



**WELCOMING WOMEN FACULTY:
THE REPORT OF THE PROVOST'S TASK FORCE
ON FEMALE FACULTY RECRUITMENT**

June 2002

TABLE OF CONTENTS

	PAGE
The Task Force and Its Mandate	3
UW Data on Female Faculty and Comparisons	4
What the Task Force Heard from the Campus Community	6
What We Learned from Other Studies and Institutions	10
Measures Previously Considered or Implemented by the University of Waterloo to date	14
Recommendations	17
A Sample of Best Practices	24
Appendices	
A Task Force Membership and Terms Of Reference	27
B Consultations	28
C DOCUMENTATION REVIEWED	29
D Written Submissions From Groups	33
E Data	34

THE TASK FORCE AND ITS MANDATE

The Provost's Task Force on Female Faculty Recruitment (FFR) was established by the Provost in response to concerns raised about UW's record in recruiting female faculty by the University Appointments Review Committee's November 2001 Report to Senate (see terms of reference, Appendix A). The timing was opportune as present and future circumstances will result in significant opportunities for new faculty recruitment, but in an extremely competitive environment. To discern how Waterloo might better attract and retain female faculty is paramount.

The FFR met 16 times and consulted with a broad spectrum of the campus community, including individually with the Deans and College Heads, the Presidents of the FAUW and the Graduate Student Association, the Director of Women's Studies, representatives from FAUW's Status of Women and Inclusivity Committee, and a focus group of 16 female PhD candidates, representing all Faculties on campus (see Appendix B for a complete list of consultations). As well, the FFR received several written submissions in response to notices placed in the *Gazette* and on the *Daily Bulletin* soliciting views from the UW community.

Consistent with our terms of reference, we consulted with AUCC and COU concerning recent studies addressing hiring and nurturing of female faculty, requested documentation from the G10 universities on pertinent recruitment and collateral practices, and reviewed what measures UW has taken and what measures have been previously identified to make the UW campus hospitable to women faculty. Our information sources broadened as we progressed and the documentation which the FFR ultimately reviewed is listed in Appendix C.

In our deliberations we tried to keep in mind how the demands of the academy can be harmonized with the lifestyles, aspirations and expectations of its members. We also recognized the profound effect early years have in determining the eventual size of the PhD pool and the important critical influence that the university can exert on students during their formative education. And we developed recommendations which we believe are not only practical instruments in attracting and retaining both female and male faculty but are also affordable. Our report provides a sample of "best practices" which were culled from the extensive material which we reviewed. We expect it will serve as a useful resource complementing the recommendations as they are implemented.

UW DATA ON FEMALE FACULTY AND COMPARISONS

How is UW doing relative to other Canadian universities?

The FFR looked at two sets of comparative data for Canadian universities, one from the Status of Women 2001 supplement of the *CAUT Bulletin* (page 32), and one compiled by Bob Truman of Institutional Analysis and Planning (Appendix E, page 37). Both were prepared from unpublished Statistics Canada data.

The CAUT table shows numbers of full-time university faculty by type of appointment, gender and university across Canada. For most institutions the reporting year was 2000-2001; for a few, it was 1999-2000. Among the larger universities, those with low proportions of female faculty were Waterloo (20.3% -- figures exclude data from the Federated and Affiliated Colleges where 36% of faculty are female), Laval (21.1%), Western (22.3%), Guelph (22.6%), Sherbrooke (22.8%), Saskatchewan (22.9%) and McGill (23.7%).

The same table shows that in most institutions, the proportion of tenured faculty who were female was much smaller than the proportion of females in positions "leading to tenure." Notable exceptions were Laval, which had only one woman in the second category, out of (apparently) 8 hires, and UW. At UW, the proportion of tenured faculty in 2000-2001 who were female was 17.8%, while the proportion of female faculty in positions "leading to tenure" was only a little higher, at 20.3%. The difference in pattern may reflect the fact that recent recruitment at UW has been more concentrated in the mathematics, science and engineering disciplines.

The Statistics Canada data shows the PhD pool percentages and the proportions of faculty who are female for the G10 universities (except Laval) by UW department. It should be noted that the discipline mapping is inevitably imperfect, that the institutions report unevenly, and percentages without numbers can be difficult to interpret. Nevertheless, a few features are worth highlighting.

On the whole, in the G10 universities, the proportions of women faculty are lower than the pool ratios -- as would be expected in a context of increasing pool ratios, even if hiring had been proportional to pool ratios historically.

In comparison with other G10 universities in Fall 2000, UW was ahead in proportions of female faculty in some disciplines: Classics, Germanic & Slavic Languages and Literature, History, Civil Engineering, Electrical & Computer Engineering, Geography and Earth Sciences. UW was behind the rest in Economics, French Studies, Sociology and Mechanical Engineering. In the remaining disciplines, UW stood around the middle of the group.

Queen's University seems to have been ahead in more disciplines than the other G10 members. It is worth remarking that in the 1980s, Queen's instituted the Queen's National Scholars program, a bridging program to help recruit young women faculty. Further, at least two of the leading proportions in the table appear in departments which have made hiring women faculty a priority, namely Civil Engineering at UW and Computer Science at UBC.

The Statistics Canada data by discipline indicate that UW is not doing as badly at hiring women faculty as might appear from the overall proportions in the CAUT data. At the same time, there are certainly areas across all Faculties where there is potential and need for increased numbers of women at UW.

WHAT THE TASK FORCE HEARD FROM THE CAMPUS COMMUNITY

FROM GRADUATE STUDENTS

Most of the graduate students we interviewed expressed a genuine interest in pursuing an academic career. However, they also identified a number of major challenges they felt they would encounter were they to decide to follow this career option.

comparative attraction of academe. Graduate students frequently voiced the opinion that, in comparison with other career choices, academic careers are not all that attractive. They expressed concern over the amount of pressure faculty members experience as a result of the constant need to seek research funds, to produce leading-edge scholarship, and to balance heavy teaching loads. They stressed that there is a widely held opinion among graduate students that UW is under-funded and under-resourced. A number of women students felt that positions in industry were less stressful since companies can often provide better resources. When they look at current female faculty members at UW, female graduate students were not encouraged to follow in their footsteps; they viewed female faculty members as being “stressed out” as a result of trying to combine an academic career with family responsibilities. Some graduate students also worried that, while they are attracted to academe because they enjoy teaching and interacting with students, these activities are not perceived to be valued nor rewarded as much as research.

combining academic careers with family responsibilities. Many of the female graduate students interviewed referred to the difficulty of combining a demanding academic career with raising a family. Several stated that they had been advised to have their children while they were still graduate students, as it would be too difficult to have children while going through the tenure and promotion process. A male graduate student reported that male graduate students also share the perception that combining academic careers with child rearing is a major challenge. As a result, young couples often conclude that only one partner should pursue a career in academe.

institutional support. There was a general consensus that UW could do more to alleviate the stress resulting from combining a career as a faculty member with the roles of wife and mother. Supervisors, it was felt, should be more understanding if women have to take time off to attend to family matters. Administrators should also be more sensitive to faculty members’ family commitments when it comes to scheduling of courses and meetings. Other areas where it was felt UW could give more support included the provision of more infant daycare, and of facilities to make it easier to look after infants on campus (breast-feeding and diaper changing areas). Although existing UW policies provide for extensions to the tenure and promotion period for female faculty members who take maternity leave during the tenure and promotion process, there is a widely held view that, in fact, women are still disadvantaged if they do so. It is very difficult, for example, to catch up on time spent away from research.

campus culture. There was some sense among the graduate student group interviewed that there are subtle but real biases associated with the dominant male culture on campus. For example, some students expressed the opinion that jobs are frequently structured in such a way as to value technical knowledge rather than the ability to disseminate and apply knowledge. There seems to be a built-in bias in favour of highly-funded research and against lower-funded community research. In some departments, there is a “jock club” atmosphere that can be isolating and intimidating to women. Female graduate students also reported that they find it a challenge to establish strong research profiles when older men at scholarly conferences don’t take them seriously. Sometimes views such as “She got tenure because she is a woman,” or “She’s a good researcher now, but she’ll probably have kids” have been heard. Such comments, even when said in jest, are inappropriate and hurtful.

FROM FEMALE FACULTY MEMBERS

In our discussions with female faculty members, we focussed much of our attention on the identification of impediments to the recruiting and retention of female faculty members. The following items emerged as key issues.

workplace climate. Some female professors experience a lack of respect and support within their departments. They are often reluctant to talk about these issues because they and others perceive that it is *their* problem. There is also a predominant perception that UW is interested only in “big science,” and in promoting and supporting research in technical areas where there are relatively few women. Some faculty members felt that generally the campus has become less affirming of women than it was ten years ago (i.e., less attention is being paid to women’s issues). A number of women faculty expressed the opinion that they would like to see a stronger demonstration of commitment from senior administration that the hiring and retention of women faculty is a priority for this institution. And several women expressed reservations about consulting their department chairs in matters concerning disputes; they saw a need for an informal dispute resolution process specific to faculty.

hiring targets. There should be hiring targets, based on the size of North American PhD pools, especially in departments where less than 20% of faculty members are women.

mentoring and promotion of women. The women faculty we met with pointed to the absence of women in senior academic administrative positions. They also noted the low percentage of female faculty who are full professors (at May 2002, of the 299 full professors, 28 are women; see Appendix E, page 38). Because their numbers are low in many departments, female faculty members are frequently called upon to serve as the female representative on committees. Consequently, they have even less time available for research and scholarship. As a result of their family commitments, women often display different career trajectories (i.e., peak later in their careers than do men), and this difference should be taken into account when hiring and tenure and promotion decisions are made.

The University administration could be more proactive by ensuring that there are mentoring mechanisms in place to help female faculty move through the ranks, by enabling departments to hire women when the opportunity arises (e.g., through bridging appointments), and by appointing women to administrative “internships.”

combining academic careers with family responsibilities. The very real difficulties for young women in combining their duties as faculty members with child rearing is dampening enthusiasm among young women for pursuing academic careers. University policies and practices should be put into place that would address this issue. UW should convey more consistently and strongly its commitment to being a “female and family-friendly” place.

salaries. UW’s salaries, we were told, are too low and we are therefore not competitive when it comes to hiring and retaining top prospects. There was also a concern that there is still a significant differential between the salaries of male faculty and female faculty members.

FROM DEANS AND COLLEGE HEADS

In our individual interviews with Deans and College Heads, we attempted to look for similarities and differences between and within Faculties and Colleges. With this group also, we were especially interested in finding out the interviewees’ perceptions of what issues need to be addressed in order to facilitate the hiring and retention of qualified women.

applicant pools. In many disciplines, the size of the PhD pool is a significant challenge and makes it difficult to recruit women. This problem needs to be addressed through both long-term measures (outreach programs to encourage more women to enter certain areas) and short-term measures (mentoring current graduate students and being more proactive in recruiting potential faculty members). It was noted that women are often even more under-represented in the applicant pool than they are in the PhD pool.

competition. There is fierce competition for women with PhDs not only from other universities in North America, but also from industry and government. Many women prefer working in industry or as consultants because they believe they can exercise more control over their workloads, and do not have to compete constantly for grants to sustain their research.

retention. It is important that UW focus as much attention on retaining female faculty as on recruiting them. Doing so entails a commitment to mentoring and to supporting them. In particular, teaching loads should be examined. The view was expressed that they are generally too high, especially given UW’s identity as a research-intensive university.

combining academic careers and family responsibilities. The issue of dual career families needs to be addressed. Measures should be put into place to assist the spouses of new hires in finding employment, and to help new faculty members locate housing, schools, and medical care.

salaries and start-up grants for research. There was a strong consensus that UW is not competitive given its current levels for salaries and start-up grants for research.

women's issues committees. It was noted that women's issues committees in several Faculties are less active than they were a decade ago.

WHAT WE LEARNED FROM OTHER STUDIES AND INSTITUTIONS

This section of the report describes the themes and issues that arose from a reading of other studies on recruitment of women faculty, and relevant policies and practices from other universities and the private sector.

THE UNDER-REPRESENTATION OF WOMEN

All sources emphasized the importance for any institution (public or private) to be equitable in hirings. The challenge for universities is that certain disciplines have a small pool of women with PhDs. We reviewed several US-based reports which compared the PhD pool and females in tenure track positions in areas where women are traditionally under-represented: engineering, science and mathematics (see, for example, Kuck, 2001; American Mathematical Society, 2002). A Canadian-based report discussed under-representation in the field of economics (Canadian Economics Association, 2001).

STRATEGIES FOR INCREASING THE POOL OF QUALIFIED FEMALE CANDIDATES

There are many existing reports that provide excellent suggestions for increasing the pool of qualified female candidates. It is well recognized that this process begins in elementary school and continues through to graduate school. For example, the UW Edper/NSERC Chair for Women in Engineering, Science and Mathematics Proposal contains a rich background and set of action items in the areas of consolidation and networking of activities, and implementation of outreach activities.

Outreach strategies employed in the Ottawa area to increase the number of female students entering Engineering undergraduate programs at Ottawa and Carleton can be found in a report by M. Frize (2001). As well, Cuny and Aspray (2000) provide an excellent source of recommendations for recruiting, retaining and fostering a research life for women in undergraduate and graduate Engineering and Computer Science programs.

STRATEGIES FOR ATTRACTING FEMALE FACULTY MEMBERS

There is general recognition among many universities that in the foreseeable future the competition for hiring new faculty, especially women, is going to be intense. Many universities have recognized the need for having clear policies demonstrating their family-friendly policies. Some examples are:

- faculty relocation and support programs -- e.g., housing, healthcare, childcare, orientation, spousal relocation (Toronto, Carleton, Guelph, Queen's)
- assistance with or formal policies on spousal employment -- e.g., to waive a competitive search to assist placing a qualified spouse and provide financial assistance to a receiving department (UBC, Carleton, Toronto)
- on-campus facilities for nursing babies (Western)
- maternity/adoption/paternal leave policies (widespread)

Not only are some universities making a special effort to make their campuses “women friendly,” they are actively instituting specific strategies for hiring women:

- providing centrally coordinated equity resources, or an Advisor on Equity (Queen’s, UVic, Western)
- using a “National Scholars” program to bridge recruiting of new women faculty (Queen’s)
- making available discretionary funds to help promote hiring of women and to help them develop their careers (Ottawa)
- topping up salaries at the entry level to associate or full professor for exceptional women (UBC)
- promoting qualified female postgraduate award holders as candidates for faculty positions. A number of strategies can be found in the NSERC *Report of the Task Force on Women in Science and Engineering*, 1996
- making university-wide hiring targets for women significantly above the PhD pool (Carleton)

THE HIRING PROCESS

Much has been written about hiring procedures that promote gender equity. The underlying theme is the need to keep the issue of equity hiring visible at every stage of the hiring process (Manitoba, McMaster) and for senior administrators to make it clear that equity is a top priority for the university. One way that many universities have responded is to have an individual on campus whose only responsibility is to deal with equity (Queen’s, York, Western). In addition, some have very clear and detailed statements on employment equity (Western) and are very open about their targets for hiring (Carleton, Ottawa). Many institutions are very specific about what they mean by terms such as “equality” and “equity” (York, WLU, Queen’s). This clarification is to overcome the perception that equality can be easily judged, that somehow it is quantifiable and not open to bias.

PREPARATION/FORMATION OF THE SEARCH COMMITTEE

Most universities have formal policies addressing the preparation and composition of search committees which may include:

- requiring that at least one woman be on the hiring committee (Ottawa, WLU)
- requiring equity training sessions or gender sensitivity workshops for administrators (Manitoba, McMaster) or for the entire search committee (Queen’s)
- making the chair or a designated individual on the search committee responsible for advising committee members on the importance of employment equity throughout the entire process (York, WLU, Queen’s, U. of Washington)
- ensuring that hiring committees are clear that equity is a major priority (Western)

ADVERTISING

Universities recognize that more effort needs to be spent on advertising positions and finding good candidates. Given the competition among universities for faculty, following older routes will not be productive. Examples of alternative strategies are:

- ensuring that the hiring committee consults with informed men and women of cognate disciplines to identify suitable candidates, particularly of under-represented groups
- using “diversity recruitment directories,” for example, which are advertising channels aimed at under-represented groups
- paying greater attention to advertising family-friendly policies or community benefits (Ottawa, Queen’s, Western, WLU, Manitoba)

CHOOSING CANDIDATES

The importance of ensuring that potentially qualified candidates are not eliminated from the application pool early in the process is recognized by many universities. Some institutions direct the selection committee to take special care not to eliminate potentially strong candidates from under-represented groups prior to interviewing, in particular, to take care in assessing reasons for differences in career paths (Queen’s, UVic). Others insist that the committee should interview at least the best-ranking qualified candidate of the under-represented group (Manitoba). Some require justification if none is interviewed, proof that an attempt has been made to hire a candidate from the under-represented group, or proof of the department’s willingness to hire from the under-represented group (York, WLU).

RETENTION

The range of strategies undertaken by various universities to ensure that women have a hospitable climate is wide. Though this is not the primary focus of our report, there are a number of themes worth reporting.

- central funding for parental leaves so that the “home” department does not face a monetary burden (Queen’s)
- parental leaves that do not stop the sabbatical leave “clock” (widespread)
- PTR to take into account work before and after a parental leave and allow for a longer term review of work (Queen’s, Toronto)
- PTR to recognize and reward special demands placed on individuals from under-represented groups and to allow for non-traditional or variable career paths (UVic, Toronto, Queen’s, Western)
- formal exit interviews to assess and facilitate remediation of “chilly climate” issues
- existence of family-friendly policies and services (mentioned elsewhere)
- an office of “equity” or advisor on equity with a mandate to coordinate and distribute policies and procedures related to equity matters, such as guidelines for hiring, list of best practices in recruitment, training, promotion, retention and accommodation (UVic, Queen’s, Western, WLU, York)
- policies on the use of gender-neutral language (WLU)

CONCLUSION

It is clear from existing reports that the issues of increasing the pool of qualified female candidates, and attracting, and retaining female faculty have received considerable study in the past decade. Much has been done, but there is still ample opportunity for improvement. In particular, we note that many other Canadian universities have undertaken a wide range of creative strategies that are family friendly, many of which are specifically designed to attract qualified female candidates. The recommendations contained in this report are intended to afford Waterloo more success in this area.

MEASURES PREVIOUSLY CONSIDERED OR IMPLEMENTED BY THE UNIVERSITY OF WATERLOO

As part of its mandate, the FFR reviewed relevant documentation dating back to 1989 to discern what measures have been previously considered or implemented to make UW more hospitable to women. A number of studies were particularly useful including: Advisory Council on Academic Human Resources *Reports, Building on Accomplishment* (including Progress Reports), "Creating a Women-Friendly Environment Perspective from a Larger Institution" (Weckman, Jewkes, Lennox), "Seeking and Keeping: 1985-1991" (Marshman), and "Report on the Status of Women at UW: Engineering's Response." (See Appendix C for a complete list of documentation.) This review disclosed a number of recurring themes, many of which have been addressed in the intervening years. These themes include:

mentoring. Mentoring of both graduate students and new faculty has been strongly stressed in order to give the support, guidance and encouragement necessary to excite graduate students about a future in academe, and to sustain and advise young faculty through their early years which, with the demands of tenure and promotion, are seen to be most stressful. While each Faculty should ensure that mentoring is available for all graduate students and new faculty, and most do, other resources can also be encouraged and accessed, including: Women in XXX committees, particularly in Engineering and Mathematics, the FAUW's Status of Women and Inclusivity Committee, and TRACE's programs, which include a mentoring program for new faculty and sessions on balancing careers and personal lives.

role models. Female role models, it has been noted, are required at all levels from the very formative years in elementary school through the senior ranks of academic administration. This requirement is well understood and women faculty at UW continue to fulfil and are committed to fulfilling these roles. Currently, however, UW is conspicuously lacking in female academic administrators: there is not a single female faculty member serving in a senior academic administrative position, and just a small complement serving as department Chairs and Associate Deans. Women who are interested in administration should discuss possibilities with their Chairs/Deans and take advantage of courses available for academic administrators.

child care services. While some of the demand appears to be adequately addressed (toddlers through pre-school) by the range of services available on campus, there is unmet need for infant daycare (Hildegard Marsden, the only day care on campus which accepts infants, has a waiting list of 1.5 years) as well as desire for after-school care. In short, there continues to be need for child care services on, or immediately accessible to, campus.

orientation for administrators. Recommendation 30.2 in *Building on Accomplishment* prescribes “orientation for department heads, chairs and deans, as people in these positions require specific management skills and understanding of university policies to give effective leadership in their areas.” During 2001, orientation sessions for administrators were re-introduced and two sessions were held: on staff performance reviews and on Policies 76 (Faculty Appointments) and 77 (Promotion and Tenure, which sets out performance standards required for promotion and tenure) and on new MOA Articles 13 (Faculty Salaries, Annual Selective Increases and Member Evaluation Procedures) and 14 (Integrity in Scholarly Research).

tracking women graduates. While the desirability of doing so is generally acknowledged, and the pay-off at recruitment time worthwhile, keeping track of graduates is uneven across campus, partly due to human resources required.

workload. There have been longstanding expressions of concern about the rigorous challenges women face when trying to combine child bearing and rearing with the demands of competing for promotion and tenure. Over the last several years, UW has put measures in place to address some of these concerns including: Policy 3 (Leave of Absence for Faculty Members) which permits faculty on probationary-term appointments to apply for a special early sabbatical at full salary; Policy 76 (Faculty Appointments) which provides for probationary terms to be extended when pregnancies intervene; Policy 14 (Pregnancy, Adoption and Parental Leaves) which provides for up to 50 weeks leave and supplementary benefits for pregnancy, adoption and parental leaves which, together with employment insurance, amounts to 95% of salary earned immediately prior to the leave, provides for sabbatical leave and vacation credits to be earned during such leave, and for teaching duties to be reduced in proportion to the length of each pregnancy, adoption or parental leave. Faculty Deans also report that, while scheduling is the decision of the department Chair, Chairs give as much flexibility as possible in scheduling courses for faculty with small children; further, that where department workloads and funding permit, beginning faculty members receive reduced teaching and service workloads as well as starter grants.

salaries. An ability to offer competitive salaries has been seen as a major constraint in attracting faculty, especially women, where the pool is frequently small and the competition, not only with other universities but also the private sector, is intense. UW remains committed to offering the best salaries it can given current fiscal conditions and to ensuring salary equity. The latter is best addressed at the time of annual performance reviews: department Chairs/Deans undertake/should undertake to review individual salaries to ensure that salary equity is maintained and inequities are not allowed to develop.

dispute resolution mechanisms. The necessity of implementing effective dispute resolution mechanisms was clearly identified in *Building on Accomplishment*. In 1999, with the approval of Article 9 (Grievance and Arbitration) of the MOA and the revision of UW policies dealing with Ethical Behaviour, new mechanisms were implemented. Further, approval in 2001 of MOA articles dealing with program redundancy, financial exigency and lay-offs also provide effective mechanisms to address these circumstances as do the MOA article on faculty salaries and UW policies on intellectual property and research ethics. Although the Office of Ethical Behaviour and Human Rights has established informal dispute resolution mechanisms (faculty, trained in dispute resolution, will work with faculty colleagues to resolve issues) which are referenced in the MOA as well as other UW policies, some faculty have expressed concern that a separate and different informal process is needed.

commitment to employment equity. As noted in the October 1999 progress report on *Building on Accomplishment*, all job advertisements include UW's employment equity statement, and hiring committees are charged with seeking applications from under-represented groups; the October 2001 progress report noted further that this is an "ongoing commitment."

targets. As mandated by federal and provincial legislation and as a mechanism to aid in recruitment, over the past decade information on candidate pool size along with anticipated retirement data has been shared with academic administrators. Deans have set hiring targets based on these data.

retention. A number of reports written over the last decade (see above) have described what measures UW has put in place to improve retention of women faculty. Included among these measures, some of which are referred to and elaborated on previously: on campus day care facilities, annual salary reviews, mechanisms for dealing with sexual harassment, fractional load appointments, modifications to parental leave policy, adoption of gender neutral language, policies addressing workload issues, and commitment to employment equity. At least one report ("Response: Status of Women at UW, 1994") posited that priorities for moving forward with respect to "Status of Women at UW" recommendations should include: clearer role definitions (who is responsible for what: for example, exit interviews); setting up of Women in XXX committees in each Faculty; a campus-wide coordinator to oversee activities within each Faculty; and a coordination mechanism with a mandate for regular reporting.

RECOMMENDATIONS

What follows are recommendations on how UW can improve female faculty recruitment and retention which the FFR has crafted based on its consultations and the documentation it reviewed. The recommendations are grouped by broad topic and are not prioritized. Some have estimated incremental costs attached, where applicable; most will incur variable costs of money and faculty time which must be recognized where and as appropriate.

1. INCREASING THE APPLICANT POOL

start early. There is ample documentation indicating the critical need to start early to motivate young minds and excite them with the delights of learning. Waterloo recognized this decades ago as it introduced both formal programs (e.g., Math competitions, summer camps) and informal opportunities (responding to requests to visit schools, speaking engagements, etc.) for students in primary and secondary schools. These initiatives need to be continued, supported, and adjusted as required. For those enterprises supported principally by volunteers, and many are, efforts of the volunteers should be recognized in academic assessments.

follow through. Reports, both internal and external (see Appendix C), emphasize the need to encourage students as they progress in university: undergraduates to continue on to graduate school; graduates to complete their doctorate and consider a career in academe. This encouragement falls largely to the individual department and its instructors who know their students and have direct opportunity to mentor, provide role models and promote the rewards and personal fulfilment of a career in academe (i.e., the workload feasible, the career path flexible -- particularly in timing, the interactions stimulating).

Responsibility: Deans and department Chairs should review both "start early" and "follow through" with a view to reinforcing current practices and identifying new initiatives.

promote UW. In the same way UW has totally revamped its student recruiting materials, UW's image should be revamped to attract faculty, especially women. New promotional materials, developed though the coordinated efforts of Information and Public Affairs, Human Resources and the new Coordinator, Faculty Recruitment and Retention Program (see following) should include a web page designed for potential applicants with links to position advertisements, department contact information, sites relevant to under-represented groups, UW family-friendly policies and benefits, and sites which promote the facilities and quality of life in the KW community.

Responsibility: Information and Public Affairs, Human Resources, and the new Coordinator, Faculty Recruitment and Retention Program.

increase visibility of women. UW currently has no female faculty in senior academic administrative positions, and just a small complement serving as department chairs and associate deans. Recent in-house senior administrative appointments have not gone to women faculty. To increase visibility of women faculty at senior administrative levels and to develop a UW female faculty pool with senior

administrative qualifications, UW should develop an internship program for at least one or two UW faculty women per year within the senior central administration. This could include, for example, special short-term appointments such as "Assistant to the President" or to the Vice-President. Further, Faculty Deans and department Chairs should be encouraged to appoint women faculty members to "Associate" positions (decanal or departmental) and to provide them opportunity for special administrative assignments/task forces as occasions present.

Responsibility: President, Provost, Deans, Department Chairs.

2. ATTRACTING WOMEN TO UW

create postdoctoral positions for women cost: \$200K

Advantages of holding a postdoctoral position before entering the tenure stream are: teaching load is (should be) low, leaving time to get the research program fully established; a time to learn the "academic ropes"; tenure clock does not start; teaching credentials can be established under less stressful circumstances than they might be otherwise; candidate becomes a "known quantity" in the department and has a chance to become comfortable as a colleague in the department; perhaps a time to start a family.

The incentive to create such positions would include:

- limiting incentive to disciplines where the fraction of women in the PhD pool is low
- providing a matching scheme: Provost (\$5K), Faculty (\$5K), department/faculty sponsor (remainder). Limit the number at any one time to eight for the large Faculties, and four for the smaller ones, yielding a maximum Provost liability of \$200K annually. If each postdoc teaches two courses, this would provide a total of about \$20K towards each position, in advance of any departmental and/or individual faculty support. Some Faculties might decide/be able to provide more support. Faculty members with PREA awards would be assured of enough funding for a postdoc under this scheme
- limiting teaching to two term courses per year *at most*
- providing support, normally for a duration of two years, but which could be interrupted for pregnancy, adoption or parental leave
- not combining this with a granting council PDF

Responsibility: Provost, Deans, Department Chairs, faculty members.

establish a female faculty bridging fund cost: \$250K

This measure would encourage departments to hire female faculty in advance of a pending retirement. In order to make this affordable, it would have to be shared, with only part coming from the Provost. However, it should be substantial enough to be a genuine incentive, say \$25K. The bridge would be limited to at most three years.

The number of such opportunities is unlikely to be large, perhaps no more than 10 at any time, which would imply an annual expenditure of at most \$250K from the Provost's office. The number could be arbitrarily limited to a number that was deemed affordable.

This fund would facilitate the exploitation of NSERC's UFA program, since it would improve the likelihood that departments would be in a position to make unconditional (tenure stream) offers to UFA nominees.

Responsibility: Provost, Deans, Department Chairs.

3. ATTRACTING FACULTY TO UW

**establish an institutional fund to facilitate "spousal opportunities" cost: \$225K **

Increasingly, recruiting involves couples who are both academics. In such cases, it is desirable or essential to find a position for the "primary" recruit's spouse if the recruitment is to be successful. The suggestions of postdoctoral positions for women and the female faculty bridging fund (above) might serve to assist finding such a position. In addition, the Provost would establish a fund in his office to assist in those cases when neither of the mechanisms is appropriate or available. The spousal/secondary appointment might be funded by a combination of \$25K from the Provost's fund, and the remainder shared equally by the Faculties and departments making the primary and spousal hires. The term of the spousal appointment would be limited to at most three years. If three of these occur each year (probably high), the maximum central encumbrance would be \$225K.

This kind of special arrangement would require waiving of current policy requirements including that UARC would review the primary and spousal hires as a package. The secondary recruit would be eligible to apply for research or tenure track positions as they become available.

Responsibility: Provost, Deans, Department Chairs, UARC.

provide institutional start-up funding and teaching reduction in the first year of appointment

This suggestion applies to *all* new faculty appointments. It is essential that new faculty members have the time and financial resources to properly launch their research programs and to develop their teaching skills. The amounts needed for start-up funding varies substantially across the Faculties, as does their respective ability to provide such funding. The ability to provide funding and the amounts needed are positively correlated, which suggests that a modest base amount, together with a limited matching amount, might be provided by the Provost with the remainder provided by the Faculty and department. For example, for every new hire, the Provost's office might provide \$15K. This would be enough to provide a one-course teaching reduction in the first year of the appointment, together with about \$10K for research support (graduate student, travel, etc.) until the new faculty member is able to acquire other funding. In addition, there might be a 1-1 matching scheme for an additional amount, to a maximum central commitment for each new appointment. Any additional support would come from the Faculty and department.

(The estimated annual cost of \$900K (60@\$15K) is not included in total incremental costs since this funding is likely to occur irrespective of the FFR recommendations.)

Responsibility: Provost, Deans, Department Chairs.

access to infant day care. There is acknowledged need for day care on, or immediately accessible to, campus, and a range of day care services is currently provided on site by three independently established facilities. Only one of the facilities, Hildegard Marsden, with a waiting list of ~18 months, provides infant care and its limited number of spaces is not sufficient to meet current demand. At present, the day care boards are considering forming a consortium with a view to negotiating with tenants on the north campus for a new day care facility which would guarantee the number of spots currently on the UW campus for UW family. UW should encourage the boards to pursue this initiative, taking into account the unmet need for infants and the potential for other agencies (e.g., YWCA/YMCA) to partner.

Responsibility: Provost's Delegate(s), Day Care Boards.

establish new position: coordinator, faculty recruitment and retention program cost: \$65K
Reporting to the Associate Provost, Academic and Student Affairs, the incumbent would have responsibility to facilitate transition of new faculty and senior staff to UW and the community. The incumbent would provide assistance in areas such as spousal (i.e., non-UW) employment, purchase of property, choice of schools, securing a physician; in short, any aspect which will ease moving and settling into the community.

Responsibility: Provost, Associate Provost, Academic & Student Affairs.

4. THE RECRUITMENT PROCESS

dean approves DACA. Policy provides that DACA membership should include at least one woman faculty member. This provision should be met, even if to do so requires that a woman from another department be included on the DACA. In addition, the Chair should consult with the Dean about DACA membership in advance of its formation. Ideally, this consultation should be mandatory and would require a policy revision.

Responsibility: Provost, Deans, Department Chairs.

“recruiting package” and checklist for DACAs. Given the decentralized nature of recruiting and the variant levels of experience of those participating on DACAs, there is unevenness in the recruiting process. To ameliorate this circumstance, a recruiting package and a checklist should be developed for DACAs to be distributed at the time permission to advertise is granted. The recruiting package would include: the checklist (for review by all DACA members); department and Faculty recruiting targets (need to be reviewed, updated, promoted); and a set of best practices to guide the DACA at each stage of the process. To focus attention on matters of equity at the outset, a checklist should require the DACA to declare that at the commencement of the recruiting process it reviewed the number of females in the department, the department target, and the representation of females in the pool of potential candidates.

A best practices document (see section following) would include advice on matters such as: developing knowledge of the pool, constructing advertisements (promoting UW, more family-friendly), placement of advertising (identify channels that target females, etc.); shortlisting (don't let potentially qualified females fall off the short list too soon); interviewing (including "brag sheets" for the department/UW (what is unique and good -- could also go on the web)); ensuring that female candidates talk to departmental female faculty; promoting and encouraging the "human dimension" of the department and allowing candidates to experience this in their interactions); assisting in the transition (see COORDINATOR, FACULTY RECRUITMENT AND RETENTION PROGRAM).

Responsibility: Provost, Deans, Department Chairs, DACAs.

5. ORIENTATION FOR ADMINISTRATORS AND CHAIRS OF UARC AND DACAs

Recommendation 30.2 in *Building on Accomplishment* prescribes provision for "orientation for department heads, chairs and deans, as people in these positions require specific management skills and understanding of university policies to give effective leadership in their areas." While the scope of content for these sessions will be extensive, there are specific areas which especially relate to female faculty recruitment and retention which need to be addressed, including: human rights legislation, employment equity, gender and diversity issues, and sensitizing to the different styles and strengths which female faculty bring to the academy. Also paramount is that academic administrators understand the importance of fostering in their units a climate in which supportive and nurturing collegial relationships can be established.

Regularized orientation sessions are needed for this targeted group as well for chairs of UARC and DACAs.

Responsibility: Associate Provost, Academic & Student Affairs, Associate Vice-President, Academic.

6. SALARY EQUITY

UW remains committed to ensuring salary equity. Performance reviews provide an annual opportunity for department Chairs/Deans to review individual salaries to ensure that salary equity is maintained and inequities are not allowed to develop.

The effect of salary increases is cumulative. Thus, a few years of lower-than-normal annual performance reviews can have a negative affect on salary for the remainder of a professor's career. Under the current salary system, even if a professor's performance returns to normal it is unlikely that her/his salary will recover to the level of someone who did not suffer those few years of sub-normal performance, and who is comparable in all other respects. Since parenting responsibilities frequently fall most heavily on women faculty, they are more likely to experience a period during their career where performance reviews may not be up to their normal level.

If one accepts the notion that a *temporary* period of low performance ratings should not be prejudicial for the remainder of a faculty member's career, it follows that the salary should rise, over time, to what it would have been if the temporary sub-par performance had not occurred.

Using the salary structure provided by Article 13 of the MOA, the *number of years from the PhD*, the *nominal current starting salary*, and the *average* of the last five annual performance review ratings, can be used to determine a "model salary" that can provide guidance in making salary adjustments. This has the virtue that it ignores the actual starting salary of the faculty member (it might have been too high or too low), and "forgets" all but the last five years of annual performance reviews. In addition, it smooths temporary changes in recent performance. As prescribed by Article 13, each Dean may use a small portion of the annual selective increment pool for special adjustments.

Of course the process outlined above is valid only if the annual performance reviews themselves are carried out with care and attention, to ensure that the ratings are a fair and accurate reflection of actual performance.

Responsibility: everyone with responsibility for faculty performance reviews.

7. RETENTION

continued mentoring. If UW is to be successful in retaining newly hired faculty members, it is essential to invest time and resources in mentoring them, and in helping them to develop successful careers while maintaining balanced lives. Mentoring is especially crucial during the period in which young faculty are working toward tenure and promotion. Each Faculty should ensure that all of its departments have effective mentoring programs in place. University-wide agencies such as TRACE should also continue to provide workshops and services designed to support new faculty and to help them achieve balance in their professional and personal lives.

Responsibility: Deans, Associate Deans, Department Chairs, Director of TRACE, faculty.

women in XXX committees. Several previous reports and a number of our interviewees stressed the importance of g faculty members. It should be the responsibility of the newly created Coordinator, Faculty Recruitment and Retention Program, to act as liaison for these various committees, to coordinate their efforts, and to report on their activities.

Responsibility: Deans, Coordinator, Faculty Recruitment and Retention Program.

exit interviews. The option of an exit interview should be available to all faculty who leave UW prior to their normal retirement date. The Chair of UARC because of his/her familiarity with current issues and university context would seem to be an appropriate individual to conduct such interviews. Information from these interviews would be forwarded, without attribution, to the Provost for action as appropriate.

Responsibility: Provost, Deans, Department Chairs, Chair of UARC.

A SAMPLE OF BEST PRACTICES

RECRUITING – ENSURING THAT EVERY QUALIFIED WOMAN APPLIES

- Create opportunities for potential women faculty members to visit the campus. Examples include visits of potential graduate students who, even if they ultimately attend graduate school elsewhere, will know something about Waterloo because of the visit.
- Keep in touch with our own students who go elsewhere for graduate work. If their experience was positive here, they will be more likely to view UW as a good place to work.
- Identify and contact potential women faculty candidates *well before they receive their PhD*.
- Maintain regular contact with all potential candidates.
- Enlist the help of all members of the department in identifying potential women candidates; network at conferences, use individual connections, encourage women to apply. Unless there are compelling reasons to do otherwise, conduct the search internationally. *Be proactive*.
- Prepare a good recruiting package, and send it to all (potential) applicants. Promote UW's family-friendly policies in recruiting material. Improve our "public face." Highlight the strengths and advantages of the department/school. Emphasize the attractive features of living in KW: rich cultural and community life, excellent schools, relatively inexpensive housing, 10-minute "rush hour" (on a bad day), as close to Pearson airport as much of Toronto, etc.
- Make use of NSERC's UFA (University Faculty Awards) program.
- Provide bridge funding, where possible, to pending retirements, thus allowing departments a larger than normal "window" in which to recruit.
- Make sure all job opportunities are listed on UW's website, and make use of whatever distribution facilities are available elsewhere.
- Be sure there is at least one woman on the DACA. Find ways to ensure that the importance of hiring women remains firmly on DACA's agenda.

INTERVIEWING – THE VISIT

- Be sure the department conveys a consistent message to the candidate. Be enthusiastic about the opportunity to be a part of the department/school.
- Identify someone in the department/school to act as the primary host. That person is responsible for making sure everything is done to make the visit as smooth and positive as possible.
- Be sure the candidate meets the women faculty in the department/school, and other women in the Faculty as appropriate. Take her out to dinner, and be sure to include women faculty, and perhaps female spouses and/or graduate students, in the group.
- Make sure the candidate learns about UW's policies. There is a good story to tell: fair tenure and promotion policies, fractional loads, parental leave, salary administration and annual performance reviews, etc.
- Provide an opportunity to learn about living in Waterloo. Take the candidate for a tour of the area – housing areas, schools, shopping, etc. Again, emphasize the virtues of living in the KW area.
- If a spouse is involved, undertake to assist in finding employment for him/her. Mention efforts/successes of the past, if there have been any.

- Meet the Dean, and perhaps the Provost and/or President. Make sure they are well briefed in advance, and have all the “brag points” at hand. After the visit, follow up with phone calls from one or all of the Dean, Provost, and President. Let her know that she is *important*.

INCENTIVES FOR THE CANDIDATE TO ACCEPT AN OFFER

- Offer a competitive salary.
- Provide a one-term course teaching reduction for the first year (or two) of the appointment.
- Offer to assign a senior faculty member as a teaching/research mentor.
- Adopt a policy that junior appointees are not expected to carry administrative/committee responsibility during the first few years of their appointment, unless they wish to do so.
- Provide adequate and competitive start-up funding.
- Grant an unpaid leave, if circumstances permit, on those occasions when a candidate would like to accept a post-doctoral position elsewhere before actually beginning at UW.
- Emphasize that the items above are designed to help the candidate get a good start on teaching and research.
- Grant partial credit (up to two years) for service elsewhere towards the first UW sabbatical. For example, if a candidate has served for four years at another institution before accepting a position here, grant two years of service towards the first sabbatical leave.
- Pay the full cost of moving, if possible (supplementing the 75% provided by policy). Also, try to be flexible if the recruit has special circumstances.
- Be prepared to negotiate!

RETENTION

- Create *Women in XXX committees*. Such committees can sponsor speakers and social events for women faculty and students, as well as provide an informal source of advice and networking opportunities for women. Support of these activities by the Dean’s office sends an important message to women faculty and students. Bring successful women alumni back to campus to publicize the accomplishments of women graduates.
- Pay close attention to salary equity. In some Faculties, salary “models” are maintained in order to identify salaries that should be reviewed and possibly adjusted using the annual discretionary fund available to the Dean.
- Be sensitive to family responsibilities when assigning classes. Try to avoid times that are awkward with respect to getting children to/from school or day care.
- Enlist female graduate students to help with high school liaison, and to act as hosts to visitors. In male dominated disciplines, female presence at every opportunity is important.

- Recognize extraordinary contributions/accomplishments: grant PREA winners a one-course reduction during the tenure of the award; recognize heavy NSERC/SSHRC committee obligations and major editorial responsibilities similarly; where available, use Faculty Fellowships as a recruiting and retention tool, and to recognize outstanding contributions to the department/ school/Faculty.

APPENDICES

APPENDIX A: TASK FORCE MEMBERSHIP AND TERMS OF REFERENCE

Membership:

Gail Cuthbert Brandt, Professor and Principal, Renison College (Chair)

Lois Claxton, Secretary of the University

Alan George, Professor and Dean of Mathematics

Beth Jewkes, Associate Professor and Chair of Management Sciences

Wendy Mitchinson, Professor of History

Mary Thompson, Professor and former Chair of Statistics and Actuarial Science

Terms of Reference:

- to review recent studies dealing with the hiring and nurturing of female faculty members
- to review data relating the size of female doctoral pools to female appointment rates by discipline at UW, including comparable data at other G10 institutions in these disciplines
- to review existing recruitment practices as they may affect women faculty
- to solicit UW decanal views on impediments in attracting women faculty and what can be done to address these matters
- to solicit from FAUW, views on impediments in attracting women faculty and what can be done to address these matters
- to consult with faculty members as appropriate
- to review what measures UW has effected to make the campus more hospitable to women
- to report on the foregoing and to recommend to the Provost, by the end of the winter term, affordable, practical measures which UW might implement

APPENDIX B: CONSULTATIONS

Deans: Professors Sujeet Chaudhuri, George Dixon, Bob Kerton, Geoff McBoyle, Mike Sharratt, Jake Sivak

Heads of Colleges: Professors Graham Brown, Michael Higgins, John Toews

FAUW: Professor Catherine Schryer, President

FAUW's Status of Women and Inclusivity Committee: Professors Jeanne Kay Guelke, Sue Shaw, Marlee Spafford, Beth Weckman

GSA: Sabesh Kanagalingam, President, and Andreeanne Bouchard, Vice-President, GSA

PhD Candidates: Kate Hoyer, Systems Design Engineering, Sarah Dorner, Civil Engineering, Marilyn Jollineau, Geography, Jessica Rumfeldt, Chemistry, Mitra Sehi, Optometry, Celine Latulipe, Computer Science, Kerri Webb, Combinatorics & Optimization, Carley Benton, Kinesiology, Fern Delamere, Recreation & Leisure Studies, Candace Newman, Geography, Jeannette Byrne, Kinesiology, Angela Garabet, Systems Design, Engineering, Billie Stevanovski, Psychology, Julie Smith, Psychology, Heidi Hoernig, Planning

Director of Women's Studies: Professor Vera Golini

Women in Engineering: Professors Bill Lennox and Susan Tighe

Professor Harriet Lyons

Donna Ellis, TRACE

Professor Murray McArthur, Chair of English

APPENDIX C: DOCUMENTATION REVIEWED

Universities

Alberta

Endowment Fund for the Future, 2001
Faculty Agreement, 1998

UBC

Conditions of Appointment for Faculty, 2000
Guide to Promotion and Tenure, 2001/02
Procedures for Placing Faculty Employment and Other Advertisements, 2000

Carleton

Guidelines on the Recruitment and Selection of Instructors and Faculty (nd)
Human Rights Policies and Procedures, 2001
Task Force on Recruitment and Retention, 2000

Laval

Collective Agreement, 1999-2004

Manitoba

Academic Appointments, Policy 703, 1994
Employment Equity, Policy 608, 1988

McMaster

McMaster University Revised Policy and Regulations with Respect to Academic Appointment, Tenure and Promotion, 1998
Procedures for New Faculty Appointments, 1997
Report of the Task Force on the Integration of Female Faculty at McMaster University, 1990

Ottawa

Policy on Pro-Active Recruitment of Women Professors, 1994

Queen's

Guide to Equity Resources at Queen's: <http://www.hr.queensu.ca/staff-rel/Equity/equity/contents.htm>
National Scholars Program. (Georgina Moore's e-mail)
QUFA Collective Agreement, 1997?
Recruitment and Hiring for Faculty Appointments, 1995 (superseded by the QUFA Collective Agreement)
University Advisor on Equity: <http://www.queensu.ca/equity/>

Saskatchewan

Employment Equity, 1994

Framework for Developing and Implementing Employment Equity Plans, 2001

Toronto

Employment Equity Policy, 1991

Faculty Housing, 2001

Faculty Relocation and Support Program (nd)

Maternity Leave Procedures for Faculty Members & Librarians, 2001

Policy and Procedures on Academic Appointments, 2001

Policy and Procedures Governing Promotions, 1980

Victoria

Equity Policy for Female Faculty Members, 1991

Waterloo

Advisory Council on Academic Human Resources (ACAHR)

Annual Reports: 1992-93, 1993-94, 1995

Status of Women at UW, 1993

Review of the ACAHR Report on the Status of Women prepared for Executive Council, 1995

Attracting, Hiring and Retaining Women Faculty and Graduate Students, 1989

Report of a ACAHR Subcommittee

Building on Accomplishment

Report, 1997

Working Group on Quality of Life...Report to the Commission

Working Group on Human Resources...Report to the Commission

Progress Reports, 1999, January and October 2001

Data

Preliminary UW Faculty Expansion Data (Truman's January 22, 2002 memo)

Doctoral Enrolment at UW by Faculty, Department, Gender, Fall 2001

Comparison of G-10 Universities by Percent of Female PhD Faculty, as Submitted to
Statistics Canada, October 2000

UW Faculty by Rank and Gender as of May 1, 2002

EDPER/NSERC Chair for Women in Engineering, Science and Mathematics (mandate; nd)

Hiring/Retention Strategies in the Faculty of Mathematics, 2002

Human Resources. Family-Friendly Policies, Programs and Practices, 1999

Marshman, Bev. "Seeking and Keeping: 1985-1991"

"Report on the Status of Women at UW": Engineering's Response, 1994

St. Jerome's University. Policy on Academic Hiring/Hiring Protocol, 2000/2001

Submissions from Groups

Women in Mathematics Committee

Status of Women and Inclusivity Committee

University Appointments Review Committee. Report to Senate, November 2001.

Weckman, E.J., E. Jewkes and W.C. Lennox. "Creating a Women-Friendly Environment Perspective from a Larger Institution," 1995

Western Ontario

Alternative Career Opportunities, Retention and Development of Faculty, 1991

Employment Equity Program, 2000

Collective Agreement between UWO and the UWO Faculty Association, 1998-2002

Wilfrid Laurier

Employment Equity Policies and Procedures, 2000

York

Employment Equity Policy, 1991

Faculty Collective Agreement, 2002-2003

"Some Good Links" <http://www.yorku.ca/org/chrey/html/english.good.htm>

Other

Canadian

Association of Universities and Colleges of Canada. *Trends: The Canadian University in Profile*. Ottawa, 1999.

Canadian Council of Professional Engineers. *Canadian Engineers for Tomorrow: Trends in Engineering Enrolment and Degrees Awarded 1995 to 1999*. Ottawa, 2000.

Canadian Economics Association. *Report of the Special Committee on the Status of Women Economists in Canada*. 2001.

Conference Board of Canada. *Gender Diversity Tool Kit*. Ottawa, 2000.

Council of Ontario Universities. *Keeping Equity in the Decision-Making Process*. Toronto, 2000.

_____. *Status of Women in Ontario Universities, 1998-99.*

Frize, Monique. "Attracting and Retaining More Women into Engineering: Successful Strategies for this Decade." *Engineering Dimensions*, November/December 2001.

Hailey, Kirsten. "Strategies for Faculty Recruitment." *University Manager*, Winter 2002.

Hawthorne, Karen. "Breaking Through." *Engineering Dimensions*, November/December 2001.

Martinson, Karen M, Elizabeth Cannon and Deborah Wolfe "Are We Retaining Women in Engineering Programs and the Engineering Profession?" Canadian Council of Professional Engineers, Ottawa (nd)

NSERC. *Towards Building a New Scientific and Engineering Culture in Canada: Report of the Task Force on Women in Science and Engineering.* 1996.

Renaud, Marc. March 8 letter to President(s) re: Bégin-Heick's CRC Program report on gender distribution.

Status of Women 2001. *CAUT Bulletin*, vol. 48, no. 8.

American

American Mathematical Society. *2001 Annual Survey of the Mathematical Sciences, February 2002.* (definition of groups)

Bartlett, Thomas. "Women Who Have Children Early in Careers Hurt Their Chances to Achieve Tenure, Report Finds." *The Chronicle of Higher Education*, February 12, 2002.

Business Higher Education Forum. *Investing in People.* 2001?

Cuny, Janice and William Aspray. *Recruitment and Retention of Women Graduate Students in Computer Science and Engineering: Report of a Workshop June 20-21, 2000.* Computing Research Association, Washington, DC.

Kite, Mary E. et al. "Women Psychologists in Academe: Mixed Progress, Unwarranted Complacency", *American Psychologist*, vol. 56, no. 12, 1080-1098.

Kuck, Valerie. "Refuting the Leaky Pipeline Hypothesis." *CENEAR*, November 19, 2001.

UC Berkeley. "UC Berkeley report tracks effects of family on gender equity in post-PhD ranks." *News Release*, February 8, 2002.

University of Washington, Seattle. *Faculty Recruitment Toolkit*, 2001.

APPENDIX D: WRITTEN SUBMISSIONS FROM GROUPS

Women in Mathematics Committee

Status of Women and Inclusivity Committee

APPENDIX E: DATA

Preliminary UW Faculty Expansion Data (Truman's January 22, 2002 memo)

Doctoral Enrolment at UW by Faculty, Department, Gender, Fall 2001

Comparison of G-10 Universities by Percent of Female PhD Faculty, as Submitted to Stats Canada, October 2000

UW Faculty by Rank and Gender, as of May 1, 2002

MEMORANDUM

To: Lois Claxton
From: Bob Truman
Date: 22 January 2002
Subject: Preliminary Faculty Expansion Data

During discussions with the Deans about enrolment expansion, three very rough calculations of possible needs for new faculty were made based on projected enrolment increases. The ranges of the results are shown in the table below,. Please note that as expansion occurs, the balance between faculty and staff and the departmental affiliation of faculty appointments will have to be finalized. Two deans have indicated where some of the faculty appointments are intended to be made, but this may change over time.

Faculty	Range of Possible Faculty Appointments	Preliminary Departmental Indications
AHS	6-8	
Arts	29-32	
Engineering	15-19	11 Mechanical, 4 System Design, 3 Electrical and Computer
E/S	10-12	1.5 ENV, 0.5 ERS, 1.0 LED (Planning), 0.5 Geog
Math	9-15	
Science	12-13	

Please note that these numbers are contingent on achieving steady state enrolment resulting from increasing year-one intake targets. Enrolment projections achieve steady state in 2009/2010. The actual increase in faculty numbers will result from our actual enrolment increases.

Fall 2001 Doctoral Enrolment by Faculty, Department, Gender

Count of ID Faculty	Department/School	Gender		Grand Total
		Female	Male	
Applied Health Sciences	Health Studies & Gerontology	7	5	12
	Kinesiology	7	12	19
	,Recreation & Leisure Studies	7	3	10
Applied Health Sciences Total		21	20	41
Arts	Accountancy	2	6	8
	English Language & Literature	16	10	26
	Germanic & Slavic Studies		1	1
	History	6	4	10
	Philosophy	8	9	17
	Psychology	56	28	84
	Sociology	7	5	12
Arts Total		95	63	158
Engineering	Chemical Engineering	11	27	38
	Civil Engineering	6	24	30
	Electrical & Computer Engineering	12	65	77
	Management Sciences	3	7	10
	Mechanical Engineering	4	31	35
	Systems Design Engineering	4	25	29
Engineering Total		40	179	219
Environmental Studies	Geography	17	14	31
	Planning	16	15	31
Environmental Studies Total		33	29	62
Mathematics	Applied Mathematics	5	12	17
	Combinatorics & Optimization	3	15	18
	Computer Science	16	57	83
	Pure Mathematics	2	9	11
	Statistics & Actuarial Science	15	15	30
Mathematics Total		41	118	159
Science	Biology	20	19	39
	Chemistry	20	33	53
	Earth Sciences	5	13	15
	Optometry	3	6	9
	Physics	2	24	26
Science Total		50	95	145
.Grand Total		280	504	7841

X:\Committees@Senate\Fall2001 PhDGenderO2.xls 01/21/02

Graduate Studies **Office**

University of Waterloo
Comparison of G10 Universities By Percent of Female PhD Faculty
As Submitted to Stats Canada October 2000

Faculty	Department	PoolRatio%	Waterloo	Alberta	McGill	McMaster	Queen's	Toronto	UBC	Montréal	Western	
Applied Health Sciences	Kinesiology	43	36.4%			60.0%		100.0%			21.2%	
	Rec & Leis Stud	44	30.8%	33.3%					100.0%			
Arts	Accountancy	41	16.7%	13.2%	30.0%	21.3%	29.5%	23.3%	13.4%	26.4%	27.1%	
	Anthropology	62	40.0%	41.2%	37.5%	43.8%		38.5%	35.3%	18.2%	41.7%	
	Classics	48	66.7%	50.0%	0.0%	33.3%		28.6%	21.7%	23.1%	50.0%	
	Dean Of Arts	55			20.0%			16.7%	0.0%	0.0%	35.7%	33.3%
	Drama & Sp Comm	64	20.0%	37.5%	100.0%	66.7%	44.4%	66.7%	26.7%		100.0%	
	Economics	24	8.3%	10.3%	8.3%	0.0%	16.7%	17.5%	7.7%	14.9%	13.5%	
	English	59	44.4%	35.2%	31.6%	38.1%	37.5%	44.7%	39.2%	14.3%	23.5%	
	Fine Arts	67	42.9%		50.0%	37.5%	61.5%	44.4%	25.0%	40.0%	50.0%	
	French Studies	64	20.0%	50.0%	14.3%	45.5%	78.6%	37.0%	52.4%	37.5%	37.5%	
	Ger&SI Lang& Lit	67	36.4%					28.6%	0.0%			
	History	44	33.3%	26.5%	31.8%	22.2%	31.6%	27.0%	20.0%	16.7%	21.7%	
	Philosophy	32	25.0%	18.8%	31.3%	18.2%	33.3%	25.5%	6.7%	11.1%	18.2%	
	Political Sci	40	23.1%	37.5%	26.3%	31.6%	23.3%	22.0%	18.2%	13.0%	28.6%	
	Psychology	70	36.4%	33.3%	22.5%	40.0%	29.0%	38.7%	24.4%	45.2%	17.8%	
	Religious Std	42	0.0%	0.0%	14.3%	33.3%	100.0%	18.2%	0.0%			
Sociology	61	16.7%	24.1%	36.4%	44.0%	54.5%	39.3%	33.3%	38.5%	33.3%		
Spanish & Lat Am	64	75.0%	42.4%	47.1%	80.0%	40.0%	35.7%	31.8%		25.0%		
Engineering	Chemical Eng	28	11.5%	8.3%	7.7%	6.3%	23.1%	12.5%	0.0%	16.7%	8.3%	
	Civil Eng	23	16.7%	8.8%	16.7%	0.0%	7.7%	11.1%	8.7%	5.9%	0.0%	
	Elec & Comp Eng	9	7.3%	4.9%	0.0%	5.3%		2.9%	3.6%	2.6%	0.0%	
	Management Sci	18	18.8%		0.0%	0.0%		0.0%		23.8%		
	Mechanical Eng	13	3.1%	0.0%	0.0%	7.7%	11.5%	8.7%	9.1%	5.9%	20.0%	
	Systems Design	3	15.0%					0.0%			25.0%	
Environmental Studies	Architecture	41	11.8%		9.1%			22.2%	30.8%	14.3%		
	Envir & Res Std	47	30.8%		100.0%			0.0%			100.0%	
	Geography	40	30.0%	0.0%	14.3%	11.1%	21.1%	21.9%	17.4%	5.9%	20.0%	
	Planning	48	7.7%		0.0%		16.7%	0.0%	25.0%	26.7%		
Mathematics	CS	18	15.8%	11.4%	18.2%	0.0%	11.1%	17.3%	24.2%	15.0%	20.7%	
	Math	23	14.7%	9.7%	5.9%	7.7%	12.1%	15.2%	3.9%	13.3%	8.8%	
Science	Biology	38	22.6%		20.7%	17.4%	15.4%	35.3%	20.0%	12.5%	0.0%	
	Chemistry	29	16.1%	3.1%	14.3%	13.6%	20.8%	24.6%	4.7%	16.0%	6.7%	
	Earth Sciences	28	16.7%	13.0%	9.1%	0.0%	11.8%	15.4%	14.3%	0.0%	10.0%	
	Optometry	88	43.3%							26.7%		
	Physics	15	7.4%	6.5%	0.0%	21.7%	11.5%	5.7%	8.7%	8.8%	5.6%	

Notes:

1. Data from the G10 institutions are grouped into UW departments based on the principle subject taught. Not all institutions data can be mapped to UW principle subjects--in these cases the field is null.
2. Some UW departments, especially in Math, do not have corresponding principle subjects taughts, so they show in one grouping.
3. UW data is mapped as above, not complement data as shown for female faculty hiring target report.
4. As of 26-April-2002, only 9 of the 10 G10 institutions have submitted their data.

* DOES NOT INCLUDE COLLEGES

11/06/2002

University of Waterloo

Faculty by Rank and Gender as of May 1, 2002

		Gender		
Intensity	Rank	Female	Male	Grand Total
Full-time	Professor	28	274	302
	Assoc Prof	67	222	289
	Asst Prof	44	129	173
	Lecturer	12	26	38
	Spec Lect		1	1
	Res Assoc	1	9	10
	Res Assist		2	2
	vis Scient	2	2	4
Full-time Total		154	665	819
Reduced Load	Professor		5	5
	Assoc Prof	7	2	9
	Asst Prof	3		3
	Lecturer	1		1
Reduced Load Total		11	7	18
Part-time	Professor	15	280	295
	Assoc Prof	18	105	123
	Asst Prof	38	83	121
	Lecturer	26	60	86
	Clin Assoc	5	7	12
	Res Assoc	3	5	8
	Resource		1	1
	PI in Res		1	1
Part-time Total		105	542	647
Grand Total		270	1214	1484

Prepared by Institutional Analysis and Planning

