Plenary Panel #3 / Séance plénière 3

Concrete Measures for Structural Change: Towards Gender Equality and Diversity Within Academia

Mesures concrètes pour favoriser un changement structurel : vers l’égalité entre les genres et la diversité dans le milieu universitaire
Concrete Measures for Structural Change: Toward Gender Equity and Diversity Within Academia

Carl E. James
Jean Augustine Chair in Education, Community and Diaspora
Faculty of Education
York University

Gender Summit 11
November 6, 2017
Equality, Equity and the Ultimate Goal
# The Data

## Aggregate Data

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Men</th>
<th>Women</th>
<th>Vis Min</th>
<th>Indig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership Teams</td>
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<td>62.6%</td>
<td>37.4%</td>
<td>6.1%</td>
<td>0</td>
</tr>
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<td>Leadership Pipeline</td>
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<td>68.9%</td>
<td>31.1%</td>
<td>6.1%</td>
<td>0.5%</td>
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</tbody>
</table>

## Disaggregated by Gender and Race Combined

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>MEN</th>
<th>WOMEN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White</td>
<td>Vis Min</td>
<td>Indig</td>
</tr>
<tr>
<td>Leadership Teams</td>
<td>115</td>
<td>56.5%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Leadership Pipeline</td>
<td>212</td>
<td>64.1%</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

Source: Malinda Smith, Academic Women’s Association, University of Alberta, Edmonton, April 2017
Lack of faculty diversity can affect studies and career aspirations

Tiffany Gordon, a PhD student in philosophy at Dalhousie University in Halifax: “Being surrounded by philosophers and academics of colour who were successful professors made me think there might be room in philosophy for me.”

AREVA ZOLLERKOWSKI/SPECIAL TO THE GLOBE AND MAIL
Concrete Measures for Structural Change

- Collect and analyze disaggregated data, including race and religion
- Be deliberate in recruiting diverse group of scholars
- Consider the need to expose students (as well as colleagues) to diverse perspectives that will enrich the knowledge base of students and faculty members
Stop the leaky pipeline

• Getting Responses to Supervisor Inquiries for Graduate School (Milkman, Akinola & Chugh, 2015)

• 87% of white males received a response versus 62% of women and visible minority applicants
• All professors (gender and ethnicity) preferentially responded to white males
• All disciplines showed bias except fine arts; worst was business academia
• 6548 professors, 89 disciplines and 259 universities

• Leads to early discouragement of disadvantaged groups to enter graduate school
Remove barriers in the hiring process

• Reference letters
  • Reference letters are a critical academic passport
  • Differ for racialized scholars and women

• Recruitment at conferences
  • Conferences an important place for networking, gaining academic influence and increasing the chances you will be cited through podium presentations (Lewis 2001).
It’s not what you know, it’s who you know…

• Who you know
  • Harder for racialized scholars and women to break into ‘old boys’ networks
  • Networks of white male scholars are commemorated in numerous ways perpetuating feelings of ‘not belonging’ and ‘unworthiness’
  • Homosocial reproduction (Kanter, 1977, Roper, 1996)

• Critically reflect on the notion of “fit”
  • Want to believe that anyone who applies has an equal chance but not the case
  • Homosocial desire for sameness not diversity
Getting to Equity and Diversity

• Understand the structural ways in which bias operates
  • Where you publish
  • With whom you publish
  • Reputation of publication and who assigns value
References:


Towards gender diversity in Engineering: goal setting, policies, and actions

The UBC Applied Science Case Study

ELIZABETH CROFT, SENIOR ASSOCIATE DEAN, FACULTY OF APPLIED SCIENCE, UBC
UBC AT A GLANCE

• 61,113 students (Vancouver: 52,721; Okanagan: 8,392)
• 13,189 international students from 155 countries
• 12,841 degrees granted in 2015
• 306,000+ alumni in 140 countries
• 15,190 faculty and staff
• $2.3 billion annual operating budget
• $600 million per year in research funding for 8,766 projects
• 180 companies spun off from UBC research
• $12.5 billion in economic impact

• Applied Science: Engineering, Planning, Architecture and Landscape Architecture, Nursing
  • ~350 Faculty, 7000 undergrads, 1800 Grads
GOAL – ARTICULATED IN 2013

Aim to reach 50% women in our Engineering programs (undergrad, grad, faculty – focus of this presentation). Articulated by Dean and supported at the highest levels of the university.

Supported by findings from data, best practices based on data, and outcomes reported with data.
Engineering Working Climate & Equity Study

- APSC & Faculty of Science (Vancouver campus)
  - Faculty survey
  - Focus group interviews
  - Policy review

- Women in Academic Leadership (APSC & Faculty of Medicine)
  - Women in Science initiatives
KEY FINDINGS

• Need to improve transparency on workload and resource allocation.
• On majority of climate indicators women responded significantly less positively than their male peers.
• Job related discrimination reported by more than 50% women and only 6% men.
• On average women take 0.5 year longer to tenure, and 2.0 years longer to promotion to full professor.
• Concerns around recruitment rate and attrition rate.
MAIN RECOMMENDATIONS

• Dean’s office: Create **policies** on workload, maternity and parental leave, teaching and resource allocation, mentoring, and leadership development and **post on faculty intranet**.

• Departments: Develop and **formalize** mentoring programs.

• UBC: expanded **support** for under-represented groups for leadership development.

• Deans office: **Proactive strategy toward recruitment of women faculty** aligned with commitment to academic excellence.

• Dean’s office: continue to track faculty progress **data**. Follow-up study in 5 years. Exit interviews with departing faculty.

• Deans office: support UBC’s respectful environment policies.
ACTIONS

• Faculty wide: repository for services, resources, policies and other information
  • Developed Faculty policy for Maternity, Parental and Adoption Leaves
• Departments: mentoring programs
• Faculty wide: women faculty lunches
• University: leadership development programs
• University and Faculty: Promotion workshops for women faculty (multi university)
• Faculty: Equity and implicit bias training for all hiring committees
• Faculty: Respectful environment training

• Commitment - 2017 Working Climate & Equity Study – Follow up!
OUTCOMES

• 40% women assistant professors in engineering – significant change in hiring outcomes (up from 17% in 2012)
• Faculty wide commitment to diversity
• Access to and recognition of diversity benefits
SUMMARY

Goal setting and support at highest level

Data to produce findings

Findings to generate recommendations, policies and actions...

... leading to reportable outcomes.
Balancing the gender equation in science

Shohini Ghose
Wilfrid Laurier University
Female Nobel Laureates in physics...
Female Nobel Laureates in physics

Marie Curie (1903)  Maria Goeppert Mayer (1963)
Source: Statistics Canada.
Physics: Assistant: 25%, Associate: 15.7%, Full: 5.6% (CAUT 2013-2014)
WOW, YOU SUCK AT MATH.

\[ \int x^2 = \pi \]

WOW, GIRLS Suck At MATH.

\[ \int x^2 = \pi \]
PISA 2012: Science results across countries
Perceptions and environment


Math performance and university choices

Proportion choosing a STEM university program among YITS-PISA respondents who attended university, by high school grades in mathematics

Note: STEM includes science, technology, engineering, mathematics and computer science.

Sources: Statistics Canada and Human Resources and Skills Development Canada, Youth in Transition Survey (YITS); Organisation for Economic Co-operation and Development, Programme for International Student Assessment (PISA), 2006 to 2015.
Perceptions and environment

What does a scientist look like?
Perceptions and environment

What does a scientist look like?
Perceptions and environment

What does a scientist look like?

Perceptions and environment
Implicit bias

Fig. 1. Competence, hireability, and mentoring by student gender condition (collapsed across faculty gender). All student gender differences are significant ($P < 0.001$). Scales range from 1 to 7, with higher numbers reflecting a greater extent of each variable. Error bars represent SEs. $n_{\text{male student condition}} = 63$, $n_{\text{female student condition}} = 64$.

Fig. 2. Salary conferral by student gender condition (collapsed across faculty gender). The student gender difference is significant ($P < 0.01$). The scale ranges from $15,000 to $50,000. Error bars represent SEs. $n_{\text{male student condition}} = 63$, $n_{\text{female student condition}} = 64$.

Perceptions and environment

IUPAP Global Survey of physicists

- Women were:
  - Less likely to have adequate resources
  - More likely to do majority of housework/childrearing
  - More likely to experience slower career advancement

https://www.aip.org/statistics/reports/global-survey-physicists
Strategies for change

• Destroy invisibility
• Un-normalize
• Lay down the law
• Measure
• Connect
Female Scientists in Universities: Achievements and Challenges in their Academic Careers. The Peruvian Case.

Patricia Ruiz-Bravo
With the collaboration of Aranxa Pizarro and Jimena Sánchez
Pontifical Catholic University of Perú
GENDER SUMMIT 11
Montreal, Canada
November 6th-8th, 2017
4EqualScience: Women in Science in 5 universities from the Peruvian Network of Universities

**PURPOSE:** Analyze the academic careers of teachers and researchers in the areas of science and engineering in five public universities in different regions of Perú, in order to develop a diagnosis that allows the design of public policies of gender equality in science and technology at a national level.

**The universities analyzed were:**
- Nacional University of Trujillo
- Nacional University of San Agustín
- Nacional University of the Peruvian Amazon
- Nacional University San Antonio Abad of Cusco
- Nacional University of the Center of Peru
Methodology

• **A standardized survey** was applied to 713 teachers in the areas of science, health sciences and engineering, of whom 515 (72%) were men and 198 (28%) were women. More specifically:

Science Departments: 125 men and 100 women.  
Health Sciences Departments: 72 men and 42 women.  
Engineering departments: 318 men and 56 women.

• **31 in-depth interviews** with female teachers and researchers in the areas of science, health sciences and engineering
Main Results

1. **Naturalization of Gender Differences:** According to this construct, female teachers and researches would be accepting as natural a series of behaviors and attitudes traditionally attributed to the division between men and women, in which females are responsible for doing the housework and strive more to obtain academic achievements. This naturalization supposes that there is no questioning of the current gender order and this is due to the non-explicit mechanisms of discrimination to which they are confronted. However, when asked in private about their academic careers, this acceptance was questioned from a subjective reflection on their feelings and the challenges they faced.

2. **Implicit mechanisms of discrimination:** although these were not recognized as such initially in the survey, they were suggested in the in-depth interviews. Among these were: Implicit Bias, Stereotype Threat, Micro-messages/ Micro-aggressions
What have you identified that needs to change in the models of programs, policies, processes or organizational structure that you are familiar with?
Implicit Bias

- Implicit biases may arise in the assessment of CVs and achievements of female professors when they apply for tenure.

- How to counter these mechanisms? By demanding tenure committees to submit explicitly justified reports that support their decisions in the cases where they give tenure and where the don’t.
Stereotype Threat

Cases of stereotype threat may reduce the performance female students or female professors, for example, when defending a dissertation.

How to counter this mechanism?
1. By demanding the presence of women in advisory committees.
2. Re-aiming against stereotype threat by explaining the *anxiety* caused by the situation without validating the stereotype and by affirming the importance and value of complex identities that have been systematically discriminated and/or underrepresented (Haslanger 2008).
Micro- Messages/ Micro-Aggressions

- It is important to acknowledge the potential hazards of micro-aggressions and how they affect the performance of female students and professors. For example: calling them *miss* instead of professor or director in official meetings, double-checking their work constantly, suggesting they got their positions by someone pulling strings and not by their own merit, etc.

- **How to counter these hazards?** By developing active bystander skills and raise awareness of how these micro-inequities and micro-aggressions work.
What concrete actions have you or your organization implemented that have produced positive change?
EMULIES, the Space for Women Leaders from Higher Education Institutions of the Americas, is a program of the Inter-American Organization for Higher Education (IOHE) that is hosted at the Pontifical Catholic University of Perú. Its strategic goals are:

1. Contribute to strengthen women’s leadership and their participation decision-making at HEI.

2. Promote the construction of HEI increasing to be democratic, inclusive and socially responsible.

3. Provide thorough and updated information about women’s situation at HEI.

4. Emphasis on higher education policies which favour gender equality.
**EMULIES: Observatory and Data Repository**

Promotes female leadership in the HEIs of the Americas, by:

- Gathering leader women together: over 800 women since 2011 in different events where women exchange their commun discriminatory situations and actions taken.
- Training and capacity building, with a Diploma of Gender and Leadership in HEI..
- Promotion of research and information systems, with an Observatory to have data of the situation of women in Universities where it is visible the differences of women in Science (only 12% of women are leaders in Engineering), and a data repository to exchange information regarding good practices, policies and information in general.
Gender Equality Policies for Teaching

• The Pontifical Catholic University of Perú approved in 2015— for the first time —the Gender Equality Policies for Teaching as an effort of the members of the Research Group on Gender Studies founded in 1997. None other university in the whole nation has policies that promote gender equality.

• They aim at promoting equal opportunities between male and female teachers in different academic units; eliminating discriminatory practices that affect career paths, academic participation and access to government, and women's well-being.

• And focus on promotion, research and management opportunities for women.
Gender Equality Policies for Teaching

• When an age is recommended to obtain tenure, the age of the female candidates will be reduced by 3 years for each child or for each person in their care (sick and elderly).

• When assessing or weighing merits, periods of departure or retirement due to maternity, care of children, elderly or sick relatives will not be taken into consideration.

• In cases of Academic Departments with a female teaching staff below 20%, calls will be made to women for full-time incorporation and ordination, until a distribution by sex is achieved that is related to the number of students and full-time teachers.
Gender Equality Policies for Teaching

- Academic discharge of up to six credits for full-time teachers with children up to 12 years of age, or if they are enrolled in a program to obtain master's or doctoral degrees and are in charge of an ascendant.

- Teachers who have children under the age of five will have preference in the choice of daytime schedules.
Implementation Problems

- The follow-up commission has no resources to act.

- The units that must implement the changes are resilient to the policies.

- Lack of commitment from the university authorities and, in many cases, even rejection.

- The university community has not internalized the policies, among other reasons, due to a lack of promotion and awareness.
Regulation for the Prevention and Intervention in cases of Sexual Harassment

- Approved in 2016 as part of the *Gender Equality Policies for Teaching*, also as an effort of the members of the Research Group on Gender Studies founded in 1997.

- They focus on prevention, principles of action and disciplinary procedures to ensure a safe environment for students and professors.
Regulation for the Prevention and Intervention in cases of Sexual Harassment

- Awareness-raising campaigns.

- Conduct surveys that address the issue of sexual harassment.

- Creation of a special commission to intervene in the face of sexual harassment. This commission will be responsible for receiving complaints, investigating and sanctioning sexual harassment in the first instance.
Implementation Problems

The university law only stipulates as a penalty for any form of sexual harassment the removal of tenure and expulsion from the university. Since the university law depends on the national law, it is very difficult to change it.

SO? Minor infractions that do not comply with the gravity necessary for the penalty to be applied will prevail without any institutional penalty.
Thank you!

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