# Changing Workplaces in a Knowledge Economy: Occupational Class Structure, Skill Use and the Place of Professions in Canada

# **Applicant (Principal Investigator)**

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# Participants

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### Summary of Project

Canadian workplaces are widely assumed to have changed greatly in the past three decades in response to rapidly diffusing information technologies and globalizing markets. But there are four important questions that beg to be answered with direct evidence:

- (1) To what extent has the occupational structure of employment changed?
- (2) How well are the skills of the general labour force being used in this occupational structure?
- (3) How well are the skills of professionals being used as key contributors to the development of a knowledge economy?
- (4) As a leading case, how well are the skills of engineers being used?

Our preliminary research has suggested that professional occupations requiring specialized skills have been growing, but skill <u>under</u>utilization has been increasing generally in the Canadian labour force as well as among professionals and engineers in particular (Livingstone 2009, 2010). The objective of the proposed research is to provide clear answers to these four questions and aid the development of more effective employment and training policies.

We will first conduct a national general labour force survey (N=3000) of working conditions and skill use. We conducted several earlier pioneering surveys of work and educational qualifications that this study will compliment. The new survey will offer an unparalleled opportunity to assess both the extent of change in occupational structure and the extent of matching between skill requirements of jobs and workers' skills among different occupational class groups during recent decades. These data will provide preliminary answers to the first two questions. The national survey will also answer the third question by providing data on the current class positions of professionals (i.e., employers, self-employed; managers; employees) and use of their specialized skills. We will compare these data with the only available prior national survey in 2004 (Clark et al. 2012), in order to analyze trends in relations between professional class and skill use over the past decade. We will also conduct follow-up interviews with respondents from two of the largest professional groups in Canada, nurses and engineers, to establish national profiles of their current skill use. Finally, building directly on these follow-up interviews, we will conduct a comprehensive case study of engineers. Engineers are widely regarded as highly strategic to the development of a knowledge economy. They are ideal for a case study of the occupational class

make-up and skill use of professionals because they are employed in diverse organizational settings and recent research is highly divided on how effectively their skills are now being utilized.

The new national survey coupled with trend analyses using the few comparable prior national surveys and more in-depth studies of professionals, and engineers in particular, will permit unique insights into the extent of change in the general occupational class structure, the extent of general skill use/under-utilization, and the recognition of specialized skills. This project will provide essential benchmarks for future research and policy. In this period widely claimed to be transformative of relations between work demands and training requirements, this evidence will be of vital aid for policy-making aimed at improving job design, occupational training, and optimal use of the general and specialized skills of the Canadian labour force.