

EXECUTIVE SUMMARY OF THE PEO GENDER AUDIT STUDY

I. Introduction

In 2021, Professional Engineers Ontario (PEO) engaged the researchers (Dr. Joyce He and Dr. Sonia Kang), to embark on a comprehensive “gender audit” of PEO’s licensing processes in line with the 30 by 30 initiative. The gender audit aimed to evaluate whether processes that unintentionally disadvantage or barriers that are experienced disproportionately by women may exist in the licensure process, and to provide feedback and recommendations to PEO to improve the gender inclusivity of the licensing process. The audit was conducted in several phases, including initial data analysis, surveys, and interviews, culminating in a detailed and comprehensive understanding of applicants’ experiences with PEO’s licensing process.

In May 2023, updates to the existing licensing process took place during the audit. Because the bulk of data collection and analysis had taken place and pertained to the licensure process and experience of applicants who had applied *prior* to such updates (i.e., under what we refer to here forth as the “legacy model”), we shifted the goals of the gender audit accordingly. This report on the gender audit will still reflect the insights generated from analyses of the legacy model, but we will describe how these findings inform our understanding of potential changes and reactions to the new licensure model through a gender lens. Importantly, we will also integrate these insights from the legacy model to offer actionable suggestions to be incorporated into PEO’s modernizing process as changes for the new model are rolled out.

II. About the Researchers

Dr. Joyce He and Dr. Sonia Kang are accomplished researchers whose work intersects at the forefront of organizational behavior and diversity. Dr. He, an assistant professor at UCLA Anderson School of Management, explores gender inequality in labor markets, focusing on debiasing hiring and promotion practices. Dr. Kang, a Canada Research Chair at the University of Toronto and director of the institute of Gender and the Economy, investigates identity, diversity, and inclusion, leveraging behavioral insights to drive systemic change. Together, they bring a wealth of research expertise in Organizational Behaviour, Psychology, and Judgment and Decision-Making to understand and address barriers to gender equity in organizations and labor markets more generally.

III. Audit Methodology: Data Collection and Analysis

The audit involved multiple data collection methods.

- **Administrative Data.** PEO provided historical individual-level “file-location” data for every applicant in their system. This data contained detailed and de-identified information about each applicant’s licensing process (e.g., via time-stamped updates to the status of an applicant’s file as they progressed through different stages of the licensing process). The data was pulled as of 2021, comprising 126,885 applicants.
- **Online Surveys.** Surveys were distributed to 326 participants who recently received their license or were currently going through licensing process. These surveys included

both quantitative (i.e., scales) and qualitative (i.e., open-ended) questions that asked participants to reflect on their professional trajectory and their experience (e.g., what was challenging or helpful) during their licensing process.

- **Interviews.** Finally, to delve even further into specific cases, we conducted in-depth, semi-structured interviews with 38 participants who recently received their license or were currently going through licensing process, focusing on their experiences with the licensing process with questions mirroring those asked in the surveys.

We used the appropriate data analysis method corresponding to the nature of each dataset. For quantitative data (e.g., the administrative data and the survey data), we use regressions to estimate whether dependent variables of interest (e.g., applicants' likelihood of moving from one file location to another, survey respondents' self-reported experience of challenge) differed by applicants' gender, age, and CEAB status. For the qualitative data (e.g., open-ended survey questions and interviews), we coded the transcribed data and analyzed them for common themes among women and men.

IV. Overview of Findings

Overall gender differences

Across our datasets, we found that conditional on having started an application for the P.Eng, women are less likely than men to complete the licensure process and successfully obtain their license. Overall, women also often reported more negative or challenging experiences of licensure compared to men, and this was true for both CEAB and non-CEAB applicants. Among women and men who successfully obtain their license, women take a significantly longer time to get licensed compared to men, and women perceived this to be the case. A participant shared, "I felt that male colleagues obtained their licenses immediately, while I was asked for more information, even though our work was the same."

Gendered experiences related to the experience requirement

Primary themes underlying these overall findings center the **experience requirement** as a major and primary barrier for women, particularly younger CEAB women who were at earlier stages of their career. Among this group of women, applicants were less likely to submit their 48 months of experience requirement once they began the application compared to their male counterparts, and when they did submit the experience requirement, they often took longer than men to submit it. Survey data confirm these findings from the administrative data: women reported finding the experience requirement more challenging to fulfill compared to their male counterparts. The qualitative data highlighted several challenges that explained these gender differences: women encountered social, definitional, logistic, and structural challenges in meeting experience requirements. We summarize four key themes below:

- Women often experienced self-doubt about what "counts" as valid experience due to the subjectivity and ambiguity of how experience was defined.