



# COLLEGE of ENGINEERING AND PHYSICAL SCIENCES

SCHOOL OF COMPUTER SCIENCE

## PhD Defence

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### Barriers to Employment and Equal Pay for Disadvantaged Groups

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#### ABSTRACT:

Evidence of barriers to employment and equal pay in Canada for historically disadvantaged groups continues to persist, even with considerable Employment Equity legislation. Women with disabilities are at the highest risk for unemployment and living below the poverty line. Utilizing theories and methods from Computer Science, Economics and Social Science, this interdisciplinary thesis increases our understanding of employment inequities. The collection, extraction, and linkage of data in this thesis supports a wider research agenda: identify variables that contribute to lower labour market participation rates and lower wages for women and people with disabilities in Canada. By showing that the overall gender wage gap is higher, and not a weighted average of the full-time and part-time gender wage gaps, the selection into work channel contributes to the persisting gender wage gap. Similarly, for high earners in the Ontario's university sector, the overall gender wage gap for faculty is greater than the gaps within each academic position. Furthermore, 74% of all full professors, generally the highest paid faculty position, are male. This research also extends its focus to examine barriers to labour market entry for people with disabilities. An environmental scan of Canadian post-secondary schools finds evidence that colleges and universities are not providing resources for students with disabilities to engage in programs that build their human and social capital. Surprisingly, 40% of schools have no reference to career related disability services and only 18% refer to disability supports for Work Integrated Learning (WIL). The probability of engaging in WIL is significantly reduced for students with Mental Health Disorders and most students with disabilities do not disclose or ask for accommodations in WIL. By running a text analysis using Term Frequency-Inverse Document Frequency (TFIDF) on job descriptions posted on a University Co-op and Career on-line job board, we reports findings on the Big Five personality traits of Openness, Conscientiousness, Extroversion, Agreeableness and Neuroticism. Only 1/3 of job descriptions contain keywords associated with the Big Five. Regression analysis also reports an effects of job category on TFIDF scores for each Big Five personality trait suggesting differing non-cognitive skill requirements by occupation.