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WHY THE ACADEMIC PIPELINE LEAKS

MEN PERCEIVE FEWER BARRIERS TO
PURSUING ACADEMIC CAREERS

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I am now in the Department of Psychology at Simon Fraser University.

OBSERVATIONS: THE CONTEXT FOR THIS STUDY

DISCUSSIONS WITH FRIENDS AND ACQUAINTANCES IN GRADUATE SCHOOL

As a graduate student, I was having discussions with other students about academia; I came to the conclusion that they are conflicted about entering the professoriate. Men and women seriously considered leaving their programs or not becoming academics upon completion of their PhD. However, it was in my discussions with women did I hear the concern about combining a successful academic research career with raising children.

HIRING IN THE DEPARTMENT OF PSYCHOLOGY AT UWO

During my undergraduate and master's study in the Department of Psychology, I noticed that there were few women in tenured or tenure-track positions, despite the predominance of women at the undergraduate and graduate level. Present hiring has not changed the representation of women; out of the last 11 departmental hires, only one has been a woman.

In my discussions with professors, the sentiment was that the department would be happy to hire women, who were generally in a 'favoured' position as job applicants. However, they noted that women were applying in scarce numbers to these broadly advertised positions. Thus, women were not well represented in the hiring pool.

Lunchroom theorizing abounded – my informal discussants and I had myriad hypotheses for why women were not applying to these positions. At this point, one professor made a comment to the effect of: 'We really have no idea as to why women are not applying as much as men, no matter how much we sit here and theorize.' This was undeniably true.

SYNTHESIZING THESE OBSERVATIONS

My first observation was that many of the successful women I knew were questioning whether they could have it all (i.e. successful research career, family life, children) while my male friends seemed only to grapple with the question of having a successful research career. My second was that women were said to be underrepresented in the hiring pool. I wondered whether one was related to the other. At our lunchroom forum, it struck me that an academic in a psychology department would be well suited to examine the question of whether less women were pursuing academic careers than men, and if so, why. I decided to undertake such a study.

THIS REPORT IS A BRIEF SUMMARY

This report is a very brief summary of a larger article in preparation for publication. For copies of this article, or for statistics, additional analyses, or comments, please contact sari_vananders@sfu.ca.

GOALS AND HYPOTHESES

STEP 1: IDENTIFY THE PROBLEM

Hypothesis: Fewer women than men intend on becoming professors.

Goal: To establish whether there is a difference between women and men graduate students in their intentions to enter academia (i.e. the professoriate).

Theoretical Basis: The underrepresentation of women at the Assistant Professor level can be related to graduate student attitudes and intentions.

STEP TWO: EXPLAIN THE PROBLEM

Hypothesis: Men perceive fewer barriers to pursuing an academic career than women.

Goal: To identify why more men than women intend on entering the professoriate.

Theoretical Basis: Women are underrepresented at the Assistant Professor level because they self-select away in the face of systemic barriers.

STEP THREE: PROVIDE A BASIS FOR FIXING THE PROBLEM

Hypothesis: With empirical data subjected to statistical treatment, administrators and faculty will be more willing and likely to address a problem that has received little direct attention or applied solutions.

Theoretical Goal: To reduce and eventually remove barriers to women's inclusion in academia.

Theoretical Basis: Many universities, administrators, and faculty have been slow to accept the growing body of research pointing to academia as being particularly problematic for women. The data collected from a quantitative, empirical, hypothesis-driven study might meet less resistance.

BACKGROUND

'THE PIPELINE'

The educational procession of undergraduate students through academia to tenured professorships is referred to as 'the Pipeline'. A drop in group representation (e.g. women, minorities) at succeeding stages in academia can be referred to as 'the Pipeline phenomenon.'

WOMEN IN THE PIPELINE

Women represent a small majority of undergraduates, but representation drops at each successive stage of the pipeline (see Table 1). E.g. the proportion of women's representation at UWO:

Table 1: Percentage of Women by Academic Level, 2002-2003 (Source: Western Facts, 2003)

| ACADEMIC LEVEL | WOMEN'S PROPORTION BY LEVEL |
|---------------------|-----------------------------|
| Undergraduate | 55.2% |
| Master's | 44.6% |
| Doctoral | 40.0% |
| Assistant Professor | 29.2% |
| Associate Professor | 28.9% |
| Full Professor | 7.8% |
| Lecturer/Instructor | 58.7% |

This figure clearly indicates the Pipeline phenomenon at UWO. The only stage where women are represented at near undergraduate levels is at Instructor/Lecturer, a non-tenured position generally characterized by little chance of advancement, less pay, and lower status.

Since women are well represented at the beginning stages of higher education, it is tempting to assume an inevitable increase in women in the professoriate at some later date. However, this assumption would be unfounded: e.g. despite recent increases in hiring, the proportion of women at the Assistant Professor rank has, if anything, decreased from 1998 (33.8%) to 2002 (29.2%).

I am particularly interested in the proportion of women at the assistant professor level, as well as in graduate school and in the hiring pool.

WHY ARE WOMEN UNDERREPRESENTED AT THE ASSISTANT PROFESSOR LEVEL?

DISCRIMINATION AT THE HIRING LEVEL

There is evidence that men and women are more likely to vote to hire a man than a woman based on an identical curriculum vitae (CV) (Steinpries et al., 1999). Others report that women are hired more than their representation in the hiring pool would predict (Irvine, 1996; Kimura, 1996), though these studies did not compare CVs of applicants. The data are thus conflicting.

ESSENTIALIST/BIOLOGICAL PREDISPOSITIONS

Some have suggested that women self-select away from academic careers because they are biologically predisposed to prefer childrearing and family over research (e.g. Kimura, 1999). There is no evidence supporting this contention.

SYSTEMIC BARRIERS

Women may experience and/or perceive systemic barriers to pursuing an academic career. For example, expecting academics to be interested in research would not be a barrier, because research is a fundamental aspect of being an academic. However, there are many implicit expectations and organizational features of academia that are not integral to its goals, aims, and functions but that are still system-wide (i.e. systemic).

Hypermobility. No research has established the benefits to be gained from moving universities at every possible stage (e.g. Master's, Doctoral, Post-Doctoral, Tenure-Track) - and losing precious research time as a result - and many excellent faculty members do not have this breadth of academic experience. Still, this 'hypermobility' is widely perceived by graduate students as a basic and/or preferred requirement. Since women are more likely to have partners of equal or higher education (Buunk et al., 2002), it is possible that they may be less able to accommodate the concerns of the dual-career couple with this hypermobility. In addition, hypermobility may be daunting to those in the midst of raising young children.

Insufficient Parental Supports. Another potential systemic barrier is the lack of support for parents of young children. This affects women more than men because women still spend more time than men doing the brunt of the family work, even though men and women equally engage in the pleasant childrearing activities (e.g. playtime) (Pittman et al., 1999; Wilkie et al., 1998). Moreover, they do not prefer to do so; they express discontent at unequal divisions of household labour (Ruble et al., 1988). Indeed, the vast majority of women who have won the Nobel prize lamented the lack of nearby and affordable childcare, noting they could have conducted more research with these supports (McGrayne, 1998). Finally, the lack of comprehensive paternity leave policies for graduate students and faculty ensure that women must be primary caregivers if a leave is to be taken. Universities do not require that graduate students be childless, but it appears to be a general expectation that they will not have to take care of their children, nor provide for them.

Societal Perceptions of Women. In academia as in society, there are perceptions of women as more suited for teaching than research careers (Miller & Chamberlain, 2000) or as more interested in family (Kimura, 1999). Women may internalize these messages, and assume that what they have repeatedly heard must be true. When a graduate student has difficulties in graduate school or an applicant fails to receive a job offer, women may turn to these assumptions to explain the problem, which might potentiate leaving academia.

METHODS

PARTICIPANTS

- * 643 initial respondents; 458 participants in 'academic feeder' programs; 260 women, 198 men. The majority of students were heterosexual.
 - * Academic feeder programs are those that include a large research-based component, in contrast to professional programs.
- * All departments are represented, except History (no replies received) and Computer Science (refused to forward the study to its students).
- * Participants were recruited through emails sent directly or through a departmental administrator. There was no mention of gender issues.

PROCEDURE

Ethics approval was received from UWO. Potential participants received an email with a brief explanation of the study (not mentioning gender issues); the email also contained a link to the online questionnaire and informed graduate students they would be eligible to win one of five \$30.00 prizes if they participated. The first page of the questionnaire was an informed consent form, and participants consented to participate by opening the questionnaire. After submitting the questionnaire, an online debriefing page opened. Comments were welcomed. Five prizes of thirty dollars were awarded randomly to participants.

ANALYSES

All analyses were subject to statistical treatment using the Statistical Package for the Social Sciences, v. 11. Statistics are not reported here. All conclusions may be applied to averages or groups and not to individual men and women, who varied widely.

QUESTIONNAIRE

Demographics. Data were collected on sex, age, international student status, relationship status, parenthood status, sexual orientation, department and division, and nearby family. Relationship questions for those with partners in academia included partner's stage in academia and partner's intention to be a professor. Parenthood questions included desire for, and total number of, children, and preferred age and stage to have children. Finance questions included sources of funding, support from advisor, and perception of sufficient funding. Education questions included degree program and year, time to obtain degree, sex of advisor, estimate of hours/week worked, estimate of advisor's hours/week worked, and advisor's relationship and parenthood status.

Pursuing Academic careers. Participants indicated their intention to be a professor on a five-point scale (1 - definitely yes, 2 - probably yes, 3 - maybe, 4 - probably no, 5 - definitely no). The influences of 10 factors on the decision to pursue an academic career were ranked from 1 (highest) to 10 (lowest). These factors were research competence, interest in teaching (teaching), the “academic environment”, the “academic lifestyle”, plans for parenthood, factors concerning my (or a potential) partner/spouse (partner), my extended family (family), changing universities/ability to settle down (mobility), salary/finances (finances), and interest in research. Mobility was intended to capture the aspect of changing universities at different stages while one pursues an academic career, and its corollary of not being able to settle down in one place. Participants also indicated how these factors made them want or not want to pursue an academic career on an 11-point scale (-5 = very strongly negative, -4 = strongly negative, -3 = moderately negative, -2 = somewhat negative, -1 = weakly negative, 0 = no influence, +1 = weakly positive, +2 = somewhat positive, +3 = moderately positive, +4 = strongly positive, +5 = very strongly positive). Academic lifestyle and academic environment were left undefined, as these terms may differ in meaning by individual or gender. On the five-point scale, participants indicated whether they thought having children was compatible with pursuing an academic career, and whether having a successful relationship with a spouse/partner was compatible with pursuing an academic career. Participants were asked to indicate whether they thought Academic or Non-Academic was a better career path for people who wanted to be parents. Participants were asked to describe the availability of non-academic jobs in their area on a five-point scale (1 - widely available, 2 - somewhat available, 3 - barely available, 4 - unavailable, 5 - not sure).

RESULTS

DO FEWER WOMEN INTEND ON BECOMING PROFESSORS?

YES.

The hypothesis that fewer women than men intend on becoming professors was statistically supported. Thus, women in graduate school appear to be more likely to self-select away from the professoriate than men.

DO MEN PERCEIVE FEWER BARRIERS TO ENTERING ACADEMIA?

YES.

The hypothesis that men perceive significantly fewer barriers to pursuing academic careers than women was statistically supported. These barriers appear to be related to childrearing and associated perceptions of academia. This was examined using a variety of analyses and trajectories (highlights reported below, all are statistically significant).

- * Women's and men's decision to pursue academic careers were equally influenced by research interest and competence, teaching, finances, spouses, and extended family.
- * Women's, but not men's, decisions to pursue academic careers were negatively influenced by plans for parenthood, mobility/ability to settle down, the academic environment and the academic lifestyle.
- * Men viewed childrearing as more compatible with pursuing academic careers than women did.
- * Women and men viewed successful relationships as equally compatible with pursuing academic careers.
- * Women and men equally perceived non-academic careers as more appropriate than academic careers for people who wanted to be parents.
- * Women and men equally wanted to have children.
- * Women more often than men knew a specific stage at which they wanted to have children. Women wanted to have children at a younger age than men.
- * Women and men worked equal numbers of hours per week.
- * Women and men perceived equal non-academic job opportunities.
- * The perception of non-academic as more suitable than academic careers predicted women's, but not men's, decisions to pursue academic careers. Other factors did not.

CONCLUSIONS

Fewer women than men intended on pursuing academic careers, as previously reported (Golde and Dore, 2001). This likely provides a numerical explanation why women are underrepresented at the Assistant Professor level compared to their proportions at the Master's and Doctoral level. I.e. **more women than men will self-select away from entering academia.**

The data from the present study show that **women and men are remarkably similar** when it comes to life plans and academia, e.g. men and women equally wanted to have children; men and women found research interest and teaching interest equally positively related to pursuing academic careers.

Family related concerns are not women-specific per se, as equal numbers of men and women wanted to have children. Instead, **the realities of having children concern women more than men:** women were more certain of when they wanted to have children, wanted to have them sooner, and viewed the mobility required to pursue academic careers more negatively than men. Both men and women see non-academic careers as more suitable than academia for people who want to be parents, but this significantly predicted only women's lesser intention to pursue academic careers. Thus, women are more likely to see a lack of parental support as barriers to entering academia (e.g. insufficient leave policies; inadequate childcare; etc.). With data from Golde and Dore (2001), Cooke (2001) reports that women ranked parenthood and geographic factors as more negatively related to their intentions to enter academia, but no other factors were measured. The present data shows that **it is parenthood and mobility that are specifically associated with the decreased likelihood of women to pursue academic careers. The underrepresentation of women is not due to issues around partners, relationships, finances, teaching, or interest in research.** Contrary to the essentialist position, there was no evidence that women preferred family to research.

“Being a female, wanting children, and wanting to be in academia presents a unique set of concerns from those of a male who wishes to have an academic career and family life. These being: delaying children to finish education – so health concerns...moving associated with academia, especially in the early years, the timing of having children with tenure issues, etc.”

-Female Participant.

Pursuing an academic career is characterized by a hypermobility that generally requires an individual to move schools at numerous time points from undergraduate study to a tenure-track job. Compared to many private sector options for highly educated individuals, parenting support is inadequate in academia. As women's fertile years generally fall into the pre-tenure stage, with the most fertile being the years in graduate school (Ellison, 2001), this will be a time when **women who want to have children will consider how they will fit into their life plans.** Mobility was clearly seen as a negative influence on entering academia for women but not men.

Highly intelligent, competent, and goal-oriented students are especially well-situated to evaluate how an academic career fits into their life. Since women perceive academia as less compatible with having children, it follows that some intelligent and capable women will turn to professions that provide institutional supports for parents. In other words, some women will choose not to apply for academic jobs despite being well-qualified and passionate, and, accordingly, the excellence of the hiring pool will be diluted for reasons unrelated to research or teaching. **Universities, academics, and administrators interested in the most meritorious applicants and professors should ensure they are doing all they can to attract them.**

The academic pipeline does not leak because women want to have children more than men or are less interested in research than men. It leaks because women perceive parenting-related barriers to their inclusion in the professoriate. Women's perception of academia as inhospitable to parents and requiring an undesired hypermobility is directly associated with their decreased intention to enter academia.

COMMENTS

I hope that this report can be used to stimulate discussion and policy that encourages women to stay in the pipeline once they have decided to enter it. Currently, men as a group do not need this encouragement as they are not dropping out of the Pipeline (see Table 1; proportions of men necessarily increase at each stage). However, as society continues to move towards an egalitarian division of household labour and parenting, positive policy developed now should help to retain some of the best men in the pipeline as well.

This study was unable to examine issues surrounding sexual orientation, as very few participants were gay, lesbian, bisexual, and/or transgendered. These groups still face considerable overt discrimination, as well as systemic barriers that would not be apparent to most heterosexual individuals. In addition, this study did not examine class (socioeconomic status), nationality, or race/ethnicity. Further research should be conducted with these factors, and there is already a body of literature concerning race/ethnicity (e.g. Ellis, 2001).

My belief is that empirical research should drive policy. The implementation of this report's policy suggestions should be coupled with regular empirical research to identify further issues and provide evidence that a policy works (or does not) to maintain women in the pipeline. The majority of students chose to add additional comments at the end of the study, and their comments pointed to their interest in these issues being formally addressed.

POLICY RECOMMENDATIONS FOR UWO

FACULTY OF GRADUATE STUDIES, ADMINISTRATORS, DEANS & CHAIRS

Provide fully funded leaves for graduate students with new children.

- * Fund a four-month childcare leave for parents of newborns.² Simplify the procedure and minimize the required forms.
- * This leave should be open to men and women, and advertised as such.²
- * If both parents are graduate students at UWO, both parents should be eligible to take one month paid. After that, the primary caregiver should be allowed three additional months fully paid.
- * Fully funded means continuing the level of UWO-related income of the parent. This includes sources of funding like SUS, President's Scholarship, research assistantships, etc. This should be funded through the Faculty of Graduate Studies, and not departments or faculty funds.
- * Fully fund this time period for teaching assistants on leave; work with the UWO-GTA Union to change the contract language to reflect this.
- * *Having children should not mean a complete cessation of all sources of funding, no more than it does for professors, department heads, deans, or administrators. As well, women should not be made to be solely responsible for childrearing.*

Ensure parental leave policies are followed by departments, faculties, and human resources.

- * One administrator (with one back-up) within the Faculty of Graduate Studies should be responsible for parental leave policies. This person should provide information to graduate students, faculty, and other administrators.
- * As part of the first year graduate student orientations in each department, this representative of the Faculty of Graduate Studies should briefly explain the procedures and benefits available to new parents.
- * *During my one-year tenure on the UWO-GTA Union, two women were denied the parental leave pay to which they were entitled by various individuals within their departments and human resources. Soon-to-be parents should not have to jump through hoops to receive their benefits.*

² As per NSERC, SSHRC, and CIHR.

Hold Family and Academia information sessions with SOGS.

- * Willing Professors, Postdocs, and Graduate Students with children (both male and female) could provide brief sessions of their experiences and answer questions.
- * Address time management issues, municipal/provincial/national childcare funding sources, local day care centres and options, etc.
- * *Increase the perception of academia as compatible with parenting; ease the information overload for new students and students new to London, Ontario, and/or Canada.*

Increase Childcare support.

- * At the Western Day Care Centre on Western Road, there are only 30 spots available for infants 3-30 months. While close to Education, this centre can be a 15-minute walk from Engineering, a 30-minute walk from Visual Arts, and even longer from Robarts' Research Institute.
- * At the UWO Preschool in the SSC, there are no spots for infants under one year; there are only 10 spots for one-year olds accompanied by a parent for 1.5 hours/day. There are no childcare spots.
- * Develop new childcare centres on campus closer to other campus buildings.
- * Increase the number of available spots, especially for infants.
- * *While some faculty and graduate students may elect to send their children to caregiver off-campus, on-campus child care is the most convenient. Centres should be close enough for parents to drop in throughout the day and mothers to breastfeed, if desired.*
- * Fund childcare for graduate students and Postdocs.
- * *This will help them complete their graduate education sooner, conduct more research, and increases the perception that having children is compatible with being an academic.*

FACULTY

Support the decision to have children.

- * When the students or postdocs you supervise in research or teaching, or faculty colleagues, are having children, be positive and point them to sources of information.
- * *Increase the perception of academia as compatible with having children; ease the experience for parents.*

SOCIETY OF GRADUATE STUDENTS

Hold Parenting and Graduate School information sessions with FOGS.

- * Professors, Postdocs, and Graduate Students with children (both male and female) could provide brief sessions of their experiences and answer questions.
- * Address time management issues, municipal/provincial/national childcare funding sources, local day care centres and options, etc.

Identify and train one member of council as the SOGS childcare liaison.

- * One executive member or a member of the council (and one back-up) should be trained to provide information to graduate students about parenting policies and supports. This person should regularly liaise with the administrator from the Faculty of Graduate studies responsible for childcare.
- * *Aid in the procedures associated with having children and applying for leaves and funding.*

UWO GRADUATE TEACHING ASSISTANTS' UNION

The collective agreement should include full funding for maternity and paternity leaves.

- * Work with FOGS and the UWO administration to include full funding of teaching assistants on maternity and paternity leave in the collective agreement.

Identify and train one member of council as the GTA Union Childcare Liaison.

- * One executive member or member of the Union (and one back-up) should be trained to provide information to teaching assistants about parenting policies and supports. This person should regularly liaise with other childcare representatives.
- * This person should work with TAs to help them apply for benefits.

CAMPUS LIBRARIES

Create a list of books and resources for pregnancy, new parents, and parents in academia.

- * Have a handout list available in each library, online, and in each department.
- * *The library is an excellent source of information; an updated summary of available books can provide a stress-free, easily accessible, inexpensive source of information.*

OVERVIEW OF PARTICIPANT COMMENTS³

I feel that there is a certain flexibility in terms of working hours in Academia which is compatible with parenting, however being a Grad. student and the moving around aspect of Academia do not seem compatible with starting a family.

-Male Participant

This issue of family and academia is precisely what my wife and I are currently sorting through. I am male, but for her, there are greater concerns regarding being tenured if she becomes pregnant.

-Male Participant

The biggest influencing factor is whether I can find a school/dept in which I can do the kind of research that interests me, and whether my wife can find something interesting in the same place.

-Male Participant

I am currently embroiled in deciding if I want to do a PhD and rank it as the hardest decision I have ever had to make.

-Male Participant

Overall, I believe that being truly successful in an academic career (defined as being a principle investigator/professor) is not very compatible with being a woman wanting to have children - even if there is a strong desire to do so. The time constraints and stress level are too high in a senior position. As well, the length of study and lack of benefits prior to reaching this senior level (grad school, post-doc positions) make it nearly impossible to start a family early. Only because I am currently receiving funding (with a built-in parental leave program) am I planning on having children before my PhD ends. After this time point, there will be no further opportunity until much later in my career due to financial restraints. Because of these constraints, I am planning for a position in research/academia (because of my love for science/research) with a more stable position and less stress/responsibility, such as a research assistant/associate (because of my desire to have a family). A trade off, for sure, but there doesn't appear to be any other option.

-Female Participant

I like the academic lifestyle because I get to work with intelligent people.

³ Comments related to research design are not included here. Identifying information has been removed.

-Male Participant

Concern for my extended family is less of a consideration than my two children being "uprooted".

-Male Participant

As a new (ish) mother and graduate student, it is very interesting to me and I am excited that people are looking into this.

-Female Participant

I don't see how an academic career would be detrimental to having children - both types of job have their advantages and disadvantages

-Female Participant

In reality, the fact that both myself and my partner want to be academics at the same school, well, it kinda seems like a pipe dream. So my relationship does influence the KIND of academic job I'll be willing to accept, but not whether I want to be an academic.

-Male Participant

One of the main reasons I have decided that I will likely not pursue a PhD. is that it will take too much time out of my life to complete. I expect it will take at least 4-5 years in my field, and I would like to be out of the "student lifestyle" before age 30. This includes settling down with my future husband and having children in my mid-late twenties (and not living quite so close to the poverty line!). I feel it's much harder for women in research to have families and children than it is for men. In my experience and observations, those female professors who do very well in academia often sacrifice their families in one way or another, as well as sometimes their own well being. Also, I feel that academics are generally underpaid for their extensive qualifications and the amount of work that they do. From my experiences, although the world of research and teaching at the University level is extremely enticing intellectually, the personal sacrifices may not be worth it for me.

-Female Participant

Having a supportive spouse/partner is something I consider essential while studying/preparing to pursue an academic career.

-Male Participant

I am actually not entirely sure that I will have children, partly due to the unavoidable overlap between my tenure track years and childbearing years.

-Female Participant

From my observations, profs are often far more involved with their research than with their families, out of necessity. I think that the rigors of the "publish or perish" philosophy in academia forces this. Growing up in daycare does not create strong family bonds.

-Male Participant

The main issue with funding in academia in my mind are the lack of a secure financial base...the constant re-applying for funding is ridiculous not to mention the fact that typical money management theory has these years (single, no family) as the main capital gaining years. Instead, choosing to further your education create debt. It's totally crazy....

-Male Participant

I think that it is possible to have children and manage a happy full-filled life within academia, but to be honest, the amount my advisor works is not appealing to me. Which is why I may pursue my phd later in life, but right now, I am too young to be putting in that many hours - I want to be able to enjoy my life as well. I see myself more being an instructor/lecturer or a faculty that is hired on contract, year-to-year - there is a little more flexibility and not the pressures that are involved with tenure-track positions. I think that my generation don't want to slave their life away at the desk - we want more balance and flexibility with our lifestyle. This may, or may not, be possible within academia.

-Female Participant

If it were not for the length of time it takes, and the constant moving around required within that time, to become a professor, I would do it. However, my personal/family life is a priority over my career and the inability to settle down until so late in life discourages me from academia.

-Female Participant

Ideologically loaded research and a hostile academic community are the primary reasons I will probably not be an academic. It feels futile. I also think the research in my field is often shoddy and I have been ill-prepared.

-Male Participant

This questionnaire really tapped into all of the reasons why I would not in a million years want to be an academic! Mostly for family/lifestyle reasons.

-Female Participant

Knowing that academic careers will not provide a standard of living that will compensate for the many years of lost income while studying, nor for the extraordinary effort it takes to complete an advanced degree means that it is irrational to pursue employment in academe.

It would be far more rational for people to forgo graduate studies, enter the work force as soon as possible, earn similar or superior incomes to university professors (e.g. as an unskilled auto worker, or undergraduate health professional), be faced with no less job security and live happy productive lives in other vocations. Or alternatively to take their doctoral education to the government or private sectors, or to the USA. The disincentives to pursuing an academic career in Canada are very powerful.

-Male Participant

The length of time it takes to become fully established in academia is the biggest factor that influences my decision to consider further studies.

-Female Participant

One of the major factors turning me away from academia is the low rate of pay for the amount of work and dedication required. You could argue "if you love your job it doesn't matter". Not a valid argument. If you were compensated well, the decision would be that much easier. Next is that I love research, presenting, preparation of manuscripts, teaching, training and especially the bench top work. However, your role in academia is primarily limited to grant writing, manuscript prep and teaching, with very little, if any, bench top research. I am not really interested in sitting in front of a computer 6 days a week.

-Male Participant

I think the most important factors that will make me decide whether or not I will pursue Academia once I finish my PhD is whether or not there are many academic positions available and how much national/provincial funding is available.

-Male Participant

As I continue to make choices to pursue an academic career I find myself observing my advisors/ supervisors in their ability to balance their academic career with their home/family life. Some balance it very well, as others do not. I never want to find myself putting my family second to my academic career. I also believe the poor balance or career and family comes in part from the extremely high expectations set forth by the University. The belief may be that if you want to have a better life (i.e., job security and/or tenure) you have to put in your time and effort in, which sometimes comes at the expense of your home/family life. This is not right!! You can and should be capable of holding both without loss.

-Male Participant

I am doing well in my program right now but would rather work for someone hands on in a setting where I can be very independent as I don't have the confidence (or in my opinion) the ability to be a professor.

-Female Participant

My decision to leave Academia or not is more influenced by where I feel I will be more productive. Do I want to work to get an article published, or do I want to hand a report to a Minister??? The large plus for staying in Academia is that I wouldn't have to move to Ottawa, Toronto, or Washington. The drawback is that I feel you need to get out of Academia at least for awhile to understand the real world, and hence know how to teach/do research.

-Male Participant

My wife and I had our children during my Master's Degree. It was difficult but certainly can be done. You have to be committed and focused to both aspects and I had to give up most of my free time to get by, as well as work a lot of odd hours. After working for a year and a half as a research tech, I realized that if I ever wanted to dictate my own research and get the due credit for it, I would have to acquire a doctorate degree. I am now enrolled in the PhD program and my kids are all toddler/kindergarten age. Also, my wife has to work part-time for us to get by. If I didn't love research, I would be out in a second. It is both physically and mentally demanding to do both, and I need to work a lot of late nights. All in all, I love research but am not sure if it is the best career path for those with children. Most of the top researchers give their lives to research and that can make it more difficult to compete if you're a family oriented person. I am still unsure as to whether I will stay in academia following my PhD.

-Male Participant

I care too much about teaching to become a professor in a research university. There is intense pressure to publish, and barely any concern for the undergraduate students. A student's experience as an undergrad could have a huge impact on his/her life. Teachers have a sacred responsibility to inspire students and help them learn and build foundations/springboards for their life missions. In a sense, undergraduate students place their futures (and a great financial investment) in our hands. I am appalled that UWO has asked untrained graduate students to take over the full teaching of several courses in the department for this coming year. Also, I think researching and teaching should be separate careers.

-Female Participant

Seems to me that academics put in a lot of hours, taking them away from their families, but they also have enormous flexibility - which is not so widely available to others who work equally long hours. At [this faculty] the profs teach two terms and have one for research, meaning they can spend more time at home in the research term. Academics also get sabbaticals, which nobody else does. I think they have a lot of their plates if they want to do a good job, but it is the same for everyone in any profession and the perks of academic life make up for the drawbacks. Furthermore, when people choose to have both spouses working, it only stands to reason that it is stressful when there are kids to be cared for AND careers to be developed. It requires careful negotiation between the 2 parents. But then again, this is no different for academics than for anyone else. The biggest factor preventing me from pursuing an academic career is not family considerations, but monetary. They're actually related because if I didn't have a family, it would be easier to manage financially as a student, but the chief reason for the lack of interest is I'm sick of being poor and another 3 or 4 years would be too much to take. Good luck with your study.

-Female Participant

*I plan to enter professional school.
I am more family oriented than career driven.
Academia is too political.*

-Female Participant

You can't get rich working for someone else.

-Male Participant

Academic jobs greatly underpay and value new professors. In my area, I can make a third more to start outside academia than inside academia. Also, the 'publish or perish' lifestyle is not for me. If I'm going to teach, I'd like to teach.

-Female Participant

I find that a happy family will contribute hugely in one's career, no matter what career he or she involves in. Wish you success on your research.

-Male Participant

*It's OK for men to pursue an academic career for dual income families because it is usually the women who looks after the family stuff. I feel very strongly about that still in 2003.
It's still going to take a long time before men actually would take over those responsibilities.*

-Female Participant

I am interested in academia because of its flexibility compared to school teaching. I am willing to accept the long hours, knowing that there is flexibility to support children. We are also excited at the notion of a potential professorship leading our lives to a new community. My partner is very excited about my goal to do my Ph.D. and become a professor, although he has no desire for the same profession. I struggle about the best timing to do my Ph.D. and I have decided to have my children while I'm teaching, but pursue my Ph.D. soon after I am done having them. I would like to do my Ph.D. in my 30s, so that I can be a professor in my early 40s. It'd sure be nice to be a man and not have to consider mat leaves and the physical realities of having babies.

-Female Participant

I do believe that career path is important to becoming a parent (more money for child/ren, more flexibility to be with child/ren, etc.) but I don't think being in academic or non-academic makes a difference. It is necessary to have the resources and the desire to raise children in a happy, safe, loving environment, regardless of what field you are in. I no longer have the desire to pursue an academic career (no money, undesirable situations, burnt-out, etc.). At this point in time in my life, I want to finish my thesis as quickly as I can, get a good job, get married, travel and start a family. Going to school for several more years is not compatible with my current goals.

-Female Participant

I am so pleased that somebody is doing this research. I love research and teaching, but watching female academics work non-stop in hopes of one day getting tenure (ie security, money, stability etc..) is an excellent way of turning away potential academics.

-Female Participant

For myself, I think one of the main detractors from an academic career in relation to raising a family is the tenure track process, and the long hours that must be put in during these 6 years. This is also often the time when you would have young children.

-Male Participant

I got married with one son. If the person can manage its time and if he/she can tolerate with its salary, it is no conflict between academic work and having a family but if she or he wants to be the best and do a perfect job, there is some conflict because she/he should spend more time on its job. It means less time for family and it is a headache

-Male Participant

Right now I have too much debt to be able to continue any schooling.

-Female Participant

People who want to be parents can work in any field and make it work, never choose your career to make life easier for kids, they'd rather see you come home from work happy, whatever time that is...

-Male Participant

If you want to get ahead and be considered a success in the academic world, you have to put work first and family and everything else second. You can have a family, but you can't be great at both work and parenting.

-Female Participant

I have been able to do my Master's degree on a part-time basis and still spend a lot of time with my small children. I started when my youngest was only one year old. I work during nap-time and at night when they are in bed. My husband is very supportive and he will take care of household chores like laundry and dishes so I can do my academic work. I really enjoy having these two elements, school and family in my life and I am doing better in school than before when I did not have children.

-Female Participant

NOTES TO PARTICIPANTS

I would like to thank you for your interest and for completing the study. I would also like to acknowledge those of you who provided positive, encouraging, and/or constructive comments. Many of you provided insightful comments that spoke to your collective concern with academia. Many of you stated that you had more to say on the topic. I would have loved to hear it, but an unfortunate detraction of quantitative research is the inability to follow up on participant-initiated leads. At the risk of sounding paternalistic, I would like to encourage all of you to get involved at various levels of the university to help rectify the problems you perceive and experience. Encourage the university to take these recommendations – or others you come up with – seriously and act upon them.

This study did not adequately address the experience of graduate students in non-research based programs or those who have ‘finished’ having their children. I would like to apologize to those of you who volunteered your time only to find that many questions were not applicable.

Many of you commented that you found it difficult, impossible, or problematic to pick whether ‘academic’ or ‘non-academic’ was a better career choice for people who wanted to be parents.’ Many of you expressed a desire for a third option of ‘not sure’ or ‘doesn’t matter.’ Before you saw this study, I agonized over including a third neutral option; I decided to include only two: ‘academic’ or ‘non-academic.’ Discussing this with friends and colleagues led me to the same conclusion. I reckoned that a neutral choice would be selected by the vast majority of participants. Forced choice paradigms are generally discomfoting, but can provide important information that would not otherwise be available.

A larger more comprehensive article from this study is near completion. If you are interested in reading this article, please contact me (sari_vananders@sfu.ca).

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