

**Implications of Labour Market Trends
in the ICI- Construction Sector and
Changes in Technology on Workplace
Organization, Processes and Skills**

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1. Introduction

This program of research will support the capacity of the Greater Toronto Electrical Contractors Association (GTECA) to analyze the implications of labour market and industry trends in the ICI-construction sector. The project is led and conducted by an independent research team based at Queen's University; and the research project is funded by GTECA.

In this project outline, we present the:

- Main objectives of the research program;
- Research project activity streams;
- Research methodology,
- Primary outcomes of the research project; and implications for the industry;
- Principal members of the research team.

2. Objectives

The overall objectives of the research project are to investigate:

- The nature of technological changes in the industry; and
- The impacts of the technological changes on: work organization; work practices; employee skill requirements; mismatches between the current skill sets of employees and the emerging skill sets that will be required in a competitive environment; and employer human resource management strategies and practices.

Specifically, the research objectives are to:

- Identify the emerging skills gaps between the changing needs of electrical contractors and current apprenticeship and related training programs.
- Identify misalignments between regulatory and licensing standards and emerging industry trends, especially technology-based changes.
- Examine the impacts of various technological changes (e.g., advances in building materials, products and installation) on labour cost structure, including the impacts on the following factors that affect labour costs:
 - prevailing wages;
 - collective agreement terms and conditions;
 - job classifications and training and licensing standards;
 - the (mis)match between regulations and licensing and training requirements;
- Examine the impacts of various technological changes on labour demand in the industry.

3. Research Project Activity Streams

The project is organized into four broad streams. These four research streams include:

Labour Market Analysis

- Needs assessment and gap analysis; and
- Workforce development analysis.

Collective Agreement Content Analysis

- A systemic qualitative analysis of the terms and conditions of applicable and comparable collective agreements, including all components of compensation, such as wages and benefits, as well as other factors contributing to labour costs such as job classification restrictions, travel arrangements and hiring hall referral requirements.

Regulatory Environment Analysis

- Analysis of the regulatory environment that focuses on three key areas:
 - Building and construction regulations;
 - Training and licensing standards; and
 - Public policies impacting the labour market and labour-management relations.

Industry Trend Analysis

- The collection and analysis of information on industry trends with a special focus on the impact of technology on work organization and work processes.

4. Research Methods and Activities

The research methodology makes use of multiple sources of data and methods of analyses in order to triangulate on the primary research questions, including:

- analyses of secondary sources including published scholarly research articles, government and industry reports; and relevant trade publications;
- relevant survey-based data from government surveys (e.g., surveys conducted by Statistics Canada);
- primary survey data gathering including data from surveys conducted as a part of the research project; and
- primary qualitative information derived from semi-structured interviews conducted as a part of the research project.

5. Primary Outcomes

The outputs of the research project will consist of preliminary (intermediate) reports and a major final report that consolidates all of the research findings.

The intermediate reports will consist of:

- A reference compendium of survey results; and
- A compendium of summary results of the interviews.

The primary outcome for the project will consist of a comprehensive analysis and summary of the research findings (“Labour Market and Industry Trend Project Report”).

6. Anticipated outcomes and implications for the industry

- i. Identify mismatches between skill requirements and current skills development and capacities; and support efforts to enhance the relationship between contractors and colleges through a better understanding of labour market trends and technology-based industry changes.
- ii. Support recommendations regarding policy changes to better align regulatory and licensing standards with emerging industry trends.
- iii. Support workforce planning and human resource development strategies by the GTECA and affiliated contractors.

7. Research Team

The primary members of the research team are Dr. Richard P. Chaykowski and Dr. Robert Hickey. Both are professors at Queen’s University who teach in the graduate Master of Industrial Relations Program.

Professor Chaykowski received his PhD from Cornell University. He is Professor of industrial relations; and is currently cross-appointed to the Faculty of Law and a member of the Advisory Board for the *Centre for the Study of Law in the Contemporary Workplace*. He has been a Visiting Scholar at the MIT and a visitor at the University of Toronto and at McGill University. Dr. Chaykowski also held an appointment as *Visiting Chair* at Human Resources and Social Development in the federal government, in Strategic Policy. He also served as the Research Director for the federal government appointed Expert Panel on Older Workers.

Professor Hickey, who earned his PhD from the School of Industrial and Labour Relations at Cornell University, is currently appointed as an Associate Professor of industrial relations at Queen’s University. Professor Hickey teaches courses on labour relations, negotiations and dispute resolution in the Master of Industrial Relations Program. Professor Hickey also conducts continuing education and professional development workshops for a variety of organizations including Lancaster House and the Queen’s School of Business. Prof. Hickey previously worked for ten years as a full-time union representative in the Teamsters Union, mostly in the southern United States.