

# Collaborative Research and Training Experience Program - CREATE

- Requirements, reflections and advice to integrate EDI
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# Agenda

- Context, sensitization
- EDI in the NSERC CREATE Program
- Statistics and case studies to inspire us
- Ways to integrate EDI in the call
- Self-assessment tools
- Discussion

# EDI Context



<https://www.democracyandme.org/part-five-womens-rights-can-we-talk-about-this-in-class-unpacking-some-complexities-of-the-me-too-movement/>

<https://www.americamagazine.org/politics-society/2016/10/26/black-lives-matter-canada-too>

## COMMUNITY VIGIL & MEMORIAL WALK FOR JOYCE ECHAQUAN

SUNDAY OCTOBER 4TH, 1-3PM  
LKWUNGEN (VICTORIA BC)

GATHER @ OUR PLACE (919 PANDORA) 1PM, MARCH TO ROYAL JUBILEE HOSPITAL FOR 2PM, SPEAKERS FROM COMMUNITY 2PM-3PM



*Please come ready to socially distance (6ft) with masks- we're gathering because Indigenous community members experience lethal racism in hospitals, and a COVID outbreak just increases our risk of going to a hospital.*

## Don't put people in boxes

- How do we, as researchers, position ourselves vis-à-vis this current situation?
- What can be my contribution as researcher to improve this situation of inequity and injustice?

<https://twitter.com/racellekooy>

uOttawa.ca

## Equity, Diversity and Inclusion in the Call

- CREATE initiatives are expected to increase the inclusion and advancement of **under-represented and disadvantaged groups** in the NSE as one way **to enhance excellence in research and training**.
- Consideration of sex, gender and diversity in the **research design** should be addressed in the proposal.

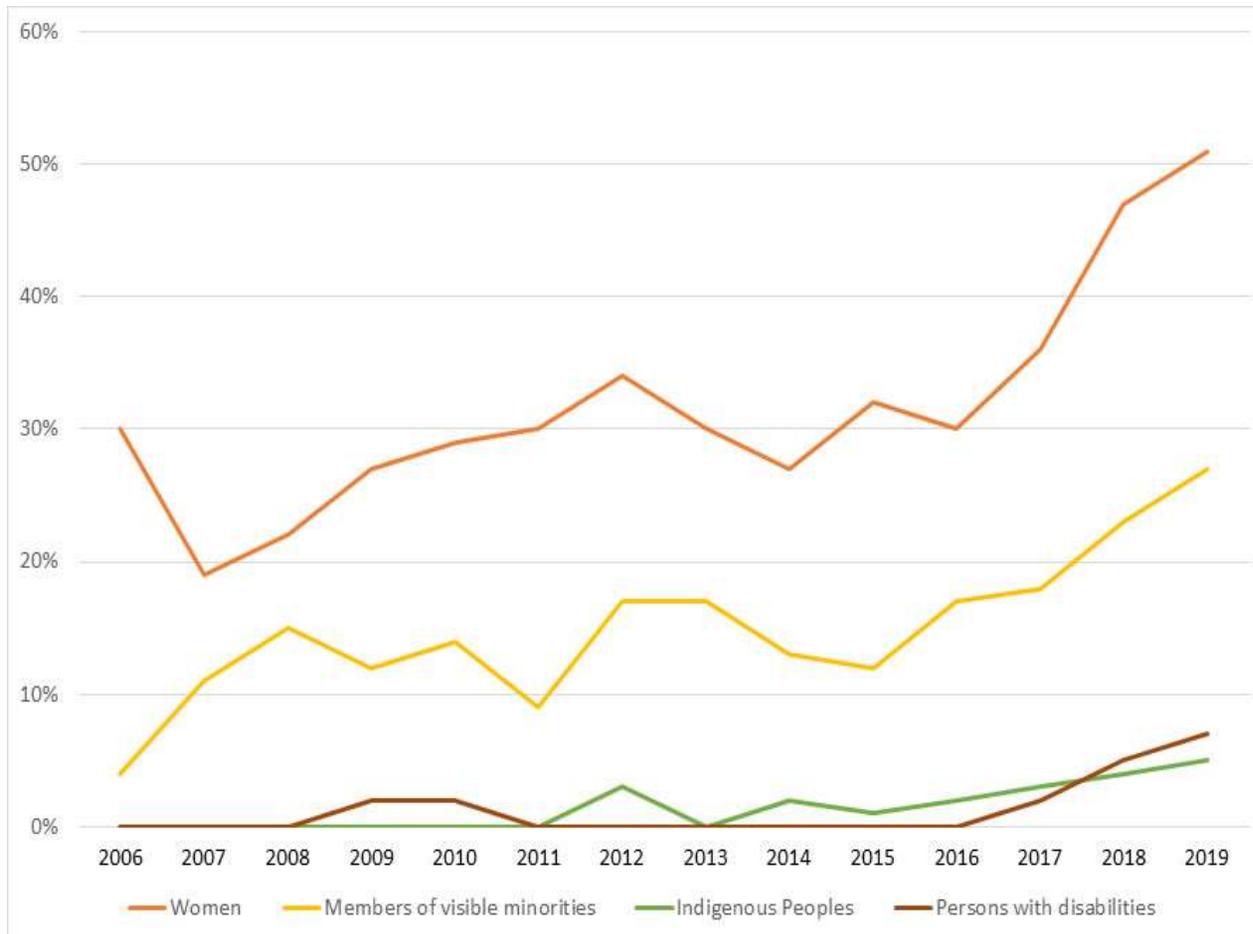
- Excellence of the team (25%)

**EDI considerations** should be developed into the **rationale of the composition of the team**, in the designated roles within the team and within the **group** of trainees and in their supervisors, role models and mentors.

- Program management and long-term sustainability (25%)

Appropriateness of the proposed management structure, including the composition, role and responsibilities of the [program committee](#), and considerations of EDI in the rationale of the proposed management structure

## Percentage of nominations submitted for individuals who self-identified as members of the four designated groups from 2006 to 2019



“Efforts are fundamental to ensuring that the program achieves its objectives of **attracting** and **retaining** a diverse cadre of world-class researchers and reinforcing academic research and training excellence in Canadian postsecondary institutions.” [Canada Research Chairs](#)

# One Case Study on Mentoring with Indigenous Students at U Minessotta

Prunuske, A; Wilson, J; Walls, M. and Clarke, B. (2013). [Experiences of Mentors Training Underrepresented Undergraduates in the Research Laboratory](#)

- The context:

“AI/AN is the racial ethnic group least likely to major in science and engineering” (Guillory, 2008, cited in Prunuske et al., p. 403).

“Lack of [Indigenous] **role models**, added pressure associated with being the only individual of their race in a program, and social isolation” (Burgess, 2012, cited in Prunuske et al., p. 403).

- The Research Object:

What **means being a member of an underrepresented group?**

What is the experience of **mentorship from an inclusive perspective?**

## Mentorship Activities

- Providing opportunities for career development
- Enabling students to learn about science, helping them to discover their aptitudes and interests, and building **students' confidence**
- Try to get the students to the point of testing their own hypotheses.
- Facilitating the exposure to the scientific world and how science works—as one informant stated, “doing the scientific method from start to finish.”

# How Do Mentees See Underrepresentation?

- Natives see themselves at the same level as African Americans of slave descents. Exclusion for historical reasons.



- People with “little experience, **few opportunities**, and lack of financial support”.

“People that ... are not represented in the professional ranks ... **it’s largely ethnicity based, but also sex-based** because my understanding is that even though women are more than half of grad students in math and med school, they are still minority in faculty positions” (Prunuske et al. 2013, p. 406).

# The Place of Diversity in the Mentoring Relationship

- Acknowledge the differences in backgrounds between mentors and mentees.
- Preconceived notions can influence stereotypes or unconscious biases.
- Avoid color blindness or ideas of neutrality in science
- “If nobody in my family had a profession where something like the sciences is familiar to me, then it becomes this **foreign land**... I don't know if I belong here necessarily... Like in my culture, it's very important to **contribute and be of service to the people, but doing it through the education system, not necessarily**. ‘Cause well, I'm an American Indian, and so a lot of the education system is seen with criticism, with intense, like suspicion” (Prunuske et al. 2013, p. 406).

## Lessons learned

- In STEM, only 10% of students left these disciplines because they had discovered that a nonscience field was a better fit for them (Seymour and Hewitt, 1997).
- **Key factors of retention:** connections with other students, feelings of self-efficacy, role models, and being able to embrace more of an individualistic mentality
- Focus on training programs that **build a community in which identities matter**. Learning through including a cultural component.
- Take into account the beliefs of underrepresented groups. Including: avoid killing animals, the critical role of science for the good for the community.

# Integrating EDI in Research Proposals, Teams, and Dynamics

1. Clearly **displaying the benefits** of increasing the participation of under-represented groups including:

- More inclusive and mutually rewarding relations between research team members
- Women's participation in science can provide with new perspectives, broader scopes of knowledge production and add important new dimensions to research (Nielsen et al, 2017).
- Research outcomes can be more easily adapted to the diversity of research participants or users
- Diversifying role models to inspire others
- Facilitate recruitment and retention

**Show the diversity existing already within your team and the strategies you will use to promote it.**

## Why EDI Matters

- More diverse companies are better able to win top talent and improve their customer orientation, employee satisfaction, and decision making, and all that leads to a virtuous cycle of increasing returns (Hunt, Layton, and Prince, 2015).
- Diversity brings some level of competitive advantage for organizations that can attract and retain such diverse talent.
- Going beyond numbers and recruitment. **Privilege voice, leadership, and active engagement.**

The data suggests diversity correlates with better financial performance.

Likelihood of financial performance above national industry median, by diversity quartile, %

**Ethnic diversity**



**Gender diversity**



**Gender and ethnic diversity combined**

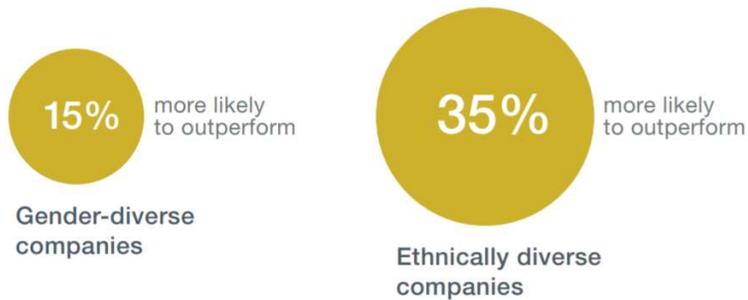


Source: McKinsey Diversity Database



**Diversity's dividend**

What's the likelihood that companies in the top quartile for diversity financially outperform those in the bottom quartile?<sup>1</sup>



<sup>1</sup>Results show likelihood of financial performance above the national industry median. Analysis is based on composite data for all countries in the data set. Results vary by individual country.

Source: McKinsey analysis

# Integrating EDI in Research Proposals, Teams, and Dynamics

## 2. Establishing **equitable mentorship strategies** for all trainees

- Making barriers visible
- Adapting mentorship to the specific needs of trainees
- Creating spaces for voice of groups that may be misinterpreted
- Making conscious the unconscious bias and clear establish how your team will avoid this bias.

## 3. Show **how equitable** and inclusive is your research and work environment

- Identifying the issues and the measures ensure equity is achieved
- Encourage more talent to stay in natural sciences and engineering (NSE) fields.

# Integrating EDI in Research Proposals, Teams, and Dynamics

Avoid the “fixing women” approach.

Address instead the **cultural and contextual bias and barriers** within our systems and structures.

4. Highlight Diversity in networking and leadership events.

Show **practical tools** and strategies for incorporating diversity and equity awareness into everyday life

Clearly state EDI in the ways research advances and results will be **disseminated**

5. Clearly state **how and why** (show benefits) EDI was relevant to research design, implementation, evaluation and dissemination

Establish clear, measurable and timeline strategies:

**“Our team will achieve racial and gender equity in our researchers’ recruitment processes and in our dissemination activities in three years.”**

## Essential Notions or Approaches. Words Matter

- **Equity**: removing barriers to the equal participation of the designated groups, which will not occur without enforceable and systemic intervention (Henry et al., 2017, p. 11).

[Let's stop talking about diversity and start working towards Equity](#)

- The Critical Race Theory:
  - Questioning **Whiteness as a universal norm**
  - Focus on **interrelated systems of oppression** such as colonialism, capitalism, patriarchy, heterosexism, and the free market economy
  - The **role of “voice”** central to a critical race approach. P. 14
  - **Objectification/Tokenism**: Used to describe the treatment of a person whereby their personality or feelings are disregarded (Henry et al., 2017, p. 11).
  - **Intersectionality**: An analytic sensibility, a way of thinking about identity and its relationship to power.

## How do I know if sex, gender and/or diversity considerations are relevant factors in my research?

6. Apply self-assessment tools on EDI.

<http://genderedinnovations.stanford.edu/>

Gendered Innovations project is to provide scientists and engineers with practical methods for sex and gender analysis.

GBA+ [https://cfc-swc.gc.ca/gba-acsc/courses/eng/mod03/mod03\\_03\\_02.html](https://cfc-swc.gc.ca/gba-acsc/courses/eng/mod03/mod03_03_02.html)

1. Are sex (biological) considerations taken into account in this study? (Y/N)
2. Are gender (socio-cultural) considerations taken into account in this study? (Y/N)
3. Are diversity considerations taken into account in this study? (Y/N)
4. (If you answer "yes" for any of these questions) Describe how the sex and/or gender and/or diversity considerations will be considered in your research proposal.
5. (If you answer "no" for one or more questions) Explain why sex and/or gender and/or diversity are not applicable in your research proposal.

## To Take Out

- Acknowledge the social and institutional context
- Clearly reflect and show the contribution of EDI to your research
- Create concrete, measurable, and timeline EDI measures (Avoid empty formulations)
- Avoid neutrality and value difference
- Go beyond a quantitative approach towards accomodation, voice, recognition of difference, openness
- Self-assess your team