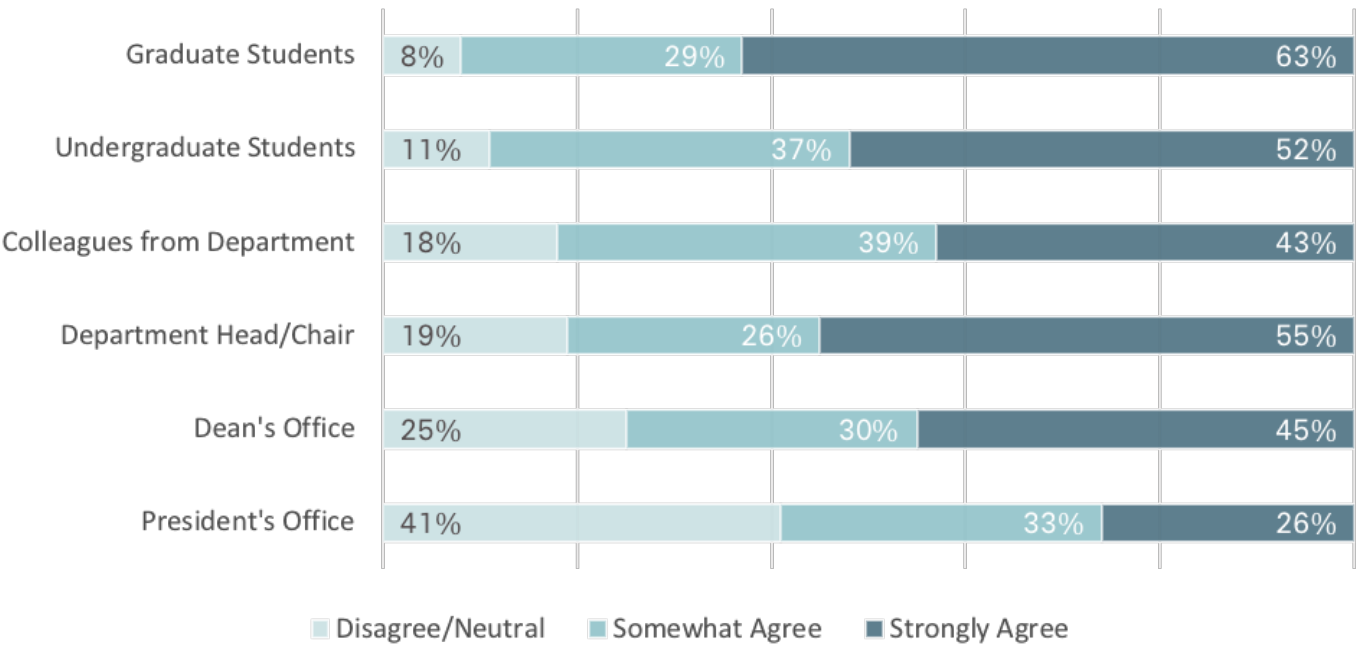
Moreover, there are several significant gender differences with female faculty perceiving less opportunity for a leadership position in their own department/unit (68% vs. 82%); and faculty/college (58% vs. 73%) than male faculty. Women are also significantly less likely to agree that the process for recruitment and appointment is transparent

compared to men (40% vs. 60%). Finally, women are less likely to believe their department/unit has sufficient racial diversity than men (19% vs. 42%) or that minorities are well represented in leadership positions in both their faculty/college (16% vs. 26%) and at the university, overall (11% vs. 22%).

Perceived Respect & Value

Faculty were asked a series of questions on perceived levels of respect, which are presented in Figure 4. The majority of respondents feel respected at their universities. Perceptions of respect are highest in individual departments/units from the head/chair (55% strongly agree), undergraduate students (52% strongly agree), and graduate students (63% strongly agree). Perceptions of department/unit colleagues' respect are relatively lower (43% strongly agree). Faculty are slightly more likely to agree that they feel respected by their Dean's Office (45% strongly agree) but perceive the least respect from the President's Office (26% strongly agree).

Figure 4: Perceived feelings of respect by:



Workload

As shown in Figure 5 (next page), even though 45% of all faculty agree that the amount of work they have is fair, substantial proportions of respondents also feel that they have too many research (43%), teaching (37%), and service responsibilities (35%) to do each of them well. Furthermore, nearly two-thirds (62%) agree that they never have enough time to get all of their work done, and half (50%) agree that their research and/or teaching is overloaded with administrative rhetoric.

There are several significant gender differences in perceptions of workload density. More female than male faculty report that they have too many service responsibilities to do them well (49% vs. 28%); and women are more likely to agree that they do not have enough time to get their work done compared to men (80% vs. 49%). Female faculty are also more likely to feel emotionally drained from work (67% vs. 42%) and used up by the end of the work day (77% vs. 49%), relative to their male colleagues.

There is also some evidence to support the existence of a broader structural gendered division of academic labour: overall, female faculty report significantly above average service (mean = .26), compared to male faculty, who perform below average service (mean = -.16); $t = -3.2$, $df=185$, $p < 0.01$). Furthermore, men perform below average service at each career rank (assistant, associate, and full professor) (Figure 6, next page). At each rank, women report more service work. However, the gender gap is only significant at the highest career rank: female full professors engage in significantly more service (mean = 0.38) compared to their male counterparts (mean = -0.21); $t = -2.7$, $df=74$, $p < 0.01$). Even though male faculty report relatively more research-related activities at each rank, none of these differences were found to be statistically significant.

Work-Family Integration

Most Atlantic NSE faculty (62%) agree that their

colleagues are supportive when faculty members take time for family life. However, nearly half of respondents (48%) feel that faculty who reduce their workload for their family are viewed by funding agencies as less committed to their research. In addition, 59% of faculty concede that they forgo personal life activities for professional responsibilities, suggesting that work activities often take priority. Yet, faculty are divided as to their perception of personal/professional life balance: 42% are satisfied but 46% are dissatisfied. This divide also extends to workload where equal proportions of faculty hold differing opinions: 44% of faculty indicate they are satisfied but 44% report that they are dissatisfied with their overall workload.

As expected, there are numerous significant gender differences that suggest women still disproportionately experience the challenges associated with combining caregiving and scholarly work. Women are significantly more likely than their male colleagues to be dissatisfied with their work-life balance (55% vs. 39%); and more likely to be dissatisfied with their overall workload (56% vs. 36%). Female faculty remain significantly more likely than their male colleagues to take any leave for birth/adoption (88% vs. 29%); and just under half of all men and women who have taken parental leave (49%) felt supported by their department/unit at the time³.

Women are significantly less likely to perceive their colleagues as supportive when faculty take time off for family life (56% vs. 67%); and more likely to disagree that family demands are considered when department/unit meetings and events are scheduled (50% vs. 30%). Further, female faculty are significantly more likely to forgo personal life activities for professional responsibilities than male faculty (74% vs. 50%); and women are more likely to believe that attending to personal needs (e.g., time off to care for sick children or elderly parents) is frowned upon relative to men (24% vs. 11%).

Despite these opinions, the majority of both male

³ There are no significant gender differences in perceptions of department/unit support for leave.

Figure 5: Workload

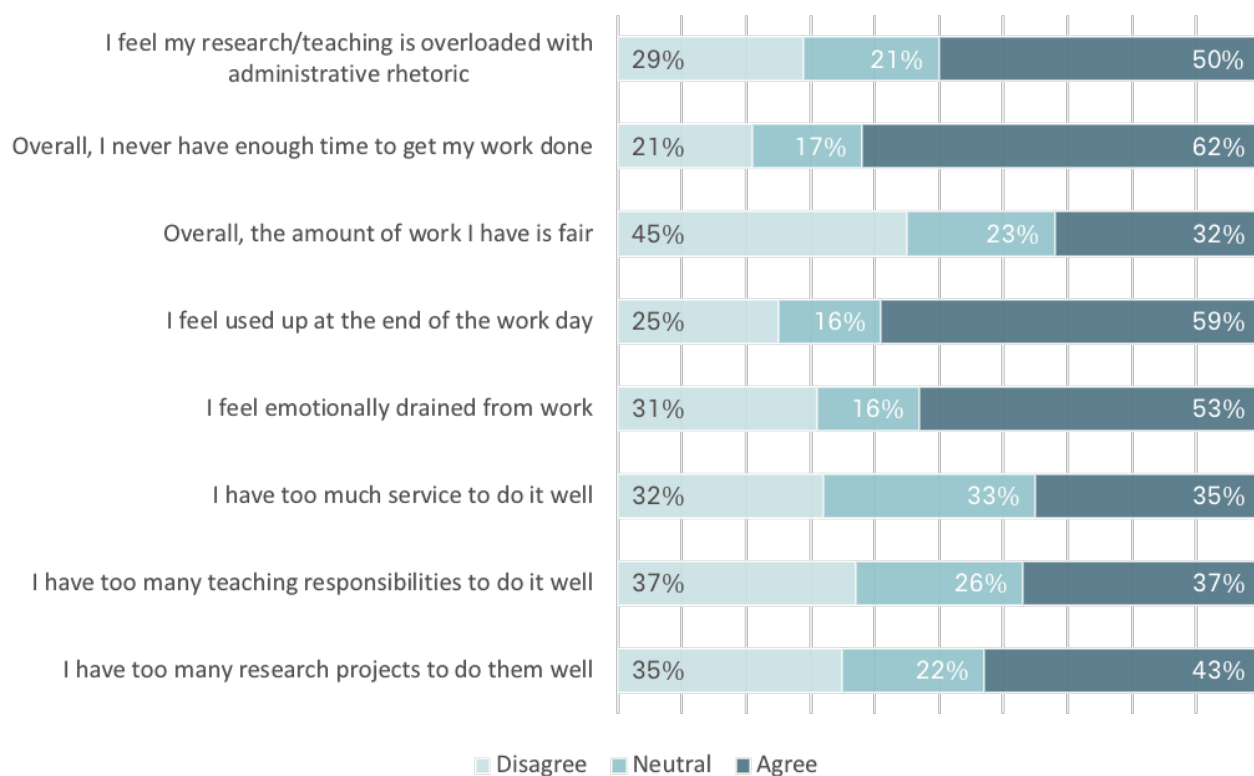
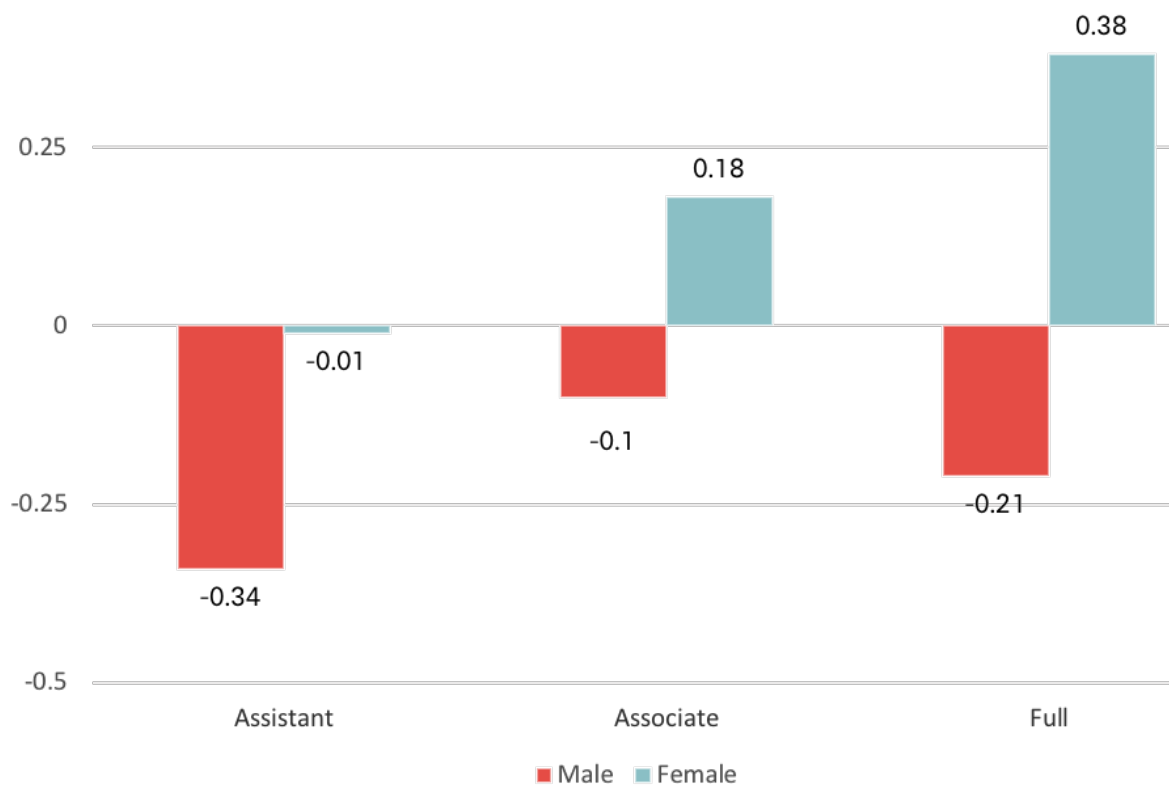


Figure 6: Service Work Index



and female faculty (66%) feel it is possible to combine an academic career with raising a family. Moreover, though women are somewhat more likely than men to agree that academia and family are incompatible (23% vs. 17%), the difference is not statistically significant. Similarly, only 26% of all faculty report having considered leaving their job to improve their personal-professional life balance and while women are, again, slightly more likely than men to have considered leaving their job (28% vs. 21%), the difference is not significant.

Exclusion, Harassment & Discrimination

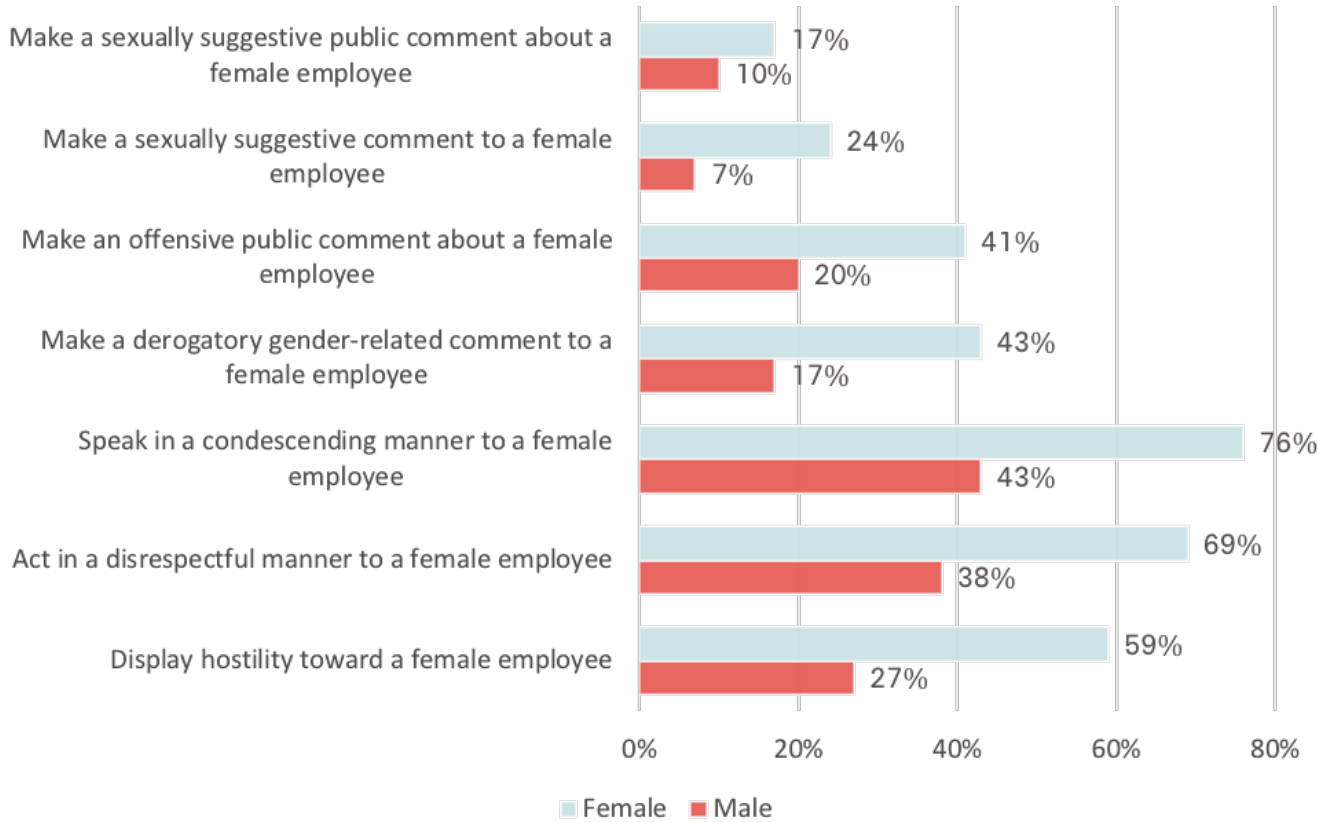
Even though some male faculty have negative workplace experiences, female faculty are significantly more likely to report being excluded from informal department/unit discussions on multiple occasions (38% vs. 18%); and excluded from formal networks within their universities on multiple occasions (23% vs. 11%). Women are also significantly more likely

to have experienced harassment or discrimination within their department/unit than men (37% vs. 17%). More than three-quarters of women report that the harassment/discrimination was due to their gender (84%).

In addition, women are significantly more likely to have observed the harassment and discrimination of other females by university faculty/staff/administration (in the past 2 years), compared to their male colleagues, including hostility (59% vs. 27%), disrespect (69% vs. 38%), condescension (76% vs. 43%), derogatory gender comments (43% vs. 17%), and sexually suggestive comments (24% vs. 7%) (Figure 7).

As illustrated in Figure 8 (next page), female faculty are also significantly more likely than male faculty to report witnessing (in the past 2 years) student perpetrated harassment or discrimination of female professors/instructors, including disrespect (73%

Figure 7: Past 2 years, observed harassment / discrimination from any faculty, staff, or administrator



vs. 26%), condescension (65% vs. 19%), derogatory gender comments (33% vs. 10%), and sexually suggestive comments (16% vs. 3%).

Thus, NSE departments in the Atlantic still appear to be difficult work environments for female faculty who, on top of already heavy academic workloads, are exposed to additional gender-based harassment and discrimination from other university co-workers and students.

Stressful Student Interactions

Faculty describe experiencing a variety of challenging, non-academic interactions with students. Nearly 90% of respondents report having had at least one student cry in their office or lab, with 38% estimating they have had this happen with 5 or more students. Nearly all faculty members (93%) have had at least one student disclose extreme stress or long-term mental illness over the course of their career. Half (49%) have had at least one stu-

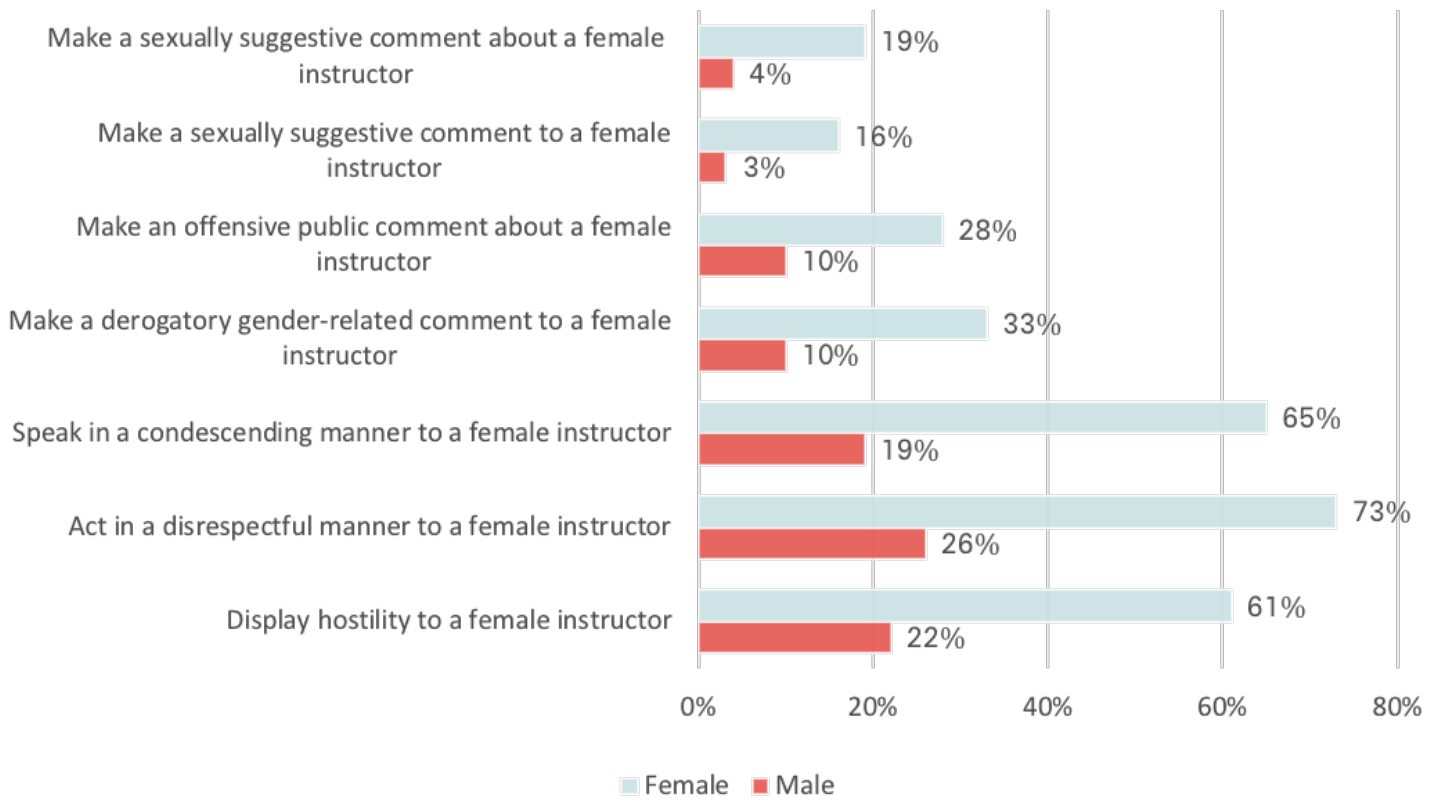
dent disclose domestic/dating violence, sexual harassment/assault, or suicidal thoughts or behaviour. Over three-quarters (79%) report that these experiences are somewhat, very, or extremely stressful, and most do not feel adequately equipped to deal with these situations.

Despite the apparent commonality of these situations, there are significant gender differences. Specifically, women are more likely than men to report more than 5 students crying in their presence (52% vs. 30%); having students disclose suicidal thoughts/behaviour (43% vs. 21%); domestic/dating violence (36% vs. 14%); and sexual harassment/assault (52% vs. 23%). Furthermore, women are significantly more likely to find these non-academic student interactions very or extremely stressful than their male colleagues (39% vs. 19%).

Career Satisfaction

Most faculty indicate they are satisfied with the

Figure 8: Past 2 years, observed harassment / discrimination from students



progress they have made toward achieving their career (79%), income (77%), and advancement goals (75%). Less than one quarter (22%) have been looking for employment at a different university; 11% plan on leaving their current university in the next 2 years; and, similarly, 12% are considering employment outside of academia altogether. Thus, while NSE faculty opinions are quite mixed regarding their individual departments/unit climates, workloads, and day-to-day experiences, overall, they appear to be generally satisfied with their professional lives.

■ Faculty Recommendations

Survey respondents provided a wide range of comments on the most serious barriers/concerns they face, as well as suggested improvements the university could make to improve their working environment. Despite the variety, some clear themes could be discerned.

Male and female faculty generally agree that administration-related issues and budget cuts/financial strain are some of the most pressing concerns. Frequently cited administrative problems include operating universities according to a business model and increasing “corporatization,” growing numbers of “professional administrators,” increasing constraints being placed on faculty activities; and the “on-going creep of administrative duties and rules which divert time from teaching and research” (otherwise referred to as “downloading” of administrative tasks). Faculty are concerned that budget cuts prohibit the replacement and upgrading of essential equipment and laboratory/work space, reflecting an overall lack of internal research support. Some faculty also emphasize the connection between a lack of internal financial support and difficulty attracting/retaining qualified and talented graduate students. A continued lack of both support staff and full-time tenure-track faculty are additional barriers, as are excessive workloads and little work-life balance.

Unsurprisingly, both women and men call for the university to improve staffing by creating more full-time tenured positions or, at least, offering longer-term contracts to teaching stream faculty. In terms of increased internal financial support, faculty want resources put toward hiring more teaching and research assistants, which includes graduate student support; and to update equipment and facilities to improve health/safety and enable faculty to engage in state-of-the-art research. Many faculty express some frustration with having to devote significant portions of their own funding to cover such costs:

“More costs need to be borne by research projects including support of undergraduate research [and] equipment used jointly for teaching and research – all at a time when research funding is getting tighter and many activities are disallowed.” (female faculty member)

“There is way too little support for student teaching and research support including health and safety within research laboratories. At my institution over 60% of the NSERC Research Support Fund is spent on administration and very little on infrastructure or other support.” (female faculty member)

In addition to returning power to faculty, placing term limits on administrative (and other executive) positions (e.g., union boards), reducing the number of administrative demands placed on faculty, and retreating from a corporate business model, both men and women recommend that the university and administration renew their commitment to the core mission of the academy (educating students) and the three pillars of scholarly work: research, teaching, and service. However, faculty of both genders note the importance of increasing the value of teaching and service which, at present, are devalued relative to research. In addition, several men and women advocate for the institution of post-tenure evaluation mechanisms/procedures and the distribution of workloads according to indi-

vidual faculty strengths. Together, these comments suggest that at least a portion of faculty see a need to re-evaluate or modernize traditional methods of defining and assessing scholarly performance.

Despite similar concerns about the administration and financial resources, women clearly differ from men in their prioritization of gender-based obstacles, identifying discrimination against female faculty as one of the most pressing problems they face. Some women specifically note their continued fear of negative career consequences resulting from maternity leave and their disproportionate responsibility for teaching and service work, especially. Moreover, female faculty cite the negative impact of gendered cultural student expectations requiring them to serve as “counsellors” or behave “motherly” toward students, and students’ perception that female faculty’s time is relatively “less important” than male faculty’s time. The latter results in additional expectations that women should be able to grade and return assignments/tests quickly and meet with students on demand, whereas male faculty may be more likely to be perceived as having “important research to do.”

“My other concern is that society in general has different expectations of women and men, and that is not accounted for in teaching evaluations or

graduate supervisory training. Women seem to be expected to be soft, motherly, and accommodating. They receive a disproportionate number of student visits than their male colleagues, and are more frequently challenged, bullied, [and] disrespected by their students. [...] The toll this takes on female professors is not even acknowledged, much less accounted for.” (female faculty member)

With respect to remedying persistent gender-based inequalities, some women call for universities to increase gender and minority representation, singling out hiring processes, specifically. Several not only advocate for the development and delivery of more effective anti-bias and equity training, but the enforcement of consequences for those who engage in discriminatory or disrespectful behaviours and speech. Finally, women also stress the need for better university child care options and better support for female faculty with children, in general.

Thank you again for your participation!

■ References

Canadian Association of University Teachers. 2018. “Underrepresented & Underpaid: Diversity & Equity Among Canada’s Post-Secondary Education Teachers”. https://www.caut.ca/sites/default/files/caut_equity_report_2018-04final.pdf.

–2014. *CAUT Almanac of Post-Secondary Education in Canada 2013-2014*. Ottawa, ON. https://www.caut.ca/docs/default-source/almanac/almanac_2013-2014_print_finalE20A5E5CA-0EA6529968D1CAF.pdf?sfvrsn=2.

Statistics Canada. 2017. “Number and Salaries of Full-Time Teaching Staff at Canadian Universities”. The Daily (November 28th, 2017). <http://www.statcan.gc.ca/daily-quotidien/171128/dq171128b-eng.pdf>.

