2012/2013 Study
of the
Working Climate
for
Science Faculty
at the
University of British Columbia
(Vancouver Campus)

– REPORT –

2012/2013 Study of the Working Climate for Science Faculty at the University of British Columbia (Vancouver Campus)

– TABLE OF CONTENTS –

PREFACE

In 2007, the Faculty of Science presented its first Working Climate report for faculty members[1], including the results of institutional and survey data, and recommendations by a UBC-wide Task Force. Immediately following the release of the report, the dean of Science Simon Peacock expressed his strong commitment to share its findings with faculty members and to go by its recommendations. A new position of an Associate Dean Faculty Affairs and Strategic Initiatives was established. The goals for this new position – in conjunction with a body consisting of representatives of all Science departments – were to provide much needed focus on faculty issues across the sciences (and UBC), including diversity and transparency for faculty recruitment, retention, mentoring and career advancement, and on related policies and procedures.

In 2012 and 2013, the Faculties of Applied Science and Science jointly assessed the working climate and status of equity and diversity for their faculty members in the Science and Engineering departments and affiliated major research centres. The overall goal of this study was to identify potential gaps and best practices to develop recommendations for the Faculties' efforts to advance equity, diversity and the working climate for faculty in alignment with UBC's employment equity[2] and respectful working environment[3] goals.

While this is the first such working climate assessment for the Faculty of Applied Science, UBC Science is following its previous study that resulted in substantive Faculty-wide changes including new practices and guidelines in the areas of recruiting, faculty support for maternity/ parental/ adoptive leaves, and mentoring, which were implemented in each department. In consequence, the 2012/2013 study aims to measure the effects of those policies, as well as to assess the overall climate, and to identify those areas that need attention for the development and implementation of new UBC Science-wide guidelines and procedures.

The Steering Committee of the Working Climate Study[4] included – for Science – Dr. Vanessa Auld, Associate Dean Faculty Affairs, and Dr. Carola Hibsch-Jetter, Strategic Initiatives Manager, and – for Applied Science – Dr. Elizabeth Croft, NSERC Chair for Women in Engineering, Science and Technology, and Dr. Sally Thorne, Associate Dean Faculty Affairs. This group was responsible for conceptualizing and conducting the assessment including the faculty survey, departmental policy review and research into institutional data, and for presenting the study's results and conclusions. A Science Working Group was struck to help with the design of the faculty survey and the interpretation of the Science survey results.

This report, presented by Vanessa Auld and Carola Hibsch-Jetter, summarizes the results of the 2012 institutional data and survey analyses for faculty in the nine departments and three faculty-hiring research units in UBC Science, and in comparison to the findings of the 2007 working climate assessment report.

Acknowledgements

We would like to express our gratitude to the following persons for their instrumental contributions to the success of this study: Dr. Rachel Kuske, Senior Advisor to the Provost on Women Faculty, and Professor, UBC Mathematics; the Science Working Group including Dr. Sunita Chowrira (Dept. of Botany), Dr. Elizabeth Croft (Dept. of Mechanical Engineering, ApSc),

[1] Assessment of the Working Climate for UBC Science Faculty (2007): http://science.ubc.ca/faculty/diversity. As part of the assessment, a faculty survey was conducted in 2006.

[2] UBC Policy on Employment Equity: http://www.universitycounsel.ubc.ca/files/2010/09/policy2.pdf

[3] UBC's Respectful Working Environment Statement: www.hr.ubc.ca/respectful-environment.

[4] Co-chairs: Elizabeth Croft (Engineering) and Vanessa Auld (Science).

Dr. Ailana Fraser (Dept. of Mathematics), Dr. Eldad Haber (Depts. of Earth, Ocean & Atmospheric Sciences and Mathematics), Dr. Pauline Johnson (Dept. of Microbiology & Immunology), Dr. Karon MacLean (Dept. of Computer Science) and Dr. Ingrid Stairs (Dept. of Physics & Astronomy) for advice on the faculty survey; Ellexis Boyle Maslovat, Research Associate, for consultation on the design of the faculty survey; Joanne Ursino, Equity Advisor, for facilitation of and consultation on the faculty focus groups; Dr. Jennifer Bryan and Rick White, Statistical Consulting and Research Laboratory (UBC Statistics), for statistical consultations; the administrative staff in the Dean's offices of both the Faculties of Science and Applied Science, particularly, Marlon Figueroa, Executive Assistant to the Dean, and Reginald Sacdalan, Web Support Coordinator.

The joint study was generously supported by the UBC Equity Enhancement Fund and the Deans of Science and Applied Science.

Abbreviations Used

	Abbreviation		Description
Equity groups	LGB	Lesbian, Gay, Bisexual	Sexual orientation minorities (LGBT and analogous terms)
	VM	Members of Visible Minorities	
	W	Women	
Field (departmental groupings)[5]	LS	Life Sciences	Includes departments of Botany, Microbiology & Immunology and Zoology; Fisheries Centre; and Michael Smith Laboratories.
	MCS	Mathematical and Computational Sciences	Includes departments of Mathematics, Computer Science and Statistics.
	PES	Physical and Earth Sciences	Includes departments of Chemistry, Earth, Atmospheric & Ocean Sciences, and Physics & Astronomy; and Institute of Resources, Environment and Sustainability (IRES).
FoS		Faculty of Science	UBC Science
Gender	M	Men	
	W	Women	
PSA		Performance Salary Adjustment	
Stream[6]	RS	Research Stream	Includes ranks of Assistant (Asst.), Associate (Assoc.) and Full Professor (Prof.)
	TS	Teaching Stream	Includes ranks of 12-month Lecturer, Instructor 1 (Instr. 1), Senior Instructor (Sr. Instr.), and Prof. of Teaching (PoT).
Study	WCS	Working Climate Study	
		WCS 2007	The study report of "An Assessment of the Working Climate for Science Faculty at UBC" was issued in 2007. The online survey for faculty members was conducted in 2006.
		WCS 2012	For the "2012/2013 Study of the Working Climate for Science Faculty at UBC" report, the online survey for faculty members was conducted in 2012.

Table 1 Abbreviations used in this report.

[5] The 2012/2013 WCS included three interdisciplinary units in addition to the nine departments that were surveyed in 2007.

[6] We use the generic terms "research stream" and "teaching stream" faculty throughout this document to refer to members of the two distinct contractual paths for tenure-track faculty, recognizing that neither term fully reflects the full scope of and diversity within either the path. We also note that Lecturers, who are non-tenure-track members of faculty, are grouped with the latter category for the purposes of our comparative analysis. Professors emeriti are not included in these groupings.

Survey Participants and Data Sources

The 2012 Working Climate Study is based on three study components – a faculty survey (online questionnaire and focus groups), a review of departmental guidelines and procedures ("policy review"), and research into institutional data; for details including on statistical analyses see *Appendix I: Procedures for the 2012/2013 Working Climate Study*. **Table 2** summarizes demographics of faculty survey respondents and response rates of various groupings. For information on composition of the faculty groupings analyzed and their respective representation among UBC Science faculty members see **Table 63** (in *Appendix I.I: Participants and Data Sources*).

	Response rate within groups		Representation: survey participants	
Faculty groups	**2012**	**2007**	**2012** [G)]	**2007**
Designated equity groups[7]				
Women	67%	44%	30% [D)]	23%
Members of VM	*	*	12% [E)]	9%
Persons with disabilities	*	*	1.3%	*
LGB	*	*	7.7% [F)]	*
Stream				
Teaching stream	60%	22%	18%	6%
Research stream	47%	36%	82%	94%
Seniority[8]				
Junior faculty	57%	17%	32% [A)]	51% [B)]
Senior faculty	50%	58%	68% [A)]	49% [B)]
Field/Dept. groupings[9]				
LS	60%	34%	33%	26%
MCS	52%	39%	32%	38%
PES	47%	32%	35%	36%
Science total				
Overall	52%	35%	52%	35% [C)]

Table 2 Demographics of survey participants in WCS 2012 compared to previous WCS survey (2007). *Response rate refers to number of faculty members participating in the survey in proportion to number of faculty members of same group in FoS overall. * Data not available. [A)] For 2012 survey, 'Junior' includes instructors I, asst. professors, and assoc. professors with ≤ 5 years in rank. 'Senior' includes senior instructors, professors of teaching, assoc. professors with ≥ 6 years in rank, and full professors. [B)] For 2007 survey, 'Junior' includes instructors, asst. and assoc. professors. 'Senior' includes full professors. [C)] Out of 360 tenured/tenure-track faculty 125 participated (lecturers and prof. emeriti not included). See Appendix* Faculty Survey and Focus Groups *for further information on participant composition and descriptions. [D)] Responses of survey participants who identified as women are compared to those who identified as men. [E)] Responses of survey participants who identified as VM are compared to those who identified as Caucasian/ white (Cwh). [F)] Responses of survey participants who identified as LGB are compared to those who identified as heterosexual. [G)] Proportion of survey respondents who preferred not to disclose their equity status were 3% on gender, 7% on ethnicity, 1.3% on disabilities, and 8% on sexual orientation.*

[7] See details in *Appendix I.III: Designated Equity Groups (Terminology)*.

[8] Seniority includes junior vs. senior tenure-track faculty (lecturers and prof. emeriti not included); see *Appendix I.II* for details.

[9] Field includes discipline groupings of faculty members' department/unit affiliations; see Table 1 and *Appendix I.II* for details.

1 OVERVIEW OF THE FACULTY

1.1 The Faculty of Science Today

The Faculty of Science in 2012 included 379 tenure-track faculty members and 19 full-time lecturers, 83% in the research stream and 17% in the teaching stream. Of the full-time faculty 24.5% were women. In the 2011/2012 UBC Equity Census, 13% of Science faculty respondents self-identified as members of visible minorities, 3% as persons with disabilities, and 4% as members of sexual orientation or gender minorities; no faculty member self-identified as Aboriginal; see **Table 3**.

The proportion of women within the faculty is heavily weighted in the teaching stream (51% and 48% for instructors alone) compared to the research stream (19% women). Women's representation decreases substantially with seniority in the research stream with 28% of Assistant Professors, 23% of Associate Professors and 15% of Full Professors; see **Table 66** (in *Appendix to Section 1*).

The representation of women among tenure-track ranks varies within and between the three science fields (LS: Life Sciences, MCS: Mathematical and Computational Sciences, PES: Physical and Earth Sciences); see **Figure 1**. The lowest representation of women faculty is in MCS (18%) compared to 21% in PES and 36% in LS. In MCS, only 8% of teaching stream faculty are women, compared to 53% in PES and 63% in LS; whereas 19% of research stream faculty in MCS are women, compared to 17% in PES and 29% in LS. The LS units also have the highest representation of women at the rank of Full Prof. (30%), compared to the other two fields (MCS: 14%; PES: 11%).

Table 67 (in *Appendix to Section 1*) summarizes the age distribution for faculty survey respondents. About one fifth of the faculty members are 30 to 40 years old and this age distribution is found within each of the three fields (LS, MCS and PES), with 28% of women and 17% of men in this age group. No faculty member reported age under 30 years. Close to 60% of all faculty members are between 30 and 50 years old. On average, women are younger than men faculty, visible minority members are younger than Caucasians/white faculty, and teaching stream faculty are younger than research stream faculty. The biggest age difference is between genders with 28% of women and 49% of men faculty being older than 50 years, which may reflect that only recently a higher percentage of (junior) women faculty has been hired. Overall, the demographics suggest greater diversity of faculty respondents within the junior ranks and ranging to a more homogenous faculty of mainly Cwh men in the more senior ranks.

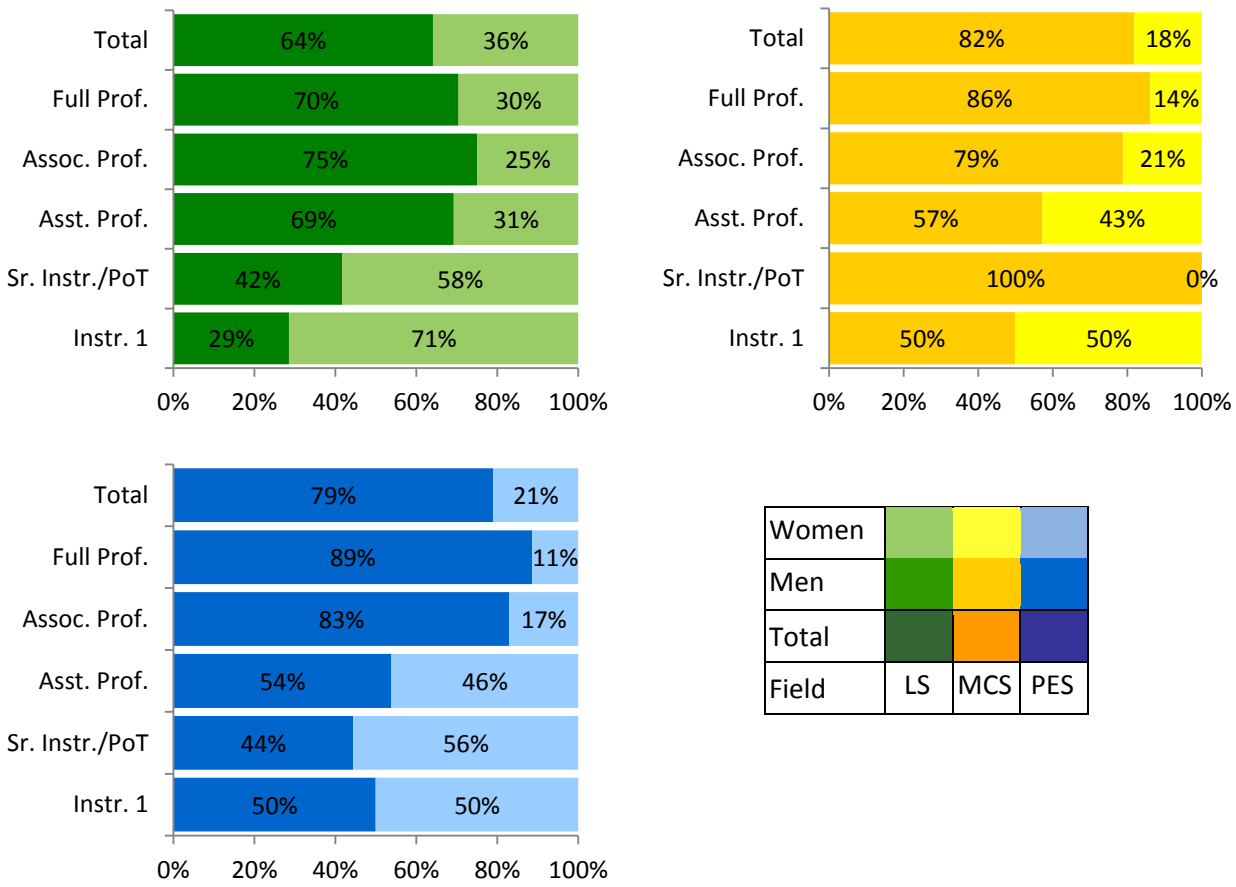


Figure 1 ***Tenure-track and tenured faculty at UBC Science by field, rank and gender.***
LS: Life Sciences, MCS: Mathematical and Computational Sciences, PES: Physical and Earth Sciences. Source: HRMS (Nov. 2012); includes a total of 407 faculty members.

1.2 Peer Institutions

A select group of peer institutions were picked for comparison based on research areas, strengths, comparable teaching mandates and the availability of data. The percentage of women faculty working at each institution within the three research fields was analysed; see **Figure 2**.

In the Life Sciences, representation of women in the research stream (RS) at UBC (26%) was the same as at the University of Waterloo, and thus within the lower range of the spectrum along with the three Universities of California with 24% (UC San Diego) to 29% (UC Los Angeles), and lagging behind research stream faculty at the University of Wisconsin-Madison (38%). For research and teaching streams combined (TRS), the percentage of women LS faculty at UBC (35%) is in the upper third of the spectrum, but lagging behind the University of Toronto.

In contrast, the percentage of women faculty in Mathematical and Computational Sciences (MCS) was higher than most peer institutions and, for research stream faculty, closest to the University of Waterloo.

Within the Physical and Earth Sciences (PES), the percentage of women research stream (RS) faculty (15%) lagged behind most peer institutions; while UBC's representation of only 20% women for teaching and research stream (TRS) faculty combined is the same as at University of Toronto and the highest compared to other peer institutions.

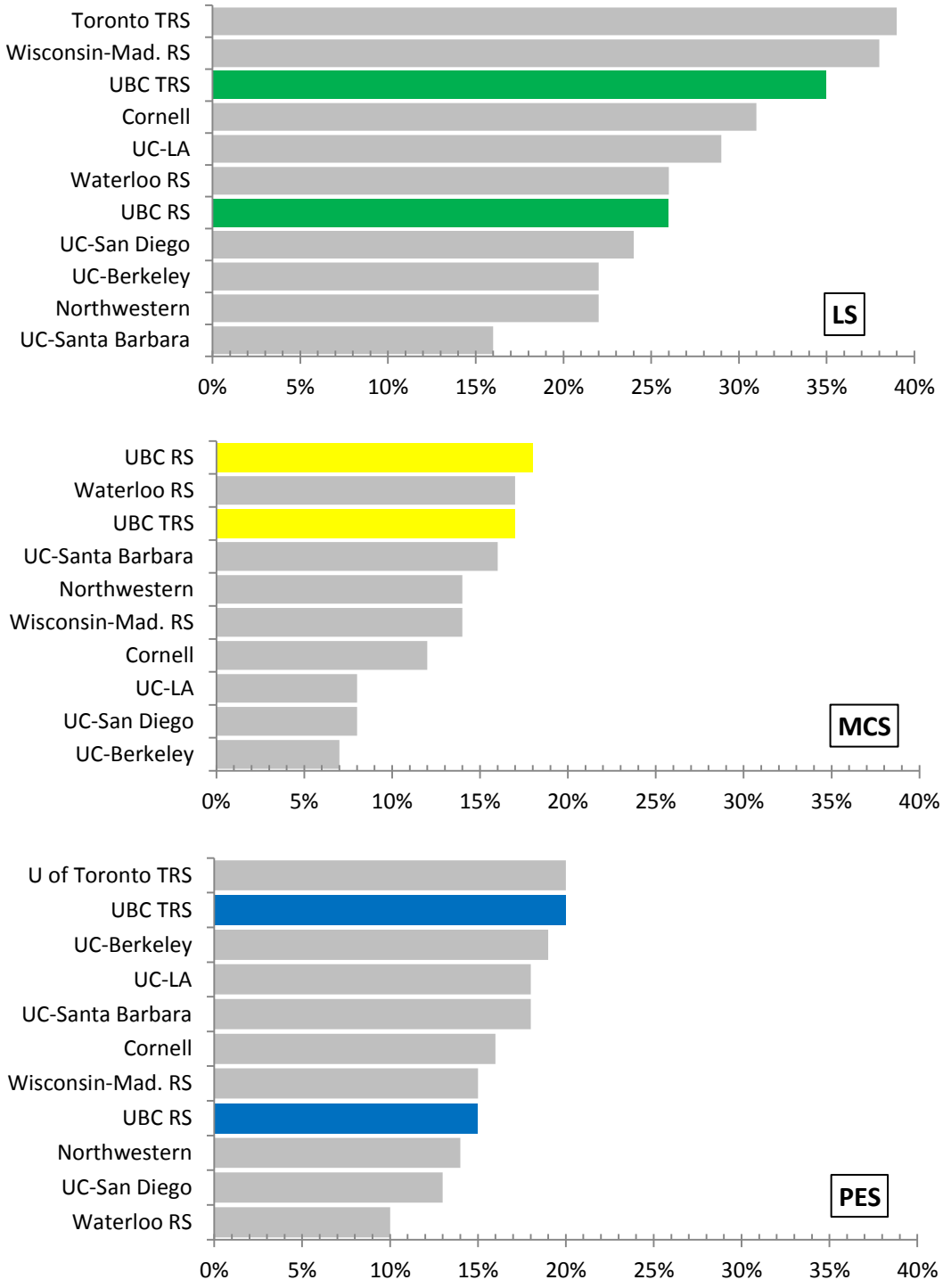


Figure 2 ***Representation of women faculty members at US and Canadian science Faculties in fields of Life Sciences (LS), Mathematical and Computational Sciences (MCS), and Physical and Earth Sciences (PES).*** *Sources: see* Table 68 *(in* Appendix to Section 1*).*
Comparisons include tenure-track and tenured faculty except for UC, which includes tenured and untenured faculty. RS: Research Stream Faculty; TS: Teaching Stream Faculty; TRS: TS+RS.

1.3 Changes since 2007

1.3.1 Changes in the Representation of Equity Groups in Science Faculty

Women have historically been the largest underrepresented equity group among Science faculty and in the past the focus of increased diversity of faculty members. In the decade (1995–2005) before the Faculty of Science's first WCS, the representation of total tenure-track/tenured women faculty increased from 10% to 19%, and since then has slowly increased to 23% in 2012 (see **Table 66** in *Appendix to Section 1*). Teaching stream faculty (tenure-track faculty + 12-month lecturers) included 12% women in 1999; this number increased to 20% in 2005, and 24.5% in 2012 (see **Table 3**).

Designated equity group	**Representation of equity group by year**				
	2007/2008	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**
Women					
UBC Science [A)] – total	21%	21%	22%	23.5%	24.5%
– Research stream	17%	17%	17%	19%	20%
– Teaching stream	44%	46%	48%	47%	51%
All academic disciplines (Canada) [C)]	39.6%				
Visible minorities [E)]					
UBC Science [B)]	*	11%	12%	11%	12%
All academic disciplines (Canada) [C)]	15.1%				
Aboriginal peoples [E)]					
UBC Science [B)]	*	<1%	0%	0%	0%
All academic disciplines (Canada) [C)]	0.9%				
Persons with disabilities [E)]					
UBC Science [B)]	*	*	4%	3%	3%
All academic disciplines (Canada) [C)]	4.5%				
Sex. orient./gender minorities [B) D) E)]					
UBC Science	*	*	3%	3%	4%
UBC total full-time faculty	*	*	6%	5%	5%
All academic disciplines (Canada) [C)]	*				

Table 3 Representation of equity groups among Science faculty over five years (2007-2012) in comparison to their Canada-wide representation in academia.
Sources: [A)] UBC HRMS data (UBC office of Planning and Institutional Research). Research stream includes ranks of Assist., Assoc. and Full Prof.; Teaching Stream includes Instr. 1, Sr. Instr., PoT, and 12-month Lecturer (as of October 31 for years 2007 to 2011). [B)] UBC Equity and Inclusion Office (Equity Census): self-reported equity groups (see response rates below). [C)] Canadian Census 2007 (Canadian Labour Force availability data). [D)] Persons who identify as LGBTQ (Lesbian, Gay, Bisexual, Transgender, Queer or analogous terms) in UBC Equity Census. [E)] UBC Science faculty's response rates in annual UBC Equity Census: 85% (2008), 45% (2009), 51% (2010 and 2011). See Table 66 (in Appendix to Section 1*) for representation of women faculty by year and rank. * Data not available.*

Since the first Equity Census data became available at UBC (2008), the representation of equity groups of Aboriginal persons, members of visible minorities, persons with disabilities, and sexual

orientation and gender identity minorities remained static for Science faculty members (who completed the Census).

Figure 3 summarizes changes of representation of women among current tenure-track faculty and new hires in FoS between 2007 and 2012.

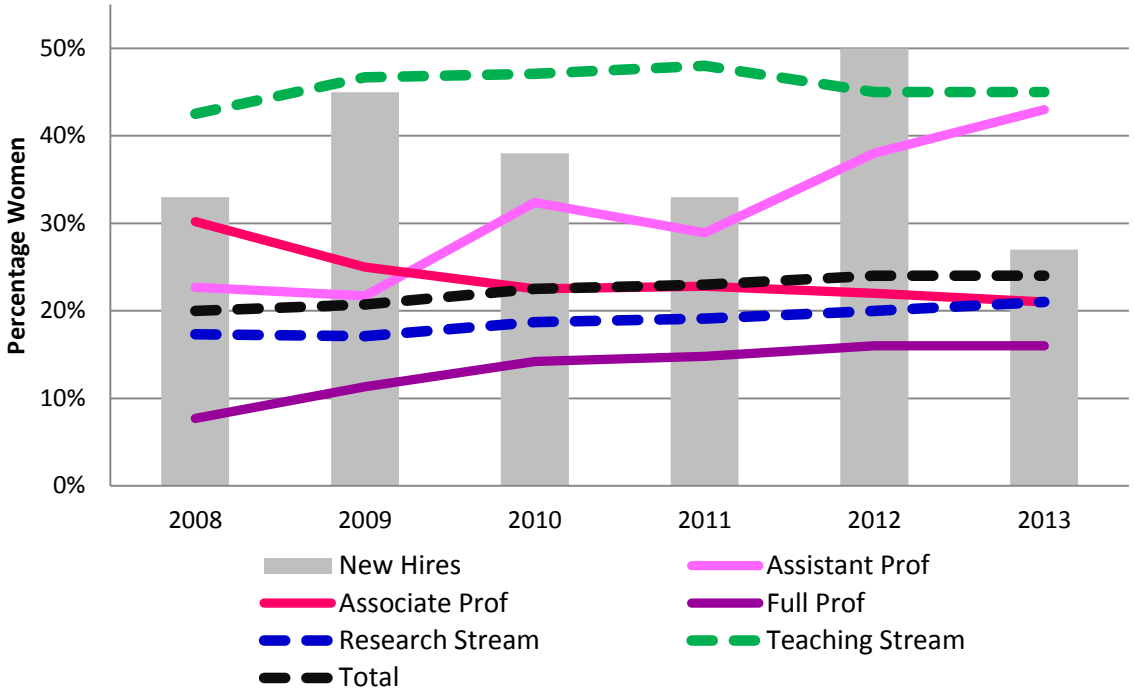


Figure 3 Representation of women among Science tenure-track faculty over the past six years and among new faculty hires.
Source: UBC HRMS and UBC Science Annual Progress Reports (2008 to 2013).

In the tenure-track teaching stream, the representation of women increased from 43% (in 2007) to 48% (in 2011) and slightly dropped to 45% in 2012. Two out of the three new Professor of Teaching appointments in 2012 at UBC Science were women. Within the entire teaching stream (including tenure-track faculty and 12-month lecturers) the representation of women increased from 44% (in 2007) to 51% (in 2011) and dropped to 44% (in 2012), compared to fluctuating numbers between 43% and 53% in the years of 1999 to 2007[10].

In the research stream, there were 21% women in 2012 compared to 17% in 2007, (16% in 2005), and 8% in 1999. The proportion of women among associate professors increased steadily from 5% in 1995 to 28% in 2005. Over the same period, the representation of women among full professors remained very small, ranging from 2% to 4%. By end of 2012, the representation of women within the research stream has greatly changed with 16% of full professors being women. However, the increased rate of promotion to Full Professor has meant that the number of women associate professors dropped from 28% in 2007 to 23% in 2012. On the other hand, the proportion of women assistant professors has increased since 2007 (from 24% to 38%).

[10] Source: UBC Office of Planning and Institutional Research – "Full-time Faculty by Gender and Rank", http://www.pair.ubc.ca/statistics/facstaff

This increase is due largely to the greater recruitment of women into Assistant Professor positions within the MCS and PES units where, by 2012, women represented 45% and 38% of Assistant Profs, respectively; see **Figure 4**.

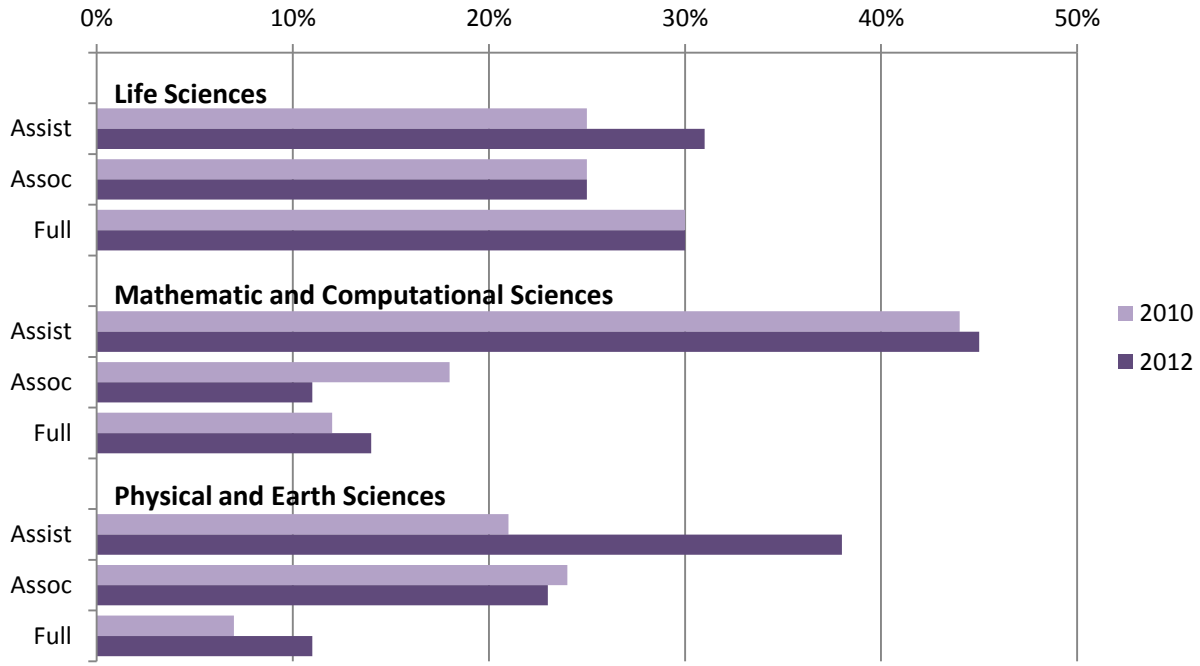


Figure 4 Representation of women among research stream faculty in 2010 and 2012 – by field and rank. *Source: HRMS (Nov. 2010; Nov. 2012).*

Mandatory retirement was abolished in 2008 and, in consequence, many faculty members stay beyond their Normal Retirement Date (NDR)[11]. This has had a significant impact on the rate of change in the faculty demographics. In the research stream, none of the 25 faculty older than 65, are women. Of the 41 faculty who are within five years of reaching 65 only two are women. The predominance of men within the senior rank and their reluctance to retire at NDR has diminished the proportional increase of women faculty at this rank: if mandatory retirement were still in effect, 18% of Full Professors would be women instead of 16%. This effect is even more pronounced when projected for five years (assuming current recruitment and promotion rates for women faculty) such that in 2017, 22% of Full Professors would be women if there was mandatory retirement compared to only 18% at current rates of retirement; see **Figure 5**.

On the other hand, with continuation of the current hiring rates women's representation among Assistant Professors will be 30-35% and with their progression through the ranks, there will be a slow but steady increase in women faculty.

[11] Normal Retirement Date (NDR) is the June 30th or December 31st coincident with or following the date of the faculty member's 65th birthday. For more information see http://www.hr.ubc.ca/faculty-relations/retirement/

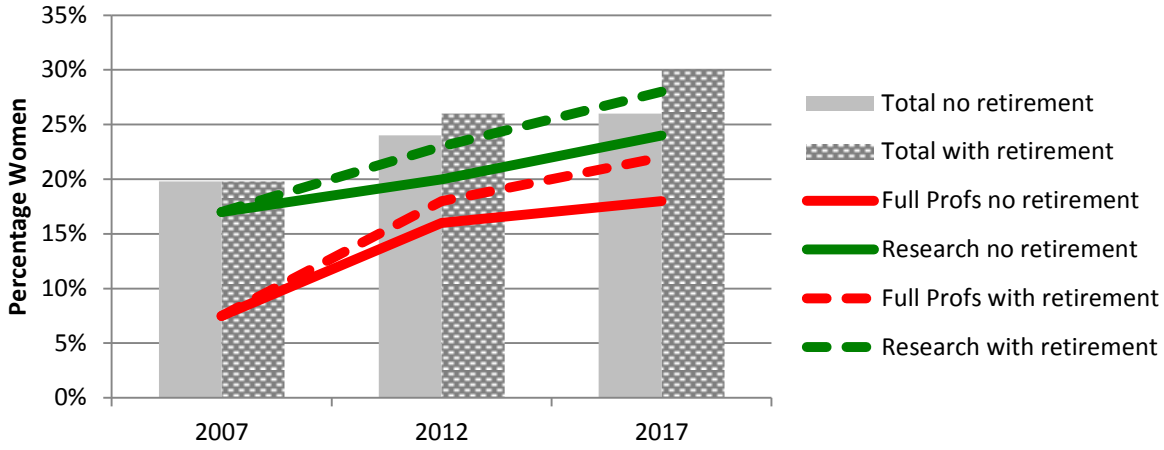


Figure 5 ***Projected changes in the representation of women in Science faculty for two scenarios of faculty retirements.***
Scenario 1: All full professors continue after their Normal Retirement Date (NRD);
Scenario 2: All full professors retire at their NRD.

1.3.2 Faculty Affairs Initiatives Pertaining to Equity and Diversity since 2007

Following the 2007 WCS report, a number of initiatives were implemented to increase the diversity and equity of the faculty within UBC Science.

1. **Faculty Affairs Committee:** to help with the implementation of equity/diversity initiatives and advancement of the working climate for faculty, a Faculty Affairs Committee was convened with representatives from each department/unit with the mandate to develop a series of policies. Guidelines and principles developed and implemented by each department include mentoring, and maternity/ parental/ adoptive leave policies. Principles developed but only partially implemented include guidelines on teaching reductions.
2. **Recruiting:** a series of new protocols were implemented ranging from increasing the diversity of the hiring committee, training of hiring committees on "unconscious bias" and increasing the diversity of the applicant pool and short-listed candidates.
3. **Annual assessment and data tracking:** to measure the changes in the faculty, a system of data tracking for recruitment, promotion and tenure, merit awards/PSA, and a range of other metrics were established.

Summary

Since 2007, there has been a steady increase in the representation of women in both the research and teaching faculty streams. This is in part due to the changes implemented after the previous WCS, specifically, in the area of recruiting. The increased hiring of women faculty corresponded to an increase in the percentage of women promoted to Full Professor, which in turn may reflect the greater oversight of the promotion and tenure process implemented after the 2007 WCS report. There will be a steady, albeit slow, increase of the proportion of women faculty in all ranks if the current proportion of women hired as Assistant Professors can be maintained. However, the overall increase has been dampened by the lack of retirements, as 97% of Full Professors close to and above retirement age are men. Conversely, the hiring of faculty from visible minorities has not

shown the same increases and has remained static over the past five years in all streams and research areas.

Most of the current hiring of research stream faculty is through Canada Research Chair Tier 2 positions, which are maximally 10-year positions tied to a future retirement. The lack of mandatory retirement will reduce this source of hiring as faculty slots are not freed up, and thus also reducing the potential to hire women and candidates from visible minorities to a greater extent.

This emphasizes the importance of each hire and the need to make the most of each opportunity through ensuring a pool of candidates as diverse as possible and with a pro-active recruitment strategy for women as well as other underrepresented groups to apply for each posting.

2 PROFESSIONAL CLIMATE

The first part of the 2012 WCS survey focused on a range of issues relating to the professional climate with four categories covered: overall departmental climate, leadership, discrimination and harassment.

2.1 Departmental Climate (Faculty Perceptions)

Faculty members were asked about their perceptions centered on the working climate of their department. The issues investigated ranged from perceptions of respect to value and voice in departmental processes; see **Table 4**.

Agreement with working climate statements – WCS 2012 (Q. 1)	Overall	Gender		Ethnicity		Stream		Sexual Orientation	
		Women	Men	VM	Cwh	Research	Teaching	LGB	Hetero-sexual
1. I feel treated with respect by my colleagues.	88.9%	89.4%	88.9%	100%	88.6%	87.7%	92.7%	87.5%	90.6%
2. I feel treated with respect by the staff members.	97.8%	97%	98%	100%	97.3%	97.8%	97.6%	93.8%	97.9%
3. I feel treated with respect by students.	93.3%	92.3%	93.4%	100%	92.9%	92.1%	97.5%	80%	94.7%
4. I feel excluded from informal networks in my department/unit.	24.1%	28.8%	21.8%	40%	21.8%	24.3%	26.8%	26.7%	24.2%
5. I am comfortable raising concerns about my department without fear of it affecting my advancement.	79.5%	66.7%	85.7%	75.0%	81.6%	80.6%	72.5%	75%	82.3%
6. I feel valued for my teaching.	74.0%	76.9%	72.8%	73.7%	75.4%	70.1%	90.0%	87.5%	74.5%
7. I feel valued for my research.	71.1%	67.9%	71.9%	64.7%	72%	73.4%	28.6%	66.7%	71%
8. I have to work harder than my colleagues in order to be perceived as a legitimate scholar.	20.9%	38.9%	14.2%	23.8%	21.3%	19.2%	29.7%	6.7%	21.9%
9. I have a voice in the decision-making that affects the climate and direction of my department/ unit.	78.4%	81.5%	76.7%	75.0%	79.6%	79.0%	78.0%	87.5%	79.1%
10. My department/unit supports collaborative research.	77.1%	81.2%	75.7%	88.9%	77.4%	74.3%	90.0%	78.6%	78.5%
11. My department/unit supports interdisciplinary research.	75.4%	76.7%	74.5%	88.2%	76.7%	73.1%	86.7%	78.6%	76.8%
12. My department/unit supports and rewards interdisciplinary teaching.	64.5%	64.9%	64.5%	64.7%	67.5%	61.5%	75.7%	73.3%	65.7%
13. Commitment to diversity is demonstrated by my department.	78.7%	69.7%	82.6%	94.7%	79.2%	78.7%	75.6%	75%	81.4%

Table 4 ***Faculty's perceptions of various aspects of their departmental climate – by gender, ethnicity, stream, or sexual orientation – WCS 2012 (Q. 1).*** *"Agree" includes "somewhat" or "strongly agree". Statistically significant differences between peers highlighted.*

Overall faculty (89%) felt they were **treated with respect by their colleagues** (Q. 1.1), with the majority in strong agreement (65%). However, women faculty compared to their men peers were significantly less positive with an even distribution of "somewhat agree" and "strongly agree."

In 2007, the same majority of overall faculty (90%) agreed they were **treated fairly** by their colleagues but a majority of women reported "somewhat agree" (55%) whereas a majority of their men colleagues (64%) reported "strongly agree," suggesting a positive change in women faculty's perceptions by 2012.

Between the different fields in 2012, faculty within the PES were less likely to strongly agree they were treated respectfully (49%) than in LS and MCS (77% and 72%, respectively). The majority of women in PES (58%) only "somewhat" agreed. Women in PES and MCS were less likely to "strongly agree" (PES: 29%, MCS: 53%) compared to their male peers (PES: 59%, MCS: 78%); while there were no significant gender differences within LS.

In 2007, there were also differences between the three fields with 64% of LS and 74% of MCS faculty strongly agreeing that faculty are treated fairly while only 39% in PES strongly agreed. PES respondents also perceived their departments less "respectful," – "cooperative," – "flexible" and "promoting self-confidence" – in significant contrast to both LS and MCS faculty members' perceptions. There was also a significant difference to LS faculty with PES faculty perceiving their department less "diverse"; and a significant difference to MCS faculty with PES faculty perceiving their department more "sexist" and less "supportive." While the questions asked were not identical in 2007 and 2012, these results point to continued gender differences within PES regarding the perceptions around being treated fairly and/or respectfully.

In 2012, there was a gender difference in the teaching *vs.* research faculty streams with the majority (57%) of women teaching faculty reporting "somewhat agree" and only 33% "strongly agree" to being treated respectfully. While all VM respondents felt treated with respect, within both MCS and PES, the majority of them reported only "somewhat agree." Finally, between the different ranks of faculty, two groups (lecturers and associate professors) stood out as having less positive responses, with 21% of Associate Professors either neutral or disagreeing.

This is in contrast to the overwhelming positive perception that **faculty feel respected by staff** (89%; Q. 1.2). Similarly, a majority of faculty felt **treated with respect by students** (98%; Q. 1.3). These perceptions were consistent across all categories.

Overall faculty felt equally **valued for their teaching and research**, with 45% in strong agreement (Q. 1.6, 1.7). However, there was a substantial number of faculty members who were neutral (15%) or in disagreement for teaching (11%) and research (14%). Notably, research faculty seem to feel less valued than teaching faculty for their teaching, while teaching faculty felt significantly less valued than their research stream colleagues for their research[12]. Teaching stream faculty comments mirrored these perceptions. *"Teaching faculty are not awarded the same respect by some as research faculty"* and "*…the attitude that those who teach a lot are second rate academics"* and – pointing to the inequity between the teaching and research stream being a university-wide problem – *"Even with the introduction of the new professor of teaching there is still a lack of equity between teaching and research stream faculty. This is demonstrated in a difference in salaries and in the different voting rights teaching faculty have when it comes to hiring policy. This encourages a 'second class citizen' atmosphere for teaching stream faculty."*

In contrast, other faculty members thought their department was *"strongly supportive and encouraging toward its teaching stream faculty"* and 90% of faculty within the teaching stream feel valued for their teaching.

[12] Research in this context could be both pedagogical and scientific research.

With respect to **interdisciplinary and collaborative research** (Q. 1.10, 1.11), three quarters of faculty perceived that their departments supported collaborative as well as interdisciplinary research. However, a number of faculty expressed concerns, such as "*Our department strongly encourages interdisciplinary and team research, but this sometimes seem to come at the expense of supporting traditional individual research excellence. There needs to be a balance that supports all forms of research.*" The only group significantly differing was faculty in PES, who were more likely to disagree about departmental support for collaborative and interdisciplinary research. A smaller percentage of faculty (65%) agreed that their **unit supports and rewards interdisciplinary teaching** (Q. 1.12).

When asked whether they **had to work harder than their colleagues in order to be perceived as a legitimate scholar**, a slim majority disagreed (53%, Q. 1.8). However, a substantive percentage of faculty were either neutral (26%) or agreed (21%).

While the majority of both women and men faculty feel valued for their research and teaching, the proportion of women faculty who perceived that they needed to work harder than their colleagues to attain equivalent recognition was almost three times that of men (see **Figure 6**). Specifically, in the teaching stream 38% of women reported "somewhat agree" (and 4% "strongly agree") and 20% of women in the research stream reported "strongly agree" (and 16% "somewhat agree"). This gender difference was also significant in PES where 46% of women agreed with this statement with 29% reporting "strongly agree" compared to 8% of their men peers.

While the percentage of VM respondents who agreed with the statement (30%) was twice that of CWh faculty (15%) within MSC, there were no significant differences in faculty responses other than between genders.

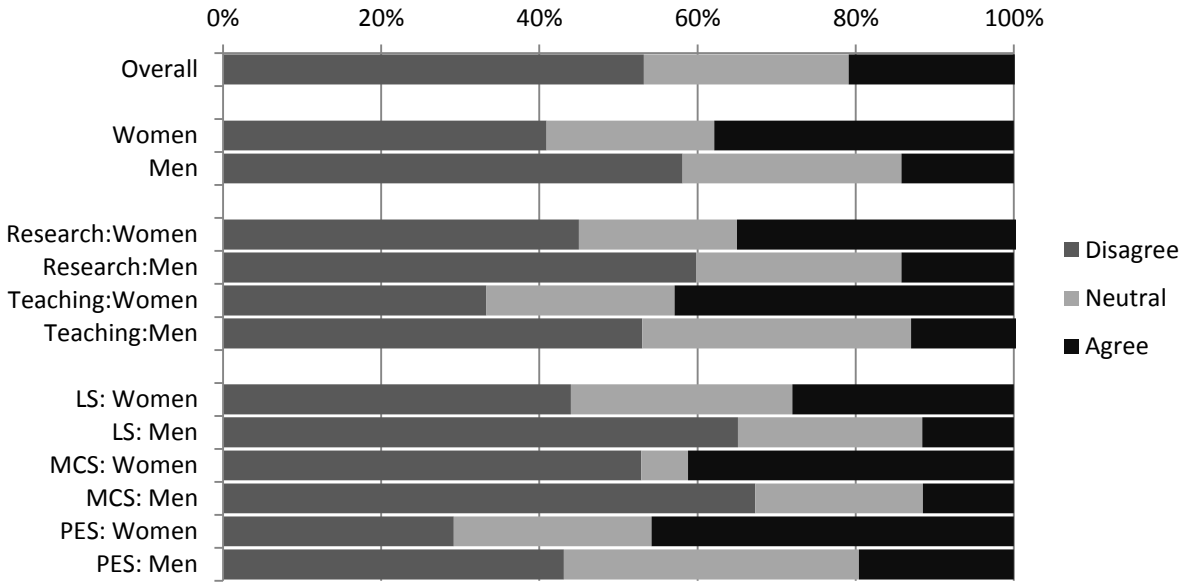


Figure 6 Faculty's dis/agreement with statement that they have to work harder than their colleagues in order to be perceived as a legitimate scholar – by gender, stream and gender, and field and gender – WCS 2012 (Q. 1.8).

Faculty were asked a series of questions that centered on their voice within the department and the degree of informal and formal integration into the structure/community of the department (Q. 1.4, Q. 1.9, Q. 2.10).

The majority of overall faculty members did not **feel excluded from informal networks within the department or unit** (Q. 1.4). However, a quarter (24%) of faculty did feel excluded, and when analysed in greater depth, VM faculty were twice as likely to feel excluded (40%, half of whom reported "strongly agree") compared to their CWh peers (of whom 22% felt some degree of exclusion including 4% who "strongly agreed" to this perception). Overall faculty in PES, and in particular women and VM faculty, were more likely to agree compared to faculty in MCS and LS.

The majority of faculty agreed they felt they had a **voice in the decision-making processes that affect the climate and direction of the unit** (78%, Q. 1.9). And while there were no differences based on gender or ethnicity, there was a significant number of faculty from PES who disagreed with the statement (22% compared to 8% in LS and 3% in MCS). Within PES 12% of Cwh men respondents "strongly disagreed" compared to 0% and 5% of their men colleagues in MCS and LS, respectively.

A notable group that is often lacking from discussions about faculty affairs are those who are (continuously) appointed as 12-month lecturers. Many of this group commented on their lack of voice within the departments such as "*I am a 12-month Lecturer and don't feel that my opinions matter because of my temporary position.*"

The majority of overall faculty also agreed that their **head or director actively involves them in decision-making** (80%; Q. 2.10). In PES, there was a significantly higher proportion of faculty who disagreed (22%) than bin MCS and LS, with the greatest source of disagreement among Cwh and men faculty, respectively.

When asked about their **department/unit's commitment to diversity** (Q. 1.13), the majority of faculty (78%) agreed that commitment to increasing diversity was demonstrated; see **Figure 7**. The responses were evenly split between "somewhat" and "strongly" agree. However, women were more likely to disagree (15%) than men faculty (5%).

Overall faculty in PES were less enthusiastic, where significantly more respondents disagreed (14%) or were "neutral" (22%) compared to their LS (8%, 11%) and MCS (2%, 3%) peers. In PES 21% of women faculty disagreed compared to 10% of their men colleagues. In LS 16% of women faculty disagreed compared to 6% of women in MCS. Women and men in MCS were equally positive. There were no differences in opinion between VM and Cwh faculty.

In 2007, faculty were asked a similar question, i.e. whether their department's "hiring and search policies serve to increase diversity." While 80% of men agreed, only 48% of women faculty agreed, and a significantly higher proportion of the women responded "strongly disagree" (36%) compared to 15% of the men.

When faculty members were asked **how comfortable they were about raising concerns** (Q. 1.5), the majority agreed that this would not negatively affect their career (80%). There was a strong gender difference with women faculty being significantly less comfortable than men. Junior faculty, and among these particularly women, felt less comfortable raising concerns. One comment rose an interesting point: "*While I am comfortable raising concerns within my department, I am not comfortable doing so at higher levels (e.g. the dean's office), because of the way I have seen such issues handled."*

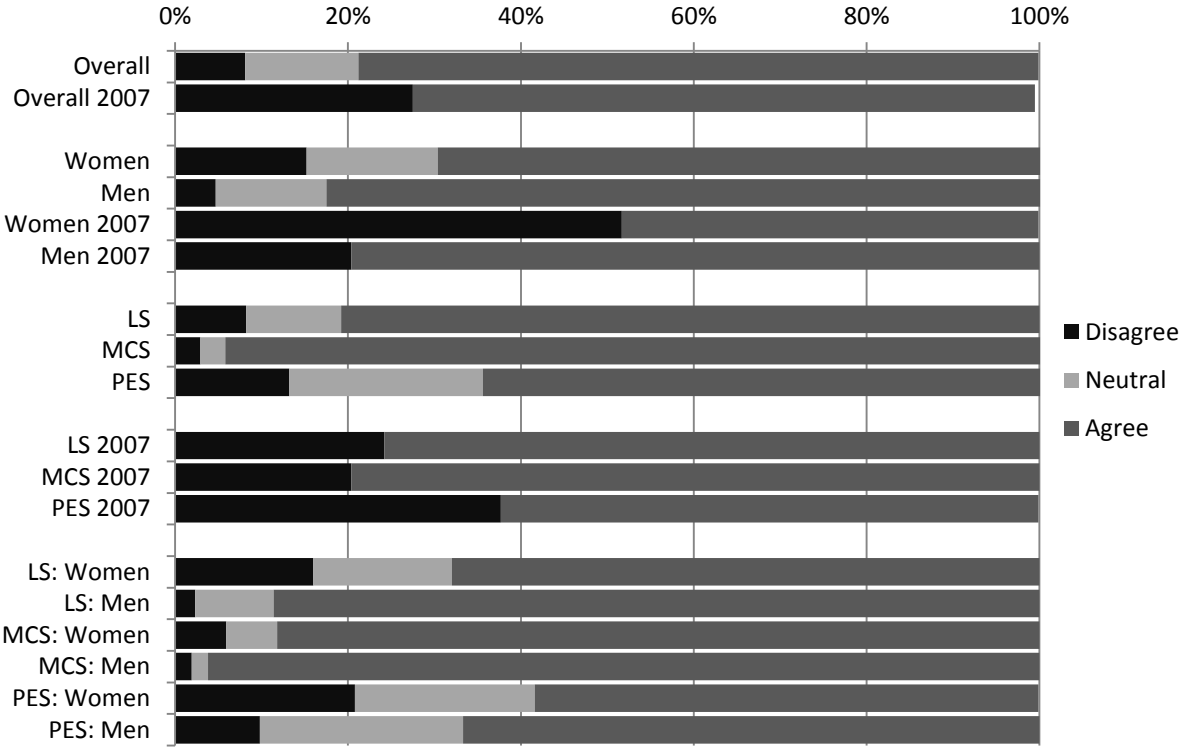


Figure 7 ***Faculty members' dis/agreement with statement that commitment to diversity is demonstrated by their department – by gender or field – WCS 2012 (Q. 1.13) and 2007.*** *Corresponding question in WCS 2007: "The hiring and search policies serve to increase diversity."*

Summary

A central reason to carrying out the 2012 faculty survey was to determine if faculty members' perceptions of their working climate had changed since the previous survey conducted in 2006 (2007 WCS report). In 2012, faculty members reported a generally positive working climate, which is reflected in many comments made by survey participants, such as the following: *"The department is extremely collegial, making it a great place to work." – "I am very impressed with the atmosphere of mutual respect and collegiality in our department."*

While overall faculty perceived their working climate more positively in 2012 than reported in the 2007, a number of concerns were identified or were similar to those reported in 2007. Specifically, women were less positive than men, and PES faculty were less positive than both LS and MCS respondents regarding aspects of their unit's climate.

In 2012, women and in particular senior women (as compared to men) felt they had to work harder for recognition, still felt less positive about their unit's efforts to increase the diversity of the faculty and perceived more often that administrative loads were unfairly distributed (see next section). A significantly higher proportion of VM than Cwh faculty felt excluded from informal networks in their unit. So while the majority of faculty members felt valued by their colleagues, the response was more tempered for both women and VM faculty, and especially those in PES units.

Since 2007, overall faculty in PES have remained less positive about their working climate than faculty members in either LS or MCS. Factors identified that might hamper changes to the working

climate were noted: "*There are a few people in my department who are very obstructive to any progress." – "My department is made up of mostly senior faculty and only a few junior faculty. This culture does not support diversity." – "Rather than each field appreciating and respecting the other fields, each field seems to regard the others as contemptible."* Another point of view suggests the lack of coalescing on a common goal for change, *"[the] department has not figured out how to work together and to create an atmosphere of respect and excellence."* a lack of collegiality was attributed to the *"absence of adequate space to socialize"* or a lack of time for increasing social interactions: *"faculty are over-stretched, which means less social time with colleagues."* Finally, a substantial portion of Caucasian/white men in the faculty from PES seem dissatisfied with the decisions and direction in their department/units.

2.2 Departmental Leadership and Governance (Faculty Perceptions)

Faculty were asked a series of questions centered on their perceptions of the leadership and governance of their department or unit; see **Table 5**.

Agreement with statements on head/dir. – WCS 2012 (Q. 2)	**Overall**	**Gender**		**Ethnicity**		**Stream**	
		Women	**Men**	**VM**	**Cwh**	**Research**	**Teaching**
1. My head/director treats all sub-fields equitably.	77.7%	74.1%	78.9%	90%	78.4%	74.9%	88.6%
2. My head/director maintains high academic standards.	90.4%	93.8%	88.5%	95.2%	91.6%	88.4%	97.5%
3. Administration and service loads are distributed fairly.	73.7%	69.8%	75.7%	81.0%	75.1%	72.2%	76.3%
4. Sabbatical leaves are handled fairly.	86.8%	95.7%	83.5%	100%	88%	85.4%	94.4%
5. Teaching loads are distributed fairly.	73.1%	76.2%	71.9%	76.2%	75.6%	72.5%	80.0%
6. The head/director handles disputes/problems effectively.	82.5%	73.3%	85.5%	94.4%	81.5%	80.9%	86.5%
7. Reporting harassment and discrimination is encouraged.*	69.9%	58%	71.7%	78.6%	68.1%	66.1%	73.5%
8. I feel treated with respect by my head/director.	93.2%	93.4%	92.8%	100%	93.8%	92.0%	97.4%
9. I am satisfied with the efforts made by my head/director to help me obtain resources.	77.3%	71.2%	80.3%	85.7%	78.5%	74.4%	86.5%
10. My head/director actively involves me in decision-making.	80.2%	83.9%	77.7%	90.5%	80%	79.1%	85%

Table 5 Faculty respondents' perceptions regarding their department head or unit director – by gender, ethnicity or stream – WCS 2012 (Q. 2). *"Agree" includes "somewhat" and "strongly agree". Statistically significant differences between peers highlighted. *See section* 2.3 Harassment.

When asked whether they perceive that their **head or director treats them with respect**, an overwhelming majority of overall faculty agree (93%) with 75% agreeing "strongly" (Q. 2.8). However, faculty members in PES were less likely to be as positive, with only 55% strongly agreeing compared to 91% in MCS and 81% in LS. When analysed further, women faculty within

PES are less likely to strongly agree with the majority reporting "somewhat agree," and 15% of men faculty being either "neutral" or disagreeing.

Perceptions of faculty in 2007 were only slightly different with 62% agreeing "strongly" with being **treated fairly** by the department head. Similarly, within PES only 48% of faculty strongly agreed compared to 70% in LS and 76% in MCS.

When asked if faculty thought their **head or director handles disputes/problems effectively** (Q. 2.6), a clear majority of respondents agreed (83%) with 54% agreeing "strongly" with this statement. There was a significant gender difference with women being more likely than men to report "neutral" or "somewhat agree." Faculty within PES were more likely to disagree with 9% strongly disagreeing compared to their peers in LS (0%) and MCS (2%). Within PES, men were more likely to disagree (20%) compared to women (13%), who were more "neutral" (35%) on this question (compared to 13% of men).

Overall most faculty respondents agreed (90%) that their **head or director maintains high academic standards**, with 76% agreeing "strongly" (Q. 2.2). More than three quarters of faculty (76%) agreed that the **head or director treats all sub-fields equally**, with 53% strongly agreeing (Q. 2.1). However, research faculty and faculty within PES were less likely to agree, with a significant higher proportion of women faculty (14%) than of men faculty (7%) disagreeing "somewhat." One faculty member commented, "*Less well represented research areas in the department have to fight too hard for recognition of research and teaching effort*," and another thought, "*Value on research seems to be directly proportional to proximity to the core department's area.*"

Faculty generally (86%) agreed that **sabbatical leaves are handled fairly** (Q. 2.4) with 73% strongly agreeing. Within PES, there was less agreement, with men disagreeing more than women faculty. Faculty overall were satisfied (77% agreement) **with the efforts made by their head or director to help them obtain resources** (Q. 2.9). The only exceptions were faculty respondents in PES and LS, who were less positive than those in MCS. In PES, the men were more likely to disagree (22%) compared to the women (9%), though women in PES were less likely to "strongly agree." The opposite was true in LS with women disagreeing (8%) more than their male colleagues (4%).

When asked whether the **head/director distributes administration/service loads fairly** (Q. 2.3), the overall agreement was at 74% of overall faculty, but responses were mixed based on gender and research areas; see **Figure 8**. Overall, there was an even split between "strongly agree" to "somewhat agree" from those faculty who agreed that administrative loads were distributed fairly, and a significant number of faculty disagreed (16%). The most negatively responding group were senior women faculty, of whom 37% disagreed compared to their male (13%) and junior colleagues (5% of women, 14% of men faculty). This perception was similar for all three fields.

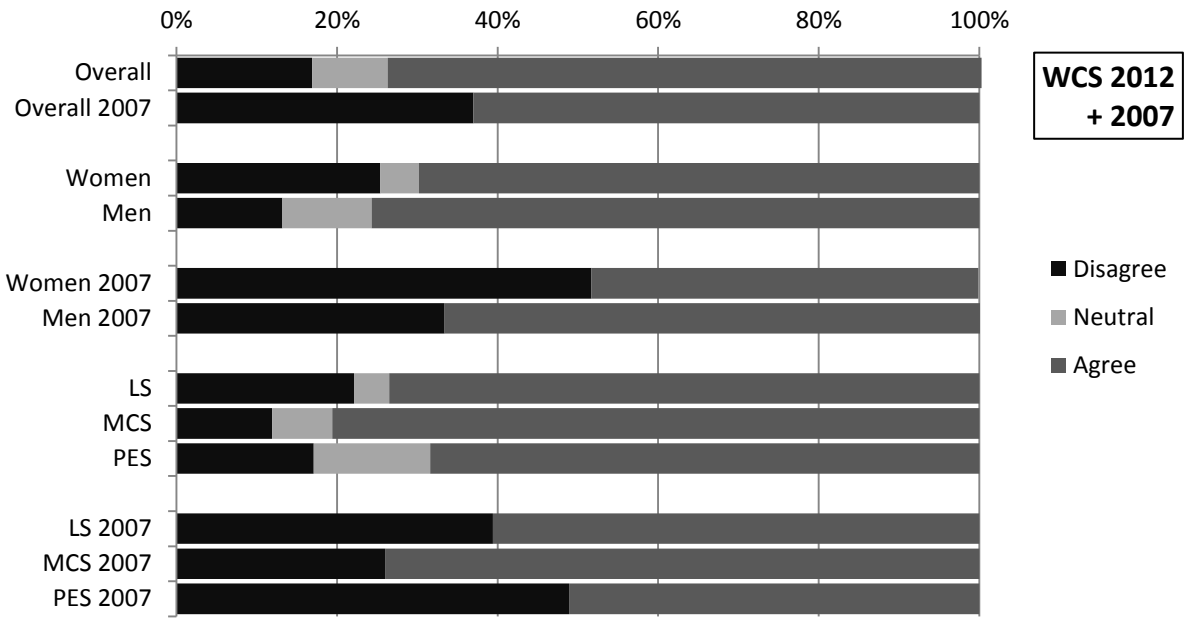


Figure 8 Faculty respondents' perception of a fair distribution of administration and service loads – by gender or field – WCS 2012 (Q. 2.3) and 2007.

Faculty comments frequently focused on increased administrative duties/demands: "*…faculty have an extraordinary amount of administrative load that is preventing us from being able to focus on scholarly activity (research and teaching innovation). This negatively affects morale."* Another faculty member noted *"Rampant proliferation of administration at UBC, and UBC Policies that do not apply to all are the biggest causes of discontent that I see."* Perceptions on increased administrative duties are further analysed in section *4.2.2 Administrative Support* (p. 69).

In 2007, fewer faculty respondents than in 2012agreed that administrative loads were distributed fairly. There was a significant difference between genders and fields, respectively, with only 7% of PES faculty agreeing "strongly" compared to 40% of respondents in MCS and 19% in LS.

In 2012, the majority of faculty (73%) generally agreed that **teaching loads are distributed fairly** (Q. 2.5); see **Figure 9**. However, women were less positive with 48% agreeing "somewhat" while 43% of men respondents agreed "strongly." Particularly, senior women respondents (23%) disagreed more than senior men (14%), whereas junior women and men both disagreed to a smaller extent (10-12%).

Within PES and LS, there was a significant shift with both men and women less likely to "strongly agree" as compared to MCS. Within PES 9% of faculty respondents "strongly disagree" compared to 1% both in LS and MCS. Survey participants noted "*…very uneven distribution of teaching duties*" and identified climate issues related to unfair assignments of teaching loads: "*Lack of equality of teaching workload remains a significant source of tension within our department, although it has improved in the last ~2 years*" and "*Difficult or uncooperative faculty often get their way in preferred, upper level teaching assignments.*"

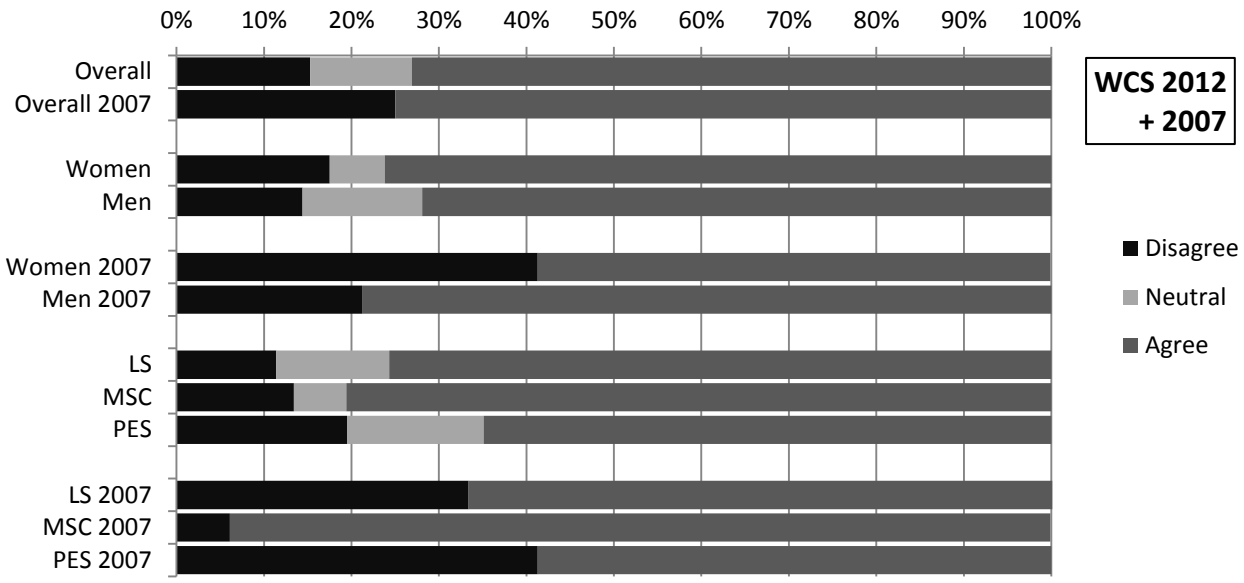


Figure 9 Degree of agreement with statement "Teaching loads are distributed fairly" – by gender or field – WCS 2012 (Q. 2.5) and 2007

In 2007, a significantly higher percentage of women (41%) than of men (21%) disagreed with that teaching loads were distributed fairly. There was also a significant number of faculty respondents disagreeing within PES (41%) and LS (33%), compared to only 6% in MCS.

Summary

Overall, the majority of faculty members recognize and support the leadership and governance of their department or unit and the efforts taken by their heads/directors. Across all demographics faculty consistently perceive their working climate more positively compared to the 2007 WCS. Faculty comments reflect this improvement: *"We have had a number of strong heads that have built a positive climate in my department." – "Our department head is a fantastic advocate for climate and diversity issues." – "I think that the climate and direction of our department has improved in recent years. I'm happy with the job the new head has done. I hope that we continue in the same direction."*

However, differences in perceptions still persist based on gender and field. Women overall less than men perceive that problems were handled effectively by their head/director and that reporting harassment and discrimination was encouraged (see next section for details on harassment questions). Some faculty comments were centered on the ability of the head or director to change the climate or support faculty. *"There is no leadership in our department and there is no policy to support faculty members (some are, some are not)."* So while faculty perceived substantive improvements in their departmental climate since 2007, there were still some areas and units where the leadership and governance could be improved toward a more equitable working climate.

In particular, the continued dissatisfaction and concerns reported by faculty within PES warrants a new approach to understanding and addressing these issues, such as that faculty overall and women in particular were less satisfied with regards to the fairness of distribution of administrative and teaching loads within PES.

Dissatisfaction with the distribution of administrative workload was also most pronounced among senior women faculty across Science.

Finally, overall faculty's perceptions of being treated fairly and with respect by their unit head was quite positive in 2007 and even more positive in 2012 but the less positive perceptions within PES have remained.

2.3 Harassment (Faculty Perceptions)

Faculty members were surveyed on their perceptions of harassment (Q. 2.7, Q. 3); see **Table 6**.

Experiences around harassment – WCS 2012 (Q. 2.7, 3, 5)	Over-all	Gender		Ethnicity		Field		
		Women	Men	VM	Cwh	LS	MCS	PES
2.7 Reporting harassment and discrimination is encouraged.	69.9%	58%	71.7%	78.6%	68.1%	75%	85.7%	45.5%
3.1 I have experienced harassment in my department.	8.3%	12.7%	5.4%	5.0%	8.4%	12.3%	1.4%	10.8%
3.2 I have observed harassment in my department.	14.9%	19.1%	11.0%	5.0%	14.9%	18.1%	8.7%	18.1%
3.3 I know the steps to take if someone comes to me with a claim of harassment.	66.4%	74.6%	62.7%	73.7%	64.4%	74.6%	69%	56.6%
3.4 I have reported harassment that I experienced or observed to my department head or the UBC Equity Office.	13.6%	18.6%	9.3%	14.3%	12.7%	21.2%	4.4%	14%
3.5 For harassment that I reported, I was satisfied with the extent to which the case/s was/were resolved.	75.0%	85.7%	71.4%	100%	72.2%	81.8%	100%	63.6%
3.6 I have not felt comfortable reporting harassment that I observed or experienced.	26.4%	33.3%	18.6%	0%	28.6%	32.0%	15.8%	25.9%
5 Are you aware of a respectful environment policy at UBC?	72.0%	74.2%	71.9%	71.4%	75%	76.7%	75.0%	65.8%

Table 6 Faculty perceptions regarding experiencing and reporting harassment – by gender, ethnicity or field – WCS 2012 (Q. 2.7, Q. 3, Q. 5).
Statistically significant differences between peers highlighted.

The majority of overall faculty (70%) agreed that **reporting harassment and discrimination is encouraged in their department/unit** (Q. 2.7). However, not even half of the faculty in PES agreed but were more likely to be "neutral" or "disagree" than peers in the LS or MCS. Overall, women were less likely to agree, and 16% of senior women faculty "strongly" disagreed. Not one of the women who identified as a member of a visible minority "strongly" agreed with this statement.

Question 3 delved into faculty experiences with harassment. Most faculty respondents (92%) reported that they had not **experienced harassment**, while 8% had (Q. 3.1).

While13% of women and 5% of men faculty, as well as 13% of faculty who self-identified as LBG and 7% of faculty who self-identified as heterosexual reported to have experienced harassment, there were no statistically significant differences based on gender or sexual orientation.

However, there was a significant difference based on field, with PES (11%) and LS (12%) faculty reporting "yes" compared to only 1% in MCS. For both PES and LS faculty, women were twice as likely as men to report having experienced harassment (PES: 18% of women, 8% of men;

LS: 16% of women, 7% of men); see **Figure 10**. The numbers were almost the same in 2007 when 1% of faculty in MCS reported "yes" compared to 12% in LS and 11% of respondents in PES.

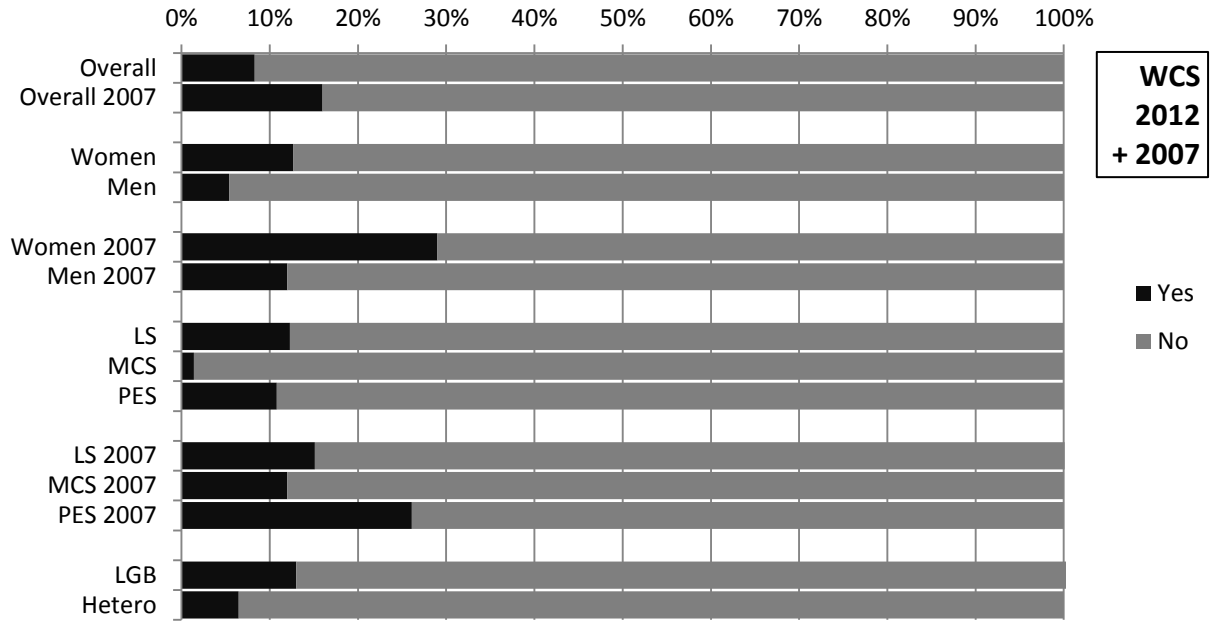


Figure 10 Faculty responses to question whether they experienced harassment – by gender, field or sexual orientation – WCS 2012 (Q. 3) and 2007.

More faculty respondents (15%) reported **having observed harassment** and a similar number (14%) had **reported harassment that they experienced or observed to their head or the UBC Equity office** (Q. 3.4).

While the majority of faculty felt **comfortable reporting harassment observed or experienced** (Q. 3.6), 26% of respondents reported feeling uncomfortable.

Two thirds of faculty members reported that they knew **the steps to take for dealing with a claim of harassment** (Q. 3.3). Apparently, one third did not know the steps.

Overall, three quarters of faculty who had reported cases of harassment were **satisfied with the extent to which the cases were resolved** (Q. 3.5), whereas 25% were not satisfied.

When asked about **UBC's Respectful Environment statement** (Q. 5), the majority of respondents (72%) were aware of it. Not unexpectedly, fewer junior (56%) and emeriti faculty (50%) were aware of this statement. Comments from faculty members reported for their departments: a failure to acknowledge and follow the UBC Respectful Environment policy, a lack of tolerance for religious beliefs, and inappropriate questions centered on same sex marriage. Some faculty also noted examples of personal harassment by faculty members who were speaking harshly and unprofessionally to staff.

Within the focus groups some conversations touched upon the issue of bullying. Examples of senior faculty bullying new/junior faculty were noted and these were paired with the inability of the department head to stop this behaviour.

Summary

The proportion of overall faculty who experienced or observed harassment within the departments/units was very small. While even small numbers are of concern and need to be

addressed, the levels for both men and women have decreased since 2007, suggesting a positive change in the working climate.

However, among those who did report such occurrences, both women and LGB faculty reported having experienced harassment at double the level of men faculty. Also, there still was a substantial percentage of respondents who felt uncomfortable reporting harassment, which correlates with 32% of faculty who did not agree that "reporting harassment and discrimination is encouraged in their department/unit." In addition, one third of faculty respondents did not know the steps to take for dealing with a claim of harassment, and close to one third of faculty reported not being aware of UBC's Respectful Environment statement.

These results suggest the need to expand "respectful environment" workshops to encompass every unit in Science. A more proactive communication of the resources available from the Equity and Inclusion office would also be beneficial to heads/directors, senior administrators and faculty members.

2.4 Discrimination (Faculty Perceptions)

Faculty were asked if they had **perceived discrimination within their department against themselves or someone else** (Q. 4) based on grounds of ethnicity/race, gender, sexual orientation, physical/mental disability, religion/atheism, age, or other; see **Table 7**.

Faculty who have perceived discrimination in their department – WCS 2012 (Q. 4)	Overall	Gender		Ethnicity		Field		
		Women	Men	VM	Cwh	LS	MCS	PES
	16%	31.8%	9.2%	14.3%	16.4%	19.2%	11.1%	17.9%

Table 7 Faculty respondents perceiving discrimination in their department – by gender, ethnicity or field – WCS 2012 (Q. 4). *Statistically significant differences between peers highlighted.*

While 84% of overall faculty responded "no", there were 36 out of 225 respondents who had perceived discrimination in their department. There were no differences based on ethnicity but there was a significant difference in the responses of women (32%) compared to men (9%). The percentage of faculty identifying as LGB, who had perceived discrimination (31%) was twice that of faculty identifying as heterosexual; see **Figure 11**.

Similarly in 2007, the majority of overall faculty had not perceived discrimination when asked about a range of areas in their work life. However, in six areas (i.e. hiring, salaries, resources, access to administrative staff, mentor availability, and leadership opportunities), a significantly higher percentage of women (on average 22% across all six areas) than men (on average 7% across all six areas) had perceived discrimination.

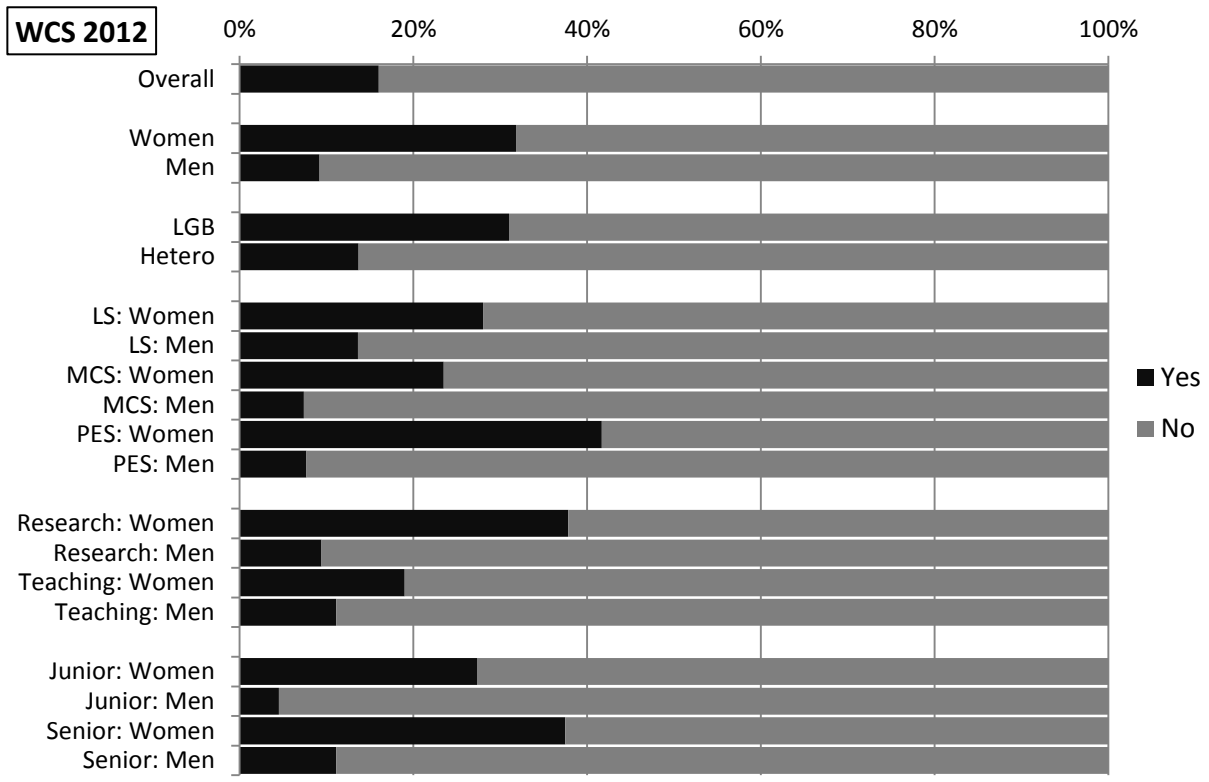


Figure 11 Faculty respondents' perception of having experienced discrimination against themselves or someone else – by gender, sexual orientation, field, stream or seniority – WCS 2012 (Q. 4).

In 2012, a higher percentage of women within PES perceived discrimination (42%) compared to women in LS (28%) and MCS (24%), and these numbers were significantly higher than for their male colleagues.

More than one third of women faculty (38%) in the research stream perceived discrimination compared to women in the teaching stream (19%) and to men in either stream (RS: 9%, TS: 11%).

The perception of discrimination was also significantly different between junior women (27%) and men (5%), suggesting that the underlying issues were not limited to the past and are still present within the faculty.

Comments from faculty members cite a range of examples of discrimination that include: negative comments and attitudes toward visible minorities; dismissive attitudes toward research and scholarly endeavours based on visible minority status; lack of leadership opportunities based on disability, gender and ethnicity; inequities in merit and on the assignment of laboratory space and resources based on gender and disability. Inequities and discrimination with respect to teaching and administrative loads was a common theme throughout the comments.

Discrimination during the hiring process was mentioned by numerous faculty; examples included inappropriate comments during hiring meetings, inappropriate questions of candidates such as marital status. Quite disturbing were faculty observations such as that hiring committees had been instructed to consider "recruitability" when ranking applicants and issues such as the need for childcare or a position for a spouse were being used to reduce the ranking of candidates. There were also several comments on bias against job applicants based on accent. Faculty reported many

of the same issues in 2007, namely in the areas of salary, space/equipment/resources, hiring, and leadership opportunities.

Finally there were a few faculty members who have reacted negatively to the diversity initiatives promoted by the Faculty of Science with comments such as *"there was a perception that the Dean awarded merit to female instructors in an act of positive discrimination, while denying it to the most accomplished research professors, who happened to be male."* Another alleged that in recent searches for department Heads only women were encouraged to apply: "*no male members were considered eligible*."

Summary

Overall, the perception of discrimination was mainly evident in women faculty and in particular in women within the research stream. Across all three science field groupings (LS, MCS and PES) a higher rate of women than that of men faculty reported experiences of discrimination.

While there may be a slight improvement regarding this gender difference, the underlying causes reported by faculty have not changed substantively since 2007. These results and faculty comments suggest the need for more transparent communication of departmental procedures on the allocation of resources, the procedures underlying Merit awards/PSA, recruitment, and distribution of workload.

The results also suggest that there is a lack of communication by the Dean's office explaining the rationale behind the proactive recruitment of women especially to leadership positions, the need to correct past inequities in salary, plus the criteria for awarding merit for faculty within the teaching stream.

3 DIVERSITY AND EQUITY IN CAREER PROGRESSION

3.1 Departmental Guidelines and Procedures

One of the main initiatives undertaken after the 2007 working climate report was the implementation of the Faculty Affairs Committee chaired by the new Associate Dean Faculty Affairs. The mandate of this committee was to develop policies and guidelines for each of the departments to address the major concerns identified in the 2007 WCS. As part of the development of each of the guidelines, cross-cutting principles for the entire Faculty of Science were identified with each department then developing and approving their own guidelines based on these principles.

Mentoring guidelines were developed for all departments, as were guidelines on research support for faculty members on MPA leaves. All nine departments have developed these policies. On the Faculty level, guidelines for equitable and diverse faculty recruiting and hiring were established and implemented in connection with the individual search/hiring committees in all twelve units.

Whether the implementation of the various policies has been effective was one of the main motivations behind the 2012 working climate survey. The other motivation was to determine where the priorities should be placed for the next round of policy development, also with the inclusion of the interdisciplinary units (MSL, Fisheries, IRES) that had not been involved with FoS and/or the 2007 WCS.

In the 2012 WCS, faculty members were asked about the clarity and implementation of their department's policies (see **Table 8**). There was a wide range of opinions on the different policies reflecting the different degrees of development in the various departments. The specific discussion of each policy is found in the relevant sections that follow.

Formal policies/procedures – WCS 2012 (Q. 9)	**Don't have a policy**	**Policy is unclear**	**Policy is clear but inadequate**	**Policy is clear but applied unfairly**	**Policy is clear and applied fairly**	***Total responses****
1. Workload expectations	29%	10%	11%	4%	46%	*186*
2. Sabbatical/study leave	6%	7%	1%	1%	85%	*170*
3. Leave for improving qualifications (for full-time teaching faculty)	42%	10%	0%	0%	48%	*52*
4. Maternity/ parental/ adoptive leave	2%	3%	0%	2%	93%	*152*
5. Administrative leave	11%	5%	0%	3%	82%	*81*
6. Leave without pay or benefits	13%	8%	0%	0%	79%	*67*
7. TA assignment	9%	12%	2%	3%	74%	*180*
8. Allocation of resources for teaching	20%	25%	2%	3%	52%	*163*
9. Allocation of resources for research support	30%	19%	4%	3%	44%	*138*
10. Teaching assignment (number and size of classes)	13%	12%	13%	8%	54%	*190*
11. Teaching releases	18%	22%	7%	8%	45%	*138*
12. Mentoring program for faculty	9%	12%	5%	3%	72%	*176*
13. Review for Merit/PSA awards	2%	19%	5%	6%	69%	*200*

Table 8 Faculty perceptions on clarity and fairness of formal policies/procedures in their department – WCS 2012 (Q. 9).
**Total of respondents by question with "Don't know" answers not included (see also* Table 9*).*

Departmental Policy Review

In 2012, each department head was asked to provide details about the guidelines/policies within their department/unit on recruiting/hiring, merit awards/performance salary adjustments (PSA), mentoring, workload, teaching reductions, resources and space allocation, tenure and promotion, leadership positions, award nominations and leaves (MPA leave, study leave, leave without pay, administrative leaves). As **Table 9** indicates, many departments have developed and implemented a wide range of policies since 2007.

Departmental policy – WCS 2012 + WCS 2007	**Departments with written guidelines (out of 9)**		**Faculty perception of existence of departmental policy 2012***	
	2007	**2012**	**"Don't have"**	**"Don't know"**
Mentoring[A)]	3	6[8] (66%)	7%	22%
Award nominations (*committee*)	--	*8 (89%)*	--	26%
Maternity/Parental/Adoptive leave	0	9 (100%)	1%	32%[B)]
Merit awards/PSA	--	8 (89%)	2%	11%
Tenure/promotion	--	2 (22%)	--	23%[C)]
Recruiting/hiring	1	4 (44%)	2%	13%
Resources: TA allocation[A)]	[8]	3[5] (33%)	8%	19%
Resources: space	--	4 (44%)	--	--
Workload expectations	--	4 (44%)	24%/11%[D)]	17%/15%[D)]
Teaching reduction	--	5 (56%)	11%	39%
Study leave/sabbatical[A)]	1 [5]	0	5%	23%[B)]
Other leaves	--	0	10%/4%/4%[E)]	77%/64%/70%[B),E)]
Communication	--	7 (78%)	--	--

Table 9 Departmental policies established in WCS 2007 and/or WCS 2012.
**Percentage of faculty out of all survey responses by policy question. "--" Question not asked.* [A)]*Number of departments that reported having a formula or formal procedures shown in brackets.* [B)]*This includes faculty the question may not be applicable to (Lecturers and Instructors I) as well as faculty of all other ranks.* [C)]*Average of all faculty respondents, accounting for the tenure/ promotion steps applicable to them.* [D)]*Policy on workload/teaching assignments, respectively;* [E)]*Policies on leave for improving qualifications/ administrative leave/ leave without pay, respectively. See further details in* Appendix to 3.1: Policy Review (notes to Table 9).

In 2012, all nine departments had guidelines on research support during maternity/ parental/ adoptive leave. For faculty mentoring, most departments had either written guidelines or reported mentoring procedures in place. Most departments had either implemented or drafted guidelines on teaching reductions. Many departments had clear policies on space allocation. Although eight written guidelines on the process and criteria for merit/PSA were submitted, these as well as workload policies seem less well established, especially for faculty in the teaching stream.

When asked how their guidelines and procedures are communicated to faculty members, most department heads reported using internal websites though in some cases the information on those sites may not be comprehensive and/or well disseminated among faculty. The following summary describes in more detail the degree of development and implementation of various departmental policies in 2012 compared to the 2007 WCS results:

- **Mentoring:** In the 2007 review, eight heads reported they had a mentoring policy but only five provided written policies, which varied in substance and clarity. In 2012, all nine departments had developed mentoring guidelines but three were unable to provide a written policy. Two heads were unaware of their departmental policies that were on file in the dean's office. One head reported that a mentor was assigned to each pre-Full professor. A total of 29% faculty didn't know whether there was a mentoring program in their department or thought it did not exist. Overall faculty feel that the formal mentoring policies lack clarity and direction and this will be discussed in greater detail below. See more details in section *4.1 Mentoring*.
- **Award nominations:** In 2007, department heads were not asked to provide or explain their unit's approach to awards nominations. In 2012, eight departments reported having a committee or individual faculty member for awards nominations. However, a quarter of faculty survey respondents didn't know about that and, as outlined in section *6.1 Research and* Teaching Recognitions and Canada Research Chairs, many faculty members feel that their awards nomination process lacks transparency and clarity.
- **MPA leave:** In 2007, none of the departments reported any other guidelines other than the UBC policy on maternity/parental leave. In 2012, all nine departments had implemented a maternity/ parental/ adoptive leave policy. These policies had been effectively communicated, as faculty affected were very aware of the policy and reported in post-leave interviews satisfaction with the support provided. See more details in *section 7.3 Family leaves and family responsibilities*.
- **Merit awards/PSA:** In 2007, departments were not asked about written guidelines with regards to the criteria and the process underlying merit award/PSA decisions. In 2012, eight heads reported having written guidelines and one having none. Only five provided a template or criteria for the annual activity reporting. Out of all faculty survey respondents, close to a third perceived their merit/PSA policy as unclear (17%) or didn't know about it (2%) or perceived their department does not have one (11%). See more details in section *3.5 Merit Awards*/PSA.
- **Tenure and promotion protocols:** In 2007, departments were not asked about written guidelines with regards to promotion and tenure procedures. In 2012, only two departments had written guidelines for faculty, and heads reported a wide range of approaches to the communication of promotion and tenure procedures. These included annual meetings, communication through mentors or specific committees. While the majority of overall faculty in both the teaching and research streams thought that tenure/promotion procedures applicable to them were clear, a substantial percentage (23%) of these reported "don't know". Perception of a more *ad hoc* approach was reflected in the uncertainty reported by junior and women faculty. See more details in section *3.3.2 Faculty Perceptions of Promotion and Tenure.*
- **Recruiting and hiring:** Only one department in 2007 and four departments in 2012 reported and provided written guidelines for recruiting and hiring procedures. With regards to increasing diversity within the faculty, in 2007, all heads indicated that diversity considerations were included and had a variety of strategies for increasing gender diversity. In 2012, all faculty recruitment in the Faculty of Science must be accompanied by a hiring plan that explicitly states the plan for ensuring a diverse pool of applicants. This includes outlining the advertising and communications strategies as well as naming a hiring committee that is as diverse as possible (in terms of gender and visible minority representation). This global strategy for all recruiting also includes ensuring that the recruiting committees are informed about "unconscious/implicit biases" with regards to faculty candidates' curriculum vitae and letters of reference, and the use of a candidate evaluation form to ensure equitable and consistent evaluations. However, there were still 13% of faculty respondents who did not know anything about recruiting guidelines for

hiring committees and/or for increasing diversity in their department. See more details in section *3.2 Recruiting and Hiring*.

- **Resources:**
  - **TA allocation:** In 2007, eight heads had a variety of formulas but no written policy. In 2012, three departments provided written policies and two reported having a formula. More than a third (36%) of faculty survey respondents perceived their formal procedures regarding TA assignments were either unclear (9%) or didn't know about it (19%) or perceived their department did not have one (8%). Overall the process was perceived as unclear, particularly in LS. See more details in section *4.2 Departmental Resources and Support*.
  - **Space allocation:** In 2007, heads were not asked about their space allocation guidelines. In 2012, six heads reported having a committee or policy to oversee the allocation of space. Four written policies were provided and two of these were highly detailed as to the eligibility and procedures.
- **Workload policies:** This was not asked of the heads in 2007. In 2012, five heads reported having or currently developing a workload policy (four written policies were provided, two of which were drafts); one department had a committee and one reported "long-standing practice", the other two departments reported "no policy". The workload policies varied greatly in substance with only one policy giving detailed guidelines for teaching and research streams, respectively, and including research, teaching and service workload expectations. Not surprisingly, half of faculty survey respondents (49%) perceived their department's workload expectations were either unclear (8%) or didn't know about it (17%) or perceived their department did not have a formal policy (24%). See more details in section *5 WORKLOAD*.
- **Teaching reduction:** In 2007, the lack of and partial implementation of existing guidelines on teaching reduction was one of the most contentious issues with faculty. By 2012, five departments had developed and provided a formal teaching reduction policy. Most others had policies that were being developed but had not been implemented. Unofficial policies included limiting teaching reductions to untenured research faculty in their first year or to those whose grant awards require a reduction. However, the majority of faculty survey respondents (63%) perceived their formal policy regarding teaching releases were either unclear (13%) or didn't know about it (39%) or perceived their department did not have one (11%). See more details in section *5.4 Teaching Reduction*.
- **Sabbatical and other leaves:** In 2007, five departments reported having guidelines for evaluating/approving study leaves (sabbaticals); only one head provided a written policy. In 2012, no departments reported having guidelines beyond the UBC policy on study leaves or for other types of leave (such as medical or administrative). See more details in section *4.3 Study Leaves*/Sabbatical.
- **Communication of department policies:** In 2012, seven department heads reported that their policies are posted on the internal web sites accessible to faculty and staff. Communication of departmental policies is a large concern to many faculty members (as reflected in uncertainty about various policies). With a wide range of approaches in the past, ranging from posting on internal web sites to a binder in the administrative office, the majority of departments now post their polices on their internal sites but many fail to effectively communicate these policies as comments such as the following reflects: *"My department has a general lack of transparency for departmental policies. It seems like these policies are distributed on a 'need to know' basis which is a very ineffective approach."*

Other concerns centered on the lack of clarity of a number of policies: *"Most policies are pretty unclear if they exist […] for instance, it is a mystery to me how teaching resources are allocated – some courses have large budgets and lots of TAs, some have small budgets and few TAs, and it isn't clear why."* Concerns were also voiced about inconsistent or capricious application of a unit's policies: *"Inconsistently applied, I have the distinct sense of backroom deals being made all the time to suit some over others." – "Stated policies are incomplete and inconsistent with outcomes."* However, as one faculty member noted, *"In cases where applied unfairly is listed, it is not that the policy is unfair, there just seems to be many exceptions to the policy. This may in fact be completely justified, but there is no venue for articulating such justifications, thus it seems unfair. In cases where I have raised concerns or questions, a clear and reasonable response has been provided."*

Summary

Since 2007, there has been a substantial investment on the part of many departments to develop a range of policies initiated by the actions of the Faculty Affairs Committee and the development of Faculty of Science principles. All departments have developed a maternity/ parental/ adoptive leave and a mentoring policy for faculty. The majority have developed a teaching load policy and close to half the departments have a workload policy. While the success of the implementation of these policies will be outlined in greater detail in the following sections, the generation and dissemination of departmental and UBC Science guidelines and protocols have greatly improved since 2007.

3.2 Recruiting and Hiring

3.2.1 Institutional Data on Faculty Searches and Hires

A major initiative implemented after the 2007 WCS was to track diversity demographics during the recruitment and appointment for all faculty positions within UBC Science. This includes a comparison of the available workforce pool (in the relevant field) with the demographics of applicants, the short-listed candidates invited for interviews, and finalists who were offered a position. UBC Science also developed recruitment guidelines and implemented training for all faculty recruitment committees on issues around creating a diverse applicant pool, "unconscious/implicit bias" and conflict of interest.

Over the past five years, 33% of the faculty hired within the research stream and 60% of tenure-track faculty within the teaching stream have been women (**Figure 12**). While the percentages fluctuate from year to year, there has been a steady progression in the rate of women faculty hired. The number of faculty hired who identify as members of visible minorities has remained constant over the past five years in both streams, at about 29%.

In comparison, the representation of women among research stream faculty hires was 13% in 1995-1999 and 21% in 2000-2005. The representation of women among teaching stream tenure-track faculty hires was 40% in 1995-1999 and 28% in 2000-2005. In the past, applicants and faculty from visible minorities were not tracked.

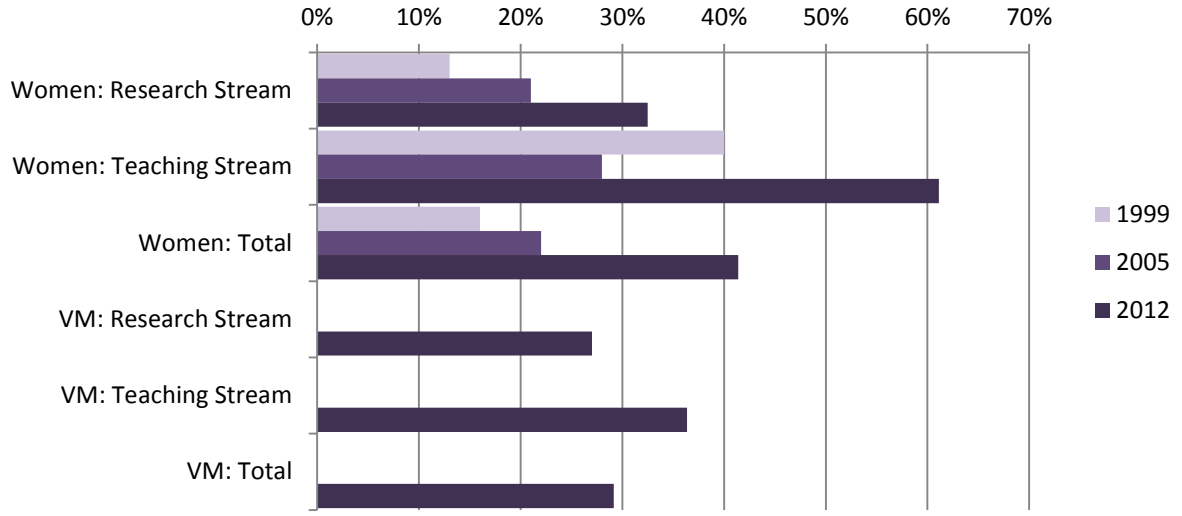


Figure 12 Representation of women and members of visible minorities among new appointments of tenure-track faculty in 1999 to 2012.
'1999' = 1995-1999 hires (total: 57); '2005' = 2000-2005 hires (total: 158); '2012' = 2007–2012 hires (total: 58). Sources: UBC Science Annual Diversity and Equity Progress Reports 2007/2008 to 2011/2012, and UBC Equity Office.

An analysis of the hiring of women in the research stream would not be complete without discussing the impact of the NSERC University Faculty Award (UFA). This award was specifically designed to facilitate the recruitment of underrepresented groups into the research stream and was in effect from 1990 to 2008. Many departments within Science took advantage of this program to increase the number of women hired. Without the NSERC program the current number of women within the research stream would be substantively less; see **Figure 13**. It is only within the past few years that with the implementation of new recruitment strategies the percentage of women faculty hired matches the numbers that had been achieved with the UFA program.

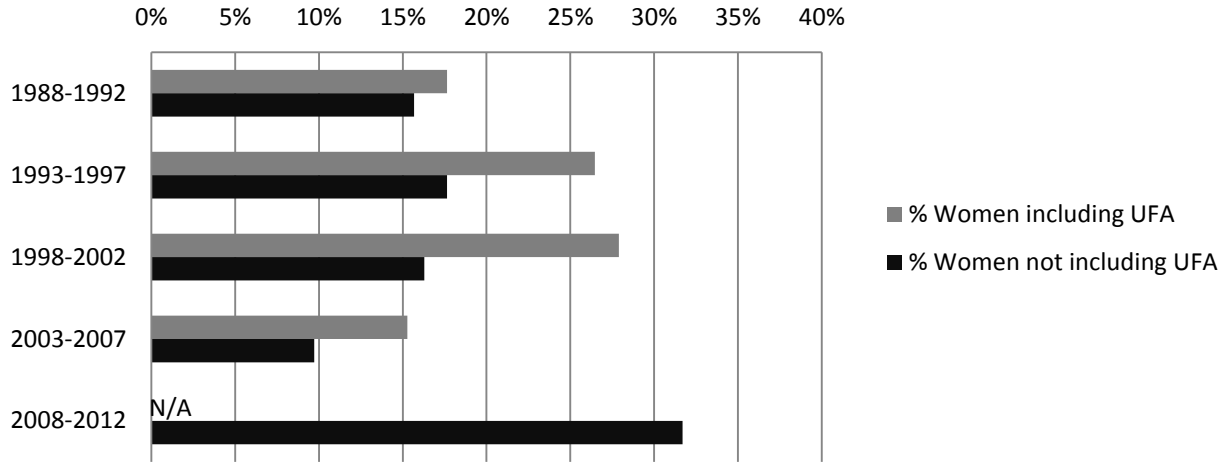


Figure 13 Representation of women among new appointments of tenure-track research faculty in 1988–2012 by 5-year period, with and without women faculty recruited through the NSERC University Fellowship Award (UFA).

Over the past five years, emphasis has been put on creating an applicant pool and "short-list" that is as diverse as possible and that matches the pool of PhD graduates and post-doctoral fellows. Within the research stream, these efforts have resulted in an expansion of the number of women invited for interviews with the majority of search committees inviting at least one woman (**Figure 14**). This expansion is reflected in the number of women hired within the past five years.

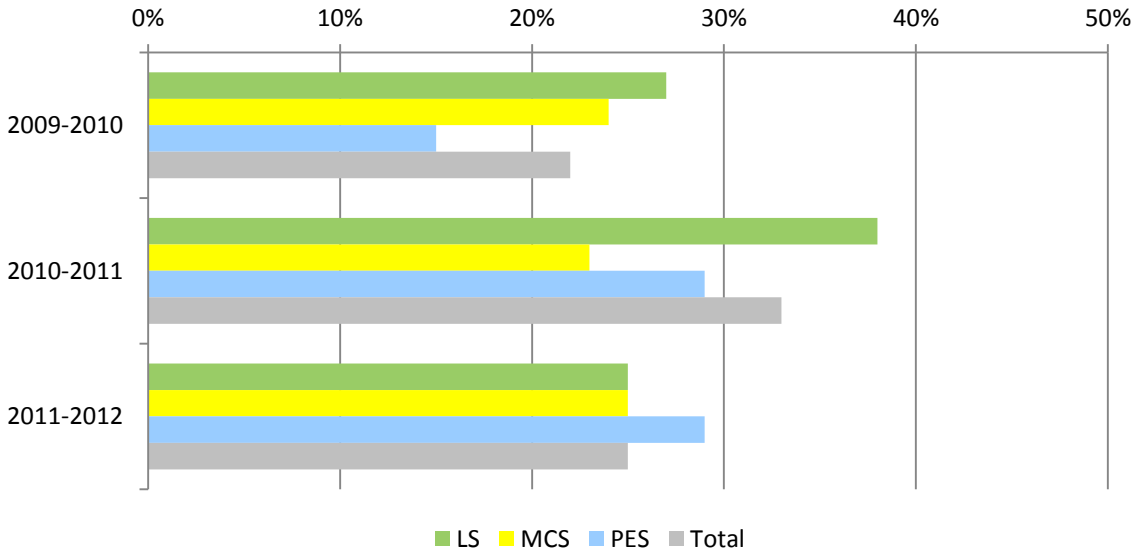


Figure 14 Representation of women among interviewees for faculty positions within the research stream in 2009–2012 – by year and field.
Source: UBC Science Annual Diversity and Equity Reports (2010, 2011, 2012).

Within the Life Sciences the pool for women candidates (in North America) is around 50% of PhD graduates and at 43% of post-doctoral fellows (PDFs); see **Figure 15**. Within MCS the percentage of women PDFs ranges from 17% to 23% and within PES it ranges from 17% to 34%.

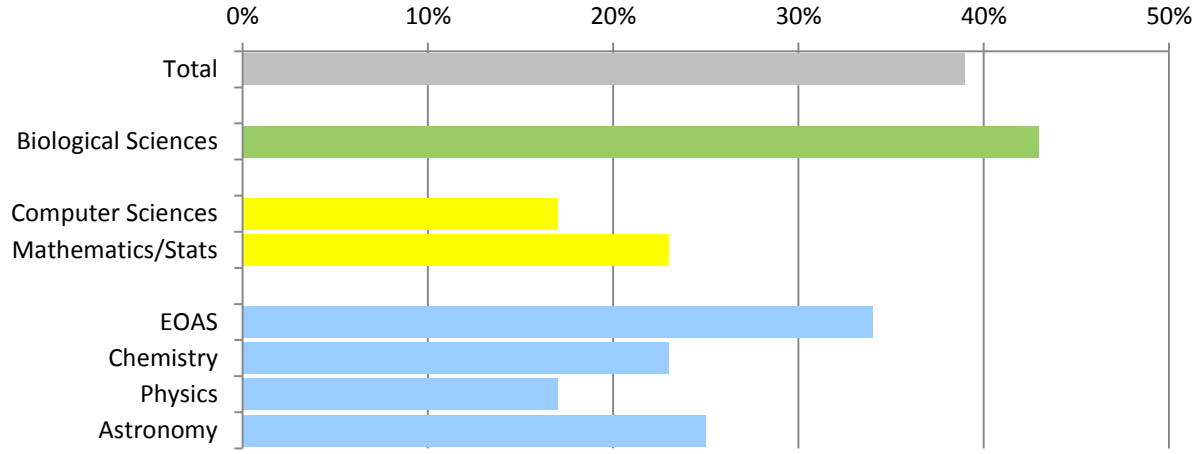


Figure 15 Academic workforce availabilities by discipline: Representation of women among post-doctoral fellows. *Source: National Science Foundation Survey (2007-2010).*

While the percentages of women applicants invited in both MCS and PES closely matches the available pools, the representation of women invitees within LS lags significantly behind the pools of both PhD graduates and PDFs. This is most likely due to the relatively low numbers of women in the applicant pool of LS searches, which has been at an average of 26% for the past three years (2009-2012) compared to 43% women in the PDF pool. In contrast, MCS invitees included 16% and PES 18% women compared to 17-23% and 17-34% women in the respective PDF pools.

The recruitment of faculty who identified as members of a visible minority has almost matched their representation in the candidate pools. However the representation of VM candidates on the short list (interviewees) is below their representation in the applicant pools, which was 32% for LS, 31% for MCS and 29% for PES in the past three years (2009–2012). The lack of small representation of visible minorities among interviewees compared to their representation in the candidate pools was particularly notable in LS and PES.

3.2.2 Faculty Perceptions of Recruitment and Hiring

Faculty members were asked about their perceptions on the effort their department/unit has made to increase the diversity in their department; see **Table 10**.

Efforts made by department to attract qualified candidates – WCS 2012 (Q. 6)	**No effort at all**	**Some effort**	**A lot of effort**
1. Attracting women candidates	3%	35%	62%
2. Attracting Aboriginal, visible minorities, and/or persons with disabilities	18%	58%	24%

Table 10 Faculty perceptions on efforts made by their department to attract qualified candidates of designated equity groups – WCS 2012 (Q. 6).

The majority of overall faculty respondents thought that their departments had put "a lot of effort" (62%) into attracting women candidates (Q. 6.1) while only "some effort" was perceived by the majority (58%) for attracting candidates who were Aboriginal, visible minorities or disabled persons (Q. 6.2).

With regards to the **efforts made to recruit women**, women faculty were more tempered in their response with the majority reporting that "some effort" (52%) had been made compared to their male colleagues who thought that "a lot of effort" (70%) had been made; see **Figure 16**. While 8% of women thought that "no effort at all" had been made, these responses are predominantly from women faculty in two departments/units within the Faculty. There were significant gender differences within the three different research areas. In LS, a significantly greater percentage of women reported "no effort" (17%) compared to MCS women (6%) and PES women (0%). Comments by faculty reflect the desire to increase gender diversity of the faculty *"Gender equality is a concern – we need more women." – "It is important to find ways to attract more women applicants for positions."*

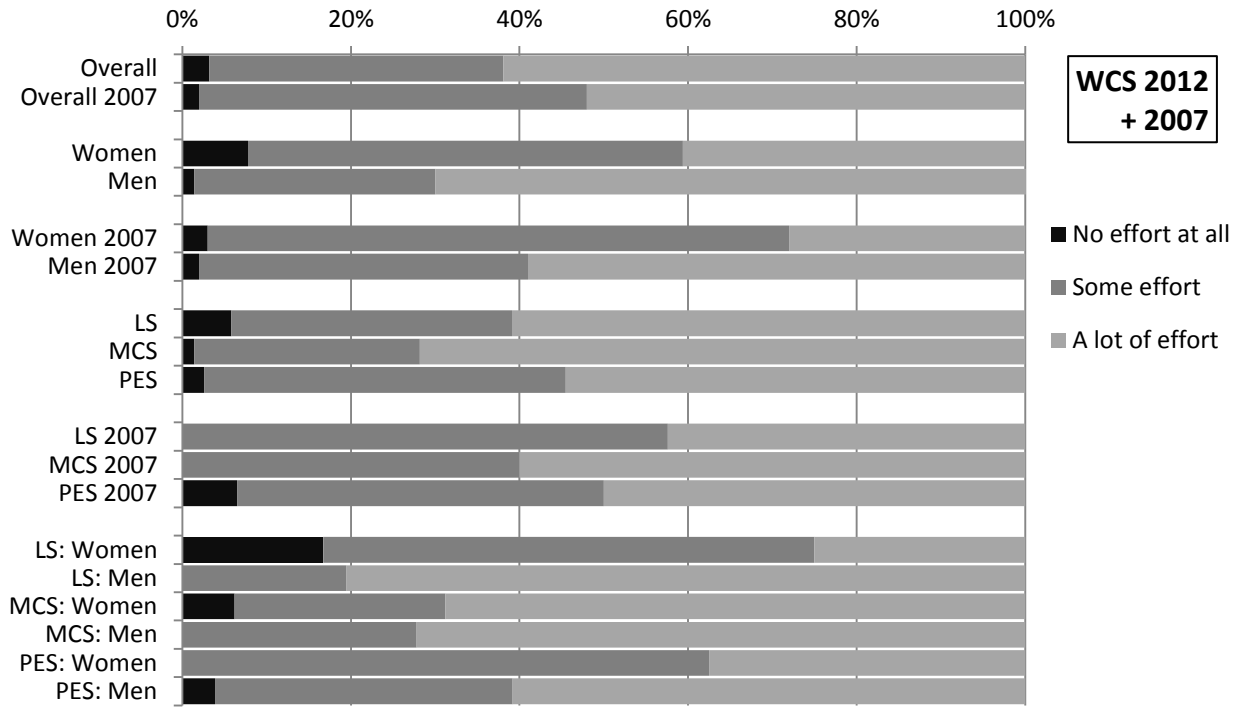


Figure 16 Faculty perceptions of efforts made by their department to attract qualified women candidates for faculty positions – by field and gender – WCS 2012 (Q. 6.1) and WCS 2007.

In 2007, 52% and 46% of overall faculty perceived "a lot of effort" and "some effort", respectively. In 2007, 59% of male faculty and 28% of their women peers indicated that "a lot of effort" had been made to recruit women faculty, which demonstrates an improvement in the perceptions of both men and women by 2012 on their department's efforts to increase gender diversity. This is likely due to the successful efforts made by the majority of departments and the increased recruitment of women faculty across Science and particularly within MCS and PES.

Faculty overall thought that substantially less effort had been put into recruiting a more diverse faculty beyond gender diversity; see **Figure 17**. The majority of faculty members thought that "some effort" (58%) and a significant percentage (18%) thought that "no effort" had been invested

to recruit Aboriginal people, members of visible minorities and persons with disabilities. This opinion was uniform across the faculty regardless of respondents' gender, VM status, rank or stream. The only significant differences were found in the PES where faculty were more likely to report "no effort." 26% of men and significantly 44% of women in PES reporting "no effort" compared to women in LS (16%) and MCS (15%).

Overall, departments/unit within the Faculty of Science have successfully increased their recruitment of women so much so that recruitment levels of women are matching the pool of available PDFs/PhDs in some fields. This positive trend is reflected in the increased effort perceived by faculty within the departments. However, efforts to increase the diversity of the faculty beyond gender diversity have not kept pace, a perception mirrored by faculty comments *"We've been much more focused on women than visible minorities. I don't feel the latter is a priority."*

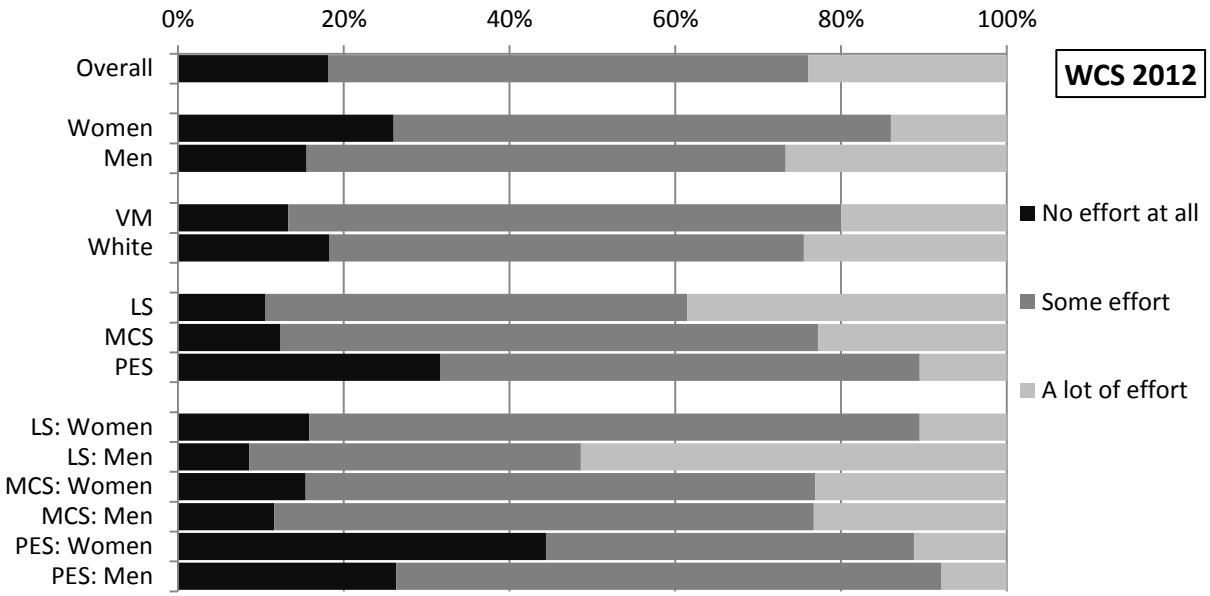


Figure 17 Faculty perceptions of efforts made by their department to attract qualified candidates who identify as Aboriginal, members of visible minorities, and/or persons with disabilities, for faculty positions – by gender, ethnicity or field – WCS 2012 (Q. 6.2).

Faculty members were asked to what degree in **aspects of the recruiting guidelines** were clear in their department/unit (Q. 7); see **Table 11**.

Clear recruiting guidelines – WCS 2012 (Q. 7)	Overall	Gender		Ethnicity		Field			Stream	
		Women	Men	VM	Cwh	LS	MCS	PES	Research	Teaching
1. for search/ hiring committee	91.1%	89.5%	93.4%	100.0%	91.5%	87.3%	93.9%	91.4%	90.4%	93.5%
2. for increasing diversity	84.4%	85.1%	86.2%	86.7%	87.4%	81.4%	88.7%	83.9%	85.1%	81.5%

Table 11 Faculty who perceived recruiting guidelines for search committees and for increasing diversity as clear – by gender, ethnicity, field or stream – WCS 2012 (Q. 7).

Most faculty respondents (91%) thought that their **departmental guidelines for search committees** (Q. 7.1) were "very clear" (59%) or "somewhat clear" (32%). This suggests an improvement in the wording and construction of departmental or Faculty policies, when compared to the 2007 WCS, where only 37% of faculty reported recruitment and hiring policies/procedures were "very clear". The three interdisciplinary research units stood out as exceptions in 2012, where 20%, 11% and 50% of faculty thought their policies were "very unclear". These same units also had large percentages of faculty who thought their guidelines for increasing diversity were "very unclear" (50%, 11%, and 100%). Among the nine departments, opinions on the guidelines for increasing diversity were split between "somewhat clear" (47%) and "very clear" (38%) and this was a uniform across all demographics.

Perceptions on **clarity of recruiting guidelines for increasing diversity** (Q. 7.2) have not significantly changed since 2007 for both women and men. However, LS faculty in 2012 were three times as likely to report "unclear" (19%) as in 2007 (see **Figure 18**). In the 2007 WCS, there were gender differences in the perception of recruitment and hiring policies, with 24% of women faculty and 41% of men reporting "very clear". A total of 10% women reported that the policies were "very unclear" or "ad hoc", whereas 3% of men reported "very unclear." These percentages were almost an exact match of faculty opinions in the 2012 WCS. Within the research areas, the major difference were women in PES, of whom only 6% thought that their departmental policies were "very clear" compared to their male peers (27%) and women colleagues in LS (41%) and MCS (43%). The only group to substantively characterize the policy as "very unclear" were women in LS (18%) compared to their peers in MCS and PES (3-7%).

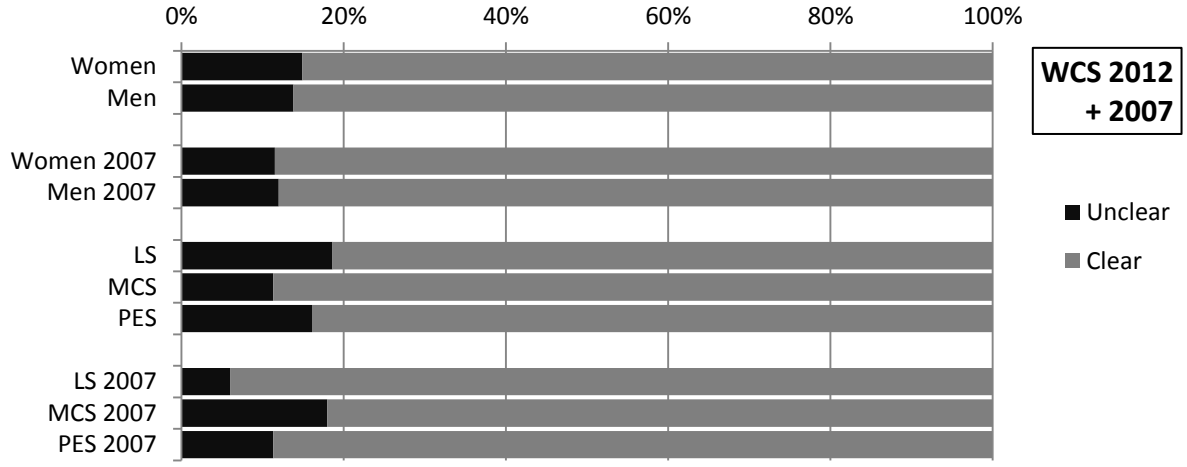


Figure 18 Faculty perceptions of clarity of recruiting guidelines for increasing diversity – by gender or field – WCS 2012 (Q. 7.2) and WCS 2007.

Some of the uncertainty or lack of clarity around recruiting guidelines is that many departments do not have a written policy; rather, there are the "unwritten" traditional protocols that faculty may or may not learn through experience. As the new FoS approaches have only been implemented over the past few years, many faculty have not served on hiring committees nor have experienced the new Faculty-wide approaches to recruiting, where now all committee members would be made aware and trained in aspects such as "unconscious bias" and conflict of interest guidelines. These issues are reflected in comments from the faculty *"In the past, I served on a search committee and I*

never saw any guidelines to this effect." The new guidelines and departmental culture has had some success and is positively viewed by faculty: *"We have hired really well in recent years. This is some indication we are doing something right. We have open discussion of hiring priorities and specific hires with input from the whole department." – "Oversight by the Associate Dean has really helped improve hiring committee practices.*" – "*I applaud the advances my department has made in this regard over the past decade and I sincerely wish that their achievements were acknowledged at the administrative level."*

However, comments from faculty also point to areas of significant concern *"Hiring of women faculty was presented as a mandate from the Dean and was subsequently ignored. In hiring committee meetings negative and completely inappropriate comments (bordering on illegal) about attempts to hire women faculty were made. No discussions of broader definitions of diversity would even begin in this climate."*

Beyond issues with diversity other concerns were *"Search committees have too much independence to do what they please without consulting the rest of the department. They sometimes make choices that are in their best interest and not that of the department as a whole."*

A common theme on recruitment was the lack of process when hiring into different research areas: *"Our department has struggled in process for deciding upon areas in which to hire." – "Hiring plan; discussions are exercises in hypocrisy, followed by a plan being written by a handful people chosen by the head, who largely ignore the discussion and propose to hire clones of themselves."* Others stated concerned with irregularities: *"I experienced (among other things): persistent misrepresentation of rules when applying for a more senior position; lack of transparency in evaluation of application; post hoc determinations of the nature of positions offered; announcement of successful applicants before a departmental vote was taken; no apparent policy about a quorum for voting."*

Focus group comments also concentrated on the need for better representation and participation of women on selection committees. Suggestions included the recruitment of women from different departments to boost numbers on committees. Particular attention was focused on the chair of the hiring committee as this person controls much of the dynamics of the committee. This concern prompted a check of hiring committees of the past two years: out of 25 searches across the faculty none of the faculty hiring committees was chaired by a woman. A question arose whether the gender of the chair influenced the process and how much influence should or does the head of the department/unit have on the process.

The focus groups emphasized how important the training of the hiring committees was in terms of unconscious/implicit bias with regards to interpretation of women and VM candidates' CVs and letters of reference. Focus groups also suggested detailed feedback from the committee itself rather than the head of department (as is the case now) to determine the fairness of the process.

Focus groups wanted to see more outreach to potential candidates and a more open/transparent process to the invitation process for applicants with the aim to encouraging more participation. Finally, the focus groups emphasized that the "short-list" needs to be vetted by the Dean.

Summary

Overall, there has been considerable success in the recruitment of more women – the largest underrepresented designated equity group in Science – to faculty positions (42% of hires were women in 2007-2012 compared to 22% in 2000-2005). Part of this success can be attributed to the new Faculty of Science recruitment protocols and requirements paired with increased understanding of the need for a more diverse faculty. While representation of visible minorities among new faculty (29%) has been constantly higher than that among current faculty (12%), these numbers as well as

those of other equity groups are difficult to interpret with regard to availabilities and degree of underrepresentation.

The relatively low number of women recruited in LS was of concern and is reflected in the low percentage of women in the applicant pool and on the "short list" (interviewees) as compared to the representation of women among PhD graduates and post-doctoral fellows. These smaller numbers were also reflected in the perceptions of faculty survey respondents where women in LS were less positive than their peers in MCS and PES about the efforts their departments are making to attract qualified women candidates for faculty positions.

As faculty members participate in the process, the awareness of policies and best practices for increasing diversity of the applicant pool and invited applicants will become common knowledge across the departments. However, there still remain issues with the processes in many units and the uneven implementation of clear and consistent approaches across the entire Faculty and the need to increase the diversity of the hiring committee chairs.

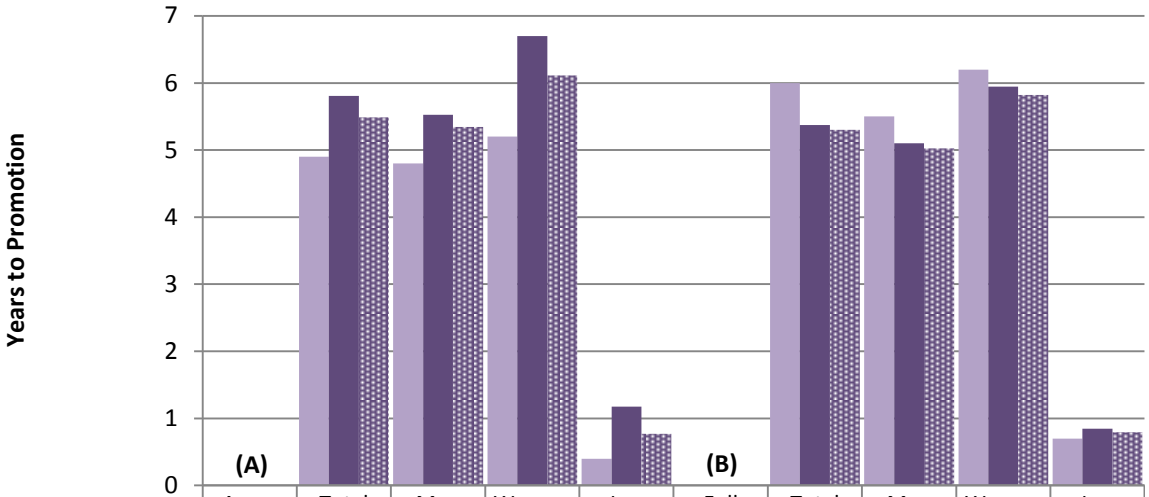
3.3 Tenure and Promotion

3.3.1 Institutional Data on Faculty Career Progression

The 2007 WCS identified a clear delay in the **tenure/promotion rates** of women Assistant Professors hired between 1992 and 2006 compared to their men peers. This gender difference did not occur for faculty at UBC overall. Five years after being hired, 31% of women and 33% of men faculty at UBC were promoted to rank of Associate Prof. compared to 30% of women and 45% of men at FoS. This difference was more marked when assessed seven years after hiring with 40% of women and 61% of men in the FoS promoted to Associate Prof. compared to 51% of both men and women in the UBC cohort. When excluding from the calculation those faculty members who had left UBC or FoS, the inequality grew even wider: 43% of women and 73% of men in the FoS cohort were promoted to Associate Prof. seven years after their start date. In 2007, however, the impact of maternity/ parental/ adoptive (MPA) leaves on the time to tenure and/or promotion (and corresponding stop of tenure clock) was not taken into account (but see data for WCS 2012 below).

For timing of **promotion from Associate to Full Prof.**, there was an even greater gender gap detected in WCS 2007. At its largest, there was a difference of 16 percentage points between the proportion of men compared to women faculty, who had become full professors 12 (as well as 14) years after being hired by UBC. Within the FoS, ten years after being hired 29% of men had become full professors, while at that time only the first 8% of their women colleagues had been promoted to full professor. The largest gap occurred 13 years after being hired with 14% of women and 46% of men in the FoS cohort being full professors at that time.

When comparing the four-year averages from 2004-2007 and 2008-2011, for both career steps, this gender gap still persisted even when MPA leaves were taken into consideration for 2008-2012 (see **Figure 19**). In 2008-2011, for getting tenure and promotion (to Associate Prof.), there was, on average, a 1.5-year lag between men and women. When MPA leaves were accounted for, this lag fell to 0.8 years. Similarly, there was a 0.8-year lag between men and women seeking promotion to Full Prof (when MPA leave was considered).



Promotion to…	Assoc	Total	Men	Women	Lag	Full	Total	Men	Women	Lag
2004-2007		4.9	4.8	5.2	0.4		6	5.5	6.2	0.7
2008-2011		5.8	5.5	6.7	1.2		5.4	5.1	5.9	0.8
2008-2011 corrected		5.5	5.3	6.1	0.8		5.3	5.0	5.8	0.8

Figure 19 Research faculty's time (A) from hire date (Assist. Prof.) to tenure/promotion ("Assoc") and (B) from Associate to Full Prof. ("Full") – four-year averages of promotion cases in 2004/05-2007/08 and 2008/09-2011/12.
"2008/09-2011/12 corrected": For time to Assoc. Prof., a one-year stop of tenure clock was subtracted if a pre-tenure assistant professor had taken MPA leave; for time to Full Prof., actual length of leave time was subtracted if an associate professor had taken MPA leave.

However, in the last four years one of the major initiatives implemented by the Dean and Assoc. Dean was an overview of all assoc. professors and their status with regards to promotion to Full Prof. This increased focus and mentoring helped ensure that all assoc. professors were provided the feedback necessary for progressing to Full Prof. As a consequence, there was an increase in the promotion rate of women to Full professor (from 8% to 16%) in the last four years. Many of these women faculty had been in rank of Associate Prof. for a significantly longer period than peer men. So while there has been an increase in the number of women progressing to Full Prof., in 2008-2012 the average time to promotion has not substantively changed compared to that in 2004-2007.

Most recently (2012-2013), there has been no gender difference in the time to promotion to Full Prof. As the numbers of promoted faculty are small overall, this issue will continue to be closely followed to determine if gender equality in this career progression step is sustained.

Regarding the time to tenure/promotion to Associate Prof., there continues to be a gender gap: on average, women lag 0.8 years compared to men faculty, which is even longer than that observed in 2004-2007. The underlying cause of this lag is not clear and certainly needs to be addressed.

In this context, it was also analysed how many faculty leave UBC prior to tenure (and promotion to Associate Professor); see **Figure 20**. Within the past 20 years, a consistent percentage of men assistant professors (9-10%) left prior to tenure (at UBC) across the three Science fields, whereas none of the pre-tenure women Assistant Professors left in LS, 6% left in MCS and 9% left in PES. Since neither UBC nor Faculty of Science carries out exit surveys, the reasons for why these faculty members left cannot be determined.

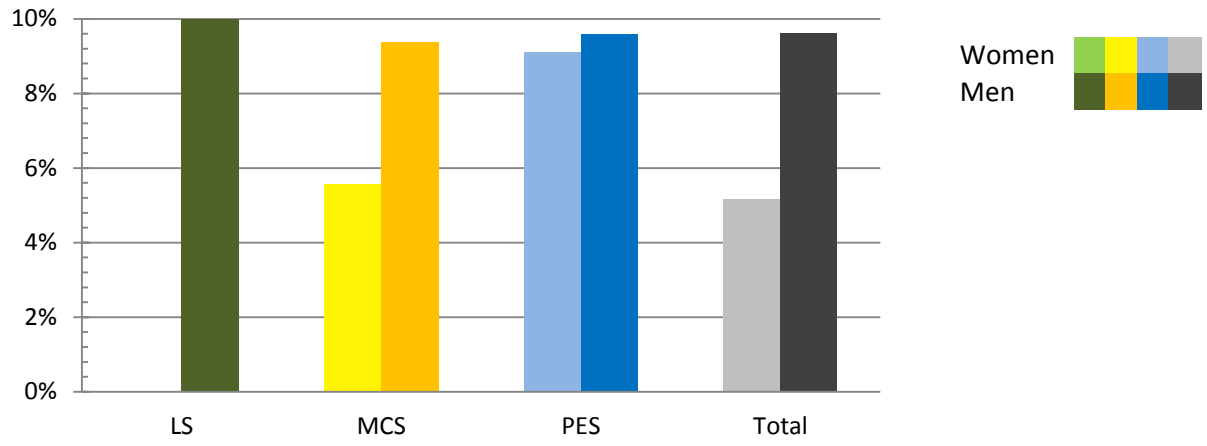


Figure 20 Assistant professors who left UBC Science before reaching tenure in the past two decades – by field and gender.
Faculty shown as a percentage of women and men, respectively, hired in years of 1990 to 2011 as assistant professors by field (LS: Life Sciences, MCS: Mathematical and Computational Sciences, PES: Physical and Earth Sciences); total hired: 235; total left before reaching tenure: 20.

3.3.2 Faculty Perceptions of Promotion and Tenure Procedures

The 2012 survey asked faculty members to rate the **clarity of communication for the promotion and tenure procedures** for the teaching and research stream career steps (Q. 8; see **Table 12**).

Promotion target rank – WCS 2012 (Q. 8)	Overall	Gender		Ethnicity		Field			Stream	
		Women	Men	VM	Cwh	LS	MCS	PES	Research	Teaching
1. Sr. Instr.	85.1%	78.8%	86.9%	90%	86.3%	92.3%	90.9%	71.1%	86.9%	80%
2. Prof. of Teaching	69.8%	50%	75.7%	66.7%	71.3%	73.5%	73%	62.9%	77%	53.1%
3. Assoc. Prof.	88.7%	83%	91.7%	100%	88.8%	92.7%	93.8%	80.3%	89.2%	78.6%
4. Full Prof.	85%	73.3%	88.6%	100%	84.5%	84.6%	93.4%	76.3%	84%	84.6%

Table 12 Faculty respondents' perception of clear communication of promotion procedures for each promotion target rank – by gender, ethnicity, field or stream – WCS 2012 (Q. 8).
"Clear" includes "Very clear" and "Somewhat clear". "Does not apply" and "Don't know" answers excluded. Statistically significant differences between peers highlighted.

Overall, the majority of faculty perceived at the communication for Promotion and Tenure procedures were "very clear" for promotion to all levels except for the rank of Professor of Teaching, which the majority ranked "somewhat" clear. Teaching stream faculty were less likely to report "clear" compared to research stream faculty. A likely reason for this could be that the Professor of Teaching rank had been introduced only recently as a third tier in the teaching stream.

When comparing the number of faculty who responded "Don't know" (and did not rate clarity of the procedures), a far greater number overall reported "Don't know" for the procedures on promotion to Senior Instructor or Professor of Teaching (26% and 31%, respectively) compared to promotion to Associate or Full Professor (8% and 12%, respectively). This result is of concern

given that research faculty are actively involved in the tenure and promotion process of faculty within the teaching stream.

In the 2007 WCS, the overwhelming majority of faculty members found the policies and procedures for faculty tenure and promotion in their department/unit clear (50% "somewhat clear", 43% "very clear"); see **Figure 21**. Still, 7% reported that the policies/procedures were "somewhat unclear," – "very unclear" or "ad hoc" and this percentage was slightly higher in 2012 (11-15% reported unclear) with an even greater degree of uncertainty regarding promotion and tenure (30% reported unclear).

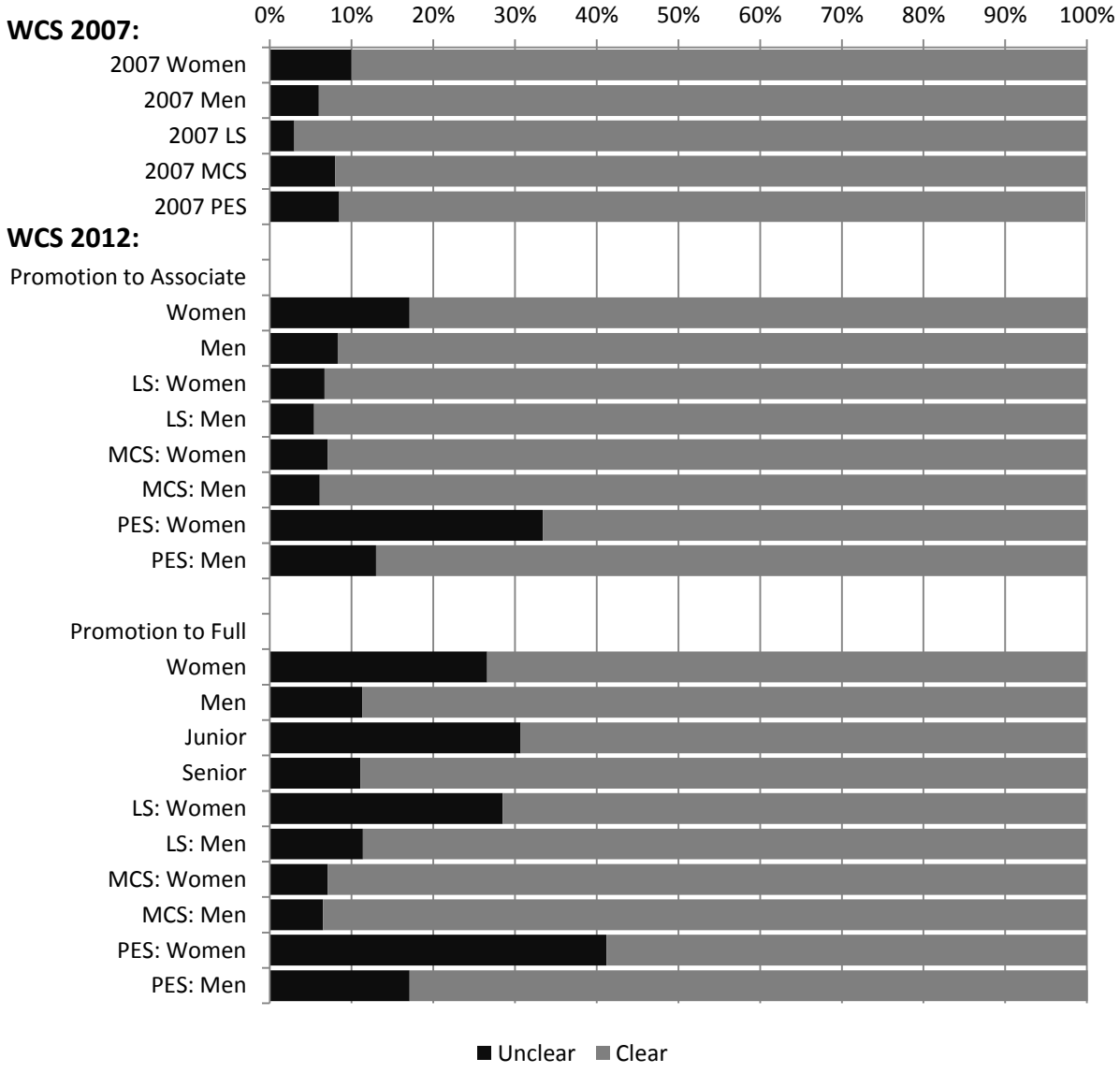


Figure 21 Faculty perceptions of clarity with which their department/unit communicates the procedures for tenure and promotions in the research stream – by gender, field or seniority – WCS 2012 (Q. 8.3/4) and WCS 2007.

In 2007, faculty members were also asked about perceived fairness of the promotion and tenure policies with 39% "somewhat" and 56% "strongly" agreeing that these policies/procedures were fair. Full professors reported a significantly more positive perception of fairness in tenure and promotion policies/procedures than asst. professors: 62% and 34% of the full professors, as opposed to 39% and 54% of the asst. professors respectively reported "strongly agree" and "somewhat agree" that the procedures were fair.

For the three different fields in 2012, PES faculty were less certain about promotion to Senior Instructor with 29% reporting unclear compared to fewer than 10% in LS and MCS. PES faculty also more often reported "unclear" regarding promotion to Associate Professor (20%) again compared to fewer than 10% in LS and MCS faculty (see **Table 12**). Thirty percent of women in PES think these procedures are "somewhat" or "entirely" unclear, this proportion is significantly higher than that of their women colleagues in LS (7%) and MCS (0%); see **Figure 21**.

This difference is even more pronounced when asked about promotion to Full Professor, where 24% of PES faculty reported "unclear", and women were more likely to respond unclear (41%) compared to men (17%). In LS, women were also more likely to respond unclear (28%) compared to their male colleagues (11%), whereas there was no gender difference in MCS.

However, there was a significant gender difference overall in perceptions on communications of promotion procedures to Full Professor, where overall more women thought these procedures were "unclear" (26%) than men (11%). Also – but probably not surprisingly – the proportion of junior faculty reporting "unclear" was greater than that of senior faculty.

Overall, many faculty members voiced concerns about the lack of communication on the criteria for promotion such as *"The criteria for tenure and promotion, in terms of number and quality of publications, have not been communicated to junior department members in the past."*

Faculty comments reflected the uncertainty around promotion and tenure with mainly PES faculty raising strong reservations regarding the processes and committee structures traditionally used for tenure and promotion, and in particular for the promotion to Full Professor.

The impact of the lack of criteria has been thought to negatively affect women faculty members in leading to delays in promotion to Full Professor, as seen in the past (see section *3.3.1 Institutional Data on Faculty Career Progression*). *"Promotion to full professor seems to be 'by invitation only'; a more transparent, faculty-driven process is needed, perhaps linked to continual assessment after tenure."* An interesting twist on this issue was raised by a faculty member *"There are no clear criteria for early promotion. There was an obvious case when a male assistant prof was tenured early, but a female assistant prof was already stronger in every respect than the male assistant professor's had to wait the full 5 years."*

The lack of guidance and clarity on the criteria for promotion to Professor of Teaching was also a common theme stemming from the newness and the evolution of the requirements for this position which have led to great uncertainty: *"…the University hadn't really figured out what documents would be required and what their format should be."* In addition, the scarcity of resources for promotion and tenure for teaching stream faculty was a concern: *"UBC has few on-line resources with info for the instructor stream."* Finally, the progression from 12-month lecturer to a tenure-track Instr. 1 was a concern: *"…there is no clear path to promote from a lecturer status to instructor. The only way to do this is to apply for instructor level positions."*

Focus groups and survey participants commented on the challenges of preparing tenure packages for teaching stream faculty and issues with having to rely on peer reviews and student evaluations. The recent changes to the peer review of teaching were a concern and made the process appear to be a "moving target." Differences in adjudicating teaching styles and the expertise of the peer review committee were also a concern. Faculty within the teaching stream also wanted to ensure that all aspects of teaching were being considered.

Faculty noted that most of what matters is not written down or difficult to discern but the information sessions provided by SAC were helpful. Often confusion at the departmental level added undue stress to the process especially with poor planning and last minute rush to complete files. Faculty thought it would be great to have a checklist of what is absolutely necessary as there was a lot of uncertainty in the process.

Summary

Over the past two decades, there has been a persistent gender difference in the timing of both career steps from pre-tenured Assistant Professor to tenured Associate and from Associate to Full, respectively, with timing of women's promotions lagging significantly behind men. In the academic years of 2008-2011, women's promotion was delayed an average of almost a year for both career steps, when comparing to men faculty and taking into account MPA leaves.

The continued gender gap for time to reaching tenure and promotion to Associate Professor needs to be further investigated and addressed. While no gender difference occurred most recently (in past two academic years) for the time from Associate to Full Prof., continued tracking of faculty members' career steps will only show if this is a sustained development of gender equality.

Compared to 2007, there were not significant changes in the overall perceptions in 2012 about the clarity of the promotion and tenure process; much uncertainty still persists. While this is not surprising for the newly implemented teaching stream rank of Professor of Teaching, it is a concern that the communication and processes behind promotion to Full Professor seem to be unclear for many faculty and in particular for women within the PES, and to a smaller extent in LS. These issues may have contributed to the continued lag in promotion for women to Full Prof. compared to men. However, in most recent years this lag appears to have been rectified with the same timing for both women and men on promotion to Full (when maternity/ parental/ adoptive leaves are taken into consideration). These results suggest that the new policies and data tracking of promotion times have started to have an impact. However, as the numbers of faculty members involved are low and the lag in promotion for women has persisted, the Dean's office will continue to track these data to determine if the lag in promotion is consistent or declining.

3.4 SALARIES

3.4.1 Salary Institutional Data

Starting Salaries

Table 13 compares starting salaries (average and median) of assistant professors by gender in Science. Over the past four years (2008-2012), Overall (in the three science fields LS, MCS and PES combined), there have been no differences in starting salaries based on gender. This was certainly not true in the past in the Life Science units, where women's starting salary (averaged over years 1990-2011) was $1,244 per month lower than men's (or at 81% of men's average starting salary, and women's salary median $1,620 lower than men's median). The continuing salary differences in LS (see current salaries of full professors, **Table 14**) likely reflect the larger number of women hired in the past decades in LS compared to MCS and PES. However, even in 2002-2007, while the difference in salary decreased, 100% of women in LS started at a salary lower than the entire group's median. In 2008-2012, this gender difference seems to be at a turning point in LS. However, with the numbers being very small, this cannot be substantiated at this point.

Starting Salaries of Tenure-track Assistant Professors at UBC Science									
Start years	**1990-2011**[A)]			**2002-2007**[B)]			**2008-2012**[C)]		
Gender	Women	Men	W+M	Women	Men	W+M	Women	Men	W+M
Life Sciences									
Median	$4,713	$6,333	$6,000	$6,058	$6,333	$6,333	$7,905	$7,167	$7,833
Average	$5,230	$6,474	$6,108	$6,058	$6,347	$6,315	$8,118	$7,333	$7,998
%< Median*	73%	25%	39% (20/51)	100%	38%	44% (8/18)	50%	36%	40% (6/15)
Mathematics and Computational Sciences									
Median	$7,000	$6,417	$6,500	$7,500	$7,125	$7,250	$7,650	$8,063	$7,990
Average	$6,769	$6,210	$6,334	$6,917	$6,909	$6,911	$7,602	$8,112	$7,966
%< Median*	39%	51%	48% (39/81)	43%	50%	48% (14/29)	67%	40%	46% (6/13)
Physical/ Earth									
Median	$6,167	$5,833	$6,000	$6,167	$6,333	$6,250	$8,160	$7,417	$7,870
Average	$6,106	$5,697	$5,790	$6,264	$6,390	$6,357	$8,161	$7,417	$7,988
%< Median*	35%	53%	49% (43/88)	67%	36%	44% (15/34)	0	100%	50% (3/6)
Science (total)									
Median	**$6,000**	**$6,167**	**$6,079**	**$6,167**	**$6,500**	**$6,333**	**$7,990**	**$7,833**	**$7,833**
Average	**$6,083**	**$6,058**	**$6,064**	**$6,495**	**$6,560**	**$6,546**	**$7,976**	**$7,953**	**$7,960**
%< Median*	**55% (29/53)**	**49% (81/167)**	**50%**	**67% (12/18)**	**38% (24/63)**	**44%**	**40% (4/10)**	**42% (10/24)**	**41%**

Table 13 ***Starting salaries (monthly) of tenure-track Assistant Professors at the time of hire – by field (departmental grouping) and gender.*** ** Number of faculty whose starting salary is below median of all starting salaries in that group (W+M), shown as a percentage of women and men, respectively.* [A) B) C)] *See further details in* Appendix to 3.4.1: Salary Institutional Data.

Current Salaries

Research stream faculty's salaries across UBC Science (**Table 14**) were not differing between women and men, either at the Assistant or the Associate Professor level; whereas 70% of women full professors' salary was below the median of all full professors. Within MCS and PES, there are no gender differences at any research stream rank; whereas in LS, women earn significantly less than men faculty in the rank of Full Professor (**Figure 22**). The significant discrepancies for full professors in LS account for the overall differences at Science and likely reflect the historical gender inequity in starting salaries at UBC and women faculty's lag in promotions to Associate and Full Professor (see section *3.3 Tenure and Promotion*).

Salaries of Research Stream Faculty at UBC Science									
Rank	Assistant Prof.			Associate Prof.			Full Prof.		
	Women	Men	W+M	Women	Men	W+M	Women	Men	W+M
Median	$8,469	$8,606	$8,606	$10,147	$10,279	$10,268	$11,509	$12,000	$11,882
Average	$8,630	$8,537	$8,568	$10,372	$10,452	$10,431	$11,697	$12,348	$12,186
# < Median*	6/12 (50%)	12/24 (50%)	50%	12/23 (52%)	32/66 (48%)	49%	12/17 (71%)	22/51 (43%)	50%

Table 14 ***Monthly salaries of Science faculty initially hired at rank of tenure-track Assistant Professor between 1990 and 2011 – by rank and gender.*** **Number of faculty members whose current salary is below median of all current salaries in that group (W+M). "Rank" includes faculty's current rank in 2012 or rank at time a faculty member left UBC (in past twenty years).*

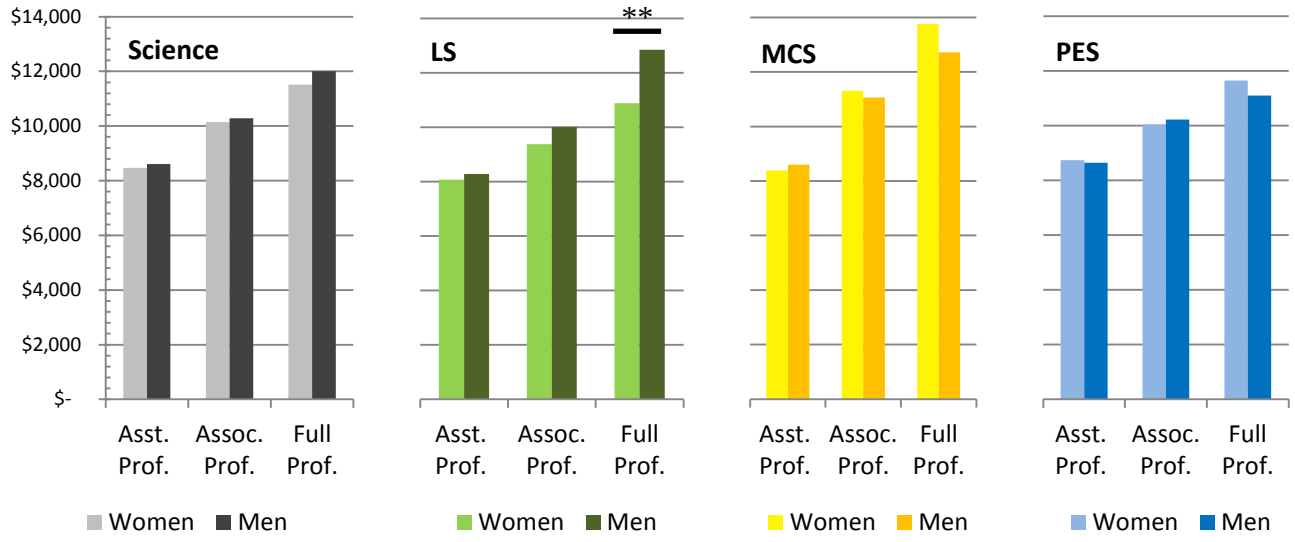


Figure 22 ***Monthly salary of research stream faculty – median by field, rank and gender.*** *Includes a total of 193 tenure-track/tenured faculty members initially hired into rank of Assistant Professor at Science. Rank includes faculty's current rank in 2012 or rank at time a faculty member left UBC (in past twenty years). **Indicates significant differences between average salary of women and men.*

In 2012, based on the recommendations of the Gender Pay Equity report, all tenured or tenure-track women faculty received a 2%-per-year salary award effective July 1, 2010.[13] A comparison of salaries before (2012) and after the salary award (2013) across the three different research areas in Science found that this adjustment did not change either the gender differences for full professors within the LS or the gender parity in the MSC and PES fields (**Figure 23**).

In 2013, there were no significant salary differences based on gender at the ranks of Assistant Professor, Associate Professor, or in the teaching stream.

[13] http://vpacademic.ubc.ca/faculty-equity-and-diversity-initiatives/gender-pay-equity-information

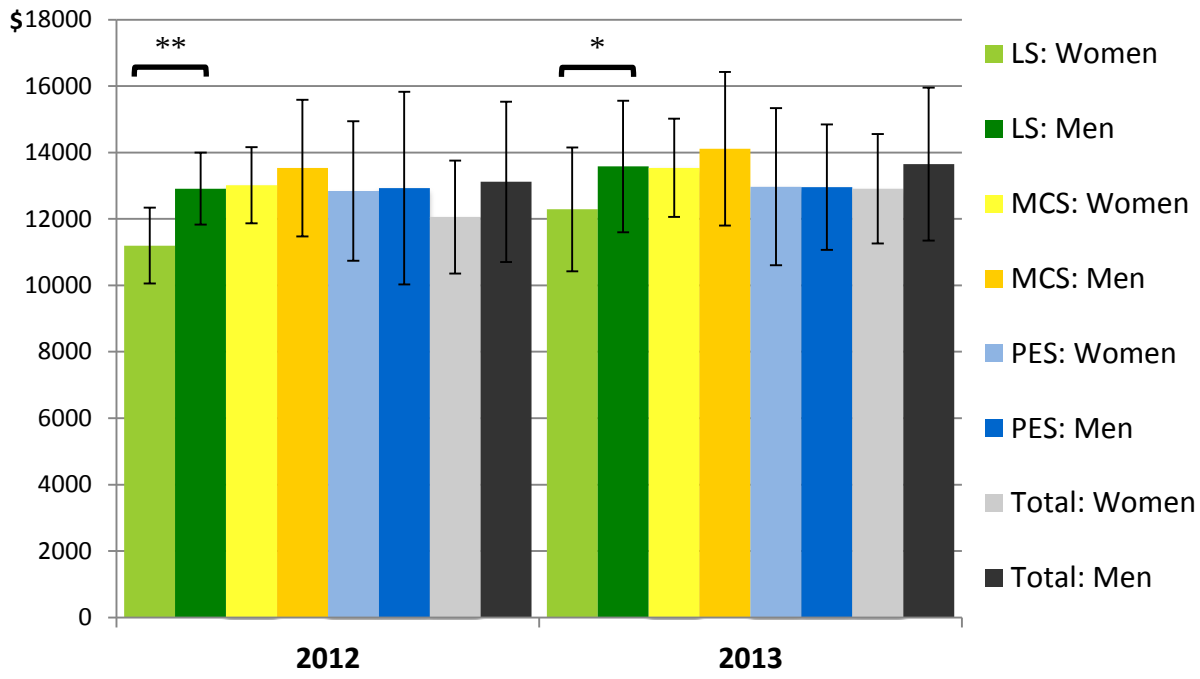


Figure 23 Monthly salary of full professors at UBC Science in 2012 and 2013 – average by field and gender.
*The standard deviations are indicated. Statistically significant differences: *p<0.05; **p<0.01.*

3.4.2 Faculty Views on Salary

Faculty were asked about their degree of satisfaction with regards to the salary for the work they do (Q. 12.4; see **T**able **15**).

Faculty satisfied with salary – WCS 2012 (Q. 12.4)	Overall	Gender		Ethnicity		Field			Stream	
		Women	Men	VM	Cwh	LS	MCS	PES	Research	Teaching
	78.0%	80.3%	77.3%	71.4%	79.6%	79.2%	78.6%	77.2%	80.4%	65.9%

Table 15 Faculty's satisfaction with their salary for the work they do – by gender, ethnicity, field or stream – WCS 2012 (Q. 12.4). *"Satisfied" includes "very satisfied" or "somewhat satisfied" responses. Statistically significant differences between peers highlighted.*

The majority of overall faculty (78%) reported that they were satisfied with their salary for the work they do, with the answers evenly divided between "somewhat" and "very satisfied". There were no significant differences across any demographic group. However, many of the faculty comments on salary centered on perceived inequities *"My salary is lower than that of faculty hired later than me." – "My salary is smaller than others whom I consider my equal in the international community." – "Salary that doesn't keep up with cost of living even with merit increases."* Salary was also mentioned as the most likely reason for faculty to consider positions outside of UBC as discussed in section *3.6 Retention*.

Teaching stream faculty were less likely to respond "very satisfied" (22%) compared to research stream faculty (41%). Within the teaching stream, lecturers and senior instructors were the most dissatisfied with 14% and 16%, respectively, responding "very dissatisfied" compared to 0% of instructors 1 and 2-5% of research stream faculty; see **Figure 24**. With 57% of lecturers being dissatisfied with the salary for the work they do, this group's perception was the most negative compared to all other faculty ranks or groupings. Faculty comments centred on perceived inequity of salary for teaching stream faculty: *"Gross inequity in pay for senior instructors." – "Teaching faculty should get valued and paid the same as research faculty."*

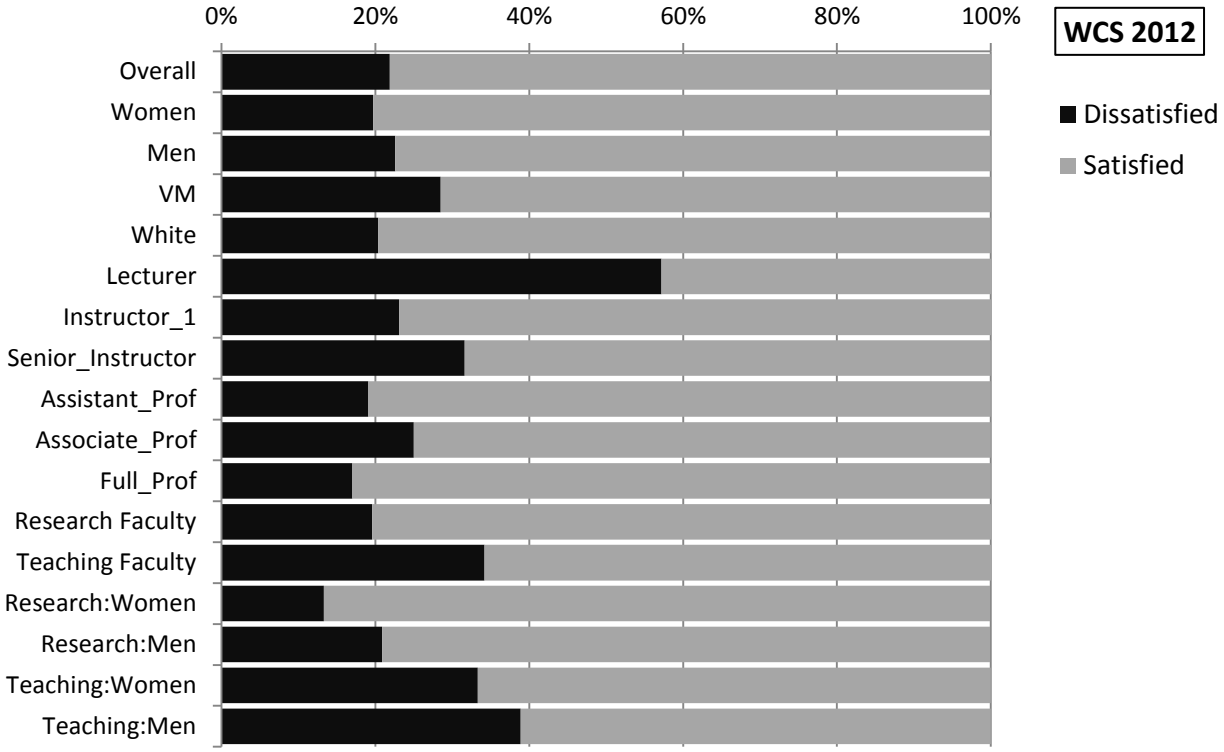


Figure 24 Faculty's perception of their salary for the work they do – by gender, ethnicity, rank, or stream and gender – WCS 2012 (Q. 12.4).

In the 2007 WCS, faculty members rated their salary compared to peers in their departments in the last five years. About half of faculty (54%) reported that their salary was "average" compared to peers, 25% responded with "below average" and 21% with "above average," respectively. MCS faculty were significantly more positive about their salary than PES; and fewer of the women (14%) thought their salary was above average compared to 24% of men.

Summary

Overall there were no differences in starting salaries based on gender in the past five years. Also, current women faculty earn on average the same as men across the three fields (departmental groupings) of Science, except for women full professors in the Life Sciences, whose average salary is significantly lower than their men peers'. This may be a hold-over from past inequities given the larger proportion of women full professors in the LS units. The recent 2%-salary award (UBC Pay

Equity initiative) for women faculty across UBC did not correct the gender difference in LS units of UBC Science.

Most faculty respondents were satisfied with their salary though issues still remain, in particular, for teaching stream faculty, who reported a lack of being valued and recognized adequately for the work they do.

3.5 Merit Awards/PSA

3.5.1 Institutional Data on Merit Awards/PSA

Merit awards/PSA received by women faculty in the years of 2008-2011 were compared to women faculty's representation in each of the three departmental groupings; see **Table 16**. The four-year averages by departmental grouping – as well as by individual department (data not shown) – indicate that, overall, women and men shared equally in the distribution of merit awards (number of recipients) and received merit (monetary value), which were at the same proportions as the representation for each gender within the Science faculty. This suggests no fundamental gender disparity with respect to the distribution of merit awards. At this point, it cannot be determined if there are inequalities for any other underrepresented equity groups.

Field	Women faculty overall [%]	Women receiving merit [%]	Monetary value received [%]
LS	34.2	36.0	39.1
MCS	15.4	14.6	14.4
PES	18.1	19.9	20.2
Science total	**21.0**	**22.2**	**23.4**

Table 16 Merit awards received by UBC Science women faculty averaged over four years (2007/2008–2010/2011) by field.
Faculty representation – women's proportion of faculty eligible for merits;
Merit recipients – women's proportion of faculty who received merit/PSA;
Monetary value – proportion of combined merit/PSA money received by women faculty.

3.5.2 Faculty Views on Merit Awards/PSA

Faculty were asked to **rate the departmental policies on merit awards/PSA review** (Q. 9.13; see **Table 17**). Overall, the majority of faculty thought that the policies were clear and applied fairly (69%). Thirteen percent out of 225 respondents were unaware of these policies (24 reported "Don't know" and 2 "Don't have"; see **Table 9**).

There were no differences based on gender but, unlike any other policy issues, there was a substantial difference in the rating by VM faculty. Specifically, VM faculty in the groups of junior faculty, research stream, and LS faculty were more likely to report "Don't have a formal policy" than their Cwh colleagues.

Overall, junior faculty were more likely to report "Policy is unclear".

Within the LS and PES, faculty were more likely to rate their policies as "unclear" compared to MSC faculty. Within the LS, 24% of women faculty rated their policy as "unclear" compared to 12% of men. In PES equal percentages of men and women thought their policy was unclear. Within four units, approximately 30% of faculty thought their policy was unclear. Conversely, within two units 90% of faculty rated their policy as "clear". These perceptions correlate very well with those departments that have a clearly articulated and detailed policy posted on their internal web sites. In

addition, women within PES were more likely to rate their policy "clear but applied unfairly" compared to any other group.

Faculty perceptions of Merit award/PSA review policy – WCS 2012 (Q. 9.13)	Don't have a policy	Policy is unclear	Policy is clear but inadequate	Policy is clear but applied unfairly	Policy is clear and applied fairly
Overall	2%	18.5%	4.5%	6%	69%
Women	3.3%	18.3%	5%	6.7%	66.7%
Men	1.5%	17.8%	4.4%	5.9%	70.4%
VM	18.8%	12.5%	12.5%	0%	56.2%
Cwh	0.6%	17.5%	3.6%	4.8%	73.5%
Junior	3.3%	30%	5%	1.7%	60%
Senior	1.5%	13.4%	4.5%	8.2%	72.4%
LS	4.5%	19.7%	4.5%	6.1%	65.2%
MCS	1.5%	8.8%	4.4%	4.4%	80.9%
PES	0%	27.7%	4.6%	6.2%	61.5%
LS: Women	8%	24%	4%	4%	60%
LS: Men	2.6%	13.2%	5.3%	7.9%	71.1%
MCS: Women	0%	0%	12.5%	6.2%	81.2%
MCS: Men	2%	11.8%	2%	3.9%	80.4%
PES: Women	0%	26.3%	0%	10.5%	63.2%
PES: Men	0%	28.9%	6.7%	4.4%	60%

Table 17 Faculty perceptions of departmental policy/procedures on merit award/PSA reviews – by gender, ethnicity, seniority, field, or field and gender – WCS 2012 (Q. 9.13).
"Don't know" answers not included (see Table 8 *and* Table 9 *for details).*

While there were no differences in awarding merit/PSA based on gender, we cannot determine if there were any inequities in the allocation for any other equity group as the UBC system does not track merit awards/PSA based on ethnicity or other designated groups. That being said, there is still a strong perception among some faculty that there are inequities within the merit award/PSA review process. Faculty comments on merit/PSA suggest that, for many, the process is not transparent: *"Merit/PSA is done by secret committee and is not transparent." – "I am extremely frustrated with the lack of transparency, lack of policy, disregard for policy and lack of fairness that seems to be the cultural norm in my department."* Other comments highlight issues with who is eligible and the criteria used for awarding merit: *"I was told about the merit awards by a senior administrator in the department who told me that I would not receive the award because I was too junior." – "Merit/PSA is nebulous and not defined. I don't know how it's judged, or what I have to do in order to obtain it."* Other faculty members noted that development of fair processes can be difficult to achieve *"Merit/PSA awards are assigned fairly, I think, but it's difficult to have a formal policy given the diversity of our faculty." – "Criteria for merit/PSA are necessarily subjective. Comparison of efforts on teaching with those on research is difficult."* Finally, other faculty noted that the role of the Head of the Department/Unit in assigning merit/PSA could be more transparent: *"Guidelines appear to be in place but the outcomes (having served on the committee) sometimes seem strange."*

Summary

While there were no differences found in the allocation of merit awards/PSA based on gender, there is still a strong perception that the system has inequities. A major cause of this perception is the lack of transparent guidelines and procedures in many of the units. One of the recent initiatives at the Faculty of Science is to generate merit award/PSA guidelines and protocols that are more transparent and clear as to the process and to the criteria by which merit and PSA are awarded to both full-time research and teaching faculty, respectively. All departments are developing these protocols, which are to be posted and available for all faculty members. The expectation is that the development and communication of the departmental/unit procedures and criteria for merit awards/PSA will help to alleviate much of the concerns voiced by faculty members.

3.6 Retention

3.6.1 Institutional Data of Faculty Who Left

Faculty Who Left UBC

Gaining an understanding of why faculty leave UBC is a critical aspect for assessing the impact of institutional changes on the faculty working climate. In the years of 1990 through 2011, a total of 393 tenure-track/tenured faculty had been hired and 49 of these (12%) have left UBC (not including retirements at or after NRD[14]); see **Table 18**.

Faculty who left	Over-all	Gender		Field (and Gender)						Stream	
		Women	Men	LS		MCS		PES		Research	Teaching
Number	49	5	44	9		20		18		42	5
Proportion of faculty hired in 1990-2011	12%	6%	15%	8%		16%		12%		12%	10%
				W	M	W	M	W	M		
				0%	12%	8%	19%	9%	12%		

Table 18 Faculty who left in the past two decades – by gender, field or stream.

Across Science, a higher proportion of men (15%) left than women f (6%), while there is no difference in the rates of faculty leaving between the research and teaching streams.

When comparing the three fields, overall faculty left at lower rates in LS (8%) and PES (12%) compared to MCS (19%).

However, only in PES was the rate of women faculty who left close to that of men. No women within the LS left, and in MCS about half the number of women faculty left compared to men.

At this point, the reasons for leaving remain vague as there are no records on why these faculty members left. Establishing an exit survey may help to gain a better understanding of faculty departures and whether their reasons are correlated with the working climate in particular areas and/or a consequence of professional/personal life balance issues such as costs of living/housing in Vancouver (see also section *7.1 Balance of Professional and* Personal Life (Faculty Perceptions)).

[14] Normal Retirement Date (NDR) is the June 30th or December 31st coincident with or following the date of the faculty member's 65th birthday. Mandatory retirement was abolished in 2008. For more information see http://www.hr.ubc.ca/faculty-relations/retirement/

Retention Funds

In the past, dedicated retention funds were provided to the Faculty by the Provost.[15] In previous years 1998-2005, twelve women (11%) and 98 men received retention funding, with percentages of women recipients ranging from 0% (in 2004/05) to 17% (in 2002/03 and 2005/06). Of those receiving retention funding, women received, on average, $2,975 less than men. The annual average difference between women and men ranged from $739 (in 2005/06) to $7,441 (in 2004/05).

In contrast, between 2007/08 and 2009/10, 11 women (31%) and 25 men received retention funding, with 38% of the total retention funding granted to women faculty. Of those receiving retention funding, women received, on average, $3,971 more than men. Teaching stream faculty that include the highest percentage of women (instructors and sr. instructors) did not receive retention funding at the same levels as research stream faculty (full, assoc. and assistant professors). In general, it appears that stronger retention pressures occur in the research stream than in the teaching stream.

3.6.2 Faculty Views on Retention

Faculty members were asked whether they have ever considered positions outside of UBC (Q. 10; see **Table 19**).

Faculty who considered leaving	Over-all	Gender		Ethnicity		Field			Stream	
		Women	Men	VM	Cwh	LS	MCS	PES	Research	Teaching
WCS 2012 (Q. 10)	55%	48.5%	55.9%	52.4%	53.6%	54.8%	52.8%	57.7%	59%	41.5%
WCS 2007	31%	14.8%	36%	*	*	21.2%	34%	34.85	*	*

Table 19 Faculty respondents who have considered positions outside of UBC – by gender, ethnicity, field or stream – WCS 2012 (Q. 10) and WCS 2007. **Data not available.*

More than half of faculty (55%) reported that they had considered positions outside of UBC. The response was uniform across all demographics with the exception that men within the research stream were more likely to have considered leaving. Within the research stream 60% of both assoc. and full professors have considered leaving compared to 42% of sr. instructors. While there was no difference based on scientific field, the interdisciplinary units had much higher positive responses (94%) compared to the nine academic departments (52%). These numbers are much higher than the responses from faculty in the 2007 WCS, where 31% of faculty reported "yes," with 36% men and 14% women reporting having ever sought outside positions.

When asked for their reasons for looking outside of UBC for positions, faculty provided a wide range of explanations, with "*salary*", high cost of living and housing in Vancouver ("*Vancouver is too expensive")* most commonly reported. Other fairly common comments included:

- The lack of leaderships positions, administrative opportunities and the *"ability to move up"*
- Looking for better research and funding opportunities, better research facilities
- An increasing level of bureaucracy at UBC and the downloading of administrative tasks to faculty
- Expecting a better working environment, a more collaborative work environment
- Lack of support for research area *("I feel isolated research-wise at UBC")*

[15] The retention award program of the Provost's Office has expired in 2010. It is expected to resume with new funds in 2014.

- Less emphasis on research and heavier teaching plus administration loads compared to colleagues at other institutions ("*My teaching load is detrimental to research productivity")*
- Searching for more suitable position for spouse
- Salary disparity between UBC academic units, disparity with industry salaries

These reasons are not substantially different from those in 2007, which included heavy teaching loads, lack of opportunities for career advancement, lack of resources (funding, technical support), departmental climate, and the "two-body" problem. In 2007, low salary was a reason mentioned most often by men, and, while women also reported financial issues (salary and cost of living), teaching loads and department support were also common reasons. In 2012, men were as likely as women to mention dissatisfaction with salary, spousal appointments, cost of living, research and funding opportunities, and working climate.

In 2012, some faculty mentioned that the reasons for looking outside of UBC no longer exist due to an improved working climate: *"This was many years ago when the climate for teaching faculty was very different". "This was a time when teaching load was too high, and teaching assignment was distributed unfairly. Things have changed drastically since then, none of these are issues anymore."*

One group of faculty, the 12-month lecturers, need to search annually for positions within and outside of UBC; their comments included: *"I'm on a renewable contract from year to year. My position is tentative based on the number of classes and teaching faculty available. Therefore, each year I need to job search and this includes positions outside of UBC."*

Faculty were then asked to comment on what influenced their decision to stay at UBC after considering outside positions. While there was a diverse range of reasons, the most common themes were:

- Significant new investment in research area
- Retention funds for salary, research
- CFI funding opportunities
- Better balance between teaching and research load (e.g., *"I appreciate that UBC is a 'balanced' place to work, where teaching and research are often equally valued"*)
- Housing support beyond the UBC policy
- Collegial and collaborative department (e.g., *"I enjoy very much the working environment and collaboration with colleagues in my department, and the teaching and research supports that UBC offers, which made me decide to stay." – "I love my department. I feel we're onto something great. I want to see it through."*)
- Quality of students
- Quality of life in Vancouver
- Spousal appointment offered

Summary

More than half of faculty within the Faculty of Science have considered leaving UBC at some point, a proportion that has increased substantially since 2007. While the reasons to leave were diverse, a common theme that was more prevalent in 2012 than in 2007 was the cost of living in Vancouver. Many of the reasons for faculty choosing to stay at UBC seem to be related to offsetting the high cost of living, including an increase of salary, housing support beyond the standard UBC package and appointments for partners/spouses. Correspondingly, a higher percentage of junior than senior faculty thought that housing subsidy was a very important area for their negotiations on their

original job offer at UBC. There was also uniform dissatisfaction with the housing assistance provided by UBC.

A higher percentage of men than women left UBC. This could reflect the perception that women have greater family/spousal constraints, which might explain the reluctance to consider moving away. The allocation of retention funds was considered by many faculty to be a mystery and likely to go to those who were most assertive and have the greater degree of mobility.

Overall, the pressures to leave UBC have substantively increased over the past five years for all faculty and need to be seen in the context of an overall improved working climate but in a very expensive city to live.

3.7 Partner Accommodation

3.7.1 Institutional Data on Dual-career Accommodation

No discussion of recruitment or retention of faculty members would be complete without addressing the challenges and opportunities that arise from dual career couples. As a strategy to enhance competitive excellence, hiring of scientific couples is on the rise and has gone from 3% in the 1970s to 13% in the 2000s throughout North America. Dual-career hiring represents an important opportunity for the Faculty of Science to increase the diversity of the faculty and to hire and retain excellent faculty.

In UBC Science, women candidates for academic positions have been more likely than men to have academic partners who require positions (in 2010-2011, 40% of women recruits and 20% of men had such partners). This is generally true in fields where women are underrepresented, such as the natural sciences and engineering.

The spousal/partner position can range from tenured or tenure-track faculty member in either the teaching or research stream to research appointments (such as post-doctoral fellows or research associates) to staff members. With the increase of this issue, UBC Science initiated partner accommodation cases for a total of 21 couples over three hiring seasons (2007–2010).[16] Of these cases, only 12 (57%) partners were successfully accommodated in addition to their partner's recruitment or retention. Ten people (out of 42), who were part of a couple or were the partner of a faculty member already at UBC, were hired into the professorial ranks in the three-year period. Of these 10, three were women hired as assistant professors in UBC Science. Within the total of seven women hired into the professorial ranks in Science in 2007-10, 43% had a partner who was already at UBC or was recruited to UBC in the three-year period. Of the 16 men in total who were hired into the professorial ranks in Science in 2007-10, two (13%) were part of a couple hired." As noted above, both men and women faculty reported that finding a position for their spouse was the reason they stayed at UBC.

3.7.2 Faculty Perceptions of Partner Accommodations

Faculty were asked about their degree of satisfaction with the efforts made by their department/unit, the Faculty of Science or UBC to find suitable employment for their partner (Q. 27; see **Table 20**). The number of faculty who answered these questions was small (16%, 12% and 17% of all faculty survey participants reported their degree of satisfaction for questions 27.1, 27.2 and 27.3, respectively).

[16] Source: Equity and Working Climate Initiatives and Outcomes Pertaining to Tenure-Track Faculty at UBC Science: 2007–2010 (Feb 2011) - http://science.ubc.ca/faculty/diversity

Faculty satisfied with support for their partner's job search – WCS 2012 (Q. 27)	Over-all	Gender		Ethnicity		Field			Seniority	
		Women	Men	VM	Cwh	LS	MCS	PES	Junior	Senior
1. For faculty position	65%	67%	65%	50%	71%	60%	64%	69%	71%	59%
2. For other position at UBC	44%	25%	46%	50%	42%	54%	33%	43%	50%	36%
3. For other position outside of UBC	15%	0%	18%	0%	16%	14%	17%	13%	0%	18%

Table 20 ***Faculty respondents satisfied with the efforts made by their department/unit and UBC in finding suitable employment for their partner (at and outside UBC) – by gender, ethnicity, field or seniority – WCS 2012 (Q. 27).*** *"Satisfied" includes "somewhat" and "strongly satisfied" responses. Overall (out of 226 survey participants), 37, 39 and 27 respondents rated their satisfaction on questions 27.1, 27.2 and 27.3, respectively.*

For those who had **sought a faculty position for their partner** (Q. 20.1), the majority (65%) agreed (46% agreed "strongly" and 19% "somewhat") that they were satisfied with the efforts taken. There was far less satisfaction with the effort taken to find other, non-faculty positions within UBC, with 56% of faculty reporting their dissatisfaction. For positions outside of UBC, the majority (85%) was dissatisfied.

Due to the small numbers for some groups, the overall responses were combined for Q. 27 for comparison (see **Table 21**). There were no significant differences in responses across any demographic group. Faculty comments such as the following pointed to the lack of a universal dual-career program at UBC: "*There are no clear procedures for dealing with spouses of new hires that also need jobs. This is even more difficult if the spouse is in the same or similar field as the hire.*"

Faculty satisfied with support for their partner's job search – WCS 2012 (Q. 27)	Over-all	Gender		Ethnicity		Sexual orientation		Stream		Seniority	
		Women	Men	VM	Cwh	LBG	Hetero	Research	Teaching	Junior	Senior
27.1, 27.2 and 27.3 combined	44%	48%	43%	38%	46%	60%	44%	42%	60%	40%	59%

Table 21 ***Faculty respondents satisfied with the efforts made by their department/unit and UBC in finding suitable employment for their partner (type of positions combined) – by gender, ethnicity, sexual orientation, stream or seniority – WCS 2012 (Q. 27).***
"Satisfied" includes "somewhat" and "strongly satisfied". There were 103 ratings of satisfaction for questions 27.1, 27.2 and 27.3 combined (see Table 20 *for type of positions).*

Similarly, more than half of the faculty respondents indicated in WCS 2007 that their departments and UBC had made "a lot of effort" (48%) or "some effort" (13%) in helping their partners find employment at UBC. When asked how much effort they perceived their departments and UBC had made in assisting to find suitable employment for their partners anywhere in Vancouver, over a third of the respondents reported "a lot of effort" (24%) or "some effort" (13%), which was a much more positive response than in 2012. In 2007, of those 89 faculty members who responded that the question was not applicable to them, 88% reported that their partners did not

need assistance from UBC. When asked about their partners' current employment status, a higher percentage of men than women (21% *vs.* 3%) reported that their partners were not currently employed. A higher percentage of women than men (62% *vs.* 51%) indicated that their partners were employed full-time.

Summary

While a majority of faculty were satisfied with the efforts taken by their department/UBC to help find a position for their partner, there was still a large degree of dissatisfaction, particularly, for non-faculty positions (at and outside UBC). This sense of frustration is also mirrored with the Dean of Science that more cannot be done in these situations.

The importance of creating a "spousal/partner job placement program" has been acknowledged at UBC for a significant amount of time: Over a decade ago the *Trek 2000* document outlined the implementation of such a program by summer 1999[17] but this was dropped from the *Trek 2010* document[18] and not mentioned as one of the goals in *Place and Promise*[19]. Therefore, the Faculty of Science continues to struggle with an *ad-hoc* process where each unit or department has individual approaches to different stake holders. Without any dedicated funds for long-term support of such appointments these opportunities often fail. There are many excellent examples at other universities that provide a central office with funds to facilitate joint appointments.

The Provost's office at UBC has been highly supportive and instrumental to the success of the majority of such appointments; however, support is only provided for three years due to budget limitations. If UBC is to remain competitive with top universities in Canada and abroad, a central and uniform policy needs to be implemented.

[17] http://www.vision.ubc.ca/targets/1999.html
[18] http://www.vision.ubc.ca/principles/people.html
[19] http://strategicplan.ubc.ca

4 RESOURCES AND SUPPORT

4.1 Mentoring (Faculty Perceptions)

One of the major initiatives recommended in the 2007 WCS was the implementation of mentoring programs within the departments and the development of Faculty-wide principles and guidelines on mentoring. As of 2012, all nine departments had developed mentoring guidelines. One of the aims of the 2012 WCS was to determine the degree of their implementation and the effectiveness of these policies. Faculty were asked to report on the clarity and effectiveness of their unit's mentoring policy; see **Table 22**.

Mentoring program for faculty – WCS 2012 (Q. 9. 12)	**Don't have a policy**	**Policy is unclear**	**Policy is clear but inadequate**	**Policy is clear but applied unfairly**	**Policy is clear and applied fairly**
Overall	9.1%	11.9%	4.5%	2.8%	71.6%
Women	13.7%	11.8%	2%	5.9%	66.7%
Men	6.8%	11%	5.9%	1.7%	74.6%
VM	23.1%	7.7%	0%	0%	69.2%
Cwh	9%	10.3%	4.8%	2.8%	73.1%
Junior	13.2%	15.1%	5.7%	0%	66%
Senior	7.6%	10.9%	4.2%	4.2%	73.1%
LS	11.9%	16.9%	1.7%	0%	69.5%
MCS	12.3%	5.3%	3.5%	1.8%	77.2%
PES	3.4%	11.9%	8.5%	6.8%	69.5%
LS: Women	13.6%	18.2%	4.5%	0%	63.6%
LS: Men	9.1%	15.2%	0%	0%	75.8%
MCS: Women	16.7%	0%	0%	8.3%	75%
MCS: Men	11.4%	6.8%	4.5%	0%	77.3%
PES: Women	11.8%	11.8%	0%	11.8%	64.7%
PES: Men	0%	10%	12.5%	5%	72.5%

Table 22 Faculty perceptions regarding a formal mentoring program for faculty in their unit – by gender, ethnicity, seniority or field – WCS 2012 (Q. 9. 12).
"Don't know" answers excluded (see Table 8 *and* Table 9 *for details).*

The majority of overall faculty (72%) reported the mentoring policy is "clear and applied fairly". Only 9% thought their unit had no policy, and these faculty members were mostly found in the new interdisciplinary units that have not had a chance to develop their policies. However, there was a surprisingly large number of faculty respondents from units that do have a mentoring policy, who reported "no policy", and one fifth (49/225) of all survey participants responded "Don't know" (see **Table 9**) including faculty of departments with well-established mentoring policies. This suggests that units are not clearly posting or communicating their policies to faculty members and that the implementation of these policies may be uneven.

By field, PES faculty tended to report more frequently "clear but unfairly applied" or "clear but inadequate" compared to their colleagues in LS and MSC. More faculty in LS and PES than in MCS thought their policies were "unclear". However, faculty in PES seemed to be more aware about their mentoring policies than faculty in LS and MCS.

Faculty from the teaching stream were more likely to characterize their unit's policy as "unclear" (21%) than those in the research stream (10%).

Faculty were asked to rate their satisfaction with the informal and formal mentoring they received within their department/unit (Q. 11; see **Table 23**).

Faculty satisfied with mentoring – WCS 2012 (Q. 11)	Overall	Gender		Ethnicity		Field			Seniority	
		Women	Men	VM	Cwh	LS	MCS	PES	Junior	Senior
1. Informal mentoring	89.1%	88.3%	89.7%	82.4%	89.8%	91.2%	88.5%	88.6%	97%	83.9%
2. Formal mentoring	68.8%	58.0%	75.7%	80.0%	68.8%	64.7%	77.8%	66.1%	75%	65.5%

Table 23 Faculty satisfied with the informal and formal mentoring received at UBC – by gender, ethnicity, field or seniority – WCS 2012 (Q. 11).
"Satisfied" includes answers of "somewhat" and "very satisfied".

Overall, **faculty were very satisfied with the degree of informal mentoring.** The very high satisfaction rating by junior faculty may reflect that in the past there were less mentoring initiatives and opportunities, or conversely that there are not well established processes for mentoring of senior faculty.

Overall, there was **far less satisfaction with formal mentoring** with only 69% of faculty reporting somewhat or very satisfied; see **Figure 25**. There were a number of units in which a substantial percentage of faculty reported "very dissatisfied" with the degree of both informal and formal mentoring. For formal mentoring, there was a significantly higher number of faculty in the PES group who reported "very dissatisfied", and in two units within PES the majority of faculty was dissatisfied. Across the entire Faculty, there were four units where over one third of faculty were dissatisfied with the formal mentoring.

The degree of overall approval of formal mentoring (69%) is an improvement from 2007 where only 55% were satisfied. In 2007, 61% of women were satisfied with the quality of formal mentoring and with 58% of women in 2012, this has not changed, while men were more satisfied now with the formal mentoring (76% in 2012 compared to 52% in 2007). Women within LS and in particular PES were less satisfied with formal mentoring. Faculty within the MCS became much more satisfied with formal mentoring over the past five years with 78% being satisfied in 2012 compared to 46% of respondents in 2007.

Faculty comments reflect the dissatisfaction with the formal mentoring process: *"Apparently I have a mentoring committee, though I have never met with them. I don't think they are aware that they are my committee." – "There is a mentoring program, but the expectations of the mentor are opaque." – "Mentoring is uneven – mentors are assigned, but not given to guidance as to what their role is supposed to be." – "I don't think there is any real formal mentoring for the teaching faculty."*

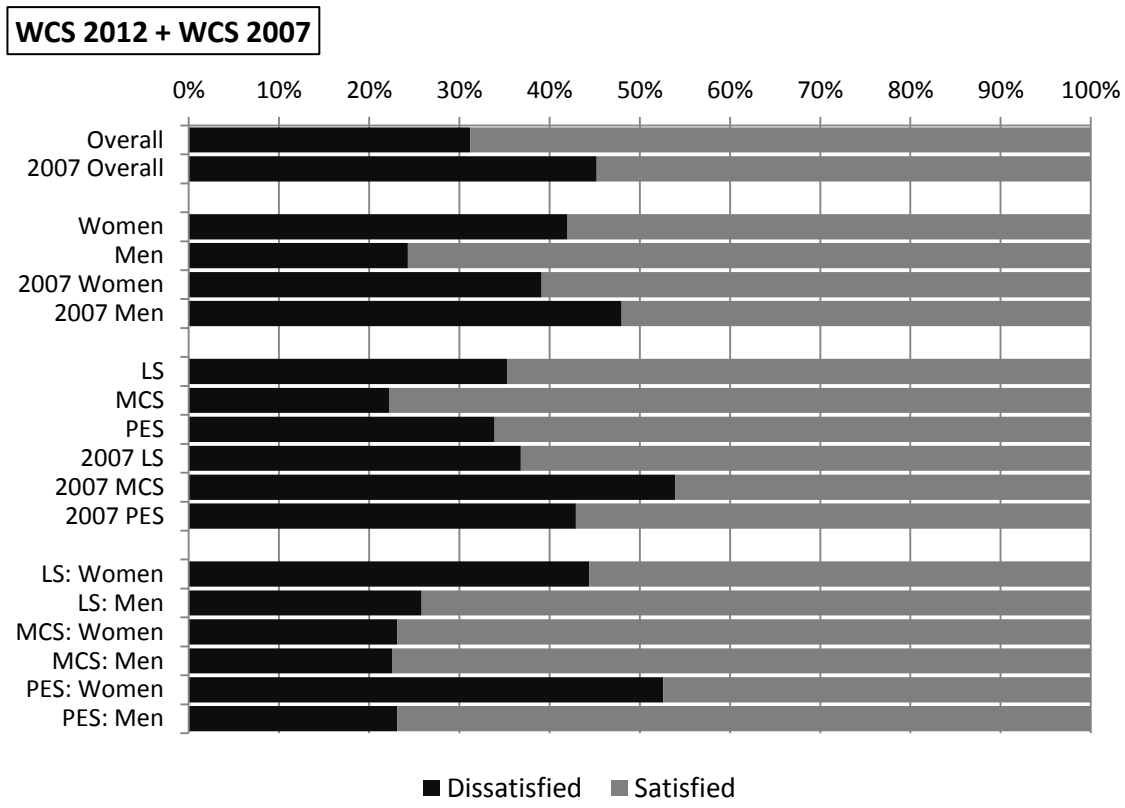


Figure 25 Faculty perceptions of formal mentoring received at UBC – by field and gender – WCS 2012 (Q. 11.2) and WCS 2007.
"Satisfied" includes answers of "somewhat satisfied" and "very satisfied"; "dissatisfied" includes "somewhat dissatisfied" and "very dissatisfied".

Focus Groups from faculty were specifically asked about their views on the mentoring that they received or provided. Focus group members reflected the lack of awareness of their departmental guidelines and the need for better quality control in matching mentors, training for mentors and follow-up on the mentoring relationship to ensure that it is effective. Suggestions from the focus group members were to identify those key people within the unit who faculty could connect to on specific issues with a more distributed model of mentoring that took advantage of the specific expertise and experience of senior faculty members. Mentors were not aware of their roles and there was no structure or process to help both the mentors and mentees. Clear guidelines and expectations should be established to make the process more effective. Another issue raised was conflicting advice.

Other faculty members noted how helpful their mentors had been especially in those situations where the faculty members used different mentors for different aspects of their career. Some areas for improvement highlighted were: More feedback on CVs and expectations for promotion and tenure; providing feedback on annual reports and the merit process; classroom visits and providing substantive feedback and constructive criticism; help with time management and when to commit to administrative tasks or not.

Mentors also noted issues with the formal process with those who did not know they had been assigned or what they should be doing "need to be told what to do". A concern was raised about dual roles of some mentors who were also on Promotion and Tenure committees. They suggested

that these two duties should remain separate. Faculty did think overall mentoring was very valuable but overwhelmingly thought their informal mentors were more effective.

Summary

In 2007, three out of the nine departments had implemented a formal mentoring policy, and 62% of faculty reported having a program of formal mentoring in their department. By 2012, the situation seemed to have improved dramatically, when all nine departments had developed a mentoring policy. However, faculty perceptions have not changed as much, with 71% respondents overall (and 74% of faculty in the nine departments) reporting a mentoring policy in their unit.

There remains strong dissatisfaction with the formal mentoring that occurs and this was pervasive across the entire Faculty and in particular strongest with women faculty in LS and PES. These responses are troubling given that all departments have established formal mentoring guidelines (this does not include the three interdisciplinary research units, two of which only recently joined the Faculty of Science).

It is clear that, while these guidelines are in place, they are either not effective or not being acted upon. The improved satisfaction amongst men compared to women also suggests these mentoring policies have not been equitably implemented. On the other hand, informal mentoring is satisfactory to most faculty members, which likely reflects the positive and collegial working environment reported by the majority of faculty and their units.

Overall, these results suggest that the approach to formal mentoring needs to change to become more effective. Guidelines for both mentors and mentees need to be made available. Shifting the approach to a more distributed model might also help, where key people within the unit would be identified whom faculty could connect with on specific issues to take advantage of the specific expertise and experience of senior faculty members.

4.2 Departmental Resources and Support (Faculty Perceptions)

4.2.1 Research/Teaching Support

Survey participants were asked about the existence, clarity and perceived fairness of departmental polices on the allocation of teaching assistants (TA), and resources for teaching and research. The majority reported that **policies on TA assignments** (Q. 9.7) were clear and fairly applied (74% out of 180 respondents; and, when including the "Don't know" answers, 60% out of 223 respondents). Within the nine departments, there was a number of faculty respondents who reported that the policies were "unclear" (11%). (The new interdisciplinary units had not developed policies at this time). However, a number of faculty noted that while the policy for the allocation of TA assignments to courses was clear, the implementation of these policies seemed arbitrary: *"While the policy for the number of TAs assigned to a course is clear, the practice of which TAs end up with which courses is unclear." – "The assignment of TAs is vague and done far too late to be effective." – "The policy for allocation of TAs and teaching resources to courses in my department is entirely unclear. We may have a formal policy but it has not been well communicated to the Department." – "Our allocation of TA support is not proportional to the needs of the students taking the classes."*

In 2007, there was a significant gender difference with 75% of women and 96% of men regarding the allocation of TAs as fair. In contrast, there were no differences based on gender for this question in 2012.

Guidelines centered on the **allocation of resources for teaching or research** (Q. 9.8/9.9) were perceived to be hardly effective or non-existent. For teaching resources (see **Table 24**), only 52% of

faculty thought the policy was clear and applied fairly, 20% reported "no policy" and 25% reported "policy is unclear". Women were more likely (35%) to report "no policy" compared to 13% of men, whereas similar proportions of men and women thought that the policy was "unclear" (24% and 27%, respectively). This points to a need for departments/units to establish clearly written guidelines on the allocation of teaching resources as this aspect of the working climate impacts all faculty members. Many faculty noted that their unit does not provide resources for teaching: *"Apart from access to a photocopier, I use my research budget or personal funds for teaching aids". – "It is not clear how budgets for teaching are allocated." – "Research support for undergraduate thesis students should be given to researchers."*

Resources for teaching – WCS 2012 (Q. 9.8)	Don't have a policy	Policy is unclear	Policy is clear but inadequate	Policy is clear but applied unfairly	Policy is clear and applied fairly
Overall	19.6%	24.5%	1.8%	2.5%	51.5%
Women	34.7%	26.5%	2%	2%	34.7%
Men	12.8%	23.9%	1.8%	2.8%	58.7%
VM	13.3%	6.7%	6.7%	13.3%	60%
Cwh	18.4%	26.5%	1.5%	1.5%	52.2%
LS	20.4%	26.5%	0%	4.1%	49%
MCS	18.2%	16.4%	1.8%	1.8%	61.8%
PES	19%	31%	3.4%	1.7%	44.8%

Table 24 Faculty perceptions regarding formal allocation of resources for teaching in their unit – by gender, ethnicity or field – WCS 2012 (Q. 9.8).
"Don't know" answers excluded (see Table 8 *for details).*

For the **allocation of research resources** (Q. 9.9; see **Table 25**), only 44% of faculty thought their unit's policy was "clear and applied fairly", 29% reported "no policy" and 20% reported the policy was "unclear." Half of women faculty reported "no policy" compared to 22% of the men. VM faculty were more likely to report "policy is clear but applied unfairly" (22%) compared to their Cwh peers (2%), and this difference was pronounced in the research stream and even more pronounced in LS (with 50% of VM). Faculty comments reflect the lack of guidelines and the rather *ad hoc* nature of allocation of resources for research. The perception of uneven distribution of research resources to one research area in a department or unit at the expense of others was a theme found throughout the comments, such as: *"Resources for research support allocation appears to be uneven and given preferentially to some groups over others." – "We don't have departmental 'resources for research support' except that departmental budget does go toward supporting infrastructure….. (but no corresponding spending for other fields)." – "It is not entirely clear what funding is available for research purposes; this seems to change frequently."*

Resources for research – WCS 2012 (Q. 9.9)	Don't have a policy	Policy is unclear	Policy is clear but inadequate	Policy is clear but applied unfairly	Policy is clear and applied fairly
Overall	29.7%	18.8%	4.3%	2.9%	44.2%
Women	50%	18.4%	2.6%	2.6%	26.3%
Men	22.1%	17.9%	5.3%	3.2%	51.6%
VM	11.1%	0%	11.1%	22.2%	55.6%
Cwh	29.6%	18.3%	4.3%	1.7%	46.1%
LS	34.1%	17.1%	2.4%	4.9%	41.5%
MCS	29.5%	15.9%	2.3%	0%	52.3%
PES	26.4%	22.6%	7.5%	3.8%	39.6%

Table 25 Faculty perceptions regarding formal allocation of resources for research in their unit– by gender, ethnicity or field – WCS 2012 (Q. 9.9).
"Don't know" answers excluded (see Table 8 *for details).*

Faculty were then asked about their **satisfaction with the accessibility, quality and quantity of resources** provided by the department/unit on a number of areas such as office and lab space, and teaching and research support (Q. 12).

For **office space** (Q. 12.1; see **Table 26**), overall 85% faculty were satisfied with its quality and size; 66% respondents reported "very satisfied."

Faculty satisfied with office/lab – WCS 2012 (Q. 12)	Overall	Gender		Ethnicity		Field		
		Women	Men	VM	Cwh	LS	MCS	PES
1. Quality/size of physical office	85.1%	83.1%	86.1%	80.0%	85.2%	87.5%	88.7%	79.2%
2. Quality/size of physical lab	90.7%	92.3%	89.6%	100%	90.5%	100%	100%	76.9%
3. Permanence of lab space	90.4%	88.9%	90.4%	100%	90.1%	98.3%	100%	77.6%

Table 26 Faculty satisfied with the quality and quantity of physical space provided by their unit – by gender, ethnicity or field – WCS 2012 (Q. 12). *"Satisfied" includes "somewhat" and "very satisfied". Statistically significant differences between peers highlighted.*

Overall, there was a wide range of satisfaction among departments/units, which correlated with occupancy of new or newly renovated buildings *versus* older buildings, for which faculty were less satisfied in 2012. Faculty comments reflected the differences in the age of buildings, *"My office would be dramatically improved by having consistent heating and decent blinds." – "The building is old and maintained to the minimal standards. There is paint peeling off of the walls, the windows don't seal properly, there are problems with heating and ventilation."*

Faculty in PES units were less likely than in LS and MCS units to be satisfied, but this perception has much improved since WCS 2007, when only 58% of PES faculty were satisfied with their offices (see **Figure 26**).

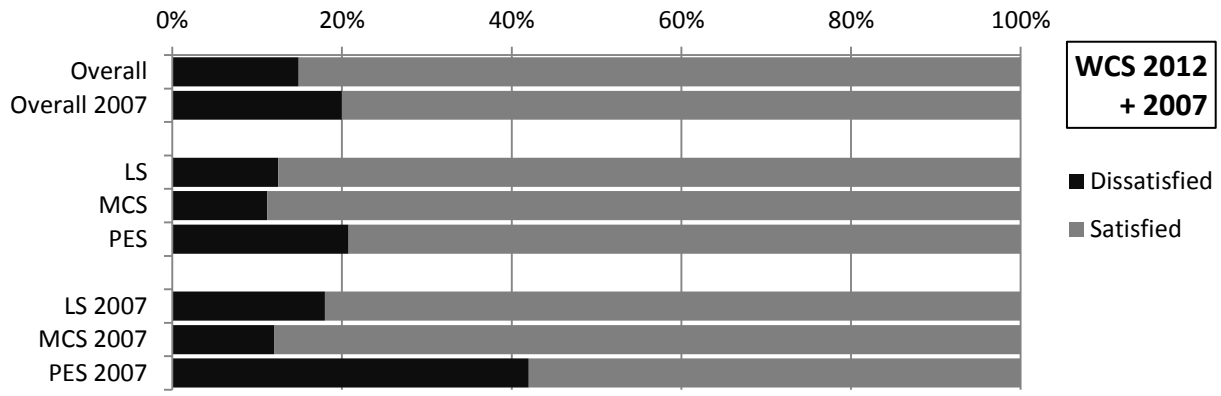


Figure 26 Faculty's satisfaction with the quality and size of their physical office – by Science field – WCS 2012 (Q. 12.1) and WCS 2007.

Regarding **laboratory space** (Q. 12.2), most faculty respondents (91%) were satisfied; 57% reported "very satisfied". As with office space, there was a significantly different response from faculty in PES (23% "dissatisfied": 13% "somewhat dissatisfied" and 10% "very dissatisfied") compared to 100% of their LS and MCS colleagues reporting "satisfied" (see **Figure 27**). Within PES, women faculty were significantly more negative than their male colleagues, with 18% "very dissatisfied" compared to 8% of men. Also, only 18% of women in PES were "very satisfied" compared to 40% of men. Overall, faculty were more satisfied with their laboratory space (91%) than in WCS 2007 (76%) and especially in LS units, where only 62% of faculty were satisfied in 2007 and 100% in 2012. However, issues still persist within PES where only 77% faculty respondents were satisfied in 2012 compared to 66% in 2007.

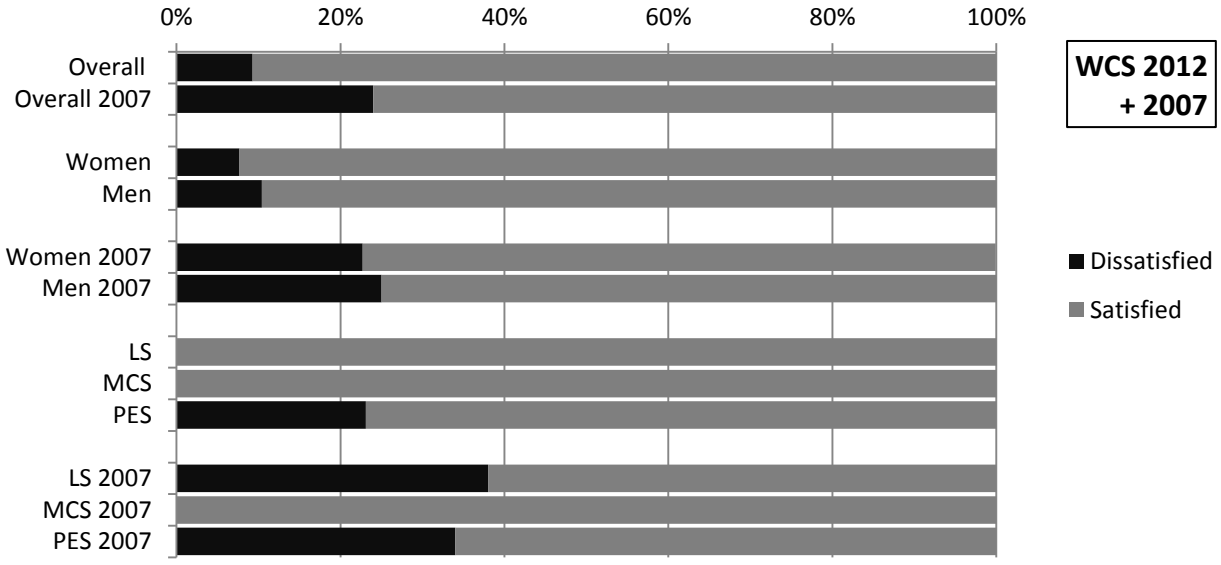


Figure 27 Faculty respondents' perception of the quality and size of their physical laboratory – by Science field – WCS 2012 (Q. 12.2) and WCS 2007.
"Satisfied" includes "somewhat" and "very satisfied".

Similar results were obtained when faculty were asked to rate their satisfaction with the **permanence of their lab space** (Q. 12.3; **Table 26**): 90% of faculty overall were satisfied. However, in PES 78% of faculty were satisfied and there was a significant gender difference: only 60% of women reporting "satisfied" compared to 82% of men (see **Figure 28**), and 20% of women in PES reported "very dissatisfied" compared to 5% of men. This suggests that there are major issues with the allocation of laboratory space for women faculty in PES research units. Similar concerns with the permanence of laboratory space were identified in the 2007 WCS. Although the overall degree of satisfaction with this physical space has improved since then, this remains an issue.

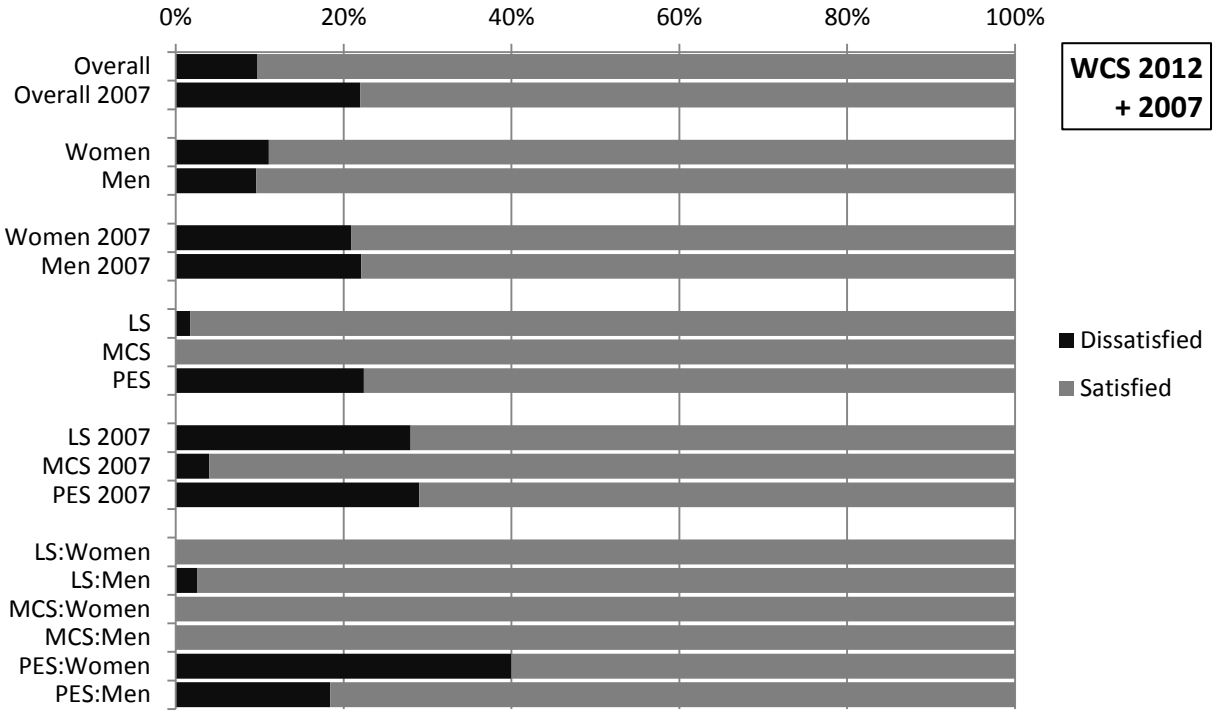


Figure 28 Faculty respondents' perception of the permanence of their laboratory space – by field and gender – WCS 2012 (Q. 12.3) and WCS 2007.
"Satisfied" includes "somewhat" and "very satisfied".

Faculty were asked a range of questions regarding their unit's support for teaching, research and outreach activities (Q. 12.5-9; see **Table 27**).

Faculty satisfied with unit's level of support – WCS 2012 (Q. 12.5-9)	Overall	Gender		Ethnicity		Field		
		Women	Men	VM	Cwh	LS	MCS	PES
5. … for securing research grants	70.8%	65.1%	73.1%	73.5%	57.1%	73.2%	69%	69.8%
6. … for securing teaching grants	84.1%	87.1%	82.2%	88.9%	84.8%	94.1%	69.7%	87.2%
7. …on other research resources	64.6%	54.8%	68.5%	58.3%	66.4%	62.3%	70.2%	61.4%
8. …on other teaching resources	79.2%	76.4%	79.3%	84.6%	77.8%	83.6%	77.6%	76.2%
9. …on outreach activities	76.6%	71.4%	79.5%	70%	76.9%	60.5%	87.5%	79.6%

Table 27 Faculty satisfied with their department/unit's level of support for research, teaching and outreach activities – by gender, ethnicity or field – WCS 2012 (Q. 12.5-9).
"Satisfied" includes "somewhat" and "very satisfied".

While the majority of faculty overall (84%) were satisfied with the level of **support for obtaining teaching grants** (Q. 12.6), a significantly greater percentage of faculty from MCS were dissatisfied (30%) compared to colleagues in LS (6%) and PES (13%).

To a similar degree, faculty were satisfied with **other resources to support teaching** (Q. 12.8) and **to support outreach activities** (Q.12.9), although, for the latter, faculty within LS were more negative (40% reported "dissatisfied"), and the majority of women (58%) within LS were dissatisfied compared to 26% of their male colleagues. Several faculty comments mentioned the lack of support for outreach programs, for example: *"We have absolutely nothing in place to help support outreach activities."*

Faculty expressed frustration on the lack of support for new teaching approaches: *"[there] should be more TA support for instructors who do interactive lectures." – "Resources to support teaching is only based on classroom equipment support, which is spotty and inadequate. Media devices are not easy to use and computers are not regularly maintained or updated."*

With regards to departmental/unit **support for securing research grants** (Q. 12.5), faculty members' perceptions were positive overall (71% of respondents "satisfied") with an even split between responses of "somewhat satisfied" and "very satisfied." There were no differences based on any demographic, with the exception of only 16% of women reporting "very satisfied" compared to 38% of men. When asked about obtaining **other resources to support research** (Q. 12.7), faculty were less positive with 35% reporting "dissatisfied". However, a common comment made by faculty was the lack of support for research grant applications. *"There is little grant writing support within our department, other than feedback from fellow faculty." – "I have never been given any support for securing research grants, to support research or outreach activities".*

Other faculty noted that while their department was doing the best job possible (*"I think the department is doing the best it can given limited resources"*), it was a lack of support from UBC that was identified as problem: *"I find that the intended departmental support is adequate and well-intentioned. However, this suffers greatly as a result of lack of support and initiative from high-level bodies in the university." – "Departments are in no position to help secure research grants or to support research."*

A lack of support for administration of grants and personnel was a common concern: "*We have good support for human resources, but otherwise, we have zero support to administer research. I have multiple major projects that bring in very substantial overhead, but I get no additional support to manage the projects. I do a lot of secretarial work."*

Some faculty comments specifically address research support within UBC and BC in general: *"The Office of Research Services is more often an impediment than a help." – "BC does not have a provincial granting agency that provides seed funding for new research projects (unlike Ontario*

and Quebec) and provincial graduate and post-doctoral fellowships are very few and often directed to top-ups for students that already have other awards."

Support for funds specifically targeted for research into science education was thought to be lacking: *"There is not NSERC or other federal funding for research into Science Education. University and Science have to work hard on this. Teaching grants like TLEF are NOT for Educational Research. We need this type of grants in Science."*

In 2007, faculty members were asked to rate their access to and fairness of allocation in six areas of departmental support. Overall, faculty reported a low level of support in internal special funds with only 3% faculty indicating "a lot of access". Most support had been perceived for lab space and TAs, with 44% and 45% faculty reporting "a lot of access," respectively. While over 80% of faculty overall perceived the allocation of technical support, clerical/administrative assistance, and TAs to be "somewhat" or "very fair" (in each of these three areas), men were significantly more likely than women to consider the allocation to be fair. MCS respondents were more positive than PES and LS respondents about the allocation of technical support and lab equipment. Similarly, MCS faculty ratings of fairness in allocation of internal special funds were significantly higher.

4.2.2 Administrative Support

Faculty were not specifically asked about their perceptions of administrative loads, however, a large number of faculty respondents commented on their administrative loads throughout the survey. The central theme of these comments was the ever-increasing demand on faculty time for administrative workload and bureaucratic tasks. The increasing administrative load was cited as a reason for faculty to consider leaving UBC (see section *3.6 Retention*) and was a common reason for faculty to be dissatisfied with the resources provided by their department/unit (for example, see lack of support for managing research projects in section *4.2.1 Research/Teaching Support*). Faculty comments are illustrative of their frustration with the increased downloading of simple administrative tasks due to the lack of administrative staff support at multiple levels within the university. *"Faculty have an extraordinary administrative workload that prevents us from achieving our full potential. This is not just an issue of how the department allocates resources." – "I'm often swamped with administrative work, at a cost to my research time." – "I find that more and more of my time is spent tending to mundane tasks related to my research activities (e.g., reconciling P-card statements, managing finances, animal care management, etc.) and as a result the creative aspect[s] are left to evenings and weekends, which is problematic if one wishes to maintain a reasonable work-life balance."*

Summary

The majority of faculty were satisfied with the fairness of teaching assistance allocations, with the degree of support provided by their departments for securing research or teaching grants, as well as with their offices and laboratories.

Opinions on the latter had improved since 2007 most likely due to extensive renovations or new buildings that many departments have experienced. Dissatisfaction with their physical space still remains for faculty in PES units and particularly for those faculty members who had not had their facilities improved. Women faculty in PES units were significantly less satisfied than men with the permanence of their laboratory space, a concern persisting since 2007 though to a lesser degree.

It is of concern that departmental guidelines/formal procedures on the allocation of resources for teaching or research where considered non-existent or unclear by almost half of faculty overall, and over 60% of women faculty in particular.

While resources provided by the department/unit to support outreach activities were perceived satisfactory by most faculty overall, a significant proportion of faculty (40%) and particularly women faculty (58%) in LS were dissatisfied with this support.

Finally, many faculty comments centered on the perception of and frustration with that administrative tasks are being downloaded on to faculty. So while faculty are satisfied with the support that their departments are providing, this is not necessarily the case for their opinions on the university in general.

4.3 Study Leaves/Sabbatical (Faculty Perceptions)

While no written guidelines on study leaves were submitted by department heads for the policy review (see section *3.1 Departmental Guidelines and Procedures*) and 28% of 221 faculty respondents reported "don't know" or "don't have" such a policy (see **Table 9**), the majority (85%) of the 170 faculty who did evaluate their department's policy considered it "clear and applied fairly" (Q. 9.2; see **Table 28**). Also, with 87% of faculty respondents agreeing that sabbatical leaves are handled fairly in their department (Q. 2.4), there was a high degree of satisfaction with this aspect – and uniformly so across all demographics (see **Table 5**).

In 2007, five out of the nine department heads indicated having a sabbatical leave policy though specific details on the policies were mostly lacking. Similar to 2012, the majority of faculty respondents in 2007 (82%) considered sabbatical leaves were handled fairly, suggesting these perceptions have not changed.

Sabbatical leave – WCS 2012 (Q. 9.2)	Don't have a policy	Policy is unclear	Policy is clear but inadequate	Policy is clear but applied unfairly	Policy is clear and applied fairly
2012 Overall faculty	5.9%	7.1%	0.6%	1.2%	85.3%

Table 28 Faculty perceptions of formal policies on sabbatical/study leaves in the department/unit – WCS 2012 (Q. 9.2). *"Don't know" answers not included (see* Table 8 *and* Table 9 *for details).*

With the advent of the new Professor of Teaching position, greater attention has been focused on the resources/leaves available for faculty for improving their teaching qualifications or increasing their educational leadership. At the present time, no department or unit has a formal policy on Leave for Improving Teaching Qualifications, and when asked about it, the majority of faculty respondents (77%) reported "Don't know" (see **Table 9**, Q. 9.3). Of those 52 faculty members who commented on their unit's pertaining policy/procedures, 42% reported "don't have a policy" (see **Table 9**). This issue is clearly more apparent to teaching stream faculty as 80% of those who rated their departmental procedures reported "don't have a policy".

Summary

Overall sabbatical leave was thought by almost all faculty respondents to be handled in a clear and fair manner. Given that the processes and rules around sabbatical leave are well known and clearly documented UBC-wide, this may not be surprising. Some issues that have arisen in the faculty comments or in the focus groups is the timing of sabbatical for teaching stream faculty after promotion and tenure and the impact that maternity/ parental/ adoptive leaves have on the timing of the sabbatical clock.

Leave for Improving Basic Qualifications (for full-time teaching faculty) seems to be a mystery for most faculty members and should be clearly communicated within the departments.

4.4 Negotiations (Faculty Perceptions)

A set of questions were asked to determine the degree and kind of negotiations by faculty for their initial appointment (Q. 13). Two thirds of faculty reported that they had negotiated to some degree (see **Table 29**). There were significant differences between the two streams and between junior and senior faculty, with research stream faculty having been more likely to negotiate than their teaching stream peers and junior more than senior faculty. Within the teaching stream, women faculty were far less involved in initial negotiations (30%) compared to their men colleagues (61%) and to overall colleagues in the research stream (71%); whereas women faculty in the research stream reported more negotiating (78%) than men faculty (68%).

Faculty who negotiated initial offer – WCS 2012 (Q. 13)	Overall	Gender		Ethnicity		Stream		Seniority	
		Women	Men	VM	Cwh	Research	Teaching	Junior	Senior
	65%	63.1%	66.2%	62.1%	60%	70.6%	42.5%	82.6%	58.6%

Table 29 Faculty who discussed/negotiated items of their initial contract with their department head or unit director before their start as faculty member at UBC – by gender, ethnicity, stream or seniority – WCS 2012 (Q. 13). *Statistically significant differences between peers highlighted.*

Faculty were asked to rate the **importance of various aspects of their original negotiations** with the Head or Director on their terms of their appointment (Q. 13a; see **Table 30**). Start-up funds were considered important by most respondents (96%) with the majority (75%) reporting "very important", and particularly so by research stream faculty in the LS and PES. Most of the women in the research stream (91%) considered negotiating start-up funds very important compared to 74% of men faculty. Also, salary was an important item of negotiation for the majority (95%) with 55% of respondents indicating "very important". Women (55%) considered course release time to be very important compared to 35% of the men faculty. For most faculty respondents a signing bonus was not important with the exception of VM faculty with 45% of them considering a signing bonus "very important" compared to 12% of their peers. The majority of faculty respondents considered research assistants, clerical/admin support, special timing on the tenure clock not important. Not surprisingly, more junior than senior faculty thought that the housing subsidy was very important.

In contrast, the majority of faculty thought that childcare was "not at all important", and there were no differences based on gender. However, more junior faculty did feel childcare was "very important" (35%) compared to senior faculty (12%). Senior women faculty were twice as likely to think childcare was very important than their senior male colleagues. Teaching stream faculty regardless of gender also thought childcare was "very important" (47%) compared to those in the research stream (19%).

More than half of faculty respondents rated negotiation for a position for their partner/spouse as "not at all important" with no differences based on gender. However, there was a significant difference based on ethnicity with 58% of VM faculty ranking this negotiation as "very important" compared to 24% of their peers.

Aspects of initial contract negotiations – WCS 2012 (Q. 13a)	By faculty candidate perceived as		
	Very important	Somewhat important	Not at all important
Start-up funds	74.8%	21.0%	4.2%
Salary	54.9%	40.3%	4.9%
Course release time	41.1%	34.0%	24.8%
Moving expenses	37.1%	37.1%	25.9%
Lab space	44.4%	21.1%	34.5%
Lab equipment	33.3%	30.5%	36.2%
Housing subsidy beyond UBC policy	31.2%	32.6%	36.2%
Clerical/admin support	16.7%	34.8%	48.6%
Renovation of lab space	28.9%	16.9%	54.2%
Partner/Spouse position	26.1%	14.8%	59.2%
Research assistant	18.1%	24.6%	57.2%
Childcare	21.7%	15.4%	62.9%
Signing bonus	16.4%	18.6%	65.0%
Special timing of tenure clock	16.3%	12.8%	70.9%

Table 30 Faculty respondents' perceptions of degree of importance of various aspects of their initial contract negotiations – WCS 2012 (Q. 13a).

Many faculty members expressed a lack of negotiation during their initial appointment, *"Didn't know to even ask/negotiate" – "Did not realize I could!"* Some reported that the Head/Director gave the impression that negotiations were not possible: *"Head indicated that no negotiations were possible (take it or leave it)." – "The Head pretty much said up front that there was no room for negotiation about salary. I consider my failure to negotiate a major career error."*

Other faculty noted that they had been content with the offer: *"I was satisfied with the contract presented." – "I was happy to come here and the offer and workplace opportunities were good." – "I was very happy with the department's initial offer."*

Summary

Two thirds of faculty responded that they had carried out some degree of negotiation on their original offer. Faculty within the research stream and, in particular, junior faculty were more likely to have had negotiated – in both the research and teaching streams. The large percentage of junior faculty who responded "yes" (83% *vs.* 59% of senior faculty) suggests that the climate and culture around the amount of negotiation has shifted so much so that 62% of Full, 79% of Associate and 95% of Assistant professors reported to have had negotiated. The same pattern holds true in the teaching stream, where 35% at the rank of Professor of Teaching or Sr. Instructor and 62% of Instructor 1 faculty reported to have had negotiated. Many faculty respondents noted that they did not know they even could negotiate on the terms of their appointment, or that the heads of their department had given the impression this was not possible.

Start-up funds, salary, laboratory space (for research faculty) and course release time had been considered the top four aspects of the negotiations with significantly more junior than senior faculty reporting negotiations about start-up funds and course release time as "very important". The percentage of junior faculty respondents was almost double that of senior faculty who reported that housing assistance beyond the UBC policy had been "very important".

5 WORKLOAD

Faculty were asked about their **departmental workload polices** and the clarity and effectiveness of implementation of these policies (Q. 9.1; see **Table 31**). Close to a third of all faculty respondents (29%) reported that their departments do not have a workload policy and this mirrors the number of policies reported by the departmental Heads. About half (46%) of faculty felt that their workload polices if they did exist were "clear and applied fairly." In these perceptions, there were no differences based on gender, ethnicity, rank or stream.

Workload expectations – WCS 2012 (Q. 9. 1)	Don't have a policy	Policy is unclear	Policy is clear but inadequate	Policy is clear but applied unfairly	Policy is clear and applied fairly
Overall	29%	10.2%	10.8%	3.8%	46.2%

Table 31 Faculty perceptions regarding a formal policy on workload expectations in their department/unit – WCS 2012 (Q. 9.1).
"Don't know" answers excluded (see Table 8 *and* Table 9 *for details).*

Faculty comments on workload included the following concerns: *"Most of the year, I feel like I am working around the clock. If I put these kinds of hours in an industry job, I would be paid substantially more. I am willing to take a reasonable salary cut in order for the privilege to work as an academic, but I do sometimes wonder about my choices."*

5.1 Service/Committee Load (Faculty Perceptions)

Faculty were asked on **how many departmental committees** they had served in the past five years (Q. 14, see **Table 32**). The committee service loads for faculty members were uniform across the entire faculty regardless of gender, ethnicity, stream or field. There was an expected difference between junior and senior faculty. Of note was the very large committee load reported by the Professors of Teaching, which was four times the average compared to all other senior faculty.

Number of committees WCS 2012 (Q. 14-16)	Over-all	Gender		Ethnicity		Stream		Seniority	
		Women	Men	VM	Cwh	Research	Teaching	Junior	Senior
14. …served	11 ±10.6	13.4 ±12.1	10.7 ±9.1	11.3 ±12.8	11.7 ±10	11.8 ±9.6	11.7 ±12.2	10.2 ±9.2	12.8 ±10.5
15.1. …important to faculty member	7.5 ±8.4	8.7 ±9.5	6.8 ±7.7	7.5 ±9.4	7.5 ±8.5	7.2 ±7.5	9.2 ±11.6	6.5 ±7	8.3 ±9.1
15.2. …not import-ant to faculty member.	4.2 ±5.4	4.6 ±6.8	4.2 ±4.8	5 ±4.4	4.2 ±5.6	4.7 ±5.7	2.4 ±3.1	4.1 ±5.5	4.5 ±5.4
16. …chaired by faculty member	2.9 ±3.2	3.2 ±3.7	2.7 ±2.9	2.5 ±2.4	3 ±3.3	2.8 ±3.1	2.9 ±3.8	1.6 ±2	3.5 ±3.5

Table 32 Number of committees that faculty members reported having served on or chaired over the past five years – by gender, ethnicity, stream or seniority – WCS 2012 (Q. 14-16).
Averages and standard deviations. Statistically significant differences between peers highlighted.

Faculty were then asked to provide more **details on their assessment of their committees' importance** (Q. 15). The majority of committees that faculty were serving on were important to them. Teaching stream faculty were more likely to view their committees as important compared to

research stream faculty. This difference was reflected in that research stream faculty perceived 4.7 committees as "not important" which is about twice as many compared to teaching stream faculty who served on an average of 2.4 "not important" committees. Women faculty within the research stream served on an average of 6.0 "not important" committees compared to 4.3 for men.

In contrast, women faculty within the teaching stream reported only an average of 1.7 "not important" committees compared to 3.3 for men. This implies that within the teaching stream faculty perceive they are having a positive or beneficial impact through their service; and it may reflect the better gender balance within the teaching stream.

In 2007, faculty were asked to report how much time compared to their peers they spent on committees (or other service) that benefited or did not benefit their careers. A significantly larger proportion of the men reported they spent more time on beneficial committees/services (26%) while only 14% of women faculty reported "more time"; and correspondingly, 16% of the men and 38% of the women reported "less time" on beneficial committees/services.

Regarding **the number of committees chaired** (WCS 2012, Q. 16), there were no significant differences for any faculty grouping except – and not surprisingly – based on seniority. Senior faculty chaired on average more than twice as many committees (3.5) as junior faculty (1.6). Another significant difference was that senior women faculty chaired on average more committees (4.6) compared to senior men (3), and to junior women and men faculty (1.2 and 1.8, respectively).

Finally, faculty were asked about their perceptions on the **degree of committee service compared to their peers** (Q. 17; see **Table 33**). Half of overall faculty felt they serve the same amount of time on committees as their colleagues. Not surprisingly, senior faculty (43%) were more likely to report they spent more time on committee work than junior faculty (17%) with senior women (53%) reporting more often than senior men (39%) "a greater amount of time".

Committee work – WCS 2012 (Q. 17)	**Perceived load (time spent) as compared with peers**		
	A smaller amount of time	**The same amount of time**	**A greater amount of time**
Overall	14.0%	50.9%	34.7%
Women	13.8%	44.6%	41.5%
Men	14%	54%	32%
VM	20%	45%	35%
Cwh	13.3%	51.4%	35.4%
Research Stream	11.9%	52%	36.2%
Teaching Stream	22.5%	50%	27.5%
Junior	23.2%	59.4%	17.4%
Senior	8.5%	48.6%	43%
Junior: Women	31.8%	50%	18.2%
Junior: Men	18.2%	63.6%	18.2%
Senior: Women	5%	42.5%	52.5%
Senior: Men	9.2%	52%	38.8%

Table 33 Faculty perception of time spent on committees (or other service) compared to their peers in the department/unit within the last five years – by gender, ethnicity, stream or seniority – WCS 2012 (Q. 17). *Statistically significant differences between peers highlighted.*

The response of senior women mirrors the responses from Q. 2.3 (see *2.2 Departmental Leadership and* Governance), where senior women disagreed much more strongly than men peers with that administration and service loads were distributed fairly. Comments from faculty also

reflect these opinions which were also perceived as discrimination based on gender by some: *"Administrative load and the tendency to reward conscientious administrative work with more of it, while under-loading those who do it poorly. Women tend to get the short end of this." – "Women tend to be assigned a large part of the more time consuming administrative jobs, such as being advisors."*

The lack of recognition for the variation in committee work and the value of committee work beyond the department was an issue raised by a number of faculty: *"Our workload expectations are clear in terms of numbers of hours on university service, for example, but inadequate in terms of matching that up to decisions on committee membership (which have widely varying workloads) and how to count non-departmental-committee work." – "I would like to see the university formally acknowledge service outside of the university but not within one's research community (e.g. for academic organizations that represent the entire field of a department, government service)."*

Faculty were asked to what degree they received recognition for their service duties (Q. 19), which is discussed in section *6.2 Recognition for Service*.

Summary

Overall, the reported committee loads were equal across all faculty groups with the exception of junior faculty. The main differences in opinion is that teaching stream faculty were more likely to think their committees were important suggesting that committee work may be more fulfilling and of direct importance to teaching faculty careers.

A big difference to the 2007 WCS is that now senior women are chairing more committees than their senior men peers. This may reflect that departments have recognized the need to place women in more leadership positions (see section *6.3.1 Institutional Data on Senior Administrative* Positions), which has led to increased administrative loads for women compared to 2007.

Senior women did not think that administration and service duties were distributed fairly, suggesting that the departments' attempt to ensure a diverse leadership is having the negative effect of increasing the workload for women.

5.2 Mentoring Load (Faculty Perceptions)

Mentoring of faculty and students has often been an unrecognized duty in terms of the extra time and effort requested of the faculty. To determine faculty members' perception about their mentoring duties and respective load, faculty were asked how they perceived their mentoring load when comparing to their peers (Q. 18; see **Table 34**).

Type of mentoring responsibility – WCS 2012 (Q. 18)	**Perceived load as compared with peers**		
	Smaller	**The same**	**Greater**
1. Formal mentoring responsibilities for students: advisor of undergraduate or graduate students	22.2%	53.4%	24.4%
2. Formal mentoring responsibilities for graduate students: member on an advisory/supervisory committee	22%	56.9%	21.1%
3. Formal mentoring responsibilities for graduate students: direct supervision (research)	24.7%	52.1%	23.3%
4. Formal mentoring responsibilities for faculty	53.5%	38.5%	8%
5. Informal mentoring responsibilities	17.9%	62.4%	19.7%

Table 34 Faculty respondents' rating of their mentoring loads (in past five years) as compared with their peers in their unit – WCS 2012 (Q. 18).

More than half of faculty overall felt they had the same mentoring loads as their peers (with even distribution of perception of "smaller" or "larger" loads) for all mentoring types except for formal mentoring of faculty (see below).

A higher percentage of teaching (41%) stream faculty than that of research faculty (22%) felt that they had greater loads when comparing mentoring of students (as advisors) with their peers (see **Table 35**).

Formal mentoring of students – WCS 2012 (Q. 18.1) + WCS 2007	**Perceived load as compared with peers**					
	2012			**2007**		
	smaller	**the same**	**greater**	**less**	**same**	**more**
Overall	22.2%	53.4%	24.4%	23%	56.1.%	20.9%
Women	21.5%	49.2%	29.2%	25%	53.6%	21.4%
Men	22.8%	54.4%	22.8%	22.7%	54.6%	22.7%
LS	22.2%	50%	27.8%	28.1%	43.8%	28.1%
MCS	27.5%	56.5%	15.9%	18.8%	66.7%	14.6%
PES	17.9%	53.8%	28.2%	24.4%	48.9%	26.7%
Research Stream	20.3%	58.2%	21.5%	--	--	--
Teaching Stream	23.1%	35.9%	41%	--	--	--

Table 35 Faculty respondents' rating of their load of formal mentoring of students as compared with their peers in their unit – by gender, field or stream – WCS 2012 (Q.18.1) and WCS 2007.
Statistically significant differences between peers highlighted for WCS 2012.

On the other hand, teaching stream faculty reported "smaller loads" of mentoring of graduate students, both on supervisory committees and as research supervisors (Q. 18.2-3). Only 7% of women in the research stream thought they had a "smaller mentoring load" both as members on an advisory/supervisory committee and as direct research supervisors of graduate students, compared to 13% and 17% of their men colleagues for both these mentoring duties; see **Figure 29**.

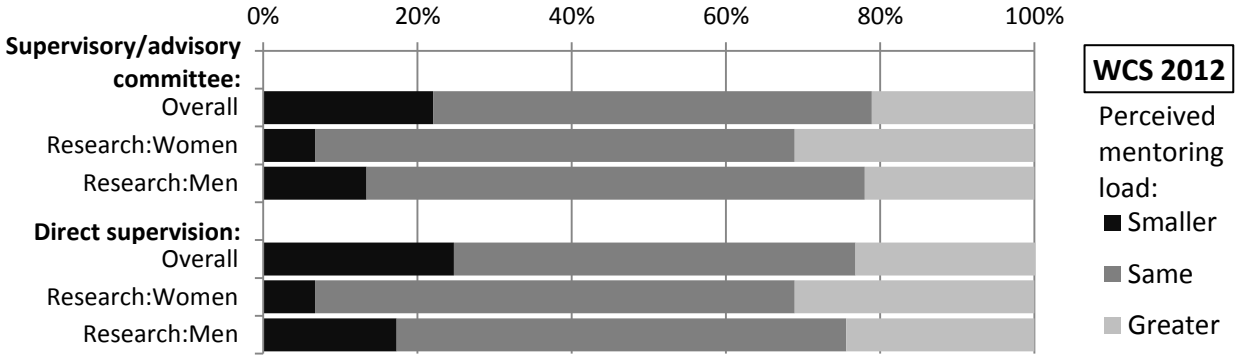


Figure 29 Research stream faculty's rating of their load of formal mentoring of graduate students as compared with their peers in their unit – by stream and gender – WCS 2012 (Q. 18.2/3).

For **formal mentoring of other faculty** (Q. 18.4), not unexpectedly, junior faculty (74%) thought their mentoring loads were smaller compared to senior faculty (44%); and almost half of

the latter thought their loads were the same as their peers. There were no differences in perceptions based on gender, ethnicity or stream. These perceptions of relative mentoring loads have not substantively changed since the 2007 WCS with the exception of more faculty in 2012 thinking their mentoring loads are smaller than their peers; see **Figure 30**.

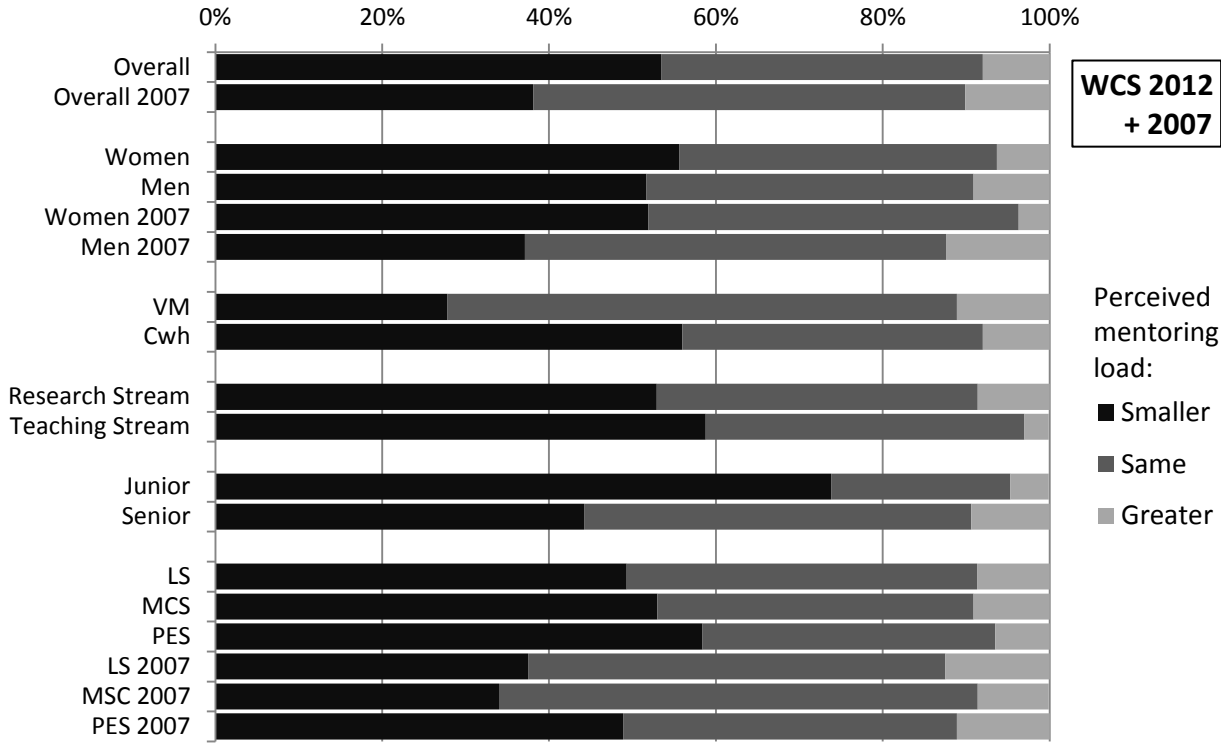


Figure 30 Faculty's rating of their load of formal mentoring of faculty as compared with their peers in their unit – by gender, ethnicity, stream, seniority or field – WCS 2012 (Q. 18.4).

For **informal mentoring** (Q. 18.5; see **Figure 31**), close to a third of women faculty (31%) and 36% of senior women reported a larger than average mentoring load. Men were more likely (69%) to report their loads were the same as their peers; and only 14% of men faculty (15% of senior men) reported a larger than average mentoring load. Women faculty in the research stream and consistently across fields reported a greater informal mentoring load than their male peers. This was most apparent within MCS, where 41% of women faculty perceived their informal mentoring load above average, compared to only 14% of their men peers.

The overall pattern of perceptions of relative loads of informal mentoring has not changed since 2007, with the exception of women reporting a higher load in 2012 much more often than in 2007, back when men and women perceived a greater than average load at a similar level (17% and 21%, respectively).

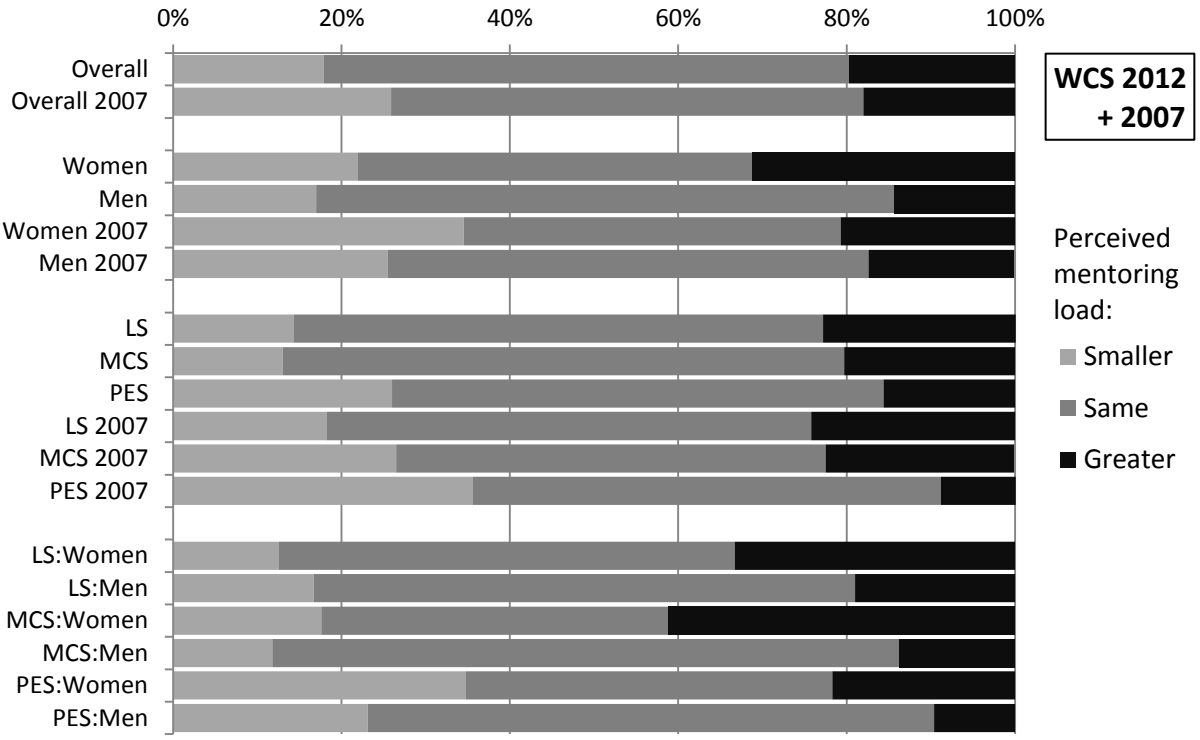


Figure 31 Faculty's rating of their load of informal mentoring as compared with their peers in their unit – by gender, field, or field and gender – WCS 2012 (Q. 18.5) and WCS 2007.
WCS 2007 asked about relative loads of informal mentoring of faculty and staff.

Summary

With the implementation of mentoring policies for faculty within the departments, a concern was that the loads of formal mentoring of faculty members would increase. This does not seem to be the case for formal mentoring duties. On the contrary, in 2012 a majority of faculty – both of men and women faculty – thought that their loads of formal mentoring were smaller than their peers' loads.

Women faculty, however, still perceive that their informal mentoring duties are greater than their colleagues, and this perception has substantially increased since 2007. Women in the research stream also report that their formal mentoring of graduate students either as supervisors or on supervisory committees is greater than their peers. These results suggest that the concerns from 2007 centred on the greater mentoring load overall for women faculty still persist. While the formal mentoring loads can be more readily tracked and thus made more equitable this is not the case for informal mentoring.

So while the formal mentoring duties are more evenly distributed in 2012, women faculty (in particular senior faculty who are perceived as role models) are carrying out an extra degree of service as informal mentors. This type of mentoring is more difficult to quantify and track, perhaps leading to a significant degree of unrecognized service on the part of the women faculty.

5.3 Teaching Load

5.3.1 Faculty Perceptions of Teaching Assignments

Faculty members were asked a series of questions to determine their perceptions on the transparency and fairness of assignment and distribution of teaching loads in their department.

While this topic is tightly associated with workload policies, some departments have an explicit standard teaching load for both research and teaching stream faculty. Therefore, faculty were asked about their departmental policies (Q. 9.10); see **Table 36**.

Teaching assignments – WCS 2012 (Q. 9.10)	Don't have a policy	Policy is unclear	Policy is clear but inadequate	Policy is clear but applied unfairly	Policy is clear and applied fairly
Overall	12.6%	12.1%	12.6%	8.4%	54.2%
Women	19.3%	12.3%	15.8%	7%	45.6%
Men	9.4%	12.6%	11.8%	8.7%	57.6%
VM	17.6%	5.9%	29.4%	5.9%	41.2%
Cwh	12.8%	12.8%	10.9%	7.7%	55.8%
Research stream	11.7%	10.4%	11%	9.7%	57.1%
Teaching stream	18.2%	18.2%	21.2%	3%	39.4%
LS	13.3%	10%	13.3%	15%	48.3%
MCS	11.3%	12.9%	11.3%	1.6%	62.9%
PES	13.6%	13.6%	13.6%	7.6%	51.5%

Table 36 Faculty perceptions of formal policy/procedures governing teaching assignments (number and size of classes) in the department/unit – by gender, ethnicity, stream or field – WCS 2012 (Q. 9.10). *"Don't know" answers excluded (see* Table 8 *for details).*

Policies centered on teaching assignments are not well established, with only 54% reporting a "clear and applied fairly" policy. Overall responses to how teaching assignments are set was mixed with 13% perceiving "no policy", 12% "unclear", 13% "clear but inadequate" and 8% "clear but applied unfairly". This mixed response was uniform across all demographics with the exception of LS, where 15% of faculty reported "clear but applied unfairly" compared to their peers in MCS (2%) and PES (7%).

Women in MCS and PES were more likely to respond "Don't have a formal policy" (21% and 26%) than their male colleagues (9%). A larger percentage of women than of men within PES also thought that the policy was "clear but inadequate" (21%) and comparatively fewer thought that their policy was "clear and applied fairly". Overall, more of VM faculty (30%) thought that the teaching assignment policy was "clear but inadequate" than their Cwh peers (11%). Also, more of the teaching stream faculty shared this view (21%) compared to the research stream (11%). However, within the teaching stream, 40% of VM faculty thought their policy was "clear but inadequate" a much higher response than any other demographic.

Faculty were then surveyed to determine their opinions on their **teaching loads** compared to their peers (Q. 22; see **Table 37**). While about two thirds of faculty thought their teaching loads were average, research faculty were less likely to report an "above average" teaching load (15%) than those in the teaching stream (39%). Of the 41 teaching stream faculty who responded, only one man and no women thought their load was "below average". Women faculty within the teaching stream were also more likely to report an "above average" load (48%) compared to their male colleagues (28%) and their colleagues in the research stream (18%, 15%). These perceptions have

not substantively changed since 2007 with the exception that MCS faculty were more likely to report "above average" in 2012.

Perceived teaching load – WCS 2012 (Q. 22) and WCS 2007	2012			2007		
	Below average	At average	Above average	Below average	At average	Above average
Overall	15.8%	64.9%	19.4%	12.4%	68.2%	19.2%
Women	19.7%	53.0%	27.3%	13.8%	65.5%	20.7%
Men	14.8%	69.1%	16.1%	12.0%	69.0%	19.0%
VM	10%	70%	20%	--	--	--
Cwh	16.6%	63.5%	19.9%	--	--	--
Research Stream	17.6%	67%	15.3%	13.7%	68.4%	17.9%
Teaching Stream	2.4%	58.5%	39%	0	50.0%	50.0%
Research Stream: Women	28.9%	53.3%	17.8%	--	--	--
Research Stream: Men	14.3%	70.6%	15.1%	--	--	--
Teaching Stream: Women	0%	52.4%	47.6%	--	--	--
Teaching Stream: Men	5.6%	66.7%	27.8%	--	--	--
LS	16.9%	62%	21.1%	12.1%	57.6%	30.3%
MCS	15.7%	67.1%	17.1%	10.0%	86.0%	4.0%
PES	15.2%	64.6%	20.3%	15.2%	56.5%	28.3%

Table 37 Faculty members' rating of their teaching load compared to peers in their department (for past five years) – by gender, ethnicity, stream or field – WCS 2012 (Q. 22) and WCS 2007.
Statistically significant differences between peers highlighted.

When faculty were asked whether they thought **teaching loads were distributed fairly** (Q. 2.5; see **Figure 32**), there were significant differences between fields with only 65% of PES faculty agreeing compared to 76% and 81% of LS and MCS faculty agreeing, respectively. In particular, in two PES units 30% of faculty disagreed, one with 22% of faculty who "strongly disagreed" that teaching loads were fairly distributed. Within LS, 17% of women "somewhat disagreed" compared to 7% of men. There were no other significant gender differences though, overall, only 29% of women and 43% of men "strongly agreed".

Teaching faculty were also less positive about the fairness of teaching loads, where only 25% "strongly agreed" compared to 43% of research stream faculty.

Compared to the 2007 WCS, the perceptions of faculty have not substantively changed. Back then, a bit more than two thirds of faculty reported that their teaching loads were "average," 12% indicated "below average" and 19% "above average".

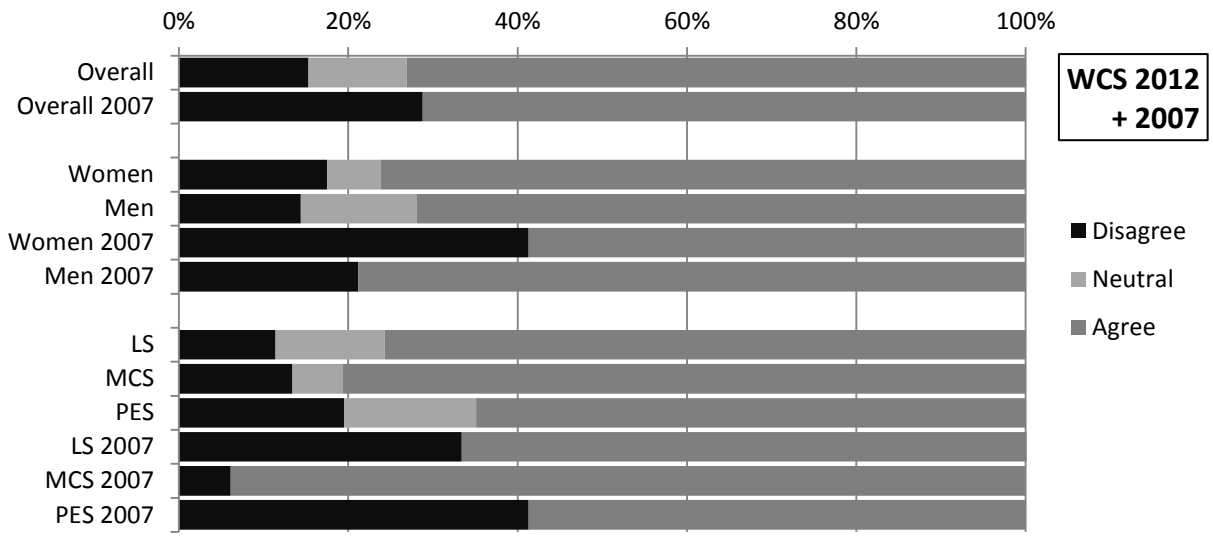


Figure 32 Faculty respondents' perception of a fair distribution of teaching loads – by gender or field – WCS 2012 (Q. 2.5) and WCS 2007.

In 2012, comments from faculty members reflect a wide range of issues with teaching assignments, such as *"Lack of equality of teaching workload remains a significant source of tension within our department." – "Some people hardly ever seem to teach, and when they do, they only teach small classes. Others teach only within their highly specialized area, while many are expected to teach broadly."*

Faculty comments on their unit's pertaining policy/procedures included: *"Policies for teaching assignments are very clear, but (I think) too many exceptions are constantly made,"* suggesting that even when there are stated teaching load polices there is a perception that these are inequitably applied. *"There is stated teaching policy but I see differences in the teaching loads amongst our faculty. I do not [know] why these people have different loads."* Another concern viewed by faculty was the lack of opportunities to teach at the upper levels: *"Teaching assignments to smaller, upper level classes is not circulated often enough, with uncooperative faculty getting left in their favoured assignments."*

Faculty also commented on perceived inequities between Science disciplines: *"I think teaching is allocated very fairly *within* my department. I think the frustrating inequities are *across* units and faculties." – "Very significant differences in class sizes across disciplines."*

Other comments emphasize the differences between courses and the inequity of assigning large introductory and smaller specialized courses based merely on the number of course credits, and the difficulties in judging laboratory teaching duties compared to lecture courses. *"There is a strong policy on # of classes, but no effort to date to equalize the tremendous difference in effort between courses. Thus some people over time put in a lot more effort than others in teaching." – "Our classes tend to be very irregular in size. Some are huge. Others are fairly small. Some have labs. Some don't. There is a big difference in workload for teaching and managing these courses, yet they all count the same. It would be great to have the units normalized."*

The need for more emphasis on teaching quality rather than quantity was voiced: *"The department needs to count more and reward quality rather than quantity of teaching work."*

Other faculty recognized the work that has been done on designed equitable teaching loads: *"The department has made good progress in addressing fairness in teaching loads, especially with*

respect to size of classes. But it is taking time for stated policies to be evenly applied." – "We have a hard-won agreement on a teaching assignment policy but the results in practice are not very fair."

Faculty were then asked about the **appropriateness and type of teaching assignments** over the past five years such as fit to expertize and preparation of new courses (Q. 23; see **Table 38**).

Perceived appropriate teaching assignments – WCS 2012 (Q. 23) + WCS 2007	Never	A few times	Several times	Always
Overall	3.2%	8.2%	23.6%	65%
Women	3.1%	4.6%	21.5%	70.8%
Men	3.4%	10.1%	24.3%	62.2%
Overall 2007	3%	7%	23%	67%
Women 2007	3.4%	10.3%	27.6%	58.6%
Men 2007	3%	6%	21%	70%
VM	15.8%	5.3%	26.3%	52.6%
Cwh	2.2%	8.9%	22.2%	66.7%
Research Stream	3.4%	9.7%	20.6%	66.3%
Teaching Stream	0%	2.5%	35%	62.5%
LS	4.2%	4.2%	22.5%	69%
MCS	2.9%	4.4%	22.1%	70.6%
PES	2.5%	15.2%	25.3%	57%
LS 2007	6.1%	9.1%	12.1%	72.7%
MCS 2007	0%	0%	20%	80%
PES 2007	4.3%	13%	32.6%	50%

Table 38 Faculty member's rating (frequency) of appropriateness of teaching assignments – by gender, ethnicity, stream or field – WCS 2012 (Q. 23) and WCS 2007.

Overall, two thirds of faculty respondents felt that their teaching assignments were "always" appropriate. While there were no differences based on gender, rank or stream, there were differences based on ethnicity. VM faculty seemed more likely to report that their teaching assignments were "never" appropriate, and particularly so within the research stream (whereas there were no differences based on seniority or gender within this stream). Both men and women VM faculty overall (18%, 13%) reported this perception compared to their Cwh peers (2%).

In 2007, faculty were asked how often their teaching assignments were reasonable with regard to their interests/expertise and workload. Very similar to 2012, two thirds of respondents thought they "always" had reasonable teaching assignments, 23% reported "several times", 7% "a few times" and 3% responded "never". There had been significant differences among departmental groupings (field), with MCS faculty reporting reasonable teaching assignments more often than their PES peers. MCS faculty also rated the distribution of teaching loads as significantly fairer than both PES and LS faculty.

Faculty were then asked about the degree of control and influence on their assignments and course preparation (Q. 24; see **Table 39**). When asked about **new courses that faculty had prepared** (Q. 24.1), faculty in the research stream were twice as likely to have proposed the new courses they were asked to prepare. Comparing fields, faculty both within MCS and PES reported twice the rate of new courses that they had proposed than faculty within LS.

There were no differences in the number of **new courses that faculty were invited to prepare** (Q. 24.2).

There were, however, differences in the number of **courses that faculty were required to prepare** (Q. 24.3). Junior faculty reported more courses that they were required to prepare (1.6 on average) compared to senior faculty (0.7). Overall, it appears that faculty do have a say in the type of courses that they prepare and are consistently invited to prepare or propose new courses. Faculty within the teaching stream have less influence in proposed new courses but are invited to prepare courses at the same level as research stream faculty. The exception is within LS, where faculty may have less control over their teaching assignments or the course assignments may not change as often as they do in MCS and PES.

New courses – WCS 2012 (Q. 24)	Over-all	Gender		Ethnicity		Field			Stream	
		Women	Men	VM	Cwh	LS	MCS	PES	Research	Teaching
1. Proposed	0.9 ±1.2	0.8 ±1	1 ±1.3	1.2 ±1.6	0.8 ±1.1	0.5 ±0.8	1.2 ±1.3	1.1 ±1.4	1.0 ±1.3	0.5 ±0.9
2.Invited to prepare	0.8 ±1	0.7 ±0.9	0.8 ±1.1	0.8 ±1.1	0.8 ±1.1	0.7 ±0.8	0.8 ±1.4	0.7 ±0.9	0.7 ±0.9	1.1 ±1.5
3. Required to prepare	1.0 ±1.9	0.9 ±1.6	1.1 ±2.1	2.2 ±2.9	0.9 ±1.6	0.5 ±1	1.1 ±2.5	1.3 ±1.7	1.0 ±2.0	1.1 ±1.7

Table 39 Average number of new courses prepared that faculty members reported to have proposed, been invited or required to prepare – by gender, ethnicity, field, or stream – WCS 2012 (Q. 24).

Another theme that arose from faculty comments centered on the lack of timely information around teaching assignments, class sizes and allotment of teaching assistants (TAs). These sentiments are best encapsulated in one faculty member's plea: *"I would like to receive written teaching assignments that tell me how many students I am teaching, how many TAs I will have, when labs will be scheduled, and other information necessary to teach much earlier than just a month or so before the term starts and I can prepare for teaching."*

5.3.2 Faculty Perceptions of Class Sizes and Course Levels Taught

To determine the distribution of classes and class sizes, faculty were asked to report on **the number and the sizes of undergraduate classes they taught** (Q. 22a.1; see **Table 40**).

Undergraduate courses taught – WCS 2012 (Q. 22a.1)	Overall	Gender		Ethnicity		Stream	
		Women	Men	VM	Cwh	Research	Teaching
1. Number of courses/ sections	2.1 ±1.8	2.4 ±2.1	2 ±1.7	1.8 ±1.5	2.2 ±1.8	1.8 ±1.7	3.7 ±1.7
2. Smallest class size	50.8 ±60.2	55 ±78.2	50.2 ±53.8	52.4 ±52.2	49.3 ±61.3	52.8 ±65.5	44.1 ±31.1
3. Largest class size	141 ±126.1	191.3 ±163.6	122.7 ±101.8	190.1 ±253.8	137.5 ±108.1	122.9 ±104	220.5 ±175.1

Table 40 Number and class sizes of undergraduate courses taught in past academic year as reported by faculty members – by gender, ethnicity or stream – WCS 2012 (Q. 22a.1). *Average and standard deviation shown. Statistically significant differences between peers highlighted.*

Teaching stream faculty taught more undergraduate (UG) courses on average than faculty in the research stream (which is in accordance with the typical teaching load expectations for the two different streams across Science). Across the entire faculty, there were no differences based on gender, ethnicity or field. For instance, women in the teaching stream taught 3.7 courses per year compared to 3.6 for men, and women in the research stream taught 1.7 courses per year compared to 1.9 for men.

The **smallest UG class sizes** were similar across all demographics showing no difference between teaching and research streams with the sole exception of junior VM faculty who reported on average a smallest class size of 93 students.

For the **largest UG class sizes**, there were differences based on gender and stream, with women faculty and teaching stream faculty teaching larger class sizes on average. This was not due to the greater proportion of women within the teaching stream as this difference was found in both faculty streams (see **Figure 33**). The reported average size of largest classes for women in the research stream was 158 compared to 116 for men. The reported average size of largest classes for women in the teaching stream was 240 compared to 186 for men.

Within LS and PES, the largest class sizes reported by women faculty were larger than that of men, and in LS the average class size for women (246) was almost double that of men (131 students). VM faculty in the research stream reported smaller classes (with an average of 83 students for the "largest class size") compared to their Cwh colleagues (128). In contrast, within the teaching stream, VM faculty reported an average of 383 students compared to 181 reported by their Cwh colleagues. The average for the largest class size for women VM faculty is significantly higher (432) compared to their peers (Cwh women: 170, VM men: 93, and Cwh men: 126 students).

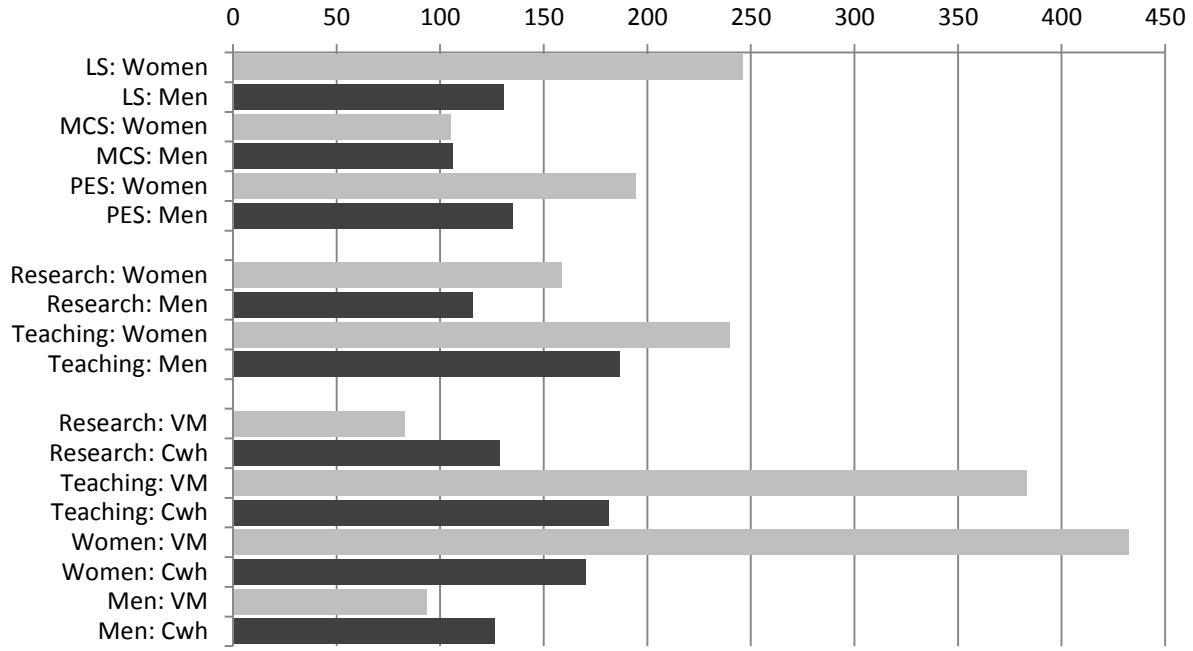


Figure 33 Largest class size (average) of undergraduate courses taught in past academic year as reported by faculty respondents – by field and gender, stream and gender, stream and ethnicity, or gender and ethnicity – WCS 2012 (Q. 22a-1.3).

With respect to **graduate courses** (Q. 22a-2; see **Table 41**), there were no differences reported across any demographics with the exception of research faculty being (unsurprisingly) more likely to teach graduate courses. Within the research stream, the number and class sizes of graduate courses were similar across the various demographics. Faculty comments focused on the need to track the graduate courses taught: *"There seems to be a great variety in the time commitment for graduate courses. Also the time that faculty devotes to their graduate courses is not monitored."*

Graduate courses taught – WCS 2012 (Q. 22a.2)	Overall	Gender		Ethnicity		Stream	
		Women	Men	VM	Cwh	Research	Teaching
1. Number of courses or sections	0.8 ±1.3	0.8 ±1.2	0.7 ±1	0.8 ±0.8	0.7 ±0.9	0.9 ±1.4	0.1 ±0.4
2. Smallest class size	8.9 ±7.2	9.3 ±7	8.8 ±7.4	7.2 ±6.3	9.2 ±7.5	10.1 ±6.9	0.8 ±3.1
3. Largest class size	11.8 ±20.5	16.8 ±38.9	10.2 ±8.5	5.4 ±6.8	12.7 ±22.3	13.7 ±21.6	0.8 ±3.1

Table 41 Number and class sizes of graduate courses taught in past academic year as reported by faculty members – by gender, ethnicity or stream – WCS 2012 (Q. 22a.2).
Statistically significant differences between peers highlighted.

5.3.3 Institutional Data on Class Sizes and Course Assignments

The size of undergraduate classes reported by survey respondents were compared with **institutional data on the assigned class sizes for all faculty members who taught in the**

2011/2012 academic year; see **T**able **42**. The average UG class size was calculated for lecture courses across rank and gender. There was a significant difference in class size based on gender with the average for women (99 students) being higher than that for men (87). However, when broken down by rank, only women senior instructors taught, on average, a significantly larger class size (177) compared to their peer men (127).

Between the ranks within the research stream, assistant professors (men and women combined) taught significantly greater class sizes (an average of 113 students) than both associate (91) and full professors (84). When analysed further, there were no significant differences between the men in all three ranks but the differences resided within the women faculty. Women assistant professors taught an average class size of 126 students compared to 78 and 73 students for women associate and full professors, respectively.

	Overall		Science undergraduate lecture course level							
			1st year		2nd year		3rd year		4th year	
Rank	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Lecturer	173.8	138.1	254	204	92.9	117.9	95.2	67.4	n/a	n/a
Instr. 1	128.8	89.4	153.3	140.8	166.3	67.1	57.7	107.8	23.5	n/a
Sr. Instr. PoT	177.6	127.5	211.9	167.6	149.4	121.7	147.4	95.2	24	44.67
Asst. Prof.	126.3	102.6	252.8	165.9	135.7	122.4	63	109.5	34.5	40.6
Assoc. Prof.	78.34	94.2	129.5	153.4	71.5	118.6	117.6	73.4	17.5	32.8
Full Prof.	72.75	87.1	81.3	166.9	163.4	128.4	66.9	63.8	25.8	28.4

Table 42 Average class size of Science lecture courses taught in 2011/12 – by rank and gender.
Statistically significant differences highlighted between genders and ranks, respectively.

When broken down by UG year, the major differences observed for rank was within first-year UG classes, where women assistant professors taught an average class size of 253 students. This average represents an even distribution over multiple courses with a standard deviation of 22. In other words, class sizes for women assistant professors teaching a first-year course ranged from 228 to 286, whereas the size of these classes ranged from 27 to 262 for men assistant professors.

An analysis of the distribution of teaching across the different research fields (see **Table 43**) also indicates that representation of women teaching in LS and PES decreases with the higher level of courses. In PES overall, a higher percentage of women taught than was their representation in PES faculty, and women taught significantly larger classes than their male peers.

Field and gender	Overall	Science undergraduate lecture course level			
		1st year	2nd year	3rd year	4th year
LS: Women	133.6	238.1	173.0	96.5	24.8
LS: Men	111.3	190.5	196.7	102.3	35.6
LS: % Women	***37% [36%]****	***44%***	***50%***	***31%***	***24%***
MCS: Women	85.3	90.3	118.6	72.8	22.2
MCS: Men	91.6	153.1	101.1	71.7	28.2
MCS: % Women	***17% [18%]****	***7%***	***24%***	***20%***	***15%***
PES: Women	146.8	242.1	104.7	101.4	23.9
PES: Men	101.8	219.9	94.3	71.0	26.7
PES: % Women	***31% [21%]****	***39%***	***28%***	***31%***	***25%***

Table 43 Average sizes of classes taught for undergraduate levels of 1st to 4th year – by field and gender – and representation of women faculty teaching in each UG year.
**Representation of women in overall faculty in this departmental grouping [%]. Statistically significant differences highlighted.*

Summary

Teaching assignments and the equity of their distribution was a rather complicated and multi-faceted issue. While the majority of faculty thought that assignments were fair, there were concerns raised as to the equitable accounting of class sizes and the degree of effort that can vary substantially between different courses.

Issues with the lack of transparency or consistency on teaching policies were also raised by faculty. Faculty concerns with equitable assignment of courses were supported by institutional data showing that women – and, particularly, women who identified as members of visible minorities – consistently taught larger courses. Along those lines, there was a clear difference by rank, where assistant professors taught larger average class sizes than other research stream faculty and particularly so in first-year undergraduate courses.

To assign large introductory courses to pre-tenure research faculty is unacceptable. The data on class sizes and course levels analyzed account for one academic year only and could thus represent an anomaly. Therefore, there needs to be a regular accounting of the size and complexity of courses taught with a view to ensure an equitable distribution that can change over time so that the large courses are experienced by less junior faculty rather than those who may not have the seniority or power to decline such assignments.

5.4 Teaching Reduction (Faculty Perceptions)

Through the work of the Faculty Affairs Committee, most departments had drafted policies on teaching release/reductions and UBC Science had developed principles universal for the entire Faculty. However, the ratification and implementation of these policies have varied significantly, from full implementation in some departments to those still remaining in "draft" stage. Teaching reduction has been one of the most contentious issues facing the Faculty Affairs Committee.

In this context, faculty were asked to **rate the clarity and effectiveness of their unit's policy on teaching releases** (Q. 9.11); see **Table 44**.

Faculty perceptions of teaching release policy – WCS 2012 (Q. 9.11)	Don't have a policy	Policy is unclear	Policy is clear but inadequate	Policy is clear but applied unfairly	Policy is clear and applied fairly
Overall	18.1%	21.7%	7.2%	8%	44.9%
Women	17.1%	22%	9.8%	7.3%	43.9%
Men	17.9%	22.1%	6.3%	8.4%	45.3%
VM	0%	27.3%	27.3%	0%	45.5%
Cwh	19.7%	20.5%	6%	6.8%	47%
Research stream	18.5%	21%	8.4%	8.4%	43.7%
Teaching stream	18.8%	31.2%	0%	0%	50%
LS	23.3%	25.6%	2.3%	4.7%	44.2%
MCS	10%	18%	14%	0%	58%
PES	22.7%	22.7%	4.5%	18.2%	31.8%
LS: Women	20%	33.3%	0%	0%	46.7%
LS: Men	22.2%	22.2%	3.7%	7.4%	44.4%
MCS: Women	0%	15.4%	15.4%	0%	69.2%
MCS: Men	13.%9	19.4%	13.9%	0%	52.8%
PES: Women	30.8%	15.4%	15.4%	23.%1	15.4%
PES: Men	19.4%	25.8%	0%	16.1%	38.7%

Table 44 Faculty perceptions of departmental policy/procedures on teaching releases/reductions – by gender, ethnicity, stream, field, or field and gender – WCS 2012 (Q. 9.11)
"Don't know" answers excluded (see Table 8 *and* Table 9 *for details).*

Close to half of faculty respondents – both across genders, ethnicities and streams – thought their teaching release policy were clear and fair. Based on field (department groupings), faculty within MCS (58%) were most satisfied, in contrast to PES faculty, who were more likely to rate their policies as "clear but unfairly applied" (18%) compared to their peers in LS (5%) and MSC (0%). Also, only 10% of faculty in MSC reported "no policy" compared to 25% of faculty in both LS and PES; whereas MSC faculty were more likely to report "policy clear but inadequate" (14%) compared to those in LS (2%) and PES (5%).

By unit across Science, three out of twelve units had more than 35% of faculty who thought their policy was "unclear" and two units had greater than 20% who thought their policy was "clear but inadequate". Women faculty in PES units were significantly more dissatisfied with their departments' teaching release policies than their men peers.

Given these responses together with that 87 (out of all 225) faculty respondents reported that they did not know about their unit's policy (note, "Don't know" answers are not included in **Table 44**, but see Table 9 in section *3.1 Departmental Guidelines and Procedures*), there is a lot more work that needs to be carried out to both implement teaching reduction policies and to ensure that existing policies are effective and fairly applied.

Faculty commented that they found their teaching reduction polices were inequitably applied: *"There is very little transparency in the department, so this is why things are unclear, or applied unfairly - why do some people have significant teaching rebates, while some others are loaded more." – "There is a policy, but several people still seem to work around it and get releases that don't quite fit the spirit of the rules." – "Distribution of teaching load is heavily influenced by external factors, like teaching buyouts. It monetary amount of the buyouts are secret, some agencies*

are favoured some disfavored, so it is never clear what will be allowed and what will not be allowed or how much a buyout should cost."

A sense of unfairness arises when some research faculty within a department seem to have opportunities to "buy out" their teaching due to funding from external agencies when others do not: *"Teaching releases are given preferentially in some areas compared to others due to different availability of external funding for this sort of thing." – "Our department allows people with special sources of funds to buy out some of their teaching. That is unfair to others who do not have special funding and do their full load of teaching."*

For those departments with no policy, a strong degree of frustration was voiced in the faculty comments especially given that the Faculty of Science's principles state that all departments should have clear, written procedures for determining when teaching reductions are awarded for research or administrative purposes. Members of those departments expressed frustration that their units still did not have such policies, and the essence of these frustrations are captured in the following comment *"…still has no such policy filed in the Dean's office. It has no policy period. FoS required all depts to have such a policy filed with the Dean's office." – "(We) still have many people who have longstanding buyouts, year after year, in all of three of three successive years, in perpetuity. This is a joke, FoS needs to be on the case to make written procedures for determining how/when teaching load reductions are awarded."*

However, a counter argument was voiced by several faculty members that teaching reductions should be considered for faculty: *"I would like to see teaching releases instated, in acknowledgement that some faculty are far more productive as researchers than others, and some enjoy teaching and are better at it than others." – "There should be some level of teaching credit given for graduate student / postdoc / undergraduate supervision." – "There are insufficient teaching releases in our Dept - for example if one had a large industry-funded project to manage this has to be done on top of teaching commitments."*

Faculty were asked for specifics on **teaching reductions and the rationale and funding sources to support these reductions** over the past five years. (Q. 24; see **Table 45**).

Funding source for course release – WCS 2012 (Q. 25)	Over-all	Gender		Ethnicity		Field			Stream	
		Women	Men	VM	Cwh	LS	MCS	PES	Research	Teaching
1. Grant or fellowship	0.3 ±1.2	0.3 ±0.8	0.4 ±1.3	0.1 ±0.2	0.4 ±1.3	0.3 ±0.8	0.5 ±1.8	0.3 ±0.8	0.4 ±1.3	0 ±0.2
2. Department	0.6 ±1.5	0.9 ±2.2	0.5 ±1.1	0.7 ±1.5	0.6 ±1.6	0.3 ±0.7	1.2 ±2.3	0.4 ±0.8	0.5 ±1.5	0.9 ±1.4
3. Admin. secondment	0.7 ±2.2	0.7 ±1.7	0.6 ±2.5	0.7 ±1.3	0.7 ±2.4	0.3 ±0.8	0.9 ±2.9	0.8 ±2.4	0.6 ±1.8	0.8 ±3.6

Table 45 Amount and funding sources of course reductions as reported by faculty respondents – by gender, ethnicity, field or stream – WCS 2012 (Q. 25).

As expected, research faculty were more likely to have reduced teaching funded by a grant or fellowship (Q. 25.1).

Within the teaching stream, men reported more than twice the average number of courses (1.4) than women faculty (0.6) that were reduced for them by departmental funds (Q. 25.2). In contrast, women in the research stream reported almost three times the average number (1.1) of men's course reductions (0.4).

Overall, there were no significant gender differences in teaching releases funded by secondment (Q. 25.2). Within the research stream, women reported greater numbers of course reduction for administrative secondment (1.0) than men (0.5) while, within the teaching stream, men reported a greater average amount of course reduction (1.9) than women (0.3).

Not surprisingly, senior faculty reported significantly more course reductions for administrative secondments (Q. 25.3) (0.9) than junior faculty (0.1). However, within the junior ranks, both women (0.4) and VM faculty (0.8) reported greater amounts of teaching reductions funded by administrative secondment than junior men (0). These results suggest that the need to increase the diversity in committees and leadership may have increased the rate of teaching releases for women and VM faculty.

There are no significant differences in teaching release based on ethnicity or gender in the teaching stream for faculty who were seconded to administrative positions.

Summary

In the 2007 WCS, transparency on decision-making in teaching load allocation and clarity on teaching buy-out policies were recommended, in part due to the fact that all the recipients of teaching releases that were reported by the department heads had been men. Since 2007, a set of Faculty of Science principles and several departmental policies have been developed. However, many of these have not been clearly implemented. Due to this lack of transparency, there still remain many issues centred on teaching loads and reductions. A very strong sense of frustration at the lack of progress on this issue was voiced in both faculty comments and focus groups. Therefore, policy development and, specifically, policy implementation will be a priority for UBC Science to ensure equitable distribution of teaching reductions in context with faculty's overall workload.

6 RECOGNITION AND LEADERSHIP OPPORTUNITIES

6.1 Research and Teaching Recognitions and Canada Research Chairs

6.1.1 Institutional Data on Awards

The 2007 WCS reported numbers of men and women faculty in FoS who were awarded four key **research awards** at the university level (UBC) from 1996 to 2006. Over the 10 years, no woman faculty won the Distinguished University Scholar award. Of all the Killam Research Fellowships and Killam Research Prizes awarded in this same period, only 7% went to women.

Table 46 summarizes the main research recognitions received by Science tenure-track faculty members from within the university and externally between 2007/2008 and 2011/2012.[20] A total of 211 awards were tracked over the five academic years; of these 18% were received by women and 82% by men faculty. About 15% awardees were members of visible minorities.

Year	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	5-yr total
Awarding institution						
UBC	30%	44%	18%	20%	11%	**24%** (out of **49**)
National	8%	14%	15%	5%	22%	**12%** (out of **84**)
International	18%	14%	22%	20%	27%	**23%** (out of **69**)
National + International	***11%*** ***(35)***	***14%*** ***(21)***	***17%*** ***(29)***	***16%*** ***(37)***	***26%*** ***(31)***	***17%*** (*out of **153***)
All levels*	**15%** **(48)**	**22%** **(32)**	**17%** **(42)**	**16%** **(49)**	**23%** **(40)**	**18%** (out of **211**)

Table 46 Research recognitions received by Science women faculty over five academic years: 2007-2012.
**Summarizes recognitions that were awarded for excellence in research by the university, by provincial, national and international organizations.*

Women's share of 18% of the research awards received equals the average representation of women research faculty in UBC Science over this same period (17.9%). In contrast to previous years, the percentage of women recipients of research recognitions awarded by Canadian organizations increased in 2011/2012 to 22% (with a steady number of two awards per year received by women) from 10% in 2007/2008. However, the smaller amount of recognition awarded to women faculty by Canadian organizations (12% on average over five years) remains of concern. On a positive note, recognition at the international level (with a five-year average of 23% and 27% in 2012) has risen above women research faculty's representation (19%) in UBC Science.

By 2007, ten percent of the **Canada Research Chairs** (CRC) were received by women, while the proportion of women research faculty in FoS increased from 8% in 1999 to 17% in 2007. In 2012, UBC Science was home to 46 CRCs including 17% women faculty and an estimated 10% members of visible minorities. While the representation of women among CRC holders is still fairly

[20] The recognitions summarized in this section refer to accolades that were awarded following nominations, and typically do not include research grants that were awarded following an individual's application. The summary may not be complete. The dean's office has collected these data from the departments over the course of the years, a process which, in part, relies on self-reports by faculty.

low, the number of women CRCs has doubled within the past two years after a long period of stagnation. **Table 47** summarizes demographics of CRCs at UBC Science for the past five years.

CRC holders	2007/2008		2008/2009		2009/2010		2010/2011		2011/2012	
	W	M	W	M	W	M	W	M	W	M
Number	4	36	4	37	4	38	6	39	8	38
Proportion	10%	90%	10%	90%	10%	90%	13%	87%	17%	83%
Total	40		41		42		45		46	

Table 47 Canada Research Chairs (CRC) at UBC Science by year and gender between 2007 and 2012.

Between 1996 and 2006 Science women faculty received 16% of the UBC Killam **teaching awards**, while they received 38% of these awards over the recent five academic years (2007–2012). Over the same period, close to one fifth of these recognitions were awarded to visible minority faculty, compared to an estimated representation of 12% of VM faculty among all full-time faculty at UBC Science.

6.1.2 Faculty Views on Awards

In the past, women faculty have been less likely to be nominated for awards than men (WCS 2007). Therefore, faculty were asked in 2012 about their perceptions on the process and fairness of awards nominations within their department (Q. 20; see **Table 48**).

Agreement to award nomination process questions – WCS 2012 (Q. 20)	Overall	Field		
		LS	MCS	PES
1. Department has formal procedures or a committee on award nominations for faculty.	86.1%	75%	98%	82.1%
2. Satisfied with the process (formal or informal) around award nominations in your department (e.g., with regards to transparency).	78.5%	68.2%	88.3%	76.9%
3. Department handled the nominations of faculty members in the department fairly.	90.4%	93.1%	96.2%	82.9%

Table 48 Faculty's views on award nomination processes in their department/unit – by field – WCS 2012 (Q. 20).
There are 166 (Q. 20.1), 158 (Q. 20.2) and 125 (Q. 20.3) assessments included in this table ("Don't know" answers excluded). Statistically significant differences between peers highlighted.

For all three questions in this area, faculty overall were positive about their department's approaches and fairness when dealing with award nominations. However, about a quarter (26% of 223 respondents) across all Science fields answered "do not know" to the question whether their **unit has formal procedures/committee on award nominations** (Q. 20.1). Of those who did know (answering "yes" or "no"), a greater percentage of faculty (both men and women) in MCS (98%) than in LS (75%) and PES (82%) reported having a formal procedure or committee; and there were far fewer faculty responding "do not know" in MCS compared to colleagues in the other two fields.

There were also significant differences based on field and gender. When asked if their department or unit had a formal process or committee, women in the PES were more likely to respond "no" (29%) than their men peers (9%).

When asked about their degree of **satisfaction with the process** (Q. 20.2), faculty within the MCS seemed again more satisfied (88%) than those in LS (68%) and PES (77%). In LS, fewer of the women faculty were satisfied (57%) than men (78%); and the same was true in PES (women: 67%; men: 81%). Only 61% of women in the research stream were satisfied compared to 82% of the peer men, and 91% of women and 92% of men faculty in the teaching stream. Senior women faculty were the most dissatisfied (41%) compared to senior men (18%) and to both junior women and men faculty (15%). Overall, 65 out of 223 faculty answered "do not know" to this question.

Finally, a very high proportion (98 out of 223) respondents reported that they "do not know" whether their **units handled award nominations fairly** (Q. 20.3). The majority (90% out of 125) of faculty who did know thought that the nominations were handled fairly, and there were no differences in the perceptions of fairness based on any demographic. Given the low assessment rate, it is difficult to draw conclusions from these results.

Overall, the processes behind award nominations seem more clearly articulated within the MCS departments compared to LS and PES.

Faculty comments reflect the positive changes that have been occurring with respect to nominations: *"We are becoming more active regarding nominations." – "A formal process was only recently instituted. The proposed process looks very good, but time will tell whether it works."* On the other hand, many faculty commented on the lack of transparency in their unit's nomination process, for example: *"The process of awards nominations both teaching and research is completely ad hoc. There is no awards committee and the department depends on self-nomination or peers to nominate."*

Several faculty respondents commented regarding the reliance on self-nominations: *"As far as I can tell, the policy consists of self-nomination, which I don't think offers adequate support for junior faculty." – "I don't think we have a formal process in the Department. If you think you might be eligible for an award you need to get things together and ask the Department to nominate you."*

Summary

While the 2012 data suggest that, overall, there was a substantial increase of the share of research recognitions received by women faculty in the past five years, there remains a gap between proportion of women recognized by awards from Canadian institutions and women's representation among researchers at UBC Science. This suggests a continued need for analyzing the nomination process and determining representation of women nominees for these awards. However, the recent increase in the proportion of Canada Research Chairs held by women faculty and the doubling of women faculty's share of teaching awards in UBC Science suggests that the gender gap can be closed in the near future with greater awareness.

The increase in recognitions for women faculty may explain the general satisfaction with respect to the awards nomination process and perceived fairness of this process. The processes seem universally understood better in MCS departments, which may contribute to the higher levels of satisfaction among faculty in this field compared to LS and PES departments.

Senior women faculty in the research stream are significantly more dissatisfied with the processes in place, which correlates with the group that would be most affected by the past poor record of nominations. The more hopeful it is for the future that junior women and men faculty were equally positive about the current award nominations and the fairness of the process.

However, the distribution of Canada Research Chairs only recently gained gender equity (when compared to women representation among Science research stream faculty). This together with the potential gender inequity in the nomination rates for recognitions awarded by Canadian scientific associations warrants that the Dean's office will continue to monitor these data and to work in partnership with the LS and PES departments for increasing the transparency of their nomination processes.

6.2 Recognition for Service (Faculty Perceptions)

A common complaint from faculty members has been the large time commitment invested toward service for the department and the lack of recognition for such commitments. To determine the degree of recognition, faculty members were asked if they had received **recognition or credit from their department** for service such as committee work, mentoring, or undergraduate advising (Q. 19); see **Table 49**.

Recognition received for service – WCS 2012 (Q. 19)	Overall	Gender		Ethnicity		Stream		Field		
		Women	Men	VM	Cwh	Research	Teaching	LS	MCS	PES
	49.7%	52.2%	49.1%	41.7%	51.4%	43.3%	73.3%	48.3%	62.3%	39.3%

Table 49 Recognition received for service to the department as reported by faculty members – by gender, ethnicity, stream or field – WCS 2012 (Q. 19).

Half of faculty overall reported to have received some type of recognition, and at least 40% of faculty in any demographic group analyzed has received recognition. Teaching stream faculty's rate of being recognized for their service (73%) was almost twice that of research stream faculty (43%). Within the teaching stream, Cwh faculty were significantly more likely (81%) than their VM peers (50%) to receive recognition for their service.

Given the contentious issues surrounding teaching reductions and merit/PSA awards, faculty members were specifically asked if they had been recognized through these (or other) avenues; see **Figure 34**. More than a quarter (27%) of faculty who had been rewarded perceived recognition through merit award/PSA and 10% had received teaching reductions. For the latter, there were no significant differences based on gender or seniority. Faculty within the MCS reported a higher proportion of teaching reductions (18%) compared to their peers in LS and PES (10% and 4%, respectively).

However, only 5% of VM faculty – with 6% and 0% in the research and teaching stream, respectively – reported teaching reductions for service compared to 12% of their peers. Of the teaching stream faculty, not one of the 21 women respondents reported receiving a teaching reduction. The opposite was true in the research stream where a higher proportion of women reported teaching reductions for service (16%) than men (9%).

Potentially, the lack of recognition might be compensated in other ways. However, perceived recognition through merit/PSA was also lower for women and VM faculty within the teaching stream. Women in the teaching stream did report higher levels of "other" forms of recognition (29%) than any other group, suggesting that there is some mechanism of recognition for these faculty members, which could not be identified through this study. In contrast, for VM faculty there were no greater compensation rates in the "other" category.

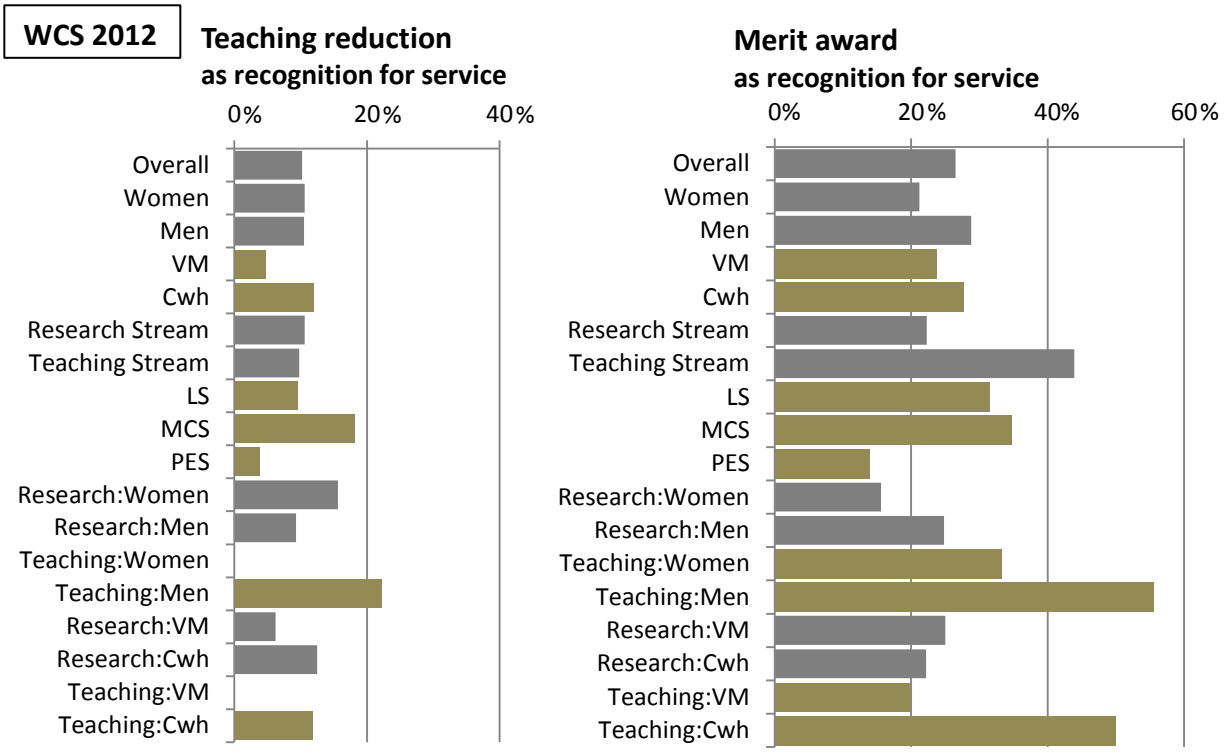


Figure 34 Teaching reductions or merit awards received in recognition of services as reported by faculty respondents – by gender, ethnicity, stream or field – WCS 2012 (Q. 19.2).

These results correspond well with the number of courses faculty reported they had been released from due to departmental funds or secondment for administrative purposes (see section *5.4 Teaching Reduction*), where women within the research stream and men within the teaching stream reported greater numbers of courses released than the respective other gender.

Other forms of recognition mentioned by faculty members included: formal thanks at faculty meetings and in newsletters, departmental and Faculty service awards, credit toward total workload, positive comments during reappointment, extra stipend and gifts at the end of service.

Summary

Overall, half of the faculty respondents reported receiving some kind of recognition for service to their department, with at least 40% of faculty being rewarded in any sub-group. Teaching stream faculty were almost twice as likely as their research stream peers to receive recognition for service.

While there appears to be no gender inequities in the research stream with regards to teaching reductions for service, there does appear to be gender differences within the teaching stream in how faculty members are recognized. Men perceived more uniformly being recognized with teaching reductions and with merit/PSA increases, whereas women reported "other" forms of recognition (29% compared to 11% for men) within the teaching stream. Members of visible minorities appear to receive teaching reductions and merit/PSA less frequently for service than their Cwh peers and did not report other forms of recognition.

These results suggest that a more transparent and standardized approach needs to be achieved with respect to the circumstances that lead to recognition for service within the departments.

Heads/directors and merit award/PSA committees need to be made aware of these differences to ensure a uniform distribution of recognition of service for all faculty members.

6.3 Leadership Opportunities

6.3.1 Institutional Data on Senior Administrative Positions in the Faculty

In the past five years, the Dean of Science appointed or re-appointed 21 administrative leaders including 43% women and 57% men (see **Table 50**). No new appointee was a member of a visible minority.

Senior administrative position	New appointments 2007–2012		
	Total	Women	Men
Research unit director	**9**	33%	67%
Department head	**9**	44%	56%
Assoc. dean	**2**	100%	0%
Total	**21**	**43%**	**57%**

Table 50 Science faculty members appointed into senior administrative positions over past five years (July 1, 2007 to June 30, 2012) – by position and gender.

Table 51 summarizes the past (1995-2005) and present (2012) administrative leadership in UBC Science by gender.[21] In 2012, out of the total of 26 such positions, more than a quarter (27%) was held by women faculty, with women representing 22% of research unit directors, 44% of department heads and 20% of assoc. deans. One position (4%) was held by a member of a visible minority.

These numbers are in stark contrast to the decade before the 2007 WCS, where all department heads were men (1995–2007); and, from 2002 to 2007, no deans or associate deans were women.

Sr. Admin. position	1995–1999[A)]			2000–2004[A)]			2005[B)]			2012[B)]		
	Total	W	M	Total	W	M	Total	W	M	Total	W	M
Dept. Head	9	0	9	9	0	9	9	0	9	9	4	5
Assoc. Dean	3.8	1.4	2.4	3.4	0	3.4	3	0	3	5	1	4
Dean	1	0.4	0.6	1	0.4	0.6	1	0	1	1	0	1
Sub-total	**13.8**	**1.8**	**12**	**13.4**	**0.4**	**13**	**13**	**0**	**13**	**15**	**5**	**10**
Director of research unit	*	*	*	*	*	*	*	*	*	11	2	9
Total	**14**	***13%***	***87%***	**13**	***3%***	***97%***	**13**	**0**	**100%**	**26**	***27%***	***73%***

Table 51 Senior administrative positions at Faculty of Science in 1995–2012 – by type of leadership and gender. *[A)] Average of 5-year period; [B)] Snapshot for year of WCS; * Data not available.*

[21] In 2012, administrative leadership appointments in UBC Science include directors (four-year terms) of 13 research centres, nine department heads and five associate deans (five-year terms), and the dean (six-year term). The 13 centres include the Institute of Resources, Environment and Sustainability; the Institute for Applied Mathematics; and the Fisheries Centre – UBC Science became their administrative home as of April 2012.

6.3.2 Faculty Views on Leadership Positions

In 2012, faculty were surveyed for their opinions on the **leadership opportunities** within their department and the Faculty of Science (Q. 21, see **Table 52**).

Leadership opportunities – WCS 2012 (Q. 21.1-6)	Overall	Gender		Ethnicity		Field		
		Women	Men	VM	Cwh	LS	MCS	PES
1. Opportunities for a leadership position in my department are open to me.	71.9%	66.7%	74.2%	52.4%	75.8%	67.1%	84.5%	66.7%
2. Opportunities for a leadership position within my Faculty are open to me.	42%	45.5%	39.7%	42.9%	43.4%	54.8%	40.8%	32.1%
3. The criteria for gaining a leadership position within my department/unit are clear.	50.5%	42.4%	53.7%	42.9%	53.3%	48.6%	62%	42.9%
4. The criteria for gaining a leadership position within my Faculty are clear.	28.4%	27.7%	28%	33.3%	29.4%	36.6%	23.9%	25.6%
5. The process for recruiting and appointing leaders within my dept./unit is transparent.	50.7%	45.3%	53.3%	57.1%	51.9%	43.1%	70.4%	41%
6. The process of recruiting and appointing leaders within my Faculty is transparent.	25.1%	21.2%	27.3%	38.1%	26%	29.2%	26.8%	20.5%

Table 52 Faculty respondents' agreement to statements on opportunities for leadership positions at UBC Science – by gender, ethnicity or field – WCS 2012 (Q. 21). *"Agree" includes "somewhat" or "strongly agree" responses. Statistically significant differences between peers highlighted.*

The majority of overall faculty respondents (72%) agreed that **leadership opportunities were open to them in their department** (Q. 21.1). However, VM faculty were in less agreement (52% agreed and 38% reported "neutral") than their Cwh peers (76% agreed and 14% neutral), and this most pronounced in PES, where a third (33%) of VM faculty and 17% of Cwh faculty disagreed, compared to LS (7% and 0 %) and MCS faculty (10% and 2%). In LS, VM faculty reported much more often "neutral" (63%) than faculty in MCS (30%) and in PES (16%).

MCS faculty overall were more likely (85%) than LS and PES faculty (both 67%) to agree that leadership positions were open to them, but in all three fields, significantly more of the women than of the men reported "disagree".

Not surprisingly, a significantly smaller proportion of junior faculty thought they had opportunities (with 60% responding "agree" and 31% "neutral") compared to senior faculty (80% agreed and 13% neutral).

Only about half of overall faculty thought that the **criteria for gaining a leadership position within their department are clear** (Q. 21.3). Cwh faculty were more likely to think the criteria were clear (53%) than VM faculty (43%), but Cwh faculty were more evenly split between "neutral" (27%) and "disagree" (20%) compared to 52% and 5% of VM faculty. Junior faculty were more neutral (41%) and agreed less (36%) than senior faculty (25% "neutral" and 18% "disagree") regarding the clarity of the criteria for gaining leadership positions.

Along the same line, half of the faculty respondents agreed that the **process of recruiting and appointing leaders within their department is transparent** (Q. 21.5). There was a greater

variation in opinion between the three fields with 70% of the MSC faculty agreeing that the processes were transparent compared to 41% and 43% of faculty in PES and LS, respectively, who agreed. Women faculty within LS were more than twice as likely to disagree (40%) compared to their men colleagues (18%).

These data suggest that overall there are perceived leadership opportunities, but the criteria for recruitment are unclear, and the process needs to be made more transparent especially within the LS and PES departments.

Regarding **leadership opportunities and the criteria for gaining a leadership position within the Faculty of Science** (Q. 21.2, 21.4), only 42% of faculty overall reported that such opportunities were open to them and only 28% thought that the criteria were clear; but the views on both questions were often "neutral" (42%). Also, close to half of faculty were "neutral" on the **transparency of process for recruiting and appointing leaders within the Faculty of Science** (Q. 21.6), and only a quarter of faculty respondents "agreed". These responses were uniform across the various demographics, suggesting that more communication is needed around these processes.

Faculty comments mirrored the lack of clarity and transparency in the process of leadership appointments and opportunities. *"The path toward leadership is unclear and seems to be dominated by informal networks." – "It is not clear to how or what leadership opportunities exist, or how they are recruited."*

Many comments were specifically targeted on the lack of transparency for leadership positions outside of their unit and within the FoS: *"It is completely unclear to me how or why certain people are assigned to be chairs of committees." – "It is completely unclear to me how people are selected for positions in the FoS when there hasn't been a call for applicants."*

For many it was not clear even how to express an interest to the "right people". It was *"not clear how one gets on head's advisory or other future-planning type committees, no call for serving is ever issued. Might be informal for which I am not 'in the loop'." – "I know that new Heads are appointed through deliberation of an external recruiting committee, but faculty who are 'in charge' of sub-disciplines (especially concerning teaching within those areas) seem largely self-appointed, and often without much validity."* The process to apply for leadership positions beyond the department was also unclear: *"Associate deans should be changed much more frequently – method of selection unclear. Some departments overrepresented in these positions (lack of diversity)."*

A different view was obtained about the **diversity represented within the current leadership positions** (Q. 21.7-8, see **Table 53**).

Faculty perception of diversity in departmental leadership – WCS 2012 (Q. 21.7-8)	**Overall**	**Gender**		**Ethnicity**		**Field**		
		Women	**Men**	**VM**	**Cwh**	**LS**	**MCS**	**PES**
7. There is a sufficient number of visible minorities.	36%	40.9%	33.6%	47.6%	35%	39.4%	50.7%	20.5%
8. There is a sufficient number of women.	65.9%	65.2%	65.3%	71.4%	66.9%	73.6%	77.5%	50%

Table 53 Faculty respondents' perceptions of diversity in leadership positions at UBC Science – by gender, ethnicity or field – WCS 2012 (Q. 21). *"Agree" includes "somewhat" or "strongly agree" responses. Statistically significant differences between peers highlighted.*

The majority of faculty were either neutral or thought there were insufficient numbers of faculty representing visible minorities within leadership positions (Q. 21.7), but a two-third majority perceived there were a sufficient number of women (Q. 21.8).

There were large differences in opinion between the different fields and more pronounced gender differences within the fields, with 39% of PES faculty (more than twice as many as of MCS and LS faculty) and 46% of women faculty within PES disagreeing that there was a sufficient number of VM faculty in departmental leadership positions, compared to 32% and 29% of LS and MCS women, respectively (see **Figure 35**).

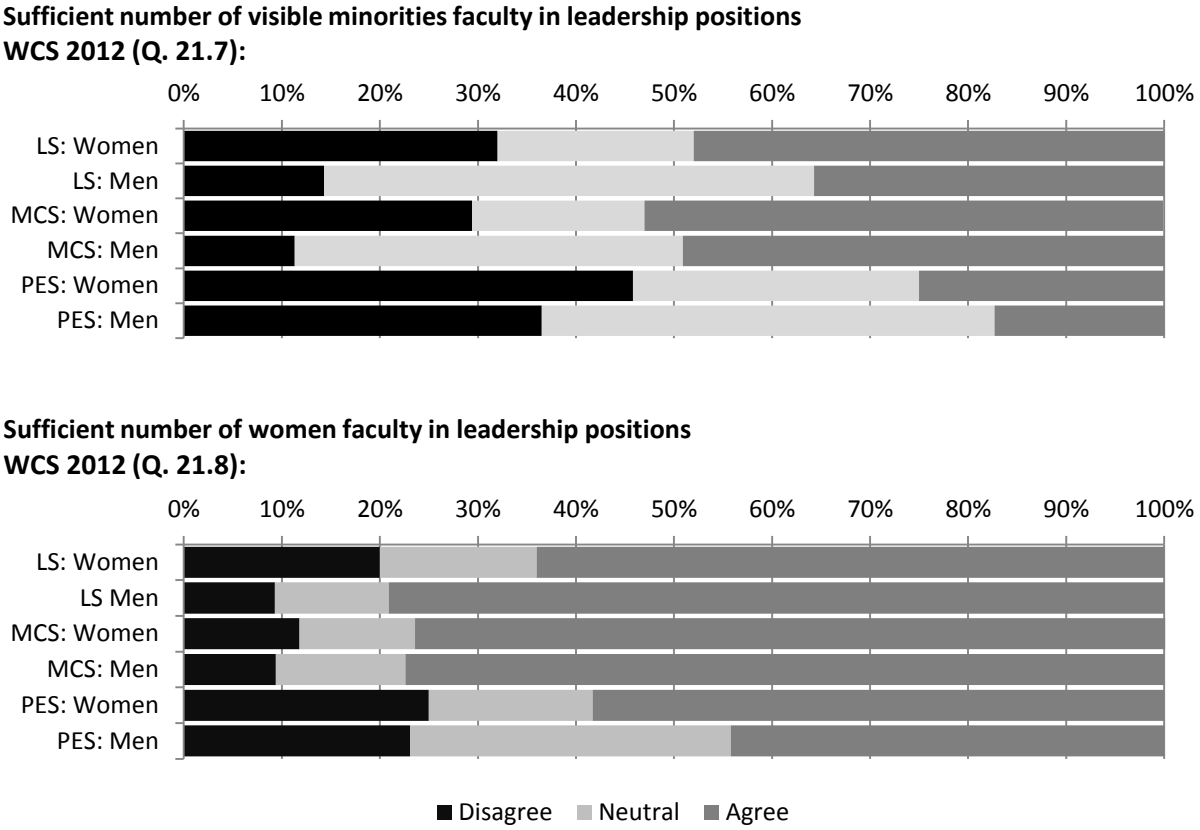


Figure 35 Faculty respondents' perceptions of a diverse leadership in Science units – by field and gender – WCS 2012 (Q. 21.7-8).

Faculty members noted the lack of women and visible minority faculty within leadership positions: *"There are no women in leadership positions in my department." – "Just a fact: zero visible minorities are in leadership positions in my department."* There were also concerns raised about the lack of representation of women within leadership positions especially as *"there could be many more women in leadership positions given the high percentage of women in the department"* – and at the Faculty-level: *"If you had asked about visible minorities / women in the faculty, then I would certainly have said there are far too few. At the departmental level, things are okay, but not better than 'okay'."*

One reason for the lack of diversity in the leadership positions could be that faculty who are *"visible minorities are neither mentored nor encouraged to go for the leadership positions in the department."* Another reason could be that the leadership positions are just not that attractive, with the perception that these positions are a chore and an unwanted burden: *"Most faculty I know do not see 'leadership positions' as a positive, since they interfere heavily with research/teaching and most of us are here to do research or teach." – "My impression in my department is that when the need for someone to fill one of these positions comes up, we mostly ask around until someone is so un-*

cautious as to say yes. So the criterion for these positions is mostly a willingness to say yes."

Other faculty made an interesting and important point about the disruption of active and productive research programs: *"Finally, with regards to women: while we'd like to have more women as deans etc., pulling these women out of productive research roles doesn't always seem like a win-win situation."* Also, the added burden to women to ensure a diverse leadership was noted: *"I feel like women from my department may be somewhat over-represented in these 'leadership' roles (that is, we get stuck doing this kind of 'leadership' work because we feel enough of a sense of responsibility to the group that we step up when asked)."*

Summary

In the 2007 survey it was suggested that low percentages of senior women faculty members may be related to the very low proportion of women holding a senior administration position. This may well be the case as, observed in 2012, the percentage of women had increased within the senior ranks as had the number of women in leadership positions. This increase is also likely due to the proactive recruitment of women into leadership positions by the Dean of Science and a Faculty-wide realization that a diverse leadership allows for a more successful working environment.

However, there is a concern of accessibility to leadership positions for visible minority faculty, who were more likely than their Caucasian/white peers to disagree that such opportunities were open to them and also were more uncertain about the criteria for gaining such positions. Women more often than men faculty across all fields thought there were an insufficient number of visible minority faculty in leadership positions in their department. In 2012, only one out of 26 leadership positions in the Faculty of Science was held by a visible minority faculty.

7 PROFESSIONAL AND PERSONAL LIFE

7.1 Balance of Professional and Personal Life (Faculty Perceptions)

The balance of professional and personal life is one of the issues that have been on the radar as impacting the working climate of faculty. To determine the degree of satisfaction with this balance, faculty were asked a series of questions centered on stresses including workload, the daily commute, and family obligations (Q. 26, see **Table 54**).

Perceptions of personal–professional life balance – WCS 2012 (Q. 26)	Overall	Gender		Ethnicity		Stream		Seniority	
		Women	Men	VM	Cwh	Research	Teaching	Junior	Senior
1. I am satisfied with the balance between my personal and professional life.	53.4%	42.4%	59.6%	81%	53%	55.3%	41%	47.8%	54.5%
2. I'm satisfied with my overall workload.	57.8%	42.4%	65.1%	71.4%	57.9%	55.9%	63.4%	55.1%	56.9%
3. One or more aspects of my life outside the work place have been a source of significant stress for me.	59.3%	60.3%	58.8%	42.1%	62.4%	61.4%	57.5%	73.5%	55.1%
5. Faculty may comfortably raise personal/family responsibilities when scheduling dept./unit obligations	82.9%	82.5%	84.4%	80%	85.5%	80.8%	91.9%	79.7%	83.6%
8. I forego professional responsibilities for personal responsibilities.	41.6%	41.9%	41.8%	23.5%	44.2%	45.4%	28.9%	44.6%	40.6%
9. I forego personal life activities for professional responsibilities.	77.4%	79.4%	75.5%	68.4%	77.4%	75%	87.8%	85.1%	74.1%
10. I have considered leaving my job to improve my personal-professional life balance.	42.4%	54.1%	37.1%	22.2%	42.8%	40.1%	52.5%	47.8%	41%

Table 54 Faculty reporting agreement with questions on various aspects of work/personal life balance – by gender, ethnicity, stream or seniority – WCS 2012 (Q. 26).
"Agree" includes "somewhat agree" or "strongly agree" responses. Statistically significant differences between peers highlighted.

Slightly more than half of faculty (53%) were **satisfied with their balance between personal and professional life** (Q. 26.1). Most of VM faculty (81%) reported "satisfied" compared to 53% of Cwh faculty. Women – and particularly Cwh women faculty – were less likely to be satisfied (42% overall, 38% Cwh) than men (60% overall and Cwh, respectively).

The majority of women were not **satisfied with their overall workload** (Q. 26.2, see **Figure 36**) with women in the research stream being significantly more dissatisfied (67%) than their men colleagues (35%) across all three fields (LS, MCS, PES). Both junior (59%) and senior women (63%) were less likely to be satisfied with their overall workload than their men peers (35%).

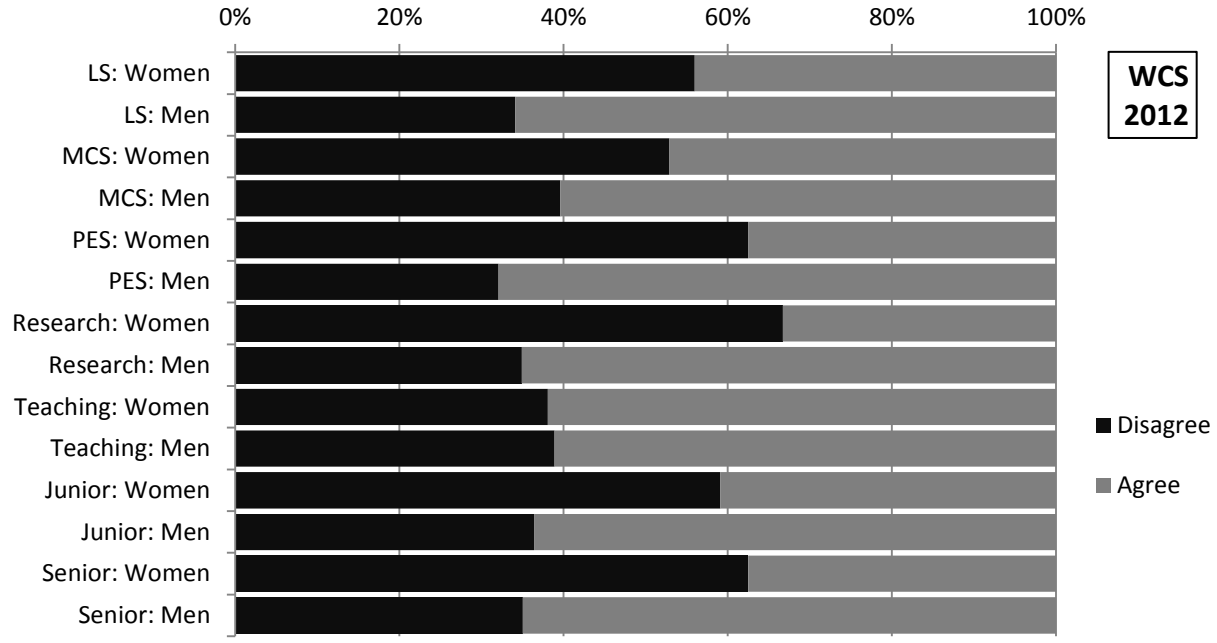


Figure 36 Faculty's satisfaction with their overall workload – by gender within fields, streams and seniorities WCS 2012 (Q. 26.2).
"Agree" (satisfied) includes "somewhat agree" or "strongly agree" responses.

The majority of faculty felt that **one or more aspects of their life outside of work were a source of significant stress** (Q. 26.3). This stress was felt through all demographic groups with the exception that no emeriti professors agreed with this statement. Junior faculty were more likely to agree (74%) compared to senior faculty (55%). However, there was a significant difference in opinion between senior faculty in the teaching *vs.* research stream. For instance, none of the 21 senior teaching faculty respondents strongly disagreed with that one or more aspects of life outside of work were a source of stress. Senior research faculty's responses were more evenly distributed across all categories, with 23% reporting "strongly disagree."

When asked if they had **considered leaving UBC to improve their work/personal life balance** (Q. 26.10) the majority of faculty members disagreed and 42% "strongly" disagreed. However, the majority of junior women (71%) agreed compared to 37% of junior men, and 46% senior women compared to 38% of senior men. These higher percentages were seen with women in both research and teaching streams.

Overall, the majority of faculty felt that they could **comfortably raise personal or family responsibilities when scheduling department obligations** (Q. 26.5), and there were no differences across any demographic group.

Faculty were explicitly asked about their balance of professional and personal activities. There was an overall agreement of 42% when asked if they **forgo professional responsibilities for personal ones** (Q. 26.8) with an even split between "strongly disagree", "somewhat disagree" and "somewhat agree", and with very few in strong agreement. There was much stronger overall agreement (77%) with the statement "**I forgo personal life activities for professional responsibilities**" (Q. 26.9) and this response was consistent across all groups, with highest level of agreement (85%) among junior faculty.

Extreme housing costs within Metro Vancouver have been reported to be a major issue for recruiting and retention of faculty. Anecdotal evidence had suggested that the cost of housing had resulted in multiple faculty members leaving UBC, but without an exit survey the reasons for leaving cannot be substantiated.

In this survey, faculty were asked a series of questions centered on **how housing issues affect the personal and professional life** (Q. 26.4, 26.6, 26.7; see **Table 55**).

Housing pressures – WCS 2012 (Q. 26.4/6/7)	Overall	Gender		Ethnicity		Stream		Seniority	
		Women	Men	VM	Cwh	Research	Teaching	Junior	Senior
4. My commute negatively impacts my personal and professional life.	23.7%	17.3%	26%	15.8%	24.7%	21.1%	35.9%	24.6%	22.5%
6. I'm satisfied with UBC's Housing Assistance Program.	28.1%	40.5%	23.7%	33.3%	27.6%	23%	52%	21%	34.7
7. I have considered leaving UBC due to housing pressures.	35.%	35.8%	35.3%	38.9%	33.5%	38.2%	26.5%	56.5%	26.1%

Table 55 Faculty reporting agreement with questions on various aspects of housing/living cost pressures – by gender, ethnicity, stream or seniority – WCS 2012 (Q. 26.4/6/7).
"Agree" includes "somewhat agree" and "strongly agree" responses. Statistically significant differences between peers highlighted.

Given the potential for long commutes due to the high cost of housing, faculty were asked if their **commute negatively impacted their personal or professional life** (Q. 26.4). Surprisingly, the majority did not find that their commutes were deleterious or of particular interest. There were no differences between junior and senior faculty in their responses to this question. A majority (60%) of faculty "strongly disagree" that their commute has a negative impact while only 8% reported "strongly agree", which may suggest that not many faculty members have long commutes.

On the other hand, faculty were uniformly unimpressed with the **UBC Housing Assistance Program** (Q. 26.6). Only 28% agreed that they were satisfied with the program. Faculty in the teaching stream were more likely to agree (52%) compared to those in the research stream (23%) and within that stream men and women were equally dissatisfied. Within the teaching stream, men were less likely to agree (46%) compared to women (64%).

When asked if they had **considered leaving UBC due to housing costs** (Q. 26.7), a third of all faculty respondents (35%) agreed. It is of great concern that so many faculty members have considered leaving due to housing pressures, and particularly so, as 63% of assistant and 55% of associate professors have considered doing so. Faculty comments reflect the degree of this dissatisfaction: *"I'm going to be paying my immense mortgage off for a house within a reasonable commute distance about the time I retire (fortunately, retirement age is now later)." – "Housing/ family income is my biggest concern these days." – "Living on campus could be a great experience, but unfortunately UBC is missing the opportunity to realize this."* Cost of living was the most common reason cited by faculty who have considered leaving UBC (see section *3.6.2 Faculty Views on Retention*).

Summary

Overall, only little over half of the faculty members reported to be satisfied with their professional–personal life balance, with women being less satisfied than men and Cwh less than visible minority faculty. For aspects that (negatively) influence that balance, three quarters of faculty reported to forego personal life activities for professional responsibilities, and close to 60% of women (35% of men) faculty were not satisfied with their workload. Accordingly, more of the women than of men faculty had considered leaving UBC to improve their professional–personal life balance.

Cost of living was the most common reason cited by those faculty members who have considered leaving UBC (35% of respondents; see section *3.6.2 Faculty Views on Retention*). This points to housing costs and a significant dissatisfaction with the UBC Housing Assistance as a major issue for junior faculty within the research stream.

7.2 Children and Childcare (Faculty Perceptions)

In 2012, the majority of faculty (69%) reported having children; see **Table 56**. Women (56%) were less likely to have children than men (75%), which is the case among both junior and senior faculty. This gender difference has not changed compared to the 2007 WCS, where 66% of faculty reported having children, 52% of women and 70% of men faculty.

Children and childcare accessibility WCS 2012 (Q. 28) + WCS 2007	Overall	Gender		Ethnicity		Stream		Seniority	
		Women	Men	VM	Cwh	Research	Teaching	Junior	Senior
2012 – Have children	69.3%	56.1%	75%	76.2%	69.9%	74.2%	48.8%	66.7%	72%
2007 – Have children	66%	52%	70%	*	*	*	*	*	*
2012 – UBC has provided adequate access to childcare	50%	58.6%	47.5%	30%	56.9%	50.6%	41.7%	51.2%	47.9%

Table 56 Faculty respondents who reported having children and who perceived adequate provision of access to childcare by UBC – by gender, ethnicity, stream or seniority – WCS 2012 (Q. 28) and WCS 2007.

**Data not available. Statistically significant differences between peers highlighted for WCS 2012.*

There were no significant gender differences in LS units but 82% and 81% of men in MCS and PES, respectively, reported having children compared to 59% and 54% of women, respectively. Faculty – and in particular women – in the teaching stream were less likely to have children than those in the research stream; see **Figure 37**.

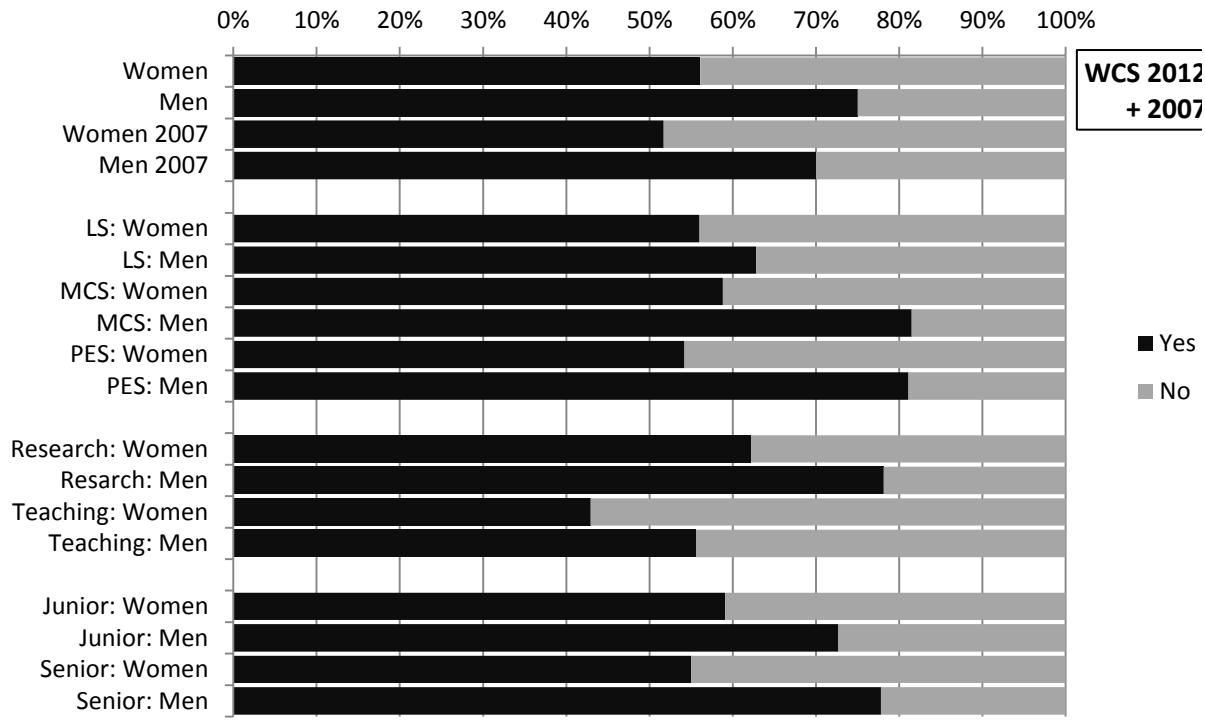


Figure 37 Faculty respondents who reported having children – by gender within field, stream and seniority sub-groups – WCS 2012 (Q. 28) and WCS 2007.

When asked if **career considerations** had affected their decisions around having or adopting children (Q. 29, see **Table 57**), more than half of faculty overall (55%) reported "not at all". However, a quarter of women respondents (24%) reported that career considerations had "a lot" of influence on this decision compared to 8% of men faculty. These numbers have changed somewhat since 2007, when 38% of women reported that career considerations had affected their decision to have children "a lot" compared to 11% of men. In 2007, a greater proportion of PES faculty (28%) compared to LS faculty (9%) indicated "a lot" of such impact, whereas in 2012, LS faculty (19%) reported "a lot" of impact vs. fewer PES faculty (10%). There were still significant differences in the responses from men and women within MCS and PES where 24% of MCS and 25% of PES women reported "a lot" compared to their male colleagues (6% and 4%, respectively).

Impact of career considerations on having or adopting children – WCS 2012 (Q. 29) + WCS 2007	Not at all	Some	A lot
Overall	54.9%	31.7%	13.4%
Women	34.8%	40.9%	24.2%
Men	63.6%	28.5%	7.9%
Women 2007	24.1%	37.9%	37.9%
Men 2007	48%	41%	11%
Junior Women	27.3%	40.9%	31.8%
Junior Men	46.5%	39.5%	14%
Senior Women	37.5%	42.5%	20%
Senior Men	67.7%	26.3%	6.1%
Research Stream Women	28.9%	42.2%	28.9%
Research Stream Men	63%	29.1%	7.9%
LS	46.6%	34.2%	19.2%
MCS	64.3%	24.3%	11.4%
PES	53.2%	36.7%	10.1%
LS 2007	60.6%	30.3%	9.1%
MCS 2007	42%	46%	12%
PES 2007	30.4%	41.3%	28.3%

Table 57 Faculty perceptions regarding the degree of career considerations affecting their decision around having or adopting children – by gender or field – WCS 2012 (Q. 29) and WCS 2007. *Statistically significant differences between peers highlighted for WCS 2012.*

There were no gender differences on this question in the teaching stream but significant differences in the research stream with 29% of women reporting "a lot" of impact compared to 8% of men, which suggests that overall career considerations are still having a strong effect on this decision for women. For research faculty these influences have not changed substantively over the past five years.

One of the central causes that might lead to women choosing career over having or adopting children is lack of childcare. The issue of **adequate childcare** is a continuous source of frustration for faculty members: In 2007 and 2012 (Q. 28c), only 46% and 50% faculty, respectively, reported that UBC had provided adequate access to childcare. There were no differences in this response within any faculty sub-group except for women being slightly more positive in 2012 with 59% – compared to 42% in 2007 – reporting that UBC had provided adequate access to childcare. Men had not changed their opinion with 48% in 2007 and in 2012 perceiving there had been adequate access.

Junior and senior faculty responded in the same way, suggesting that the recent increases in the number of childcare spots available on campus have yet to have an impact or that the increases were not sufficient to meet the demand for positions.

Depending on the age group, wait times can be from six months to a year. The infant-center positions normally go with priority to families with children already in the system, and those who are not prioritized face a wait time of one year after birth even with enrolment at conception. It is important to note that while MPA leaves in Canada are supported for one year, UBC's policy of supplemental benefits is only for six months forcing many women faculty members to find alternative care until their child can be enrolled within the UBC childcare system. Another component to this issue is the added cost of childcare, which, while subsidized, still ranges per month from $1,455 (infant) to $1,320 (toddler) to $935 for 3-5 year olds.

The Focus Groups reported that the lack of access to adequate on-site childcare, due to long waiting lists, was an issue for recruiting. A comment from a faculty member suggested: *"Life/work balance will always be hard when you have small children. I don't think it can be fixed. But UBC needs more childcare, especially in the under-2 category."*

Another possible indication of the department/unit attitude and culture around children and families is the acknowledgement and **accommodation of departmental meetings** for family responsibilities (see **Table 58**). The majority of faculty (69%) thought that meetings and other departmental events were scheduled "several times" (34%) or "all the time" (35%) to accommodate family responsibilities. These responses were slightly more positive than in WCS 2007, when 31% and 27% of the respondents reported "several times" and "all the time", respectively.

In 2012, 15% of faculty reported "never" and 16% "a few times" which is an improvement compared to 2007 (27% "never") but still of concern. The largest percentages of these negative reports were found in both LS and PES, whereas relatively few faculty in MSC reported "never" or "a few times". Perceptions in MCS also have improved the most since 2007 (6% in 2012 compared to 23% in 2007 reported "never") suggesting units within this field have made the most changes to accommodate family commitments. However, across the faculty, there were three department/units (two within LS) where approximately one third of the faculty reported that departmental meetings and events "never" accommodated family responsibilities.

Departmental meetings scheduled to accommodate family responsibilities – WCS 2012 (Q. 28b) + WCS 2007	**Never**	**A few times**	**Several times**	**All the time**
Overall	14.7%	16%	34%	35.3%
Overall 2007	26.7%	15.8%	30.8%	26.7%
Women	11.1%	13.9%	38.9%	36.1%
Men	16.5%	16.5%	33.9%	33%
Women 2007	19.2%	11.5%	42.3%	26.9%
Men 2007	28.7%	17%	27.7%	26.6%
Junior	6.7%	20%	24.4%	48.9%
Senior	17.3%	13.3%	40.8%	28.6%
LS	16.7%	19%	33.3%	31%
MCS	5.8%	7.7%	44.2%	42.3%
PES	21.4%	21.4%	25%	32.1%
LS 2007	20.7%	17.2%	34.5%	27.6%
MCS 2007	23.4%	14.9%	31.9%	29.8%
PES 2007	34.1%	15.9%	27.3%	22.7%
LS Women	21.4%	14.3%	35.7%	28.6%
LS Men	16%	20%	36%	28%
MCS Women	0%	0%	55.6%	44.4%
MCS Men	7%	9.3%	41.9%	41.9%
PES Women	7.7%	23.1%	30.8%	38.5%
PES Men	26.8%	22%	24.4%	26.8%

Table 58 Faculty's rating of how often meetings and other departmental events are scheduled to accommodate family responsibilities – by gender, seniority or field – WCS 2012 (Q. 28b) and WCS 2007.

In 2007, department heads were asked whether their departments made efforts to avoid conflicts between departmental events and family care responsibilities. Eight out of the nine departments provided a positive response and seven departments reported procedures that were perceived as helpful in avoiding such conflicts. The procedures included: scheduling events at mid-day or during regular business hours, offering flexibility, closely coordinating with instructors in course scheduling, and canvassing for most convenient times well in advance. However, when faculty were polled in 2007, it was clear that many faculty did not think their units scheduled events and meetings to accommodate family responsibilities

Summary

Since the 2007 WCS, the percentage of faculty who report having children has slightly increased but a 20-percentage-point difference between women (56%) and men (75%) having children persists, and this difference is most prominent within MCS and PES.

While the impact of career considerations on the decision to have or adopt children has lessened overall, a higher percentage of women (29%) than of men (8%) in the research stream still report that career considerations have a lot of influence and junior women (32%) reported the greatest influence. This lack of change in perceptions over the past five years suggests that the climate or culture centred on supporting faculty in making this decision has not substantially improved for women. One possible exception is within LS where there were no gender differences on the choice to have or adopt children and the impact of this decision on career considerations. As the LS have the greatest representation of women faculty within Science, this trend might indicate that the perceptions of a negative impact in career considerations of children may change as the number of women faculty within the unit increases.

Another issue that may underlie the decision to have or adopt children is the perception among faculty that UBC has not provided adequate access to childcare. This perception has only slightly improved since 2007 despite the expansion of the available childcare centres across campus, suggesting that the recent increases in childcare spots were not sufficient to meet the demand for positions.

On the other hand, there has been a marked improvement in the perceptions that departments and units recognize the need to schedule meetings and events to accommodate family commitments, with most pronounced improvements within the MCS units.

7.3 Family Leaves and Family Responsibilities

7.3.1 Institutional Data on Maternity/Parental/Adoptive Leaves

In the past five years, a total of 52 maternity/ parental/ adoptive (MPA) leaves were taken by Science faculty; see **Table 59**. While men took 32 (62%) of these leaves, the average time of leave taken by women (28.2 weeks) was about 1.5 times as long as men (10.7 weeks).

Average length of parental/adoptive leaves (considering women's leave times in addition to 17 weeks maternity leave) differs by four weeks between men (10.7 weeks) and women (14.8 weeks). Women took between 6 and 35 weeks of parental leave; men took between 2 and 14 weeks of

parental leave. No research stream faculty member took the full time of MPA leave they were entitled to.[22]

	Maternity and parental leaves combined			Parental/adoptive leaves		
Gender	W	M	**Total**	W	M	**Total**
Leaves	20 38%	32 62%	**52**	19* 37%	32* 63%	**51**
Duration (weeks)	563 62%	342 38%	**905**	281 45%	342 55%	**623**
Average duration (weeks)	28.2	10.7	**17.4**	14.8	10.7	**12.2**

Table 59 Maternity, parental and adoptive leaves taken by Science faculty between 2007 and 2012 by gender. Six-year summary (Jul 1, 2007 – Jun 30, 2012)
**Includes one adoptive leave.*

In **Table 60**, the number and length of maternity and parental/adoptive leaves taken by Science faculty members in past five years are broken down by rank and gender. Notably, the length of total leave (combined maternity and parental leave for women) varies among ranks of women faculty, with more senior faculty (assoc. professors) taking off an average of 24 weeks compared to 28 weeks taken by assistant professors and 42 weeks by instructors. In contrast, length of parental leaves does not vary much among men faculty (albeit there is a tendency of junior faculty taking slightly shorter leaves than senior faculty).

Rank	Number of faculty members on MPA leave			Maternity leave		Parental leave		Total leave	
				average time of leave taken (weeks)					
	Total	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**
Asst. prof.	29	12	17	17.0	N/A	12.4	10.1	**28.0**	**10.1**
Assoc. prof.	15	6	9	15.3	N/A	13.7	11.2	**23.8**	**11.2**
Full prof.	5	0	5	N/A	N/A	N/A	11.8	**N/A**	**11.8**
Instr. 1	3	2	1	17.0	N/A	25.0	10.0	**42.0**	**10.0**
Sr. instr.	0	0	0	N/A	N/A	N/A	N/A	**N/A**	**N/A**
Total	**52**	**20***	**32***	**16.6**	**N/A**	**14.1**	**10.7**	**28.2**	**10.7**

Table 60 Number and duration of maternity/parental/adoptive leaves taken by Science faculty between academic years of 2007/07 and 2011/12 – by rank and gender.
**Includes one adoptive leave.*

7.3.2 Faculty Survey Data on Maternity/Parental/Adoptive Leave

In the 2012 WCS survey, 26% of faculty (31) reported taking MPA leaves within the past five years. There were no differences based on gender (28% of women and 25% of men had taken a MPA leave). Not surprisingly, junior faculty were more likely to have taken leave (42%) than

[22] Birth and adoptive parents are entitled to ≤ 37 weeks of unpaid parental leave and may be eligible for Employment Insurance (EI). Birth mothers are entitled to ≤ 52 weeks (17 w. maternity + 35 w. parental). The UBC Supplemental Employment Benefits program for faculty pays the difference between the EI benefit and 95% of salary for birth mothers' maternity leave (≤ 17 w.) and parental leave (≤ 10 w., or share between parents); or ≤ 12 w. for non-birth partners' parental leave; see www.hr.ubc.ca/benefits/leaves/faculty/#mat.

senior faculty (15%). Senior faculty who self-identified as Caucasian/white were less likely than any other group to take a MPA leave. For those faculty who did take a MPA leave, women were more likely to take six months of maternity plus parental leave (**Table 61**), which reflects UBC policy of topping up the Government of Canada benefits to 90% of salary for a maximum of six months. The majority of men (88%) reported to have taken one to four months of parental leave.

The gender equity in number of MPA leaves seen in 2012 is in contrast to 2007 WCS, where a significantly higher percentage of women (53%) than that of men (11%) had reported having taken parental leave in the previous five years. This difference may reflect the changes in the FoS policies on research support and changes in the benefits provided by UBC. However, the length of leave taken has not much changed as the length of such a leave in 2007 for women was mainly four to seven months, whereas the leave for the men was typically one to three months.

Length of MPA leave taken – WCS 2012 (Q. 28a)	1 to 3.9 months	4 to 7.9 months	8 to 11.9 months	≥ 12 months
Overall	65%	21%	15%	0%
Women	0%	56%	44%	0%
Men	88%	8%	4%	0%

Table 61 Length of most recent maternity, parental and adoptive leave taken in the past 5 years as reported by faculty respondents – by gender – WCS 2012 (Q. 28a).

7.3.3 Faculty Views on Maternity/Parental/Adoptive Leaves

In 2004, an ad-hoc group of faculty members from the Faculty of Science, appointed by the Dean and chaired by Dr. Sarah Otto, made recommendations on parental leave-related issues in their *Report on Parental Leave Policies at UBC*[23]. A set of Faculty of Science principles and departmental policies were developed after the 2007 WCS and centered on support of research faculty during MPA leaves. Each department and one of the three research units has a policy that outlines the degree of financial support for both women and men to ensure that their research programs are supported during MPA leaves, for instance, through hiring a research associate or supporting a laboratory manager. To determine the impact of these policies, faculty were asked in the 2012 survey about their perceptions on the fairness and implementation of their departmental policies (Q.9.4, see **Table 62**).

Faculty perceptions of MPA policy – WCS 2012 (Q. 9.4)	Don't have a policy	Policy is unclear	Policy is clear but inadequate	Policy is clear but applied unfairly	Policy is clear and applied fairly
Overall	2%	2.6%	0	2%	93.4%
Women	4%	0%	0	6%	90%
Men	1%	3.1%	0	0%	95.9%
LS	6.1%	2%	0	2%	89.8%
MCS	0%	1%	0	0%	98%
PES	0%	3.8%	0	3.8%	92.5%

Table 62 Faculty perceptions of departmental policy on maternity/ parental/ adoptive leaves – by gender or field – WCS 2012 (Q. 9.4).
"Don't know" answers excluded (see Table 8 *and* Table 9 *for details).*

[23] http://science.ubc.ca/faculty/parental

Of faculty who were aware of their departmental policy, there is a high degree of satisfaction with the policy with 93% of faculty reporting that it was "clear and applied fairly". Personal interviews with women faculty who had taken MPA leave(s) over the past three years indicated a universal awareness and general satisfaction with the Faculty of Science and departmental protocols.

Almost one third (32%) of all faculty respondents (224) did not know anything about their unit's policy, suggesting a lack of personal experience or awareness of the support provided.

Faculty members were asked about the amount of time spent on administration, teaching, research and graduate student supervision (plus other duties) during their MPA leave. Almost half (45%) of the 31 faculty members who had taken MPA leave reported to have spent "some" or "a lot of time" on administrative duties and 13% on teaching duties. For administrative duties, there was only one department/unit where faculty reported "no time" spent on administration. Three units had 100% responses of "some time" and in one unit even "a lot of time". Faculty in MCS reported the least amount of admin duty during leave, while those in LS reported "some time" and those in PES reported "some time" and even "a lot of time" (**Figure 38**). This comes in the face of clear UBC guidelines as to the expectations of faculty members on MPA leave.

While fewer faculty reported that they had teaching duties during leave, there were still some who reported teaching duties including 10% reporting "some time and 3% "a lot of time". Particularly worrying was the high percentage of faculty within the teaching stream (67%) who reported "some" teaching duties. Within PES some faculty also reported "a lot of time" was spent on teaching duties while on MPA leave (**Figure 39**).

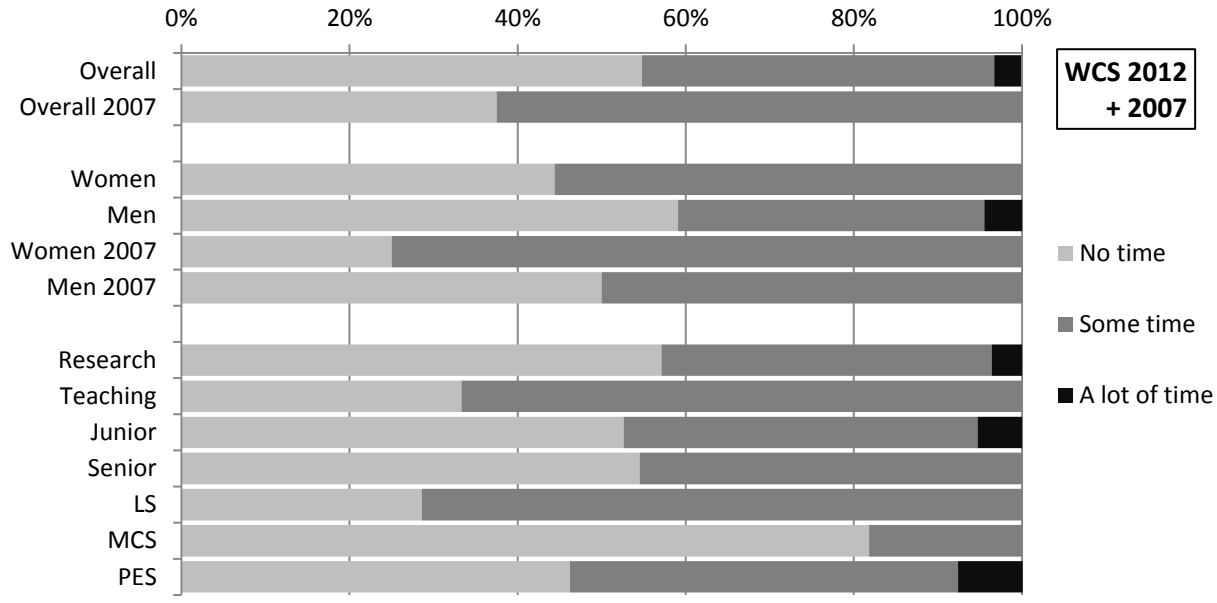


Figure 38 Time spent on administration duties while on maternity, parental and adoptive leave as reported by faculty – by gender, stream, seniority or field – WCS 2012 (Q. 28f.1) and WCS 2007.

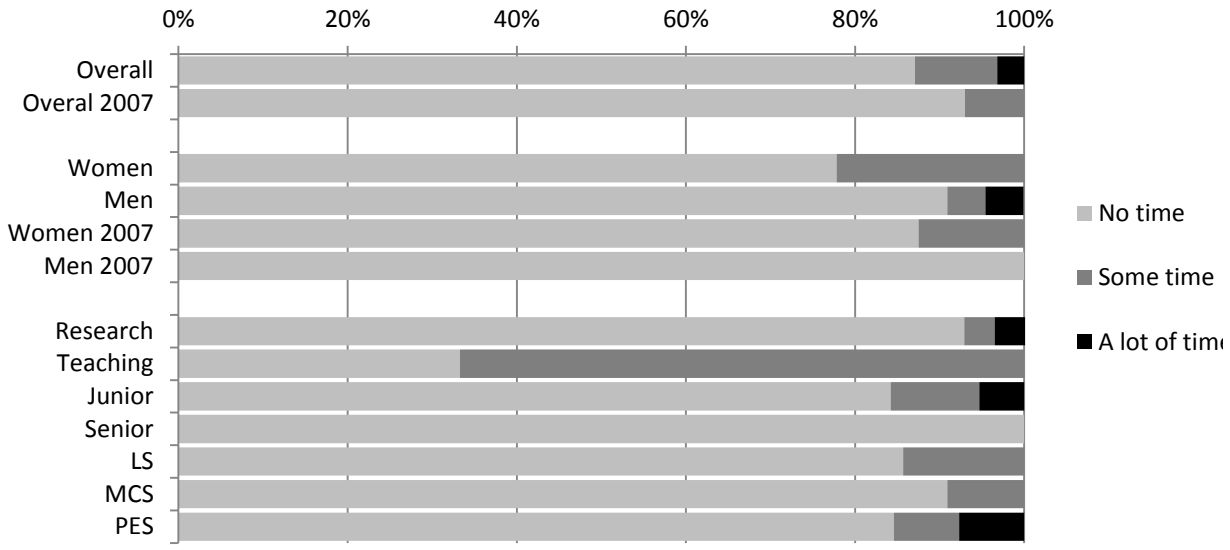


Figure 39 Time spent on teaching duties while on maternity/ parental/ adoptive leave as reported by faculty – by gender, stream, seniority or field – WCS 2012 (Q. 28f.2) and WCS 2007.

In 2007, of the 16 faculty who had taken family leave during the previous five years, close to two thirds (63%) reported spending "some time" on administration compared to 42% in 2012. Both in the 2007 and 2012 surveys, most faculty (94% and 87%, respectively) reported that they spend "no time" on teaching. This suggests that there is still lack of clarity by department heads on what duties faculty are excused from during family leave.

In 2012, about a quarter (27%) of research stream faculty reported they spent "a lot of time" on research and graduate student supervision (Q. 27f.3) compared to 31% and 38%, respectively, in 2007. All teaching stream faculty who had taken leave reported "no time" to this question.

In the 2007 WCS, the Focus Groups noted that taking MPA leaves had a negative effect on women's careers and that even though 12-month MPA leaves were available, it had rarely been taken by UBC faculty. This may also reflect that UBC provided supplemental benefits for half a year, and, given the high cost of living in Vancouver, only a few faculty members may be able to afford to take a salary cut for the other half year.

Focus groups in 2012 concentrated on the lack of support after returning to work after an MPA leave including

- the scarcity of breastfeeding facilities,
- the lack of accommodation of scheduling teaching assignments for faculty with young children,
- the need to recognize and adjust for changes in productivity particular within the first year after leave.

Faculty who had taken MPA leave(s) were asked about the automatic delay in the tenure clock for untenured faculty. The majority (85%) would not decline this option. The majority of faculty (93%) also reported that they had not stopped the tenure clock for personal reasons such as caring for a family member. However, junior faculty were more likely to have done so (17%) compared to 2% of senior faculty. Every one of the 12 faculty who did delay their tenure clock for personal reasons reported their department had been "very supportive".

A concern raised in 2007 was the impact of MPA leaves on the timing of the sabbatical leave, which effectively results in the sabbatical leaves being pushed back. This is still a concern in 2012 from the focus groups suggesting that this issue has yet to be resolved. Other inequities that were

highlighted by the focus groups were the uncertainty about merit while on MPA leave, and that adopting parents are not eligible for the same length of leave.

Another common perception was that men with stay-at-home partners were using their parental leave as a "mini-sabbatical" – with a break from teaching and administrative duties for three to four months. This warrants further investigation, especially, in light of the extra departmental support given to research faculty who take MPA leave. The aim of this extra support is to maintain research momentum by providing salary support to personnel while the research faculty member is on leave. This sentiment is best captured by one faculty member's comment, *"A number of young parents (male and female) have taken parental leave recently. Most do so to take care of their children and to reduce the burden on their spouse. Unfortunately, several have essentially used the leave as a sabbatical. They have been in the department on almost a daily basis and travel to give seminars while on leave. This is patently unfair to other faculty, even more so for the young parents who are using the leave as it was intended."*

The 2012 survey did not explore other family care/ compassionate leaves, but faculty comments pointed out that situations of faculty members having to care for an ailing family member are largely ignored and are not supported in any way similar to faculty on MPA leaves. There is the Canada Compassionate Care Benefit with up to six weeks of Employment Insurance benefits, and, under certain conditions, an unpaid eight-week leave from UBC can be taken by the caring faculty member. There is no entitlement to any salary top-ups, and faculty can only leave for an extended time when taking an unpaid general leave.

Summary

Similar to the 5-year period surveyed prior to the 2007 WCS, women faculty on MPA leaves in 2007-2012 have taken an average of six months compared to parental/ adoptive leaves taken by men with an average of 2.5 months. In the 2007 WCS, concerns were raised as faculty reported teaching or administrative duties during MPA leaves. This fact still remains the case in 2012, where in some units faculty members on leave still have duties that they should be released from. This illustrates the need to have far clearer communication to heads/directors and faculty about the requirements for MPA leaves as there seems to be some confusion. Along the same lines, there is the misconception that a faculty member who was on MPA leave during the previous review year was not eligible for merit award/PSA considerations.

In summary, better communication is necessary on the underlying basis for parental leaves (both Federal law and UBC policies) and for the department-level support of research faculty while on MPA leave such that parental leaves are not considered a "mini-sabbatical" by some. Also, there still remain inequities in the system especially for those who take adoptive leave that need to be addressed. Family care/ compassionate leaves were not addressed by the study, but the lack of adequate support, particularly for faculty who care for an ailing family member, was raised as a concern.

Appendix

Appendix I: Procedures for the 2012/2013 Working Climate Study

Appendix I.I: Participants and Data Sources

Faculty Survey and Focus Groups

An invitation and access to the on-line faculty survey was sent to a total of 432 tenured/ tenure-track and full-time teaching faculty appointed before July 1, 2012, including 12-month lecturers, instructors, senior instructors, professors of teaching, and assistant, associate and full professors, and active professors emeritae and emeriti. Completion of the survey was on a voluntary basis. Cross-appointed faculty members were asked to complete the survey as a member of their primary (home) department. The online survey was conducted in fall 2012; see questionnaire attached below.

Table 63 summarizes the 2012 survey response rates for various faculty sub-groups, and the representation of these groups in comparison to the 2007 WCS survey and to UBC Science's faculty demographics. A total of 226 completed surveys were submitted and used in the data analyses. This equals a response rate of 52%, which was substantially higher than for the 2007 survey (35%). The response rate for teaching stream was higher than for research stream faculty (60% vs 47%); and similar for junior and senior faculty (57% vs. 50%). The response rates for the three major fields range between 47% and 60%. Of the 219 respondents disclosing their gender, 66 (30.1%) were women and 153 (69.9%) were men. The representation of visible minorities members (12%) correspond well to their representation among Science faculty (13%).

	Representation among						Response rate
	Science faculty		WCS survey participants				
	2012		2012		2007		2012
Designated equity groups[24]							
Women	23%[A)]		30% (66/219[C)])		23%		67%
Visible minorities	13%[B)]		12% (25/210[C)])		9%		*
Aboriginal people	0%[B)]		0 (0/226)		*		*
Persons with disabilities	3%[B)]		1.3% (3/223[C)])		*		*
LGB	4%[B)]		7.7% (16/207[C)])		*		*
Stream[25]							
Teaching	16%	432 (total)	18%	218[E)]	6%	125	60%
Research	84%		82%		94%		47%
Seniority							
Junior faculty	37%	403 (total)	40%[D)]	213[F)]	51%	125	57%
Senior faculty	63%		60%[D)]		49%		50%
Field/Dept. groupings[26]							
Life Sciences	29%	428 (total)	33%	224[G)]	26%	125	60%
Math./Comp. Sciences	32%		32%		38%		52%
Phys./Earth Sciences	39%		35%		36%		47%
Science							
Overall	432				35%[H)]		52%[I)]

Table 63 Demographics of 2012 WCS survey participants in comparison to 2007 WCS survey.

[24] See *Appendix I.III* for terminology. Note: WCS survey's VM groups include "Latin American" designation (selected by three participants). LGB = Lesbian, Gay, Bisexual, or analogous terms.

[25] See *Appendix I.II: Statistical Analyses and Confidentiality (Table 65)* for details.

[26] Field includes three discipline groupings of faculty members' department/unit affiliation (see *Table 1* for details).

Table 63 Demographics of 2012 WCS survey participants in comparison to 2007 WCS survey. [caption]
[A] UBC HRMS data (UBC office of Planning and Institutional Research). [B] UBC Equity and Inclusion Office (Equity Census): self-reported members of equity groups. [C] Total exclusive of those who preferred not to disclose whether they were part of an equity group. [D] 'Junior' = Instr. 1 + Assist. Prof. + Assoc. Prof.; 'Senior' = Sr. Instr. + PoT + Full Prof. Note: Statistical analyses of 2012 WCS survey results include a different split between 'Junior' and 'Senior" (see Table 65 *for details). [E] Total does not include professors emeriti. [F] Total does not include lecturers. [G] Total does not include faculty without departmental affiliation. [H] In 2007, out of 360 tenure-track faculty, 125 participated in the WCS survey (lecturers and prof. emeriti not included). Respondents comprised 49% 'senior' faculty (full professors), and 51% 'junior' faculty (24% assoc. professors, 21% asst. professors and 6% instructors). [I] In 2012, out of 432 active faculty members 226 participated in the WCS survey. Respondents comprised 12-month lecturers (3.1%), instructors I (5.8%), sr. instructors (8.4%), professors of teaching (0.9%), asst. professors (9.3%), assoc. professors (23.0%), full professors (46.9%) and professors emeriti (2.7%). *data not available*

In 2013, all faculty members were invited to participate in focus groups (see **Table 64**) with the objectives to consider in greater detail key areas and issues identified in the 2012 working climate survey, to identify potential next steps (e.g., development and implementation of departmental and Faculty-wide guidelines), and to advance policy and strategic considerations that fit in with the university-wide Faculty Equity and Diversity Initiatives. A total of 26 faculty members participated in the Science focus groups comprising 78% women and 23% men from across the Faculty. All departments/units were represented except for one department in MCS; two thirds of faculty participating in the focus groups were LS faculty.

Focus group facilitated	**Themes discussed**
Teaching stream faculty	Workload expectations in department Tenure process Mentoring program in department
Faculty who took maternity, parental, and/or adoptive leave	Departmental support during and upon return from leave Tenure clock Childcare options
Visible minority faculty	Mentoring program in department Equality considerations in recruiting/hiring process Informal networks (inclusion/exclusion) Discrimination/harassment; respectful environment
Junior asst. and assoc. professors	Mentoring program in department (particularly, in view of tenure process) Tenure process Departmental working climate
Full professors	Departmental working climate; respectful environment Mentoring program in department Equality considerations in recruiting/hiring process
Women faculty	Workload expectations in department Mentoring program in department Discrimination/harassment; respectful environment Informal networks (inclusion/exclusion)

Table 64 Focus groups for Science faculty members (conducted in May 2013).

Policy review

The policy review was completed separately by each of the UBC Science department heads and research unit directors (units with hiring capacity). The nine departments include Botany, Chemistry, Computer Science, Earth & Ocean Sciences, Mathematics, Microbiology & Immunology, Physics & Astronomy, Statistics, Zoology; the three research units include the Fisheries Centre; Institute for Resources, Environment & Sustainability; Michael Smith Laboratories. See *2012 Policy Review Questionnaire* (UBC Science attached below.

Institutional data

Complementary to the survey results, institutional data were collated by the Dean's office or provided courtesy of the Provost's office and the UBC Equity office (sources are indicated throughout the report).

Appendix I.II: Statistical Analyses and Confidentiality

In addition to results based on total respondents, comparisons for the following faculty groups were conducted: gender, field (departmental groupings), stream, seniority, ethnicity, and sexual orientation; see **Table 65** for breakdown of each group. Statistically significant differences (p-value ≤ 0.05) within these groups were identified by a Chi-squared test for categorical questions (Likert Scales) based on lumped answers (e.g., Agree-Neutral-Disagree with Agree = Strongly agree + Somewhat agree, and Disagree = Strongly disagree + Somewhat disagree) where applicable. The p-value was computed by simulation to correct for the impact that low counts in a contingency table can have on the accuracy of the test. The p-values were subsequently corrected for the False Discovery Rate q (with $q \leq 0.05$, restricting proportion of false positive discoveries among significant results to 5%, to correct for multiple comparisons). For the numeric questions (e.g., number of classes, class sizes) a Kruskal-Wallis Test was used (non-parametric one-way analysis of variance).

Differences within the various faculty groups are highlighted in tables (not in figures/bar charts) and reported as statistically significant for the WCS 2012 results if q was equal or smaller than 0.05.

A two-sample, unpaired, heteroscedastic (accounting for unequal variance) t-test was used for testing significant salary differences (see section *Current Salaries*, p. 48).

Faculty responses are shown as percentage of all respondents to a question; valid 100% (all respondents) is typically between 207 and 226 (see **Table 65**) if not otherwise indicated.

Grouping	Breakdown	Total respondents	
Overall	All survey participants		226
Gender	*Women*	66 (30%)	219 [A)]
	Men	153 (70%)	
Stream	*Teaching:* Lecturer, Instr. 1, Sr. Instr., PoT	40 (18%)	218 [B)]
	Research: Assist. Prof., Assoc. Prof., Full Prof.	178 (82%)	
Seniority	*Junior:* Instr. 1, Assist. Prof., Assoc. Prof. with ≤ 5 years in rank	69 (32%)	213 [B)]
	Senior: Sr. Instr., Teach. Prof., Assoc. Prof. ≥ 6 years in rank, Full Prof.	144 (68%)	
Field	*Life Sciences (LS):* departments of Botany, Microbiology & Immunology, Zoology; Fisheries Centre, Michael Smith Laboratories (MSL)	73 (33%)	224
	Mathematical/Computational Sciences (MS): departments of Computer Science, Mathematics, Statistics	72 (32%)	
	Physical/Earth Sciences (PES): departments of Chemistry; Earth, Ocean & Atmospheric Sciences (EOAS), Physics &Astronomy (PhAs); Institute for Resources, Environment and Sustainability (IRES)	79 (35%)	
Ethnicity	*Persons who identify as Visible Minorities (VM); s*ee *Appendix I.III*. (Note: Survey included answer option of 'Latin American' rather than 'Non-white Latin American')	24 (11%)	211 [A)]
	Persons who identify as Caucasian/white (Cwh)	187 (89%)	
Sexual Orientation	*Persons who identify as lesbian, gay, bisexual or analogous orientation (LGB)*	16 (8%)	207 [A)]
	Persons who identify as heterosexual	191 (92%)	

Table 65 Faculty groupings for survey statistics of faculty survey 2012.
[A)] Total does not include those who preferred not to disclose their gender, ethnicity, and/or sexual orientation, respectively. [B)] Total does not include professor emeriti and lecturers.

Institutional as well as survey results have been grouped in order to protect confidentiality and to ensure anonymity. The faculty survey was conducted anonymously. Survey data were analysed by UBC's Statistical Consulting and Research Laboratory (SCARL). Results were provided to the steering committee in aggregate format.

Appendix I.III: Designated Equity Groups (Terminology)

Designated Groups under Canada's Employment Equity Act

UBC's Employment Equity Policy includes the objective "to build a workforce that is representative of the pool of potential candidates with appropriate qualifications, including women, native people, persons with disabilities, and visible minorities." For the purposes of employment equity, women, Aboriginal persons, members of "visible minorities," and persons with disabilities are designated group members, as outlined in Canada's Employment Equity Act.

- **Women**

- **Aboriginal persons**

North American Indians or members of a First Nation, Métis or Inuit. North American Indians or members of a First Nation include status, treaty or registered Indians as well as non-status and non-registered Indians.

- **People of colour**

Persons (other than Aboriginal persons, defined above) who are non-white or non-Caucasian, regardless of place of birth or citizenship. Members of ethnic or national groups (for example, Portuguese, Italian, Greek) are not considered racially visible. Examples for people of colour include:

- Black
- Non-white Latin American (including indigenous persons from Central and South America)
- East Asian (for example, Chinese, Japanese, Korean, Polynesian)
- South Asian/East Indian (for example, Indian, Pakistani, Sri Lankan)
- Southeast Asian (for example, Cambodian, Filipino, Laotian, Vietnamese)
- West Asian/Arab (for example, Afghan, Iranian)
- Persons of mixed origin (e.g., with one parent in one of the groups listed above)

- **Persons with disabilities**

Persons who have a long-term or recurring physical, mental, sensory, psychiatric, or learning impairment, and who believe that either (1) the disability reduces the amount or kind of activity they can do at work, or (2) an employer or potential employer is likely to consider that the disability limits their employment opportunities . (Impairments may be visible or invisible; examples include: impairment of vision/mobility/hearing/speech, chronic illness and learning/comprehension disabilities.)

Sexual orientation and gender identities

While the federal government requires information based on the four designated groups described above, the University's employment equity statement also includes sexual orientation (such as lesbian, gay, bisexual, two-spirited, queer) and gender identity (such as transsexual, transgender, gender variant).

Appendix to Section 1 (Faculty Demographics)

	2007/2008		2008/2009		2009/2010		2010/2011		2011/2012		2012/2013	
Rank	**Representation of women** [A)]											
Asst. Prof.	23.9% (17)	17.0%	22.7% (15)	17.3%	21.7% (10)	17.1%	32.4% (11)	18.7%	28.9% (13)	19.1%	36.2% (17)	20.1%
Assoc. Prof.	28.3% (26)		30.2% (29)		25.0% (26)		22.5% (23)		22.8% (23)		21.1% (20)	
Full Prof.	7.5% (12)		7.7% (13)		11.3% (20)		14.2% (27)		14.8% (27)		16.1% (35)	
Instr.1/Sr. Instr./PoT	(17/41)	41%	(17/40)	42%	(21/45)	47%	(24/51)	47%	(24/50)	48.0%	(24/53)	45.3%
Tenure-track fac.	***19.8%** (72/364)*		***20.0%** (74/370)*		***20.7%** (77/372)*		***22.5%** (85/377)*		***23.0%** (87/379)*		***23.3%** (96/412)*	
Lecturers	(7/13)	54%	(9/17)	53%	(10/19)	53%	(7/15	47%	(11/19)	58%	(6/15)	40.0%
Grand total	**21.0% (79/377)**		**21.4% (83/387)**		**22.3% (87/391)**		**23.5% (92/392)**		**24.6% (98/398)**		**23.9% (102/427)**	
Research stream	***17.0%** (55/323)*		***17.3%** (57/330)*		***17.1%** (56/327)*		***18.7%** (61/326)*		***19.1%** (63/329)*		***20.1%** (72/359)*	
Teaching stream	***44.4%** (24/54)*		***45.6%** (26/57)*		***48.4%** (31/64)*		***47.0%** (31/66)*		***50.7%** (35/69)*		***44.1%** (30/68)*	

Table 66 Representation of women faculty in UBC Science by year, rank and stream over five years (2007-2012). *Source: UBC office of Planning and Institutional Research (PAIR): www.pair.ubc.ca/statistics (annual data collated as of Oct. 2007, 2008, 2009, 2010, 2011 and 2012). PoT = Professor of Teaching (new rank introduced in 2012/2013). * Data not available.*

	Age category (a. c.)						Average of a. c.		
Faculty groupings	**< 30**	**30 to 40**	**41 to 50**	**51 to 60**	**61 to 70**	**> 70**	**Mid-point**	**Min.**	**Max.**
Women	0	27.7%	44.6%	24.6%	3.1%	0	45	41	50
		72.3%		27.7%					
Men	0	17.3%	33.3%	32.7%	14%	2.7%	50	46	55
		50.6%		49.4%					
VM	0	23.8%	47.6%	23.8%	4.8%	0	46	42	51
		71.4%		28.6%					
CWh	0	18.9%	36.7%	31.1%	11.1%	2.2%	49	45	54
		55.6%		44.4%					
Teaching stream	0	33.3%	30.8%	30.8%	5.1%	0	46	41	51
		64.1%		35.9%					
Research stream	0	19.1%	38.7%	30.1%	12.1%	0	49	44	54
		57.8%		42.2%					
Life Sciences	0	20.3%	39.1%	29%	10.1%	1.4%	48	44	53
		59.4%		40.5%					
Math/Comp. Scie.	0	22.5%	35.2%	25.4%	14.1%	2.8%	49	45	54
		57.7%		42.3%					
Physical/Earth Scie.	0	21.1%	35.5%	34.2%	7.9%	1.3%	48	44	53
		56.6%		43.4%					
Overall	**0**	**21.1%**	**36.7%**	**29.8%**	**10.6%**	**1.8%**	**48**	**44**	**53**
		57.8%		**42.2%**					

Table 67 Demographics of UBC Science faculty (WCS survey respondents): Age distribution. *Source: Responses to Q. 35 of WCS 2012 faculty survey.*

University		Data Source	Notes
Cornell	Cornell University	http://advance.cornell.edu/documents/Year5-Annual_Report.pdf	Includes tenure-track and tenured faculty
Northwestern	Northwestern University	www.northwestern.edu/provost/committees/diversity/FDC_Report_2011.pdf	Includes tenure-track and tenured faculty; PES and MCS combined as Physical Sciences
UBC	University of British Columbia	HRMS data	Includes tenure-track and tenured faculty
UC- Berkeley	University of California, Berkley	www.ucop.edu/acadpersonnel/datamgmt/documents/incumbents_tenuredgender.pdf	Includes tenured and untenured faculty
UC-LA	UC, Los Angeles		
UC-San Diego	UC, San Diego		
UC-Santa Barbara	UC, Santa Barbara		
U of Toronto	University of Toronto	www.hrandequity.utoronto.ca/Assets/HR+Digital+Assets/HR+and+Equity/HR+Digital+Assets/Equity+Officers+Annual+Reports/2011+Employee+Equity+Report.pdf	LS includes biology and medicine disciplines; PES includes physical and earth sciences, engineering and mathematics
Waterloo	University of Waterloo	https://uwaterloo.ca (departmental web pages)	LS: Biology; PES: Chemistry, Earth & Environmental Sciences, Physics & Astronomy; MCS: Applied and Pure Mathematics, Combinatorics & Optimization, Computer Science, Statistics & Actuarial Science; RS only
Wisconsin-Mad.	University of Wisconsin-Madison	http://wiseli.engr.wisc.edu/docs/Report_Stats_2010.pdf	Includes professorial ranks only (RS: Assist., Assoc. and Full Prof.)

Table 68 Sources of peer science institution comparison (notes to* Figure 2*).
Comparison includes tenure-track/tenured faculty if not otherwise indicated.

Appendix to Section 3 (Career Progression)

Appendix to 3.1: Policy Review (notes to Table 9)

Communication — 2007 questionnaire asked how policies of following areas would be communicated to faculty members: Mentoring, MPA leave, Hiring, and Study/sabbatical leave committees.

Resources — 2007 questionnaire asked about gender representation on committees for Resource Allocation, Hiring, and Tenure/promotion; and about number of women and men committee chairs for previous three academic years (2002/2003-2004/2005).
2007 questionnaire noted Merit, Space and technical HR committees as examples of Resource Allocation Committees.

Resources – TA allocation — 2007 questionnaire asked explicitly for allocation formula; in 2012 questionnaire Teaching assistant (TA) and Technician allocations were implicit part of the question on "resource guidelines."

Other Leaves — 2012 questionnaires asked about policies on leave for improving qualifications (for full-time teaching faculty), leave without pay or benefits, and administrative leaves.

Recruiting/ Hiring — 2007 questionnaire also asked about University Faculty Awards (NSERC program supporting hiring and retention of women and aboriginal researchers), which was eliminated in 2008 (www.nserc-crsng.gc.ca/Professors-Professeurs/CFS-PCP/UFA-APU_eng.asp)

Sources — An Assessment of the Working Climate for Science Faculty at the University of British Columbia, Full Report, December 2007 (http://science.ubc.ca/faculty/diversity) and 2012 WCS Policy Review.

Appendix to 3.2: Hiring and Recruiting

The identified strategies and related elements, in addition to the UFA program, were…	
Recruiting:	• Advertising positions in women-targeted newsletters; • Asking all women applicants for reference letters; • Broadening recruiting posts; • Following the UBC policy on advertising faculty positions to attract as many qualified male and women candidates as possible
Hiring process:	• Making special efforts in candidate selection and interview decisions; • Getting all regular faculty to be on the departmental appointment committee; • Ensuring representativeness and diversity on the search committee for balanced consideration of all applicants; • Making explicit discussions at department meetings before generating short lists; • Ensuring qualified women to be represented on short lists; • Ensuring the presence of a women faculty member at lunch or dinner for women interviewees; • Highlighting the supportive departmental environment for women faculty during interviews with women applicant
Principles:	• Merit-based employment and commitment to equity
Decision-making:	• Giving special considerations to underrepresented groups in the case of equal merit between two candidates; • Allowing flexibility in rank for appointment of applicants from underrepresented groups who possess exceptional qualifications; • Ensuring women represented on the short list if qualified; • Allowing flexibility when the slot was targeted for a woman (e.g., the UFA program).
Dual-career approach:	• Removing research area considerations when evaluating the spouse in a "two-body" situation. (The "two-body" problem refers to the necessity of partner's employment, e.g. in the case of a new hire.)

Table 69 Departmental strategies reported by department heads that were helpful in hiring women faculty – WCS 2007.
Source: An Assessment of the Working Climate for Science Faculty at the University of British Columbia, Full Report, 2007 (http://science.ubc.ca/faculty/diversity)

Appendix to 3.4.1: Salary Institutional Data

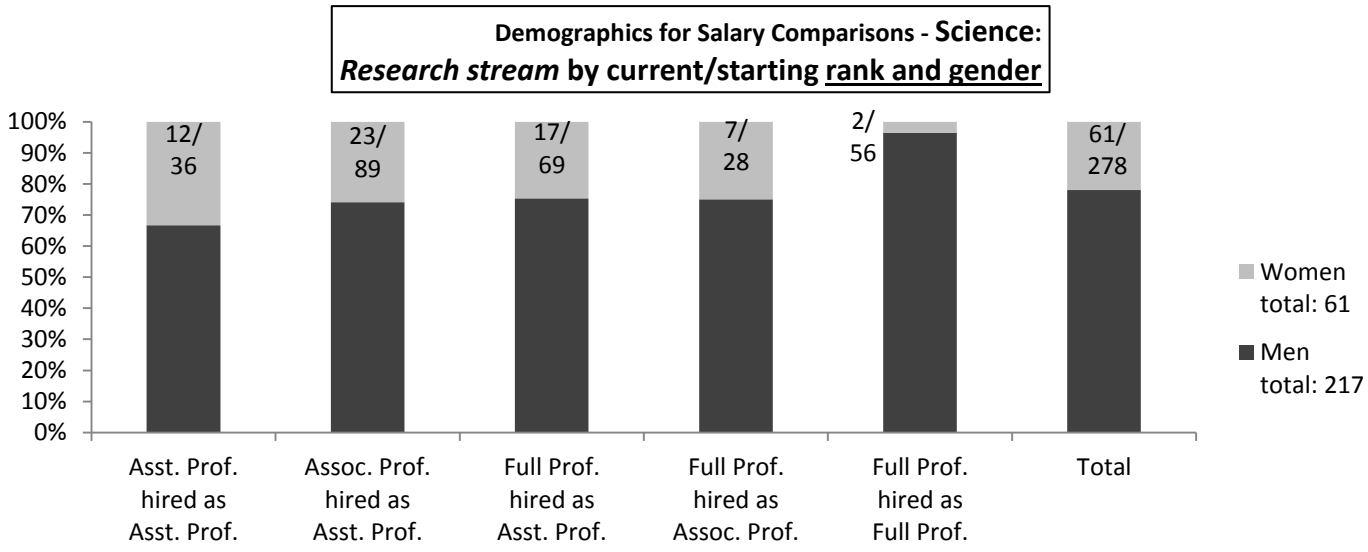


Figure 40 Science research stream faculty included for salary comparisons.
Includes a total of 278 current tenure-track/tenured faculty (hired between 1990 and 2011).

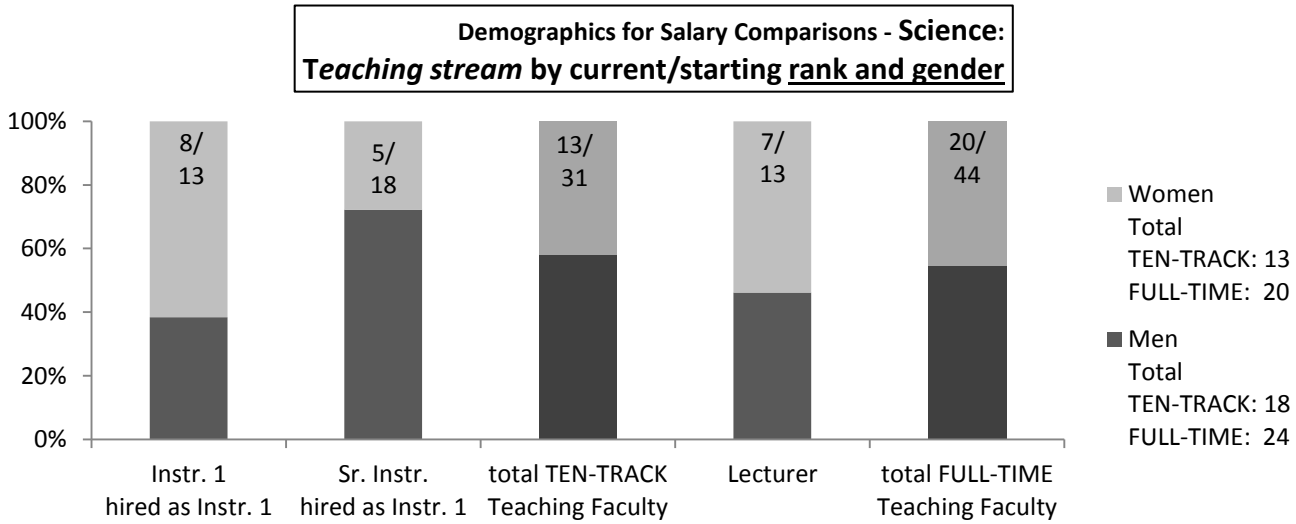


Figure 41 Science teaching stream faculty included for salary comparisons.
Includes a total of 44 current full-time teaching faculty (hired between 1990 and 2011): Instr. I: current Instr. 1 (tenure-track) who started as Instr. 1 (12) or as Instr. without review (1). Sr. Instr.: current Sr. Instr. (tenured) who started as Instr. 1 (16) or Instr. 2 (1), or as Asst. Prof. without review (1). Lecturer: current Lecturer (12-month appointments).

Cohort information for **Table 13 (Starting Salaries)**:

A) Asst. Prof. (starting rank) hired between 1990 and 2011: includes a total of 220 faculty members appointed as full-time, tenure-track asst. professors between Jan. 1990 and Dec. 2011 (188 current faculty and 32 faculty who left prior to 2012), compared to a total of 34 faculty members appointed as full-time, tenure-track asst. professors between Jan. 2008 and Feb. 2012.

[B] Asst. Prof. (starting rank) hired between 2002 and 2007: includes a total of 81 faculty members appointed as full-time, tenure-track asst. professors between Jan. 2002 and Jan. 2007
[C] Asst. Prof. (starting rank) hired between 2008 and 2012: includes a total of 34 faculty appointed as full-time, tenure-track asst. professors between Jan. 2008 and Jan. 2012.
* Number of faculty members whose starting salary is below median of all starting salaries in that group (Women + Men), shown as a percentage of women and men, respectively, in each field.

Figure 42 Starting salaries of Science faculty: median by stream, rank and gender.
Includes a total of 44 (20 women, 24 men) teaching stream faculty and 278 research stream faculty (see Figure 40 *and* Figure 41 *for faculty data on these cohorts).*

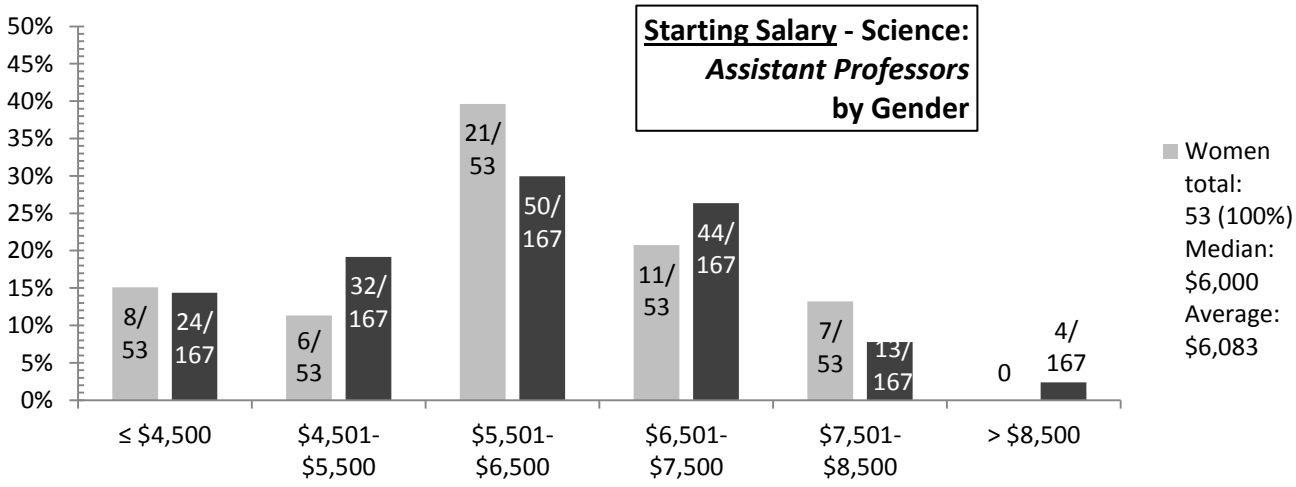


Figure 43 Starting salaries of UBC Science faculty members initially hired (between 1990 and 2011) at rank of Assistant Professor, by gender. *Includes a total of 220 faculty (appointed between 1990 and 2011 as full-time, tenure-track asst. professor) – 188 current faculty and 32 faculty who left prior to 2012. Number of faculty members per salary category ($1,000 intervals) shown as a percentage of total women and total men, respectively, in this starting rank.*

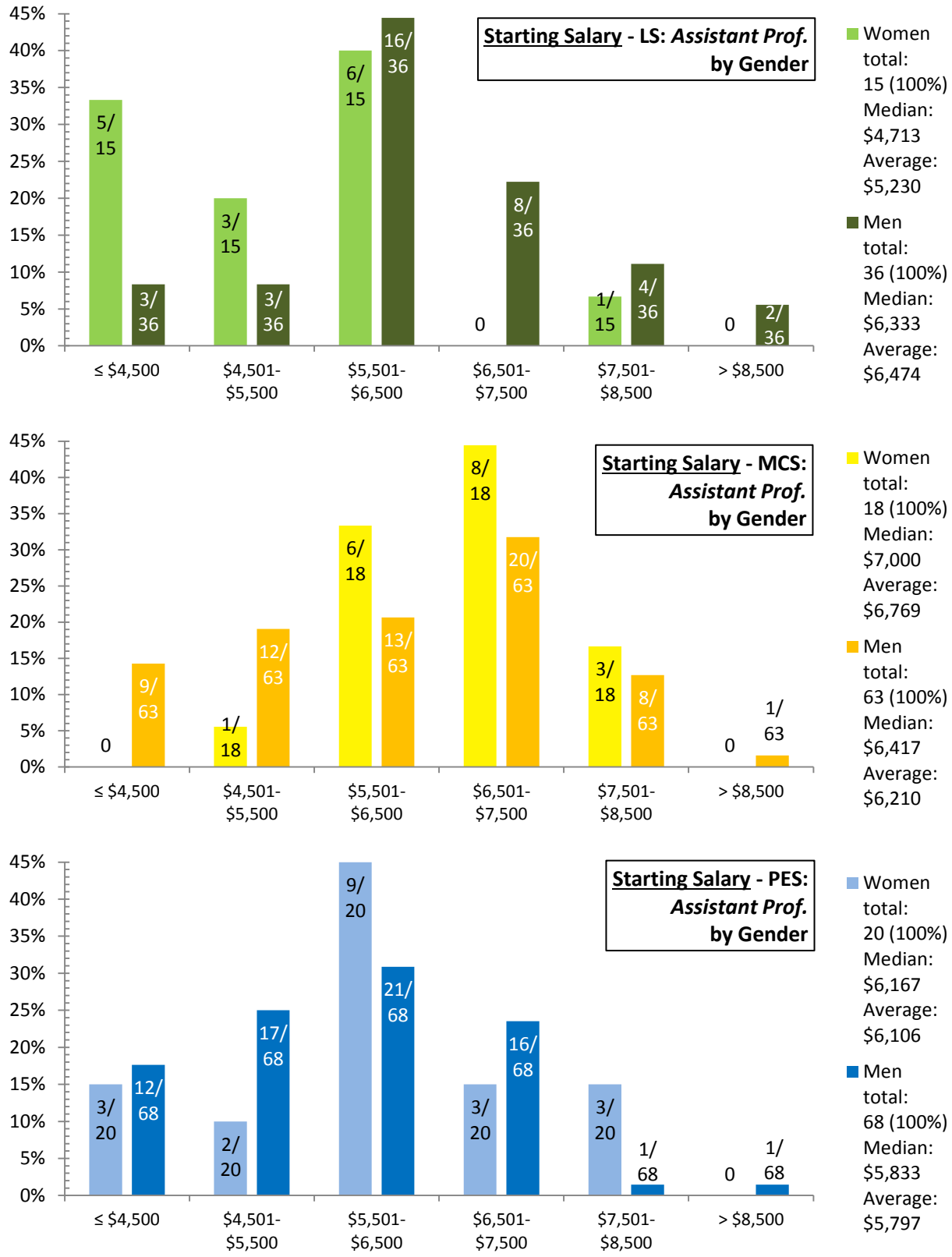


Figure 44 Starting salaries of Science faculty initially hired at rank of Assistant Professor by gender. *Includes a total of 220 faculty members (see details in* Figure 43*).*

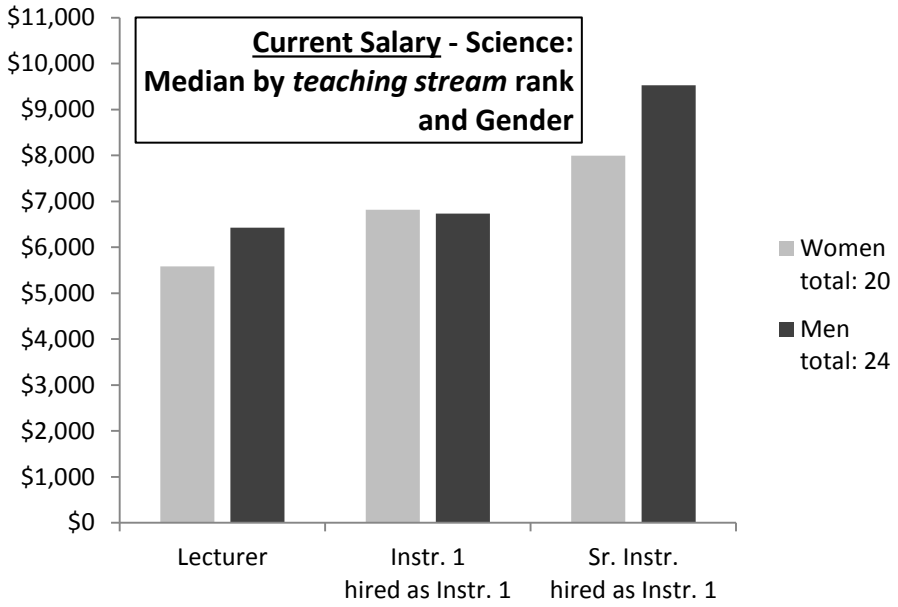


Figure 45 Current salary: median by rank and gender for teaching stream faculty.
*Includes a total of 44 current full-time teaching faculty members (as detailed in **Figure 41**).*

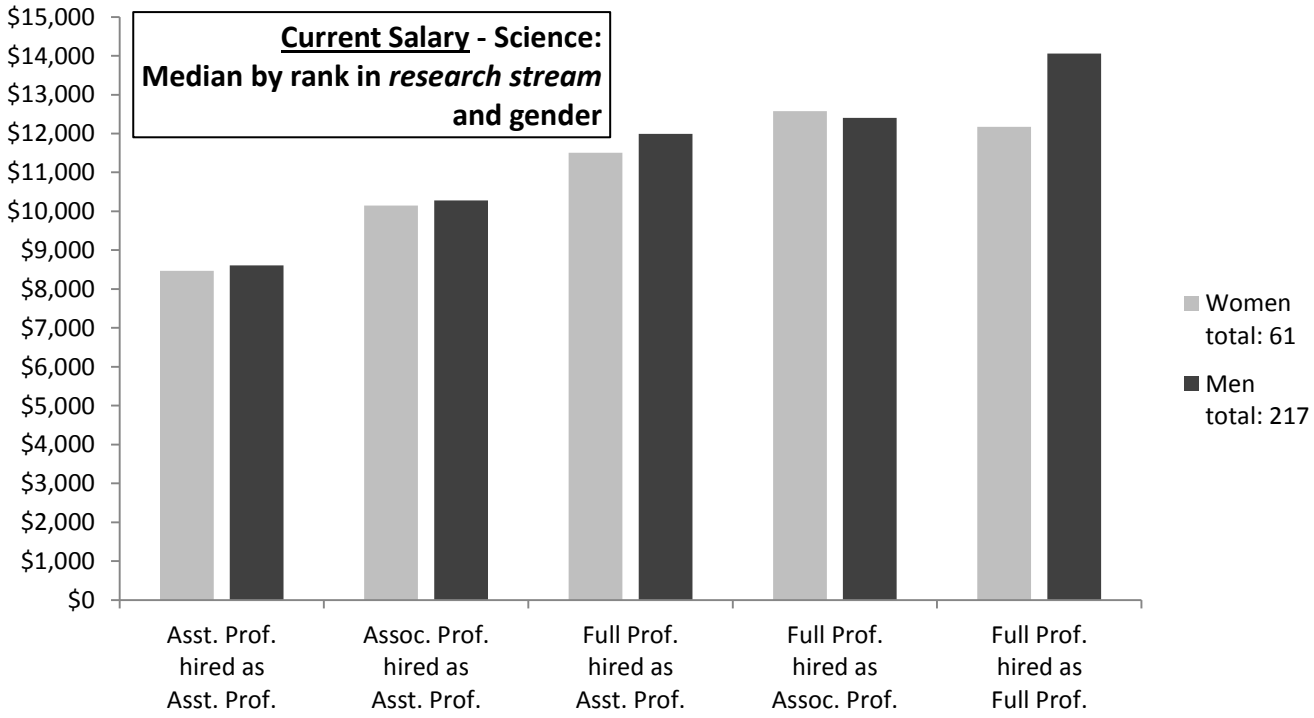


Figure 46 Current salary: median by rank and gender for research stream faculty.
*Includes a total of 278 current tenure-track/tenured faculty members as detailed in **Figure 40**.*

2012 Working Climate Questionnaire for Faculty Members in UBC Science

Welcome
to the
2012 Working Climate Survey for Faculty in UBC Science and UBC Engineering

On behalf of the Deans of UBC Science and Applied Science we invite you to participate in our joint 2012 Working Climate Study for Science and Engineering faculty. Both Faculties are committed to providing a supportive and equitable climate for their faculty members to enhance career success and to sustain a strong reputation for research and teaching.

Participating in this (confidential and anonymous online) survey will give you the opportunity to voice your views regarding your departmental climate. Your views and opinions will help guide us to develop or alter policies that impact the working climate in your department/unit. This information will benefit you and your future colleagues by facilitating positive changes in your department/unit and across the Faculty.

Please go to next page for receiving the Letter of Consent, which includes further details of this study, and for specifying whether or not you would like to participate in the survey.

Consent – Participant consent and signature:

Participation in this study is entirely voluntary. You have the right to refuse to take part in this study. If you agree to participate, you may at any point choose to discontinue your participation without providing a reason and without negative impact on your employment.
By selecting 'I consent to participate in this study' and clicking "Next" below:

- You are indicating that you have received a copy of the consent letter for your records: Please see Letter of Consent for downloading the PDF document.
- You are indicating that you consent to participate in this study.

*****Please choose **only one** of the following:

- ○ I consent to participate in this study [Please press "Next" to start the survey]
- ○ I do not consent to participate in this study [Please press "Next" to exit this survey]

Non-participants

Thank you for visiting the 2012 Working Climate Survey for Faculty in UBC Science and UBC Engineering. We would appreciate if you could let us know your reasons for not participating in this faculty online survey. Your comments are confidential and anonymous.
Please submit your feedback. (Please do not press "Next" below)
If you do not wish to submit feedback, please close your web browser. *

Instructions

Please complete this survey thinking about the last 5 years and your department/unit if not otherwise indicated; choose your primary department/unit if cross-appointed (if not otherwise indicated).

For navigating the survey pages, please use the survey's "Previous" and "Next" buttons; do not use your web browser's back, forward or refresh buttons.
If you need to take a break for a prolonged time at any stage of the survey, please choose "Resume later" for saving your unfinished survey and continuing later where you left off.
It took previous testers an average of 28 minutes to complete this questionnaire.

Thank you for your participation.

Professional Climate 1

1. Please indicate your level of agreement with the following statements about your primary department/unit.

Please choose the appropriate response for each item:

	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree	N/A
I feel treated with respect by my colleagues.	○	○	○	○	○	○
I feel treated with respect by the staff members.	○	○	○	○	○	○
I feel treated with respect by students.	○	○	○	○	○	○
I feel excluded from informal networks in my department/unit.	○	○	○	○	○	○
I am comfortable raising concerns about my department without fear of it affecting my advancement.	○	○	○	○	○	○
I feel valued for my teaching.	○	○	○	○	○	○
I feel valued for my research.	○	○	○	○	○	○
I have to work harder than my colleagues in order to be perceived as a legitimate scholar.	○	○	○	○	○	○
I have a voice in the decision-making that affects the climate and direction of my department/unit.	○	○	○	○	○	○
My department supports collaborative research.	○	○	○	○	○	○
My department/unit supports interdisciplinary* research.	○	○	○	○	○	○
My department/unit supports and rewards interdisciplinary* teaching.	○	○	○	○	○	○
Commitment to diversity is demonstrated by my department.	○	○	○	○	○	○

Please note: **Interdisciplinary research combines complementary expertise from across traditional academic boundaries to generate new approaches for complex and/or emerging problems.*

1a. Please comment on any factors listed above (or others you wish to identify) that contribute negatively or positively to your departmental/unit's climate:

Please write your answer here:

2. Please indicate your level of agreement with the following statements about your department head/ unit director.

Please choose the appropriate response for each item:

	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree	Don't know
My head/director treats all sub-fields equitably.	○	○	○	○	○	○
My head/director maintains high academic standards.	○	○	○	○	○	○
Administration and service loads are distributed fairly.	○	○	○	○	○	○
Sabbatical leaves are handled fairly.	○	○	○	○	○	○
Teaching loads are distributed fairly.	○	○	○	○	○	○
The head/director handles disputes/problems effectively.	○	○	○	○	○	○
Reporting harassment* and discrimination is encouraged.**	○	○	○	○	○	○
I feel treated with respect by my head/director.	○	○	○	○	○	○
I am satisfied with the efforts made by my head/director to help me obtain resources.	○	○	○	○	○	○
My head/director actively involves me in decision making.	○	○	○	○	○	○

Please note: **Harassment, a form of discrimination, is unwanted and unwelcome attention from a person who knows, or ought to know, that the behaviour is unwelcome. Harassment can range from written or spoken comments to unwanted jokes, gifts, and physical assault, and may be accompanied by threats or promises regarding work or study opportunities and conditions. Harassment can be either a single incident or a series of related incidents. (www.equity.ubc.ca).*

***Discrimination, whether intentional or unintentional, is unfair, differential treatment of individuals and groups based on prejudice, ignorance, fear or stereotypes. Discrimination imposes burdens on, or denies opportunities to, individuals or groups and is unfair because it is not based on actual academic or job performance, or any other form of competence. (www.equity.ubc.ca).*

3. Thinking about harassment, have you ever experienced/observed, and reported cases of harassment against yourself or someone else at UBC in the last 5 years?
Please choose the appropriate response for each item:

	Yes	No	N/A
I have experienced harassment in my department.	○	○	○
I have observed harassment in my department.	○	○	○
I know the steps to take if someone comes to me with a claim of harassment.	○	○	○
I have reported harassment that I experienced or observed to my department head or the UBC Equity Office.	○	○	○
For harassment that I reported, I was satisfied with the extent to which the case/s was/were resolved.	○	○	○
I have felt uncomfortable reporting harassment that I observed or experienced.	○	○	○

4. Have you ever perceived discrimination in your department (against yourself or someone else) based on grounds such as ethnicity/race, gender, sexual orientation, physical/mental disability, religion/atheism, age, or other:**
Please choose **only one** of the following:

- ○ Yes
- ○ No

Please note: ***Discrimination, whether intentional or unintentional, is unfair, differential treatment of individuals and groups based on prejudice, ignorance, fear or stereotypes. Discrimination imposes burdens on, or denies opportunities to, individuals or groups and is unfair because it is not based on actual academic or job performance, or any other form of competence. (www.equity.ubc.ca).*

4a. If "yes", please indicate the area(s) in which the discriminatory behaviours were perceived to occur (e.g. hiring, tenure or promotion, salary, access to space/ equipment/ resources or to administrative staff, graduate student or teaching assistant assignments, mentor availability (informal or formal), leadership opportunities, or other):
Please write your answer here:

5. Are you aware of a respectful environment policy at UBC?
Please choose **only one** of the following:

- ○ Yes
- ○ No

Professional Climate 2

6. How much effort has your department made to attract...

Please choose the appropriate response for each item:

	No effort at all	Some effort	A lot of effort	Don't know
...qualified women candidates for faculty positions?	○	○	○	○
…qualified candidates, who are Aboriginal, representatives of visible minorities, and/or persons with disabilities for faculty positions?	○	○	○	○

7. Regarding recruitment in your department, please rate the extent to which you feel the following are clear.

Please choose the appropriate response for each item:

	Very clear	Somewhat clear	Somewhat unclear	Very unclear	Don't know	Do not exist
Recruiting guidelines for search/hiring committee	○	○	○	○	○	○
Recruiting guidelines for increasing diversity	○	○	○	○	○	○

7a. If you would like to comment on your rating of the hiring guidelines and procedures in your department, please do so here:

Please write your answer here:

8. Regarding tenure and promotion in your department/unit, please rate how well your department/unit communicates the procedures for the following:

Please choose the appropriate response for each item:

	Entirely clear	Somewhat clear	Somewhat unclear	Entirely unclear	Don't know	Does not apply
Tenure and promotion of Instructor I to Senior Instructor	○	○	○	○	○	○
Promotion of Senior Instructor to Professor of Teaching	○	○	○	○	○	○
Tenure and promotion of Assistant to Associate Professor	○	○	○	○	○	○
Promotion of Associate to Full Professor	○	○	○	○	○	○

8a. If you are unsatisfied with the way in which any of the procedures for tenure and/or promotion are communicated, please comment:

Please write your answer here:

8b. If you are up for, or recently received tenure at UBC, what is/was the most useful source of information for you regarding the tenure process?

Please choose **all** that apply:

- ○ Department head
- ○ Mentors
- ○ Peers
- ○ UBC website
- ○ Faculty Association
- ○ Seminar
- ○ Other source (please identify)::

9. Regarding formal policies/procedures in your department, please rate the extent to which you feel they are clear and fair.

Please choose the appropriate response for each item:

	Don't have a formal policy	Policy is unclear	Policy is clear but inadequate	Policy is clear but applied unfairly	Policy is clear and applied fairly	Don't know
Workload expectations	○	○	○	○	○	○
Sabbatical/study leave	○	○	○	○	○	○
Leave for improving qualifications (for full-time teaching faculty)	○	○	○	○	○	○
Maternity/ parental/ adoptive leave	○	○	○	○	○	○
Administrative leave	○	○	○	○	○	○
Leave without pay or benefits	○	○	○	○	○	○
TA assignment	○	○	○	○	○	○
Allocation of resources for teaching	○	○	○	○	○	○
Allocation of resources for research support	○	○	○	○	○	○
Teaching assignment (number and size of classes)	○	○	○	○	○	○
Teaching releases	○	○	○	○	○	○
Mentoring program for faculty	○	○	○	○	○	○
Review for Merit/PSA awards	○	○	○	○	○	○

9a. If you answered "unclear", "applied unfairly" or "inadequate" for any of the above, please comment:

Please write your answer here:

10. Since joining UBC, have you ever considered positions outside UBC?
Please choose **only one** of the following:

- ○ Yes
- ○ No

10a. If "yes", please comment on what attracted you to these positions offered by other institutions (e.g. funding opportunities, access to research facilities, spousal positions, cost of living, family support, salary, administrative opportunities etc.)?
Please write your answer here:

10b. If you answered "yes", please identify factors that influenced your decision to remain at UBC (e.g. no suitable position found, spousal appointment offered, retention funds offered, child care source, teaching release, housing support beyond UBC policy, CFI or other research support funds offered by UBC unit)?
Please write your answer here:

Mentoring

11. Thinking of the mentoring that <u>you received</u> as a faculty member at UBC (e.g., on writing papers or grant proposals, running a lab, supervising undergraduate and/or graduate students, committee work and other administrative tasks, balancing work and private life, reaching tenure and promotion, etc.), please rate your satisfaction with the informal* and formal mentoring <u>provided to you</u>:**
Please choose the appropriate response for each item:

	Very dissatisfied	Somewhat dissatisfied	Somewhat Satisfied	Very satisfied	N/A
Informal mentoring	○	○	○	○	○
Formal mentoring	○	○	○	○	○

Please note: ***<u>Informal mentor</u>**: Individual, not assigned by your department, who one consults (or could consult) with on a regular basis.*

***<u>Formal mentor</u>**: Individual, as assigned (to you) by your department head (or head designate); identified as someone one can meet with on a regular basis; e.g., a mentor of junior faculty (<u>you</u> would be the mentee).*

11a. If you checked "dissatisfied" for any of the above, please comment on why:
Please write your answer here:

Resources and Support

12. Regarding the accessibility, quality and quantity of resources provided to you by your department/unit (excluding your own funds), rate your satisfaction with each of the following:

Please choose the appropriate response for each item:

	Very dissatisfied	Somewhat dissatisfied	Somewhat Satisfied	Very satisfied	N/A
My physical office (quality, suitability, location, size)	○	○	○	○	○
My physical lab	○	○	○	○	○
Permanence of my lab space	○	○	○	○	○
Salary for the work that I do	○	○	○	○	○
Level of support for securing research grants	○	○	○	○	○
Level of support for securing teaching grants	○	○	○	○	○
Other resources to support research*	○	○	○	○	○
Other resources to support teaching*	○	○	○	○	○
Other resources to support outreach activities*	○	○	○	○	○

Please note: **'Other resources' may include technical support, clerical/ administrative assistance, teaching assistance etc.*

12a. If you answered "dissatisfied" for any of the above, please comment on why:

Please write your answer here:

13. Thinking about the time before your start as faculty member in your department/unit, did you discuss/negotiate items of your contract with your department head/unit director?

Please choose **only one** of the following:

- ○ Yes
- ○ No

13a. Reflecting on your own initial contract discussions/negotiation, please rate the importance of the following aspects <u>for you</u>.

Please choose the appropriate response for each item:

	Very important	Somewhat important	Not at all important
Course release time	○	○	○
Lab equipment	○	○	○
Lab space	○	○	○
Renovation of lab space	○	○	○
Research assistant	○	○	○
Clerical/admin. support	○	○	○
Start-up funds	○	○	○
Signing bonus	○	○	○
Special timing of tenure clock	○	○	○
Moving expenses	○	○	○
Housing subsidy beyond UBC policy	○	○	○
Child care	○	○	○
Partner/spouse position	○	○	○
Salary	○	○	○
Other1 (please specify below)*	○	○	○
Other2 (please specify below)*	○	○	○

13a-1*Please specify if "Other1" and/or "Other2" was answered above:

Please write your answer(s) here:

Other1 _____

Other2 _____

13b. If you <u>did not</u> have initial contract negotiations, please comment on why:

Please write your answer here:

Service, Leadership & Recognition

14. Over the past 5 years (not counting sabbatical/study leaves), approx. how many committees have you served on <u>in service to your department/unit</u>? If cross-appointed, please include total of your committee work in all the departments/units you are appointed at. If you served on the same committee over several years, count each year.

Each answer must be at least 0

Please write your answer here:

15. How many committees have you served on in service to your department/unit over the past 5 years, considering the <u>importance of the committee(s)</u>? If cross-appointed, please include total of your committee work in all departments/units you are appointed at.
Each answer must be at least 0

	Number of committees served on
Committees that are important <u>to you</u>	
Committees that are not important <u>to you</u>	

Please note: *Only numbers may be entered in these fields.*

16. Over the past 5 years (not counting sabbatical/study leaves), how many committees have you chaired? If cross-appointed, please include total of your committee work in all the departments/units you are appointed at. If you served on the same committee over several years, count each year.
Each answer must be at least 0

Please write your answer here:

17. Compared to your peers in the department and in the last 5 years, how much <u>time</u> do you perceive you have spent on committees (or other service)?
Please choose **only one** of the following:

- ○ A smaller amount of time.
- ○ The same amount of time.
- ○ A greater amount of time.

18. In the last 5 years, how do you perceive your <u>mentoring load</u> as compared with your peers in your department (considering mentoring responsibilities for faculty, staff, graduate and undergraduate students):
Please choose the appropriate response for each item:

	My mentoring load is smaller.	My mentoring load is the same.	My mentoring load is greater.
Formal mentoring* responsibilities for students: advisor of undergraduate or graduate students	○	○	○
Formal mentoring* responsibilities for graduate students: member on an advisory/supervisory committee	○	○	○
Formal mentoring* responsibilities for graduate students: direct supervision (research)	○	○	○
Formal mentoring* responsibilities for faculty	○	○	○
Informal mentoring responsibilities**	○	○	○

Please note: **<u>Formal mentor</u>: Individual, as assigned by your department head (or head designate); identified as someone one can meet with on a regular basis; e.g., you are a mentor of junior faculty, an undergraduate or graduate advisor, or a member on a graduate student's advisory/supervisory committee.*

***<u>Informal mentor</u>: Individual, not assigned by your department, who one consults (or could consult) with on a regular basis.*

19. Have you received recognition/credit from your department for any of your service (i.e. committee work, mentoring, undergraduate advising etc.)?

Please choose **only one** of the following:

- ○ Yes
- ○ No
- ○ Don't know

19a. If you answered yes, what kind of recognition did you receive?

Please choose **all** that apply and provide a comment:

- ○ Merit
- ○ Teaching release
- ○ Other1 (please specify):
- ○ Other2 (please specify):
- ○ Other3 (please specify):

20. Regarding nominations for service, teaching or research awards, please answer the following questions:

Please choose the appropriate response for each item:

	No	Yes	Don't know
Does your department have formal procedures or a committee on award nominations for faculty?	○	○	○
Are you satisfied with the process (formal or informal) around award nominations in your department (e.g., with regards to transparency)?	○	○	○
Has your department handled the nominations of faculty members in the department fairly?	○	○	○

20a. If you are <u>not</u> satisfied with the awards nomination process in your department, please comment:

Please write your answer here:

21. Thinking about leadership opportunities (e.g., committee chair, (associate) head, program director, (associate) dean) in your department or Faculty, please rate your responses to the following statements:

Please choose the appropriate response for each item:

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Opportunity/ies for a leadership position in my department/unit is/are open to me.	○	○	○	○	○
Opportunity/ies for a leadership position within my Faculty is/are open to me.	○	○	○	○	○
The criteria for gaining a leadership position within my department/unit are clear.	○	○	○	○	○
The criteria for gaining a leadership position within my Faculty are clear.	○	○	○	○	○
The process for recruiting and appointing leaders within my department/unit is transparent.	○	○	○	○	○
The process of recruiting and appointing leaders within my Faculty is transparent.	○	○	○	○	○
There is a sufficient number of visible minorities in leadership positions in my department.	○	○	○	○	○
There is a sufficient number of women in leadership positions in my department.	○	○	○	○	○

21a. If you answered “strongly disagree” or "somewhat disagree" to any of the above, please comment:

Please write your answer here:

Teaching

For the following questions on teaching, please consider the past 5 years that you were not on sabbatical/study leave (e.g., do not include teaching releases that you received during a sabbatical leave).

22. Compared to peers in your department and <u>in the last 5 years</u>, rate your teaching load:

Please choose **only one** of the following:

- ○ Below average
- ○ Average
- ○ Above average
- ○ Teaching not required in my unit

22a. In the past academic year (excluding independent studies):

Each answer must be at least 0	Number of courses/ full sections	Smallest class size	Largest class size
How many undergraduate courses or full course-sections did you teach?			
How many courses for graduate or professional students did you teach?			

Please note: *Only numbers may be entered in these fields.*

22b. If you are unsatisfied with the number of your teaching assignments, please explain why:

Please write your answer here:

23. Compared to peers in your department/unit and in the last 5 years, how often do you perceive you have had appropriate teaching assignments (i.e., matching your interests/expertise, appropriate preparation time)?

Please choose **only one** of the following:

- ○ Never
- ○ A few times
- ○ Several times
- ○ Always

24. In the past 5 years, how many new courses* have you prepared? Please indicate how many of these you proposed, or were invited or required to prepare.

Each answer must be at least 0	# of courses
Of those I prepared, I had proposed:	
Of those I prepared, I had been invited to prepare:	
Of those I prepared, I had been required to prepare:	

Please note: **courses that you have not taught previously – do not include major revisions of courses you have taught before. Only numbers may be entered in these fields.*

25. In the past 5 years, how many courses have you been released from teaching (count course per year, e.g. if you were released from one course for 3 years, indicate "3")

Each answer must be at least 0	# of courses
Funding by my own grant or fellowship funds:	
Funding by my department:	
Funding by secondment for administration:	
Other (please specify below)*:	

Please note: *Only numbers may be entered in these fields.*

25-1*Please specify if "Other" was answered above:

Please write your answer here:

25a. Other than sabbatical or administrative leave, please indicate the reason(s) you were released from teaching:

Please choose **all** that apply:

- ○ course development
- ○ administrative work
- ○ modified duties
- ○ other (please identify)::

Balance between Personal and Professional Life

26. Considering the following aspects for the balance of your personal and professional life, please rate your agreement with these statements:

Please choose the appropriate response for each item:

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree	N/A
I'm satisfied with the balance between my personal and professional life.	○	○	○	○	○
I'm satisfied with my overall workload.	○	○	○	○	○
One or more aspects of my life outside the work place (e.g. family care, cost of living, my health) have been a source of significant stress for me.	○	○	○	○	○
My commute negatively impacts my personal and professional life.	○	○	○	○	○
Faculty may comfortably raise personal and/or family responsibilities when scheduling departmental/unit obligations.	○	○	○	○	○
I'm satisfied with UBC's Housing Assistance Program.	○	○	○	○	○
I have considered leaving UBC due to housing pressures.	○	○	○	○	○
I forego professional responsibilities for personal responsibilities.	○	○	○	○	○
I forego personal life activities for professional responsibilities.	○	○	○	○	○
I have considered leaving my job to improve my personal-professional life balance.	○	○	○	○	○

27. How satisfied are you with the efforts made by your department/unit and UBC in finding suitable employment for your partner?

Please choose the appropriate response for each item:

	Very dissatisfied	Somewhat dissatisfied	Somewhat satisfied	Very satisfied	N/A
Faculty position	○	○	○	○	○
Other position at UBC	○	○	○	○	○
Other position outside UBC	○	○	○	○	○

28. Do you have any children?

Please choose **only one** of the following:

- ○ Yes
- ○ No

28a. If yes, please indicate number of children for the following age groups:

Each answer must be at least 0

	# of children
< 6 years	
6 – 12 years	
13 – 18 years	
> 18 years	

Please note: *Only numbers may be entered in these fields.*

28b. Are meetings and other departmental events scheduled to accommodate family responsibilities?

Please choose **only one** of the following:

- ○ Never
- ○ A few times
- ○ Several times
- ○ All the time

28c. Do you feel that UBC has provided adequate access to childcare for your child/children?

Please choose **only one** of the following:

- ○ Yes
- ○ No
- ○ Not applicable

28d. Have you taken maternity, parental or/and adoptive leave in the last 5 years?

Please choose **only one** of the following:

- ○ Yes
- ○ No
- ○ Not applicable

28e. If yes, how long was your most recent maternity/parental or adoptive leave?

Please choose the appropriate response for each item:

	1 to 3.9 months	4 to 7.9 months	8 to 11.9 months	more than 12 months
Maternity and parental leave	○	○	○	○
Parental leave	○	○	○	○
Adoptive leave	○	○	○	○

28f. During your most recent maternity/parental or adoptive leave, how much time did you spend on the following? Check all that apply.

Please choose the appropriate response for each item:

	No time	Some time	A lot of time
Administration	○	○	○
Teaching	○	○	○
Research	○	○	○
Graduate student supervision	○	○	○
Other1 (please specify below)*	○	○	○
Other2 (please specify below)*	○	○	○
Other3 (please specify below)*	○	○	○

28f-1*Please specify if "Other1", "Other2" or "Other3" was answered above:

Please write your answer(s) here:

Other1 _____

Other2 _____

Other3 _____

29. To what degree have career considerations affected your decisions around having or adopting (or not having) children?

Please choose **only one** of the following:

- ○ Not at all
- ○ Some
- ○ A lot

30. UBC will automatically stop the tenure clock for tenure-track faculty on maternity, parental, or adoptive leave. Did you or would you decline this option?
Please choose **only one** of the following:

- ○ Yes
- ○ No

30a. If you answered "yes", please comment on why you would choose *not* to stop the tenure clock:
Please write your answer here:

31. Since you started working at UBC, have <u>you</u> had your tenure clock slowed or stopped for personal reasons, including caring for a family member, your own health or a family crisis?
Please choose **only one** of the following:

- ○ Yes
- ○ No
- ○ Not aware of this option

31a. If yes, how supportive was your department in having your clock stopped or slowed?
Please choose **only one** of the following:

- ○ Not at all supportive
- ○ Somewhat supportive
- ○ Very supportive

Background Information

This data will not be used in combination with any other factors to identify individuals

32. Identify your <u>primary</u> department/unit in the Faculty of Science at the University of British Columbia: *
Please also fill in the "other comment" field.

Please choose **only one** of the following:

- ○ Botany
- ○ Chemistry
- ○ Computer Science
- ○ Earth, Ocean and Atmospheric Sciences
- ○ Fisheries Centre
- ○ Institute for Resources, Environment and Sustainability
- ○ Mathematics
- ○ Michael Smith Laboratories
- ○ Microbiology and Immunology
- ○ Physics and Astronomy
- ○ Statistics
- ○ Zoology
- ○ My primary department is not in the Faculty of Science (please explain):

32a. Which of the following departments/units in UBC Engineering would you perceive closest associated to your discipline? *

Please also fill in the "other comment" field.

Please choose **only one** of the following:

- ○ Chemical and Biological Engineering
- ○ Civil Engineering
- ○ Electrical and Computer Engineering
- ○ Materials Engineering
- ○ Mechanical Engineering
- ○ Mining Engineering
- ○ Technical communications
- ○ Other (please explain):

33. Gender: Which of the following describes how you think of yourself? *

Please choose **only one** of the following:

- ○ Female
- ○ Male
- ○ Transgender or analogous term
- ○ Not disclosed

34. Sexual orientation: please check those that apply to you *

Please choose **all** that apply:

- ○ Heterosexual
- ○ Gay or lesbian
- ○ Bisexual
- ○ Other
- ○ Not disclosed

35. What is your age (in years): *

Please choose **only one** of the following:

- ○ < 30
- ○ 30 to 40
- ○ 41 to 50
- ○ 51 to 60
- ○ 61 to 70
- ○ > 70
- ○ Not disclosed

36. Which of the following statements best describes your relationship status? *

Please also fill in the "other comment" field.

Please choose **only one** of the following:

- ○ I am married or partnered and live with my spouse/partner.
- ○ I am married or partnered, but we reside in different locations.
- ○ I am single (not married or partnered).
- ○ Other (please explain):

37. Culture/ethnicity: Please check those that apply to you *

Please choose **all** that apply:

- ○ Aboriginal (First Nations/ Inuit/ Metis)
- ○ Black (African, Haitian, Jamaican, Somali, etc.)
- ○ Chinese
- ○ Filipino
- ○ Japanese
- ○ Korean
- ○ Latin American
- ○ South Asian (East Indian, Pakistani, Punjabi, Sri Lankan, etc.)
- ○ South East Asian (Cambodian, Indonesian, Vietnamese, etc.)
- ○ West Asian/Middle East (Afghani, Arab, Iranian, etc.)
- ○ White/Caucasian
- ○ Not disclosed
- ○ Another ethnic/cultural group (please specify)::

38. Do you self-identify as a person with a disability? *

Please choose **only one** of the following:

- ○ Yes
- ○ No
- ○ Not disclosed

39. How many years has it been since you obtained your highest degree? *

Each answer must be at least 0

Please write your answer here:

39a. What was your highest degree? *

Please also fill in the "other comment" field.

Please choose **only one** of the following:

- ○ Master's degree
- ○ Doctorate degree
- ○ Other (please specify):

40. Identify your current rank: *

Please also fill in the "other comment" field.

Please choose **only one** of the following:

- ○ Lecturer (12 month)
- ○ Instructor 1
- ○ Senior Instructor
- ○ Professor of Teaching
- ○ Assistant Professor
- ○ Associate Professor
- ○ Full Professor
- ○ Professor Emerita/Emeritus
- ○ Other (please specify):

40a. Identify the number of years in your current rank: *

Please choose **only one** of the following:

- ○ Less than 2 years
- ○ 2-5 years
- ○ 6-10 years
- ○ 11-15 years
- ○ More than 15 years

41. Describe your tenure status: *

Please choose **only one** of the following:

- ○ I am not tenured
- ○ Promoted to tenure at UBC
- ○ Hired with tenure

42. Is there anything you would like to add?

Please write your answer here:

– Submit and Exit –

2012 Working Climate Survey for Faculty in UBC Science and UBC Engineering

Thank you for completing the 2012 Working Climate survey for Science and Engineering faculty!

As a token of appreciation for your time spent on the survey, you are eligible for a gift card. You can follow the link below and submit your name and campus address to receive a $10 coffee shop gift card. This independent site is not linked to your survey feedback.

Thank you for completing this survey.

2012 Policy Review Questionnaire (UBC Science Departments/Research Units)

Department/Unit:

1. **Does your department/unit have formal policies, procedures and/or guidelines for faculty in the following areas?**

Formal policies, procedures or guidelines	*Policy*		
	No	***Yes***	***Attached***
Hiring: strategy and guidelines for procedures of recruiting and hiring of faculty			
Merit: formal policy governing the assessment for merit/PSA awards			
Mentoring: formal policy/program regarding mentoring among faculty			
Workload: formal policies/procedures governing workload and communicating work expectations (such as service and teaching load, 'academic deliverables')			
Teaching Release: formal policy governing teaching releases			
Resources: committee and/or formal policies governing the allocation of resources such as access to/assignment of technician support, teaching assistants, or other unit resources for faculty			
Space: committee and/or formal policy governing the allocation of space for faculty, graduate students and post-doctoral fellows/ research associates			

2. **Tenure and Promotion: How are criteria and expectations for tenure and promotion communicated to faculty in your department?**

3. **Leadership: What leadership opportunities do you have for faculty members in your department and how are those decided?**

4. **<u>Awards</u>: Do you have a committee or person responsible for award nominations of faculty members?**

No	
Yes	

5. **<u>Leaves</u>: For what type of leaves does your department/unit have a formal policy (including criteria for approval, teaching and research support for faculty during leaves, etc.) beyond UBC policy?**

	Policy		
Type of Leave	***No***	***Yes***	***Attached***
Maternity/parental and adoptive leave			
Study leave (sabbatical)			
Leave for improving qualifications (for full-time teaching faculty)			
Leave without pay or benefits			
Administrative leaves			
other leave – please specify:			
other leave – please specify:			

6. **Do you communicate your departmental policies and guidelines through your (internal) website?** *Please check No or Yes and indicate website link if applicable. A screen grab or copy of the index page would be greatly appreciated.*

No		
Yes		**URL:**