



ENGENDERING ENGINEERING SUCCESS

The benefits of gender inclusive policies and practices

Abstract

Engendering Engineering Success (EES) is a joint research project between the University of Alberta, the University of British Columbia, and the University of Guelph. EES aimed to identify which organizational practices best predict an inclusive and supportive workplace culture that maximizes organizational commitment and productivity for both men and women.

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Project Overview

This report outlines initial findings regarding the relationship between gender inclusive workplace policies and practices and key employee outcomes such as organizational commitment.

Sample and Methods

Data were collected from 269 professional engineers (148 female; 121 male) and HR personnel at their employers

- They came from 28 companies across six engineering sectors (Consulting Services, Utilities, Communications, Transportation, Government, Primary and Resource Industries, Construction and Manufacturing, and High Technology)

Data was collected on several measures (see Appendix for more detail):

- Employee attitudes towards the organization (rated on a 1-7 scale)
 - Feeling valued by the organization (1=Strongly Disagree; 4= 4-Neither Agree nor Disagree; 7= Strongly Agree)
 - Feeling committed to the organization (1=Strongly Disagree; 4= 4-Neither Agree nor Disagree; 7= Strongly Agree)
 - Intention to leave the organization (1=Strongly Disagree; 4= 4-Neither Agree nor Disagree; 7= Strongly Agree)
- Employee & HR ratings of gender inclusive policies at their organization
 - Number of policies, others' attitudes toward policies, personal benefit
 - Four types of policies: Flex-time; Inclusive culture; Recruitment, retention and advancement; and Work-Life Balance

Findings

Finding 1: Women report less commitment to their organization than men



FIGURE 1 ON AVERAGE, FEMALE ENGINEERS REPORTED FEELING SIGNIFICANTLY LESS VALUED BY THEIR ORGANIZATION, REPORTED LESS ORGANIZATIONAL COMMITMENT, AND A GREATER INTENTION TO LEAVE THEIR COMPANY COMPARED TO THEIR MALE COLLEAGUES. THESE MEAN DIFFERENCES REMAIN SIGNIFICANT EVEN AFTER CONTROLLING FOR GENDER DIFFERENCES IN EMPLOYEE'S STATUS AT COMPANY AND EMPLOYEE AGE (MEN WERE OLDER AND HAD HIGHER STATUS).

* INDICATES STATISTICALLY SIGNIFICANT DIFFERENCE, $p < .05$. ERROR BARS REPRESENT 95% CONFIDENCE INTERVALS.

Finding 2: Men report more gender inclusive policies at their company than do women.

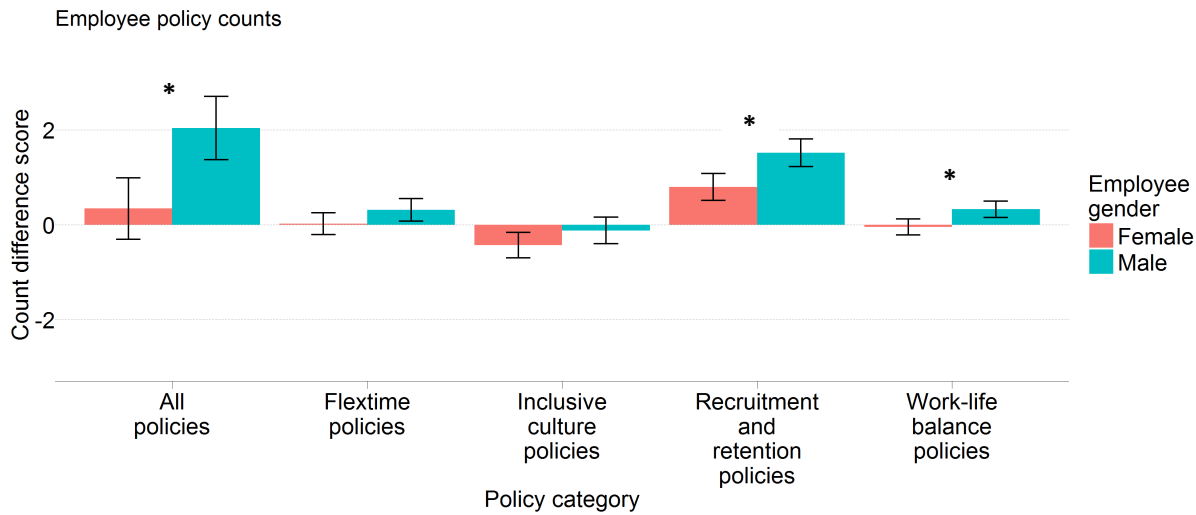


FIGURE 2 HR REPORTS OF POLICIES WERE SUBTRACTED FROM EMPLOYEE REPORTS TO CREATE A DIFFERENCE SCORE FOR WHICH POSITIVE NUMBERS INDICATE OVERESTIMATION AND NEGATIVE NUMBERS SIGNAL UNDERESTIMATION. ON AVERAGE, MEN SIGNIFICANTLY OVERESTIMATED THE NUMBER OF GENDER INCLUSIVE POLICES AT THEIR COMPANY. WOMEN TENDED TO BE ACCURATE OR UNDERESTIMATE THE NUMBER OF GENDER INCLUSIVE POLICES.

Finding 3: Men, more than women, reported that people in their organization had positive attitudes towards all of the policies.

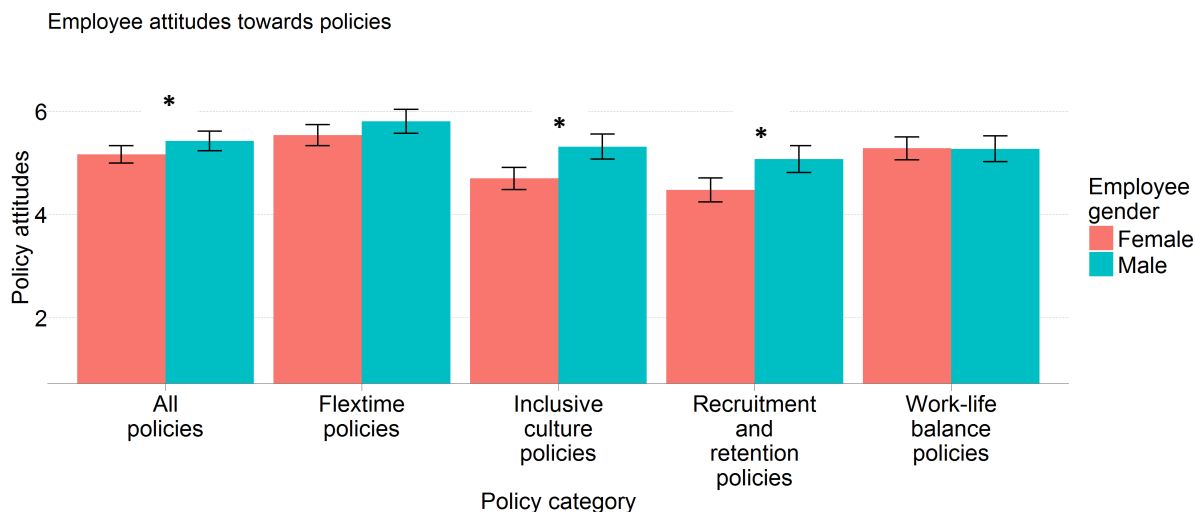


FIGURE 3 ON AVERAGE, MEN REPORTED SIGNIFICANTLY MORE THAN WOMEN THAT PEOPLE IN THEIR ORGANIZATION HAD POSITIVE ATTITUDES TOWARDS ALL GENDER INCLUSIVE POLICES AND PRACTICES. THIS WAS ESPECIALLY TRUE FOR POLICES DESIGNED TO ENCOURAGE AN INCLUSIVE CULTURE AND POLICES TO ENSURE EQUAL RECRUITMENT AND RETENTION OF WOMEN. ATTITUDES WERE ASSESSED USING A 1-7 SCALE THAT RANGED FROM “VERY NEGATIVELY” TO “VERY POSITIVELY”.

Finding 4: Both men and women reported benefiting equally from gender inclusive policies.

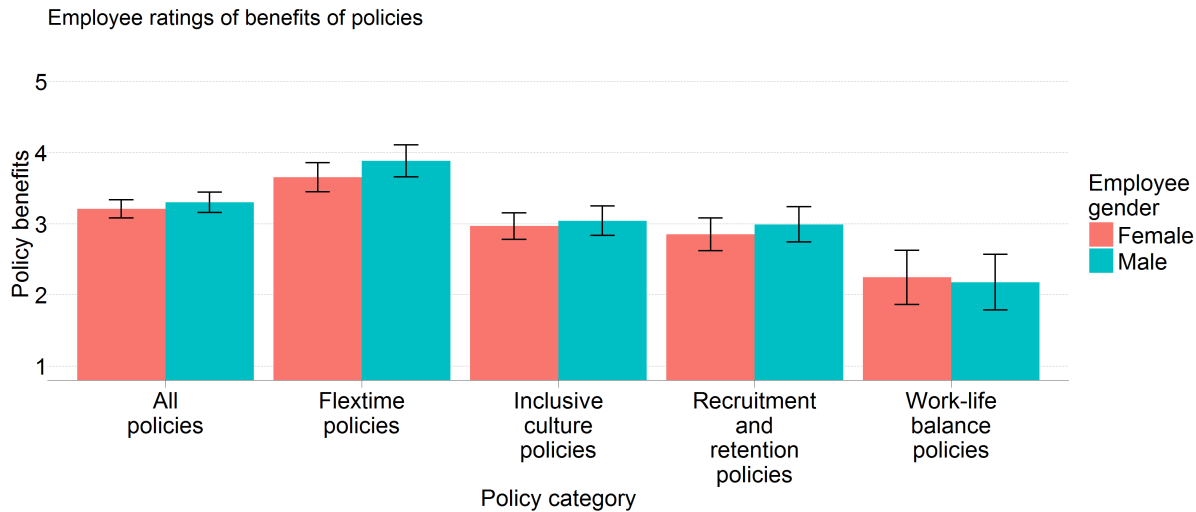


FIGURE 4 ON AVERAGE, BOTH MEN AND WOMEN REPORTED BENEFITING EQUALLY FROM ALL CATEGORIES OF GENDER INCLUSIVE POLICIES. NOTE THAT BENEFITS WERE ASSESSED USING A 1-5 SCALE THAT RANGED FROM “NO, I HAVE NOT BENEFITED FROM THESE POLICIES” TO “YES, PROGRAMS LIKE THESE HAVE BENEFITED ME A GREAT DEAL”.

Finding 5: Both men and women report more positive organizational outcomes when they work for companies that have more gender inclusive policies, where employees have positive attitudes toward those policies, and when they personally benefit from them.

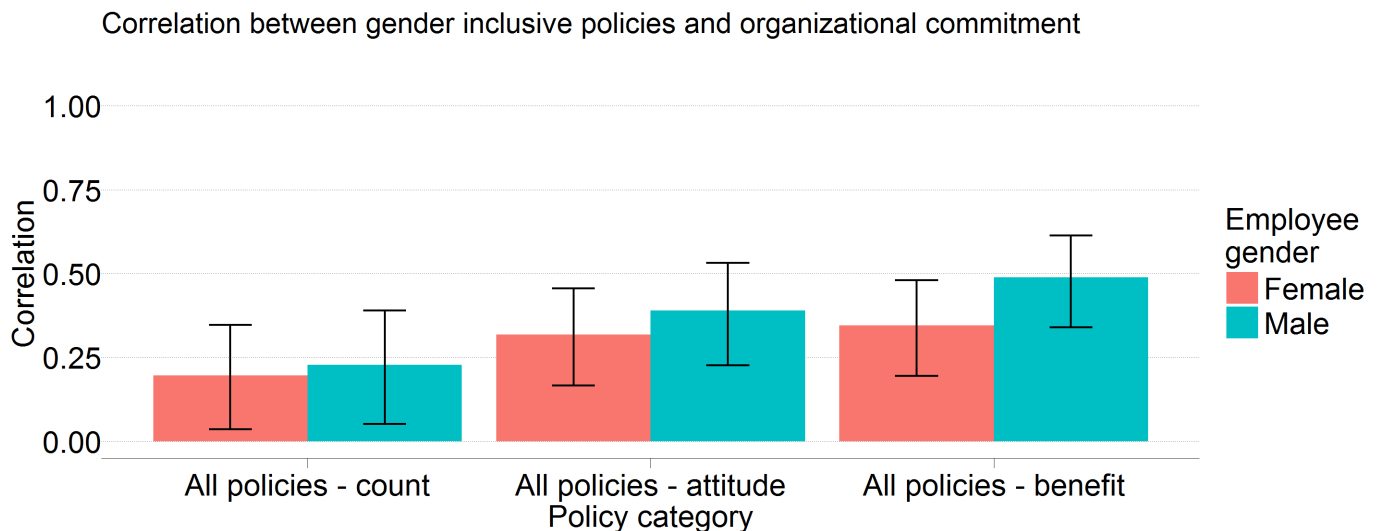
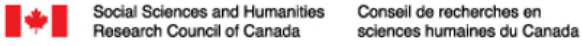


FIGURE 5 ON AVERAGE, MEN AND WOMEN FEEL MORE ORGANIZATIONAL COMMITMENT WHEN THEY REPORT WORKING IN A COMPANY THAT HAS GENDER INCLUSIVE POLICIES, WHERE EMPLOYEES HAVE POSITIVE ATTITUDES TOWARD THOSE POLICIES, AND WHEN THEY PERSONALLY BENEFIT FROM THEM. THIS PATTERN OF RESULTS WAS ALSO PRESENT FOR FEELING VALUED AND INTENTIONS TO LEAVE. FOR CORRELATIONS BROKEN DOWN BY THE SPECIFIC POLICY TYPES SEE THE APPENDIX TO THIS DOCUMENT.

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Appendix

Feeling valued by the organization items

The organization values my contribution to its well-being.

The organization fails to appreciate any extra effort from me.

The organization would ignore any complaint from me.

The organization really cares about my well-being.

Even if I did the best job possible, the organization would fail to notice.

The organization cares about my general satisfaction at work.

The organization shows very little concern for me.

The organization takes pride in my accomplishments at work.

Organizational commitment items

I am quite proud to be able to tell people who it is I work for;

I feel myself to be part of the organization.

I don't plan to be in this organization much longer.

I would not recommend a close friend to join our staff.

I plan to apply for jobs elsewhere in the next 2 years

Intention to leave item

I am thinking about leaving my current job.

Policies and practices items

FLEXIBLE WORK PROGRAMS

- 1) My company has Flextime policies (i.e., work scheduling flexibility around the start and end times of the work day, though a certain number of hours per day must be worked).
- 2) My company has compressed work-week policies (i.e., full-time hours are worked in fewer than five days).
- 3) My company has telecommuting policies/practices (i.e., allowing employees to working from home and communicate with the workplace through technology, occasionally or full time).

WORK-LIFE BALANCE PROGRAMS

- 1) My company has on-site child care.
- 2) My company has a fund from which employees can draw to pay for various costs such as child or family care.
- 3) My company has paid parental leave (i.e., over and above basic entitlements).
- 4) My company has paid maternity leave (i.e., over and above basic entitlements).

RECRUITMENT, RETENTION, AND ADVANCEMENT IN ENGINEERING

- 1) My company offers training programs and activities to both men and women that provide equal opportunity for career advancement.
- 2) My company offers career planning programs to retain and promote women as well as men in the organization.
- 3) My company offers mentorship programs that give equal and unbiased access to female and male engineers.
- 4) My company conducts benchmarking surveys to measure whether people feel that they are promoted based on merit.

PROMOTING A GENDER INCLUSIVE CULTURE

- 1) My company has cultural norms and values that support positive working relations between men and women.
- 2) My company conducts diversity awareness training.
- 3) My company has recruitment and business advertisements that showcase gender diversity (i.e., are there images of both men and women, and people of different ethnicities)?
- 4) My company has physical working conditions (equipment, clothing, shower, and toilet facilities) appropriate for men and women.
- 5) My company has a formal workplace harassment policy.
- 6) At my company, all employees receive training on the workplace harassment policy.

Correlation table between employee outcomes and gender inclusive policies and practices

For each policy category we correlated employee reports of the number of policies, employee attitudes towards the policies, and benefits of the policies with feeling valued, organizational commitment, and intention to leave the organization. Significant correlations are marked with an asterisk.

	Male employees			Female employees		
	Feeling valued	Organizational commitment	Intention to leave	Feeling valued	Organizational commitment	Intention to leave
Flextime policies – attitude	.26*	.18*	-.17	.26*	.19*	-.14
Flextime policies - benefit	.21*	.24*	-.15	.21*	.29*	-.16
Flextime policies - count	.31*	.16	-.06	.15	.16	-.10
Inclusive culture policies - attitude	.37*	.24*	-.14	.49*	.38*	-.30*
Inclusive culture policies - benefit	.40*	.37*	-.37*	.26*	.29*	-.18*
Inclusive culture policies - count	.19*	.11	-.03	.17*	.14	-.17*
Recruitment and retention policies - attitude	.48*	.33*	-.27*	.39*	.31*	-.24*
Recruitment and retention policies - benefit	.48*	.37*	-.36*	.31*	.23*	-.13
Recruitment and retention policies - count	.38*	.28*	-.21*	.37*	.31*	-.24*
Work-life balance policies - attitude	.47*	.35*	-.33*	.32*	.16*	-.10
Work-life balance policies - benefit	.17	.23	-.14	-.08	.02	.02
Work-life balance policies - count	.02	-.04	.06	-.12	-.13	.14
All policies – attitude	.54*	.39*	-.32*	.49*	.32*	-.24*
All policies – benefit	.50*	.49*	-.42*	.32*	.34*	-.19*
All policies - count	.38*	.23*	-.11	.24*	.2*	-.17*