

Improving the Working Climate in the Faculty of Science at UBC

Rachel Kuske, Carola Hibsich-Jetter, Simon Peacock and Anne Condon

Abstract

In 2005, an advisory committee was struck to assess the working climate for Science faculty at the University of British Columbia (UBC), with an initial focus on concerns raised by women faculty. This study carefully analyzed both institutional and survey data. It was supported by the Faculty of Science, the Provost and the Vice President, Research, and led by UBC mathematics professor Rachel Kuske. The study found that, while faculty overall reported a general sense of fair treatment and collegiality, several concerns were raised by female faculty about the lack of professional support, issues of workplace equity, and career development needs. In areas where clear policies were applied, such as salaries, there were limited differences by gender. In contrast, significant gender differences were observed, where the data suggested a lack of transparent and equitable procedures and policies. These included differences in time to promotion, in amounts of retention funding, and in awards.

The Dean's Office of the Faculty of Science (FoS) has already acted on several recommendations, but there is much work ahead. Key components of the plan for change will include: new recruiting practices to increase faculty diversity, with oversight by the Dean's office; better support for partner accommodation; policy development and documentation including policies on research support during maternity/parental leave and teaching reductions; better support for mentoring and career feedback; and mechanisms to increase equity in retention, awards and support of leadership.

Following an overview of efforts for institutional change at North American institutions, this paper will report on the findings of the Working Climate Assessment for Science Faculty at UBC, and on progress to date in implementing the recommendations.

Introduction: efforts for institutional change at US American and Canadian institutions

US. Longitudinal data on US PhD production, such as the National Analysis of Diversity¹ on US trends in science and engineering for both women and minorities, show that the slow progress in increasing the representation of underrepresented groups in faculty positions is not just a “pipeline issue” that may correct itself as soon as more science students receive their doctoral degree. A European Molecular Biology Organization (EMBO) study² of women in the biomedical sciences also shows a sharp decrease in the percentage of women from postdoctoral to tenure-track positions. Explanatory factors suggested by the EMBO survey data included family demands, spousal employment status and confidence in obtaining a position. Other studies such as the Do Babies Matter project³ and the Gender Equity project⁴ provide more insight on the challenges faced by women who pursue academic careers.

Several institutions are now working hard to turn these trends around. A landmark report by Nancy Hopkins et al. on the status of women faculty at the Massachusetts Institute of Technology (MIT)⁵, together with unusual effort by MIT Dean of Science Robert Birgeneau, led

to gains in the percentage of women hired between 1996 and 2000. Elsewhere in the US, a major catalyst of change has been the Advance program⁶, funded by the National Science Foundation. Additionally, the Sloan Foundation has provided significant funding to institutions that are leaders in working towards faculty equity, providing support for UC Berkeley's Faculty Family Friendly Edge⁷ project and University of Washington's Balance@UW⁸ project.

Canada. The Association of Universities and Colleges of Canada's (AUCC's) Trends in Higher Education⁹, as well as Drakich and Stewart's *Academic Matters* article¹⁰, provide historical perspective on the slowly increasing percentage of women in faculty positions at Canadian institutions. By 2006, women accounted for one on three faculty positions, but there are significant differences by discipline, with women filling only 20% of the positions in mathematics and the physical sciences. Unfortunately, data on the number of visible minorities, Aboriginal people, and people with disabilities in the academy is not gathered by Statistics Canada, and so not addressed in these reports.

There have been valuable efforts to help recruit and retain more women in Canadian institutions. NSERC's University Faculty Awards (UFA) program has (partially) funded faculty positions for women and aboriginal researchers in Science and Engineering at Canadian research institutions. Unfortunately, 2007/08 is the last year of this program. A significant advantage of many Canadian institutions, compared with many US institutions, is the availability of paid maternity and parental leave for faculty, and extension of the tenure clock. Some studies at other Canadian institutions, such as that at the University of Calgary¹¹, document the status of women faculty and strategies for follow-up have been planned. The University of Toronto has recently completed an Employee Experience Speaking UP survey¹²; their Family Care Office (see at www.familycare.utoronto.ca) has earned recognition (www.news.utoronto.ca/bin6/061130-2782.asp) for its family-friendly policies. The University of Alberta's Project Catalyst¹³ aims to "increase the diversity, especially the percentage of women, in faculty positions in the Faculty of Science."

Compared with programs to recruit and retain women, institutional programs with focused attention on recruitment and retention of other underrepresented groups in science are difficult to find, although professional organizations, such as the Canadian Aboriginal Science and Technology Society (www.casts.ca) provide resources and support for networking among minority graduate students and faculty.

UBC. At UBC, attention to and progress on increasing the representation of women on the faculty has been sporadic. Early studies by Day¹⁴ and Ledwig-Rigby¹⁵ provided valuable data on the representation of women faculty (showing, for example, that the number of female full professors in FoS had doubled – increased from 2 to 4 – in twenty years, from 1973 to 1993), and recommendations for change. In the 1990's, under the leadership of Sharon Kahn, Associate Vice President, Equity Office, FoS Deans Barry McBride and Maria Klawe, and Associate Dean Judy Myers, FoS departments developed hiring plans that addressed diversity goals, and progress was made in increasing the representation of women faculty.

The period of 2003 to 2007 was a time of significant faculty hiring for FoS – and a time of significant turnover in the Dean's office. Women comprised about 16% of the total faculty hired,

significantly less than the percentage of female doctoral graduates from Canadian and US institutions. (For example, AUCC's Trends in Higher Education¹⁶ shows that the share of women doctoral graduates from Canadian institutions between 2002 and 2004 was over 20% in each scientific discipline and much larger in some, being over 40% in the biological sciences. Donna Nelson's US data are comparable.) In contrast, University of Washington's Advance program reports that 25% of the faculty hires in Science *and* Engineering were women, over roughly the same period; similar gains in hiring were reported by other Advance institutions. At Arizona State University, under the leadership of Divisional Dean Simon Peacock in 2005/06, 43% (21 of 49) of faculty hires in the Natural Sciences and Mathematics were women, and 26% (13 of 49) were minorities. Another cause for concern, given the impending termination of NSERC's UFA program, is that 13 of the 35 women, who were hired as assistant or associate professors since 2000 and are still at UBC, were hired through the UFA program.

Following table shows that the percentages of women, visible minorities, Aboriginal people, and people with disabilities, who were tenure-track faculty in FoS, were all below the respective percentages in the Canadian Labour Force (source: UBC Equity Annual Report¹⁷).

Designated group	Women	Visible minorities	Aboriginal people	People with disabilities
<i>Tenure-track faculty at UBC Science (as of May 2006)</i>	19%	10%	<1%	4%
<i>Canadian Labour Force (as of last available census, 2001)</i>	47%	13%	2.5%	5%

Working climate study at UBC's FoS: survey and data collection

In 2005, an advisory committee was struck to assess the working climate for Science faculty at UBC, with an initial focus on concerns raised by women faculty. The study was led by Rachel Kuske (UBC department of Mathematics) and included a faculty survey, a department heads questionnaire¹⁸, and collection of quantitative data from various administrative units across the campus. Focus groups were added to provide context for the data collected and to allow for more detailed responses to faculty concerns and issues.

All tenured/tenure-track full-time Science faculty members appointed before July 2005, including instructors, senior instructors, assistant professors, associate professors, and full professors, as well as 119 professors emeriti were asked to complete the on-line survey.

Complementary to the survey results, quantitative data sets were collected by the FoS Dean's Office – with the exception of the data on tenure and promotion of faculty cohorts in FoS and UBC, which were provided courtesy of the UBC Equity Office.

Survey results

A total of 129 completed surveys were returned and used in the faculty survey data analysis, giving response rates of 35% (125 out of 360) for tenured/tenure-track, 3% (4 out of 119) for emeriti, and 27% overall (129 out of 479). Table below shows response rates by gender and rank in comparison to total FoS tenured/tenure-track faculty composition.

	Female faculty	Male faculty	Assistant professors	Associate professors	Full professors	Instructors
<i>Respondent composition</i>	22%	78%	21%	24%	49%	6%
<i>FoS faculty composition</i>	18%	82%	21%	25%	44%	10%

The Heads Survey was completed separately by each of the nine department heads within the Faculty of Science (Botany, Chemistry, Computer Science, Earth & Ocean Sciences, Mathematics, Microbiology & Immunology, Physics & Astronomy, Statistics, and Zoology).

Of the 44 Focus Group participants, 40% were female and 60% were male. By rank, they were 45% full professors, 23% associate professors, 16% assistant professors, and 16% instructors.

In addition to results based on total respondents, group differences in terms of departmental grouping, gender, rank and years from obtaining PhD were investigated. The departmental groups included the Life Sciences (LS: Botany, Microbiology & Immunology, Zoology), Physical Sciences (PS: Chemistry, Earth & Ocean Sciences, Physics) and Mathematical and Computer Sciences (MCS: Computer Science, Mathematics, Statistics).

Main findings¹⁹ from the various sources of the assessment were reported by the following topics: resources, tenure/promotion/leadership, hiring, salary/retention, departmental climate/harassment, teaching/mentoring and work–life balance.

Resources. Faculty members were asked to rate their current access to six areas of departmental support and their perception of fairness in the allocation of those resources in their departments. The six areas included technical support, lab equipment, lab space, clerical/administrative assistance, teaching assistants (TAs), and internal special funds (not from start-up funding).

The respondents reported the least amount of support in internal special funds, with only 3% indicating “a lot of access.” Most support was reported in lab space and TAs, with 44% and 45% reporting “a lot of access” respectively. Overall perceived fairness was reported the lowest in allocation of special internal funds among the six resources. Male respondents perceived significantly higher levels of fairness in allocation of technical support, clerical/administrative assistance and TAs than female respondents.

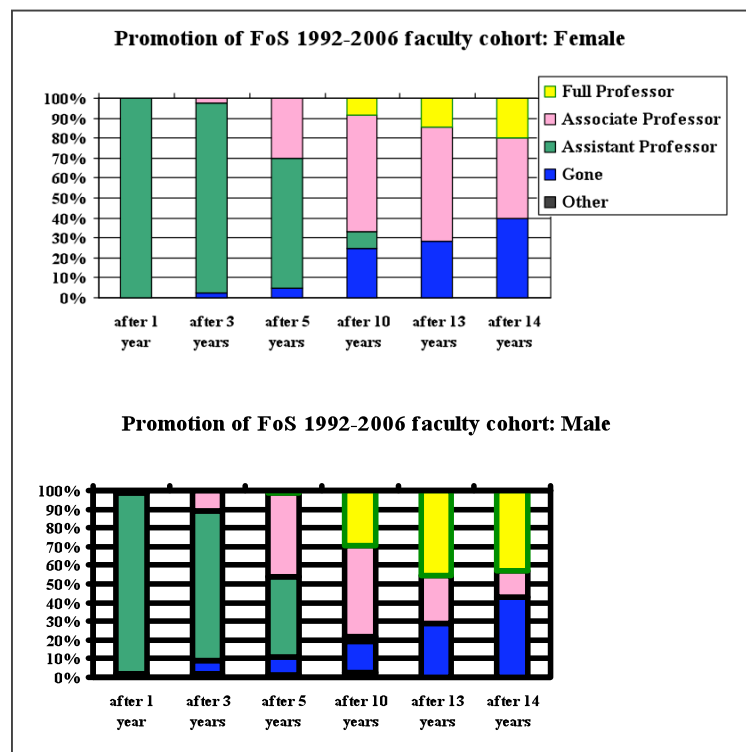
MCS faculty members responded more positively than PS and LS faculty members in rating fairness for allocation of resources, technical support, lab equipment and lab space. MCS faculty ratings of fairness in allocation of internal special funds were significantly higher than both PS and LS. There was no significant difference among the three groups in perception of fairness in TA allocation.

Focus Groups noted a perceived gender-based inequity in the way resources were allocated. Their responses highlighted the non-trickle-down and non-transparent use of discretionary funds and noted the challenges of limited administrative and infrastructure support at all levels. Focus Group participants also recommended that the FoS and departments both develop transparent

processes/policies for resource allocation and administration cost coverage, and centralize and streamline resource access.

Department heads were asked whether they had a departmental formula on assignment of, or access to, technician support and TAs and, if so, to provide a copy of the formula. One out of the nine departments had a formula on assignment of, or access to, technician support per faculty member. Three departments responded that this question was not applicable to them. Five departments indicated that they did not have a formula. All but one head reported that they had a departmental formula on the assignment of, or access to, TAs per course. Most formulae were based on the number of students enrolled in a course and whether the course had a lab or tutorial.

Tenure, promotion and leadership. Comparison of promotion rates for assistant professor cohorts at UBC and FoS hired between 1992 and 2006 (see figure below for FoS) suggests that



there was not much difference in the overall rate of promotion to associate professors for men and women at UBC, but that there was a difference in FoS. Five years after being hired, 31% of women and 33% of men in the UBC cohort were promoted to associate professors, whereas 30% of women and 45% of men in the FoS cohort reached associate professor rank. Seven years after being hired, the inequality became greater: 40% of women and 61% of men in the FoS cohort were promoted to associate professors, whereas 51% of both men and women in the UBC cohort became associate professors. When excluding those faculty members who had left UBC or FoS from the calculation, the inequality grew wider: 43% of women and

73% of men in the FoS cohort were promoted to associate professors seven years after they were hired.

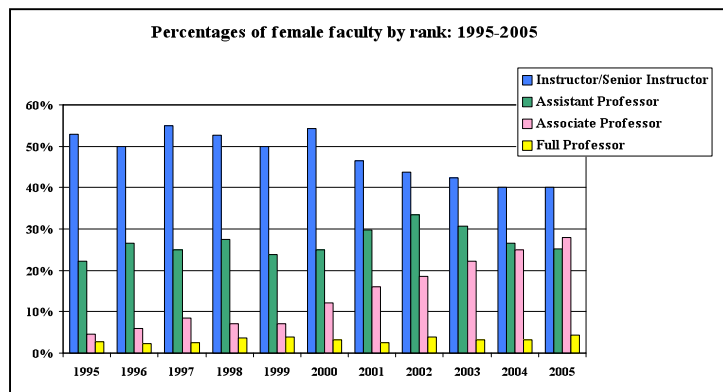
Overall at UBC, women were not promoted to full professors as quickly as men. At its largest, a gap of 16% existed between men and women who had become full professors 12 and 14 years after being hired by UBC. In FoS, promotion to full professors came sooner than the UBC average, but women still lagged behind: the largest gap occurred 13 years after being hired: 14% of women and 46% of men in the FoS cohort were promoted to full professors at that stage.

When asked to rate fairness in tenure and promotion policies/procedures in the last five years, faculty members primarily gave a positive response, with full professors reporting a significantly more positive perception of fairness than assistant professors. For 7% of all faculty respondents

the policies/procedures were not (quite) clear. In the Focus Groups, both women and men expressed dismay at the lack of clarity as to the tenure review process, with additional comments citing lack of mentors or role models as negatively impacting promotion.

Department heads were asked for their opinions regarding the major hindrances to career advancement that had disproportionately affected women faculty members in their departments over the last five years. Three out of the nine departments reported that women’s continued role as the primary caregiver to children, parental leave and higher administrative workload for some female faculty members were found to impact female faculty more than male faculty.

When asked how much time they had spent on committees (or other service) that benefited their careers in the last five years, relative to their departmental peers, a significantly larger proportion of the male faculty respondents (26%) than that of the female respondents (14%) reported more time on beneficial committees/services. Yet, Focus Group participants emphasized the importance of having women represented on committees to help create mechanisms that ensure equity in hiring and nomination decisions. Federal funding agencies and UBC often require one or two women on grant review committees to ensure fairness and compliance with employment equity or anti-discrimination laws. This requirement, however, puts an extra demand on women.



From 1995 to 2005, the percentage of total female faculty increased from 10% to 19%. The proportion of female associate professors in all associate professors increased steadily from 5% in 1995 to 28% in 2005. In the meantime, the percentages of female full professors in all full professors remained almost static, ranging from 2% to 4% (see figure on the left).

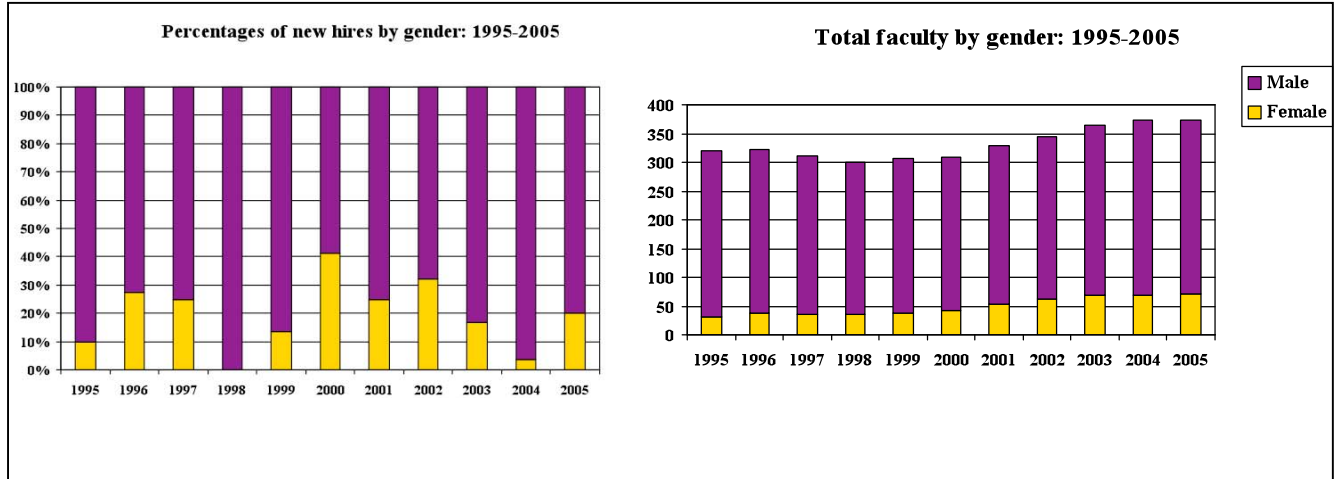
The reasons of the low percentages of senior female faculty members are not yet fully understood. In part, this might be explained by a proportionally smaller number of young female scientists earlier on (“pipeline” problem) and/or a lack of efforts to retain senior female faculty. The low numbers may also be related to the very low proportion of females holding a senior administration position (few senior women available for these positions) and the relatively low percentages of female award winners (depending on seniority requirements and process). It may as well be related to females spending less time than males on committees benefiting their careers (see above) depending on whether appointment to these committees correlates with seniority.

From 1996 to 2006, female faculty members in FoS have won 8% of the five key research and teaching awards at UBC, while the proportion of female faculty in FoS increased from 11% in 1996 to 19% in 2005. Data on CIAR, CIHR and NSERC grant winners and success rates of grant applications over a multi-year period were not available.

Hiring. The extent of clarity of policies and procedures for faculty recruitment and hiring in the various departments was reported as “very clear” by 37% and “very unclear” or “ad hoc” by 4% of all faculty respondents. However, there were significant gender differences, with a perception of “very clear” by 24% of the female and 41% of the male respondents; a total of 10% females indicated “very unclear” or “ad hoc,” whereas 3% of males reported “very unclear.”

In response to the statement that the hiring and search policies at their departments served to increase diversity, 24% of all faculty respondents agreed “strongly” and 49% agreed “somewhat.” Overall, 52% and 46% of the respondents perceived “a lot of effort” and “some effort” on the part of their departments to recruit women faculty. In both questions, a significantly higher percentage of male respondents agreed that departmental policies increase diversity and that efforts are made to recruit female faculty.

From 1996 to 2005, the percentage of female master’s students at FoS dropped from 45% to 39%, while female PhD student enrolment increased from 27% to 34% (peaking in 2003 with 37%). At the same time, there was also a trend of increase in the proportion of female postdoctoral fellows in all FoS departmental groupings, with an increase from 20% to 47% in LS, from 13% to 23% (with a peak of 33% in 2001) in PS and from 7% to 28% in MCS (with a peak of 31% in 2001). Shown below are the percentages of female and male faculty hired and the female–male proportions of total faculty per year in FoS, for time period of 1995 to 2005. The average percentage of female new faculty hires at FoS over that period was 20%. Assistant professors constituted over half (ranging from 50% to 88%) of the new hires each year.



Salary and retention. When asked to rate their salary compared to peers in their departments in the last five years, 54% of all faculty respondents perceived their salary as “average,” 25% as “below average” and 21% as “above average.” Faculty in MCS reported significantly more positively about their salary than PS.

When comparing the average salaries of male and female faculty members by rank and departmental grouping (for 2004), the percentage of the average salaries of their respective departmental group and rank was insignificantly different between female and male faculty. For

some departmental group and rank the female average salary was higher than the male, for some about equal and for some lower.

Over the period from 1998 to 2005, the percentages of female faculty members having received retention funding ranged from 0% (in 2004/05) to 17% (in 2002/03 and 2005/06). On average, females received \$2,975 less than males. The annual average difference ranged from \$739 (in 2005/06) to \$7,441 (in 2004/05).

When asked to indicate whether they had ever sought outside positions since joining UBC, 31% of the total respondents reported “yes,” with 36% males and 14% females reporting having ever sought outside positions. Low salary was a reason mentioned most often by male respondents. Other repeated reasons were heavy teaching loads, lack of opportunities for career advancement, lack of resources (funding, technical support), departmental climate (inadequate engagement with the university), and the “two body” problem. Female respondents also reported financial issues (salary- and research-wise), teaching loads, department support, unfair prejudice by university administration against work, difficulty in career advancement due to gender and scientific specialization that was different from senior department members, and intentions to be closer to family and go back to their home country.

In the Focus Groups, the cost of housing arose as an issue for retention.

Departmental Climate, Discrimination and Harassment. Faculty members were asked to rate various aspects of departmental climate, which were described by a battery of 11 “polar” adjectives placed on a four-point sliding scale. In nine out of the 11 areas, 75% or more of the respondents reported on the positive side of the scale. Lower than the others were the responses in favour of “diverse” versus “homogeneous” (71%) and those in favour of “collaborative” versus “individualistic” (59%).

Significant differences by departmental grouping were found in seven out of the 11 areas. PS respondents reported a significantly less “diverse” climate than LS respondents and a significantly less “non-sexist” and “supportive” climate than MCS respondents. PS respondents also perceived a significantly less “respectful,” “cooperative,” “flexible” and “promotes self-confidence” climate than both LS and MCS respondents.

Male respondents agreed more positively (42%) with statement that diversity was often addressed in departmental reviews, versus 25% female respondents agreeing. A significantly higher proportion of the female respondents (36%) “strongly disagreed” as compared to that of the males (15%).

Faculty members were asked to indicate whether they had perceived any discrimination in nine job-related areas within the past five years on the basis of ethnicity, gender, sexual orientation, physical disability, religious affiliation, and age. Between 88% and 94% of the respondents did not perceive discrimination of any kind in access to administrative staff, graduate student and teaching assistant assignments, tenure or promotion, and mentor availability. However, discriminations were reported in the areas of salary, space/equipment/resources, hiring, and leadership opportunities. Reported salary- and leadership-related discriminations were most

highly based on gender and resources- and hiring-related discriminations were most highly based on age or a combination of these factors. Across all nine job-related areas, a greater percentage of males than females reported no discrimination.

When asked about their perceptions of harassment in their departments in the past five years, the vast majority of the faculty respondents “somewhat” (27%) or “strongly” (64%) agreed that cases of harassment were rarely experienced, and that reporting harassment was encouraged (60% and 25%, respectively). A majority of respondents “somewhat” (29%) or “strongly” (37%) agreed that cases of harassment were rarely reported. A higher percentage of females than that of males had experienced harassment at UBC, and this was true in both reported and non-reported cases (some respondents may have reported personal harassment, which is not covered by the BC Human Rights Code). Three out of the nine department heads indicated that harassment cases had been reported in the past five years.

Teaching and mentoring. When asked about their teaching loads compared to peers in their departments in the past five years, 68% of the total respondents reported that their teaching loads were “average,” 12% indicated “below average” and 19% “above average.” Two-thirds of the total respondents indicated that they “always” had reasonable teaching assignments. Perceptions of having reasonable teaching assignments and of fairness in teaching load distribution differed significantly among departmental groupings. MCS respondents perceived having had reasonable teaching assignments significantly more often than their PS counterparts and rated distribution of teaching loads as significantly fairer than both PS and LS respondents.

The department heads provided percentages of teaching release for administrative service, research or non-administration reasons, and gender for each faculty member who had received releases for more than five of the past 10 years. All the recipients of these releases were male. Focus Group participants reported a lack of transparency on buy-out policies and on decision-making in teaching load allocation.

When asked how the sabbatical leave policy was communicated to faculty, two of the nine department heads responded with “not applicable.” One of the departments reported that, each year, eligible faculty members were contacted and provided with a copy of the UBC policy and a checklist of things that would go with their applications. The other departments did not address the question directly, but several of them suggested that faculty members initiated the process.

When asked whether there was a mentoring program/policy in their departments and, if so, to provide a written mentoring policy, all but one department head reported that they had a mentoring policy; however, only five departments attached their mentoring policy to the survey. The provided policies varied in substance and clarity. Faculty were also asked whether their department had a formal mentoring program/policy: 62% of the total respondents reported “yes” and 38% indicated either “don’t know” or “no” to this question.

A significantly higher percentage of female respondents than that of males reported having received “some” or “a lot” of mentoring in the areas of teaching, supervising graduate students, and balancing work and family. A higher percentage of female respondents than that of males were dissatisfied with the amount and quality of both informal and formal mentoring provided to

them. Males reported having “mentors available but not needed” more frequently than females on all types of mentoring.

Work–Life Balance. Overall, 66% of the faculty respondents (85 out of 129) reported having children; with 52% of females and 70% of males having children. When asked to what degree career considerations had affected their decisions around having children, a significantly higher percentage of females (38%) than that of males (11%) reported that career considerations affected their decisions “a lot.” Also, a significantly higher percentage of assistant professors (42%) than that of full professors (13%) reported that career considerations had affected their decisions about having children “a lot.” In the Focus Groups, women reported having made conscious choices to put their careers or family on hold. An observation of one department reported 14 out of 15 women were junior tenure-track appointments with no children.

When asked whether they had taken maternity/parental leave, a significantly higher percentage of females (53%) than that of males (11%) reported having taken parental leave (in the previous five years). The length of the most recent family leave for the female respondents was typically four to seven months, whereas the leave for the male respondents was typically one to three months. While taking the leave, 31% and 38% spent “a lot of the time” on research and graduate student supervision, respectively; 63%, 56% and 44% spent “some time” on administration, research, and graduate student supervision; and 94% spent no time on teaching (total of 16 respondents). In the Focus Groups, it was recognized that while women and men both shared family responsibilities, the societal expectation placed a greater burden on women.

None of the department heads reported having any other policy than UBC policy on maternity/paternity leave. Eight out of the nine heads reported that their departments made efforts to avoid conflicts between departmental events and child care/family care/elder care responsibilities. Seven heads reported procedures that were perceived as helpful in avoiding such conflicts. When asked how many times, in general, departmental events were scheduled to accommodate family care responsibilities, 27% and 31% of the faculty respondents indicated “all the time” and “several times” respectively.

When asked how much effort their department and UBC had made in assisting to find a faculty position or university appointment for their partner, 48% and 13% (out of 40 faculty respondents) indicated that “a lot of effort” and “some effort,” respectively, had been made. When asked about extent of assistance to find suitable employment for their partners anywhere in Vancouver, 24% of the respondents relevant to this question perceived “a lot of effort” and 13% indicated “some effort.” Of those 89 respondents to whom the question was not applicable, 88% reported that their partners did not need assistance from UBC. Eight out of the nine department heads reported that they assisted candidates/new hires in their departments in finding suitable employment anywhere in Vancouver for their partners. Some department heads were not aware that some university resources were already available.

A higher percentage of male faculty respondents (21%) than female (3%) reported that their partners were not currently employed. A higher percentage of females (62%) than males (51%) indicated that their partners were employed full-time.

Recommendations based on study

The Task Force chaired by Patricia Vertinsky, professor in the UBC Faculty of Education (School of Human Kinetics)²⁰, strongly recommended an oversight body to be established in the Faculty of Science with appropriate administrative support to work with the Dean of Science to address the preceding findings. Such a body should consist of representatives from all departments and be led by an Associate Dean of Faculty Affairs, a new position with both a mandate and resources to support the wide range of concerns for Science faculty, from recruitment throughout their career at UBC. Specifically, this body will

- Develop transparent and equitable procedures and policies for hiring, promotion, retention, awards and merit reviews.
- Promote effective leadership and establish effective mentoring programs to maximize faculty potential.
- Review resource distribution in the Faculty of Science and make this knowledge available to faculty members; assist departments in developing clear, equitable allocation schemes for their resources; streamline ways to share resources and provide a centralized infrastructure and administration for appropriate services.
- Work closely with the UBC administration to promote a more supportive environment for work/life balance, with a focus on childcare facilities, financial assistance for rising housing costs, and leave and retirement options.

Plans for implementation of the recommendations

Immediately following release of the report, the dean of the Faculty of Science Simon Peacock expressed his strong commitment to share its findings with faculty members and to go by the recommendations. Effective July 1, 2007, Anne Condon (UBC Computer Science) had agreed to serve as the new Associate Dean, Faculty Affairs and Strategic Initiatives. The goals for this new position are to provide much needed focus on faculty issues across the sciences (and UBC), including faculty recruitment, retention, mentoring, diversity, career advancement, and policies and procedures.

A Faculty Affairs committee including representatives from all nine Science departments has been established. The members of this group are working together with the dean and associate dean and department heads to develop strategies for addressing the recommendations of the assessment. Carola Hirsch-Jetter, Director of Communications and Special Projects in the FoS Dean's office, will play a lead role in executing and evaluating the resulting strategies.

Early on, we realized that, while it was important to ensure that our efforts aim to increase the representation of women on our faculty and to provide a supportive work environment for women, it was also important to broaden the scope of our efforts. A diverse faculty signals that the academy draws from the best talent available, that our students get a well-rounded education, that our research programs are informed by diverse perspectives, and that there is equitable access to the rewards of an academic career. Supporting a diverse faculty means that we must consider not only the issues facing women, but also those facing visible minorities, Aboriginal people, people with disabilities, sexual minorities, and other invisible minority groups. We must ensure that all of our faculty, regardless of background (such as class, country of origin, or

religion) are comfortable in expressing their viewpoints, are supported in doing their best work, and know that their accomplishments are valued.

Strategies for achieving these goals have been proposed in “Towards a Diverse Faculty of Science at UBC Vancouver²¹.” This draft plan has recently been posted, inviting comments by the UBC Science community. Led by Ana Mari Cauce, Executive Vice Provost and incoming Dean of Arts and Sciences at the University of Washington, and Angela Hildyard, Vice President, Human Resources and Equity, University of Toronto, an external review of the plan has been conducted this March. A written report will be provided to the Faculty of Science. Comments received from our faculty as well as those provided by the reviewers will inform our final plan. Indeed, feedback to date has already made it clear that the current draft needs to go further in acknowledging the many dimensions of a diverse faculty. Until these dimensions are acknowledged, invisible minorities remain just that – invisible – precluding any hope of addressing the issues they may face.

This spring, we started a series of leadership workshops involving department heads and Faculty Affairs committee members, which aim at developing equitable policies for faculty in the various Science departments. Workshop topics to date have focused on ways to support research faculty during maternity and parental leaves, as well as practices pertaining to teaching reduction for individual faculty. In future workshops we will continue to share current practices and to facilitate documentation of these practices, covering topics such as recruiting practices, merit review, awards nominations, space allocation and support for work/life balance within departments.

We recognize the importance of mentorship for faculty at the pre- and post-tenure level. The diversifying plan proposes to strengthen departmental one-on-one mentoring for junior faculty – by ensuring that heads, mentors, and mentees understand the role of mentors, establishing periodic check-in with junior faculty on mentor assignment, assessing whether junior faculty are satisfied with the level of mentoring they are receiving, supporting mentors in their roles and providing on-line documentation of current mentoring practices. We will also work with department heads to develop practices for providing timely career feedback to post-tenure associate professors.

The mentoring support and leadership workshops will address ways to foster a positive climate and to recognize and reward the diverse and often non-traditional contributions of our faculty members. We propose to complement these workshops with peer-led discussions and/or workshops in departments, on topics such as good practices pertaining to hiring, practical tips in minimizing the likelihood of sexual harassment or handling such incidents when they occur, and neutralizing the effects of implicit bias. We also plan to develop short guidelines/checklists for heads and faculty on these topics – availing of expertise on campus, at the Equity office and the Centre for Women and Gender Studies.

The Dean will advocate with the UBC Provost and the senior administration for family and housing support, including a family support office at UBC, a plan for backup emergency care, centralized support for partner accommodation, and support to offset housing costs.

Sustaining good practices needs thorough documentation. We plan for on-line documentation and dissemination of new policies and practices, making them easily accessible to heads and faculty members from a Faculty Affairs page on the FoS website.

Outlook

There is much work ahead, both by individual faculty and by leaders at department, faculty and the upper levels of UBC's administration, to achieve our goals. Fortunately, budget cutbacks notwithstanding, there is much commitment now at UBC to work proactively to increase the number of faculty from underrepresented groups in Science (as well as other disciplines) and better support our faculty. Department heads in the Faculty of Science are all strongly committed to diversity goals. We also appreciate strong support from our colleagues at the Equity Office, and the Centre for Women and Gender Studies, staff in Human Resources, UBC's Academic Leadership Development Program, faculty colleagues across campus, particularly in Engineering and Medicine, and the NSERC Chairs for Women in Science and Engineering.

We are optimistic that we will take positive steps forward, while learning from our inevitable mistakes, to further develop more effective practices in the coming years. On the journey ahead, we look forward to continued collaboration with our colleagues, and to the many opportunities to build a more diverse workplace with deeper appreciation for its diversity in our faculty.

References

- ¹) Donna J. Nelson and Diana C. Rogers (2007). A national analysis of diversity in science and engineering faculties at research universities. Online source: www.now.org/issues/diverse/diversity_report.pdf
- ²) Elisabeth D. Martinez, Jeannine Botos, Kathleen M. Dohoney, Theresa M. Geiman, Sarah S. Kolla, Ana Olivera, Yi Qiu, Geetha Vani Rayasam, Diana A. Stavreva and Orna Cohen-Fix (2007). Falling off the academic bandwagon. Women are more likely to quit at the postdoc to principal investigator transition. *EMBO reports* 8, 11, 977–981. Online source: www.nature.com/embor/journal/v8/n11/full/7401110.html
- ³) Mary Ann Mason (2007). Mothers on the fast track: how the new generation can balance career and family. Online source: www.grad.berkeley.edu/deans/mason
- ⁴) Virginia Valian. Gender equity project (at the Hunter College of the City University of New York). Online source: www.hunter.cuny.edu/genderequity (copyright 2005, updated 11-Mar-2008)
- ⁵) A study on the status of women faculty at MIT (1999). Online source: web.mit.edu/fnl/women/women.html
- ⁶) National Science Foundation Advance program – for the advancement of women in academic science and engineering careers. Online source: research.cs.vt.edu/advance/index.htm (updated 30-Mar-2008)
- ⁷) The Faculty Family Friendly Edge; University of California, Berkeley. Online source: ucfamilyedge.berkeley.edu/ (copyright 2003)
- ⁸) Balance@UW: A comprehensive package of policies and programs designed to support UW faculty in balancing productive academic careers with satisfying personal lives, University of Washington. Online source: www.washington.edu/provost/initiatives/balance/ (updated 6-Oct-2007)
- ⁹) Association of Universities and Colleges of Canada (2007). Trends in higher education, volume 2: faculty. Online source: www.aucc.ca/_pdf/english/publications/trends_2007_vol2_e.pdf
- ¹⁰) Janice Drakich and Penni Stewart (2007): Forty years later, how are university women doing? *Academic Matters* (Feb 2007 issue) Online source: www.ocufa.on.ca/Academic_Matters_February2007/forty_years_later.pdf
- ¹¹) Hermina Joldersma (2005). Context for salary equity and next steps. Two reports presented to University of Calgary women, Sept. 16, 2005. Online source: www.fp.ualgary.ca/AdvisorOnWomensIssues/joldersma.html (updated 6-Mar-2006)

-
- ¹²⁾ University of Toronto employee experience survey. Online source: www.hrandequity.utoronto.ca/news/Speaking_UP.htm (copyright 2006, updated 6/11/2007)
- ¹³⁾ Project Catalyst, Faculty of Science, University of Alberta. Online Source: www.uofaweb.ualberta.ca/science/nav02.cfm?nav02=58570&nav01=55379 (copyright 2002-2008)
- ¹⁴⁾ Shelagh Day (1973). A report on the status of women at the University of British Columbia, prepared and written by Shelagh Day. I.K Barber Learning Centre, UBC Library.
- ¹⁵⁾ Florence Ledwig-Rigby (1993). Report on the status of women at the University of British Columbia, prepared by Florence Ledwitz-Rigby, Advisor to the President on Women and Gender Relations. Koerner Library stacks, UBC Library.
- ¹⁶⁾ Association of Universities and Colleges of Canada (2007). Trends in higher education, volume 2: faculty. Online source: www.aucc.ca/_pdf/english/publications/trends_2007_vol2_e.pdf
- ¹⁷⁾ University of British Columbia Equity Annual Report (2006). Online source: www.equity.ubc.ca/stats/EquityAnnualReport2006.pdf
- ¹⁸⁾ An assessment of the working climate for Science faculty at the University of British Columbia (UBC) – faculty survey and department heads questionnaire (2006). Online source: Faculty and Staff page at www.science.ubc.ca (www.science.ubc.ca/content/view/81/38/)
- ¹⁹⁾ An assessment of the working climate for Science faculty at the University of British Columbia (UBC) – main findings (May 2007). Online source: Faculty and Staff page at www.science.ubc.ca (www.science.ubc.ca/content/view/81/38/)
- ²⁰⁾ An assessment of the working climate for Science faculty at the University of British Columbia (UBC) – executive summary of recommendations (May 2007). Online source: Faculty and Staff page at www.science.ubc.ca (www.science.ubc.ca/content/view/81/38/)
- ²¹⁾ Anne Condon and Simon Peacock (2008). Towards a diverse faculty of science at UBC Vancouver – draft January 2008. Online source: Faculty and Staff page at www.science.ubc.ca (www.science.ubc.ca/content/view/81/38/)

Biographical information. Rachel Kuske is the head and a professor of the department of Mathematics at UBC. Carola Hibsich-Jetter is the director of Communications and Special Projects of the Faculty of Science at UBC. Simon Peacock is the dean of the Faculty of Science at UBC, and a professor in the department of Earth & Ocean Sciences at UBC. Anne Condon is the associate dean for Faculty Affairs and Strategic Initiatives of the Faculty of Science at UBC, and a professor in the department of Computer Science at UBC.