



# Construction Sector Council: Labour Market Solutions

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SECTOR COUNCIL



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DE LA CONSTRUCTION

**Center for Construction Research and Training**  
**November 14, 2008**  
**Linthicum Heights, Maryland**



# Construction Sector Council

- **Mandate**

- Identify and undertake human resource projects and initiatives geared toward meeting the current and future human resource needs of the construction industry

- **Industry Based Organization**

- Established in 2001 through federal government's Sector Council Program
- Founded by the Canadian Office of the Building and Construction Trades Department and the National Construction Labour Relations Alliance

- **Four Business Lines:**

- Labour Market Information Forecasting Program
- Learning Innovation
- Career Awareness Products and Services
- Standards and Skills Development



# Construction Sector Council

<i><b>Business</b></i>	<i><b>Labour</b></i>
Timothy Flood, President, John Flood & Sons Limited	Robert Blakely, Director Canadian Affairs, Building and Construction Trades
Mike Archambault, Vice President, Aecon Group Inc.	Robert Brown, Director Canadian Affairs, Sheet Metal Workers' International
Romeo Bellai , President, Bellai Brothers Construction Ltd.	Dermot Cain, Canadian Director, International Union Operating Engineers
Willard A Kirkpatrick, President, Maxam Contracting Ltd.	Patrick Dillon, Secretary Treasurer, Ontario Provincial Building Trades
Tony Fanelli , Vice President, Bantrel Constructors Ltd.	Michel Grenier, United Association
Paul McLellan, President, Alliance Energy Limited	Pierre Labelle, President, Quebec Provincial Building Trades
Adrian Morrison, Vice-President, Black & McDonald	David Martin , Executive Director, Manitoba Building Trades Council
François-Mario Lessard, Director, Association de la construction du Québec	James Smith , Vice President Canada, United Brotherhood of Carpenters
Neil Tidsbury, President, Labour Relations Association of Alberta	Dave Wade, Executive Director, Newfoundland Building Trades Council

# CSC's Marketplace . . .

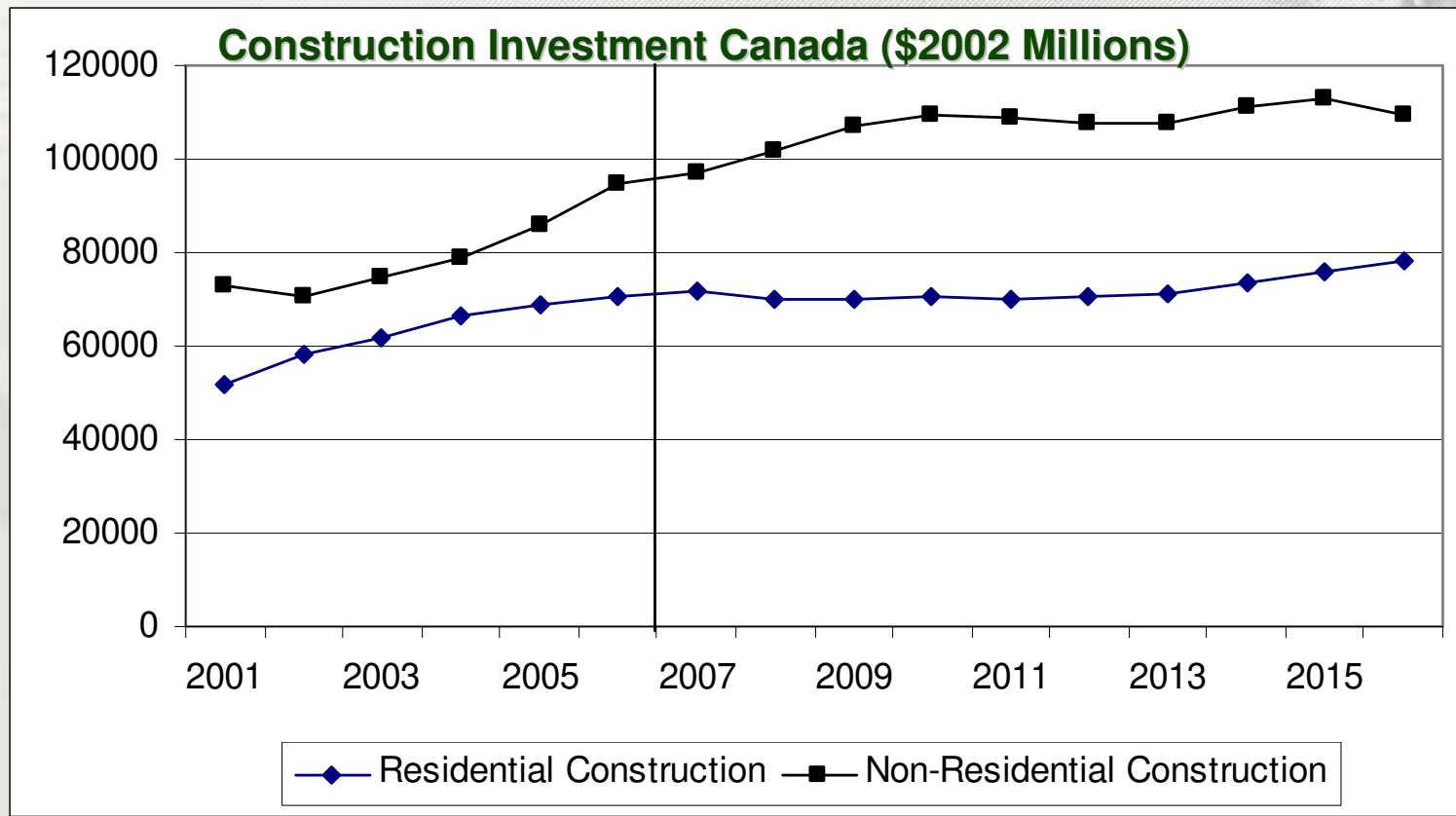
- **Key sectors:**
  - New Home Building and Renovation
  - Institutional and Commercial
  - Heavy Industrial
  - Civil Engineering
- **Multi-billion dollar business:**
  - Represents 13% of GDP
  - 250,000 contractors
    - 80 % of these have less than 15 employees
  - Maintains and repairs over \$5 trillion in assets
- **Workforce:**
  - approx. 1,200,000 workers
    - 70% skilled trades
    - 30% professional occupations



# CSC's Marketplace . . .

- **Construction is vulnerable to the boom and bust cycles of the economy**
- **Distinctive relationship between workers and their employers**
  - employers are continuously hiring and laying off workers
  - construction work is always temporary
  - no construction “jobs”
    - thousand-hour construction job could be half a year’s work for one person or a week’s work for 25 people

# CSC's Marketplace . . .

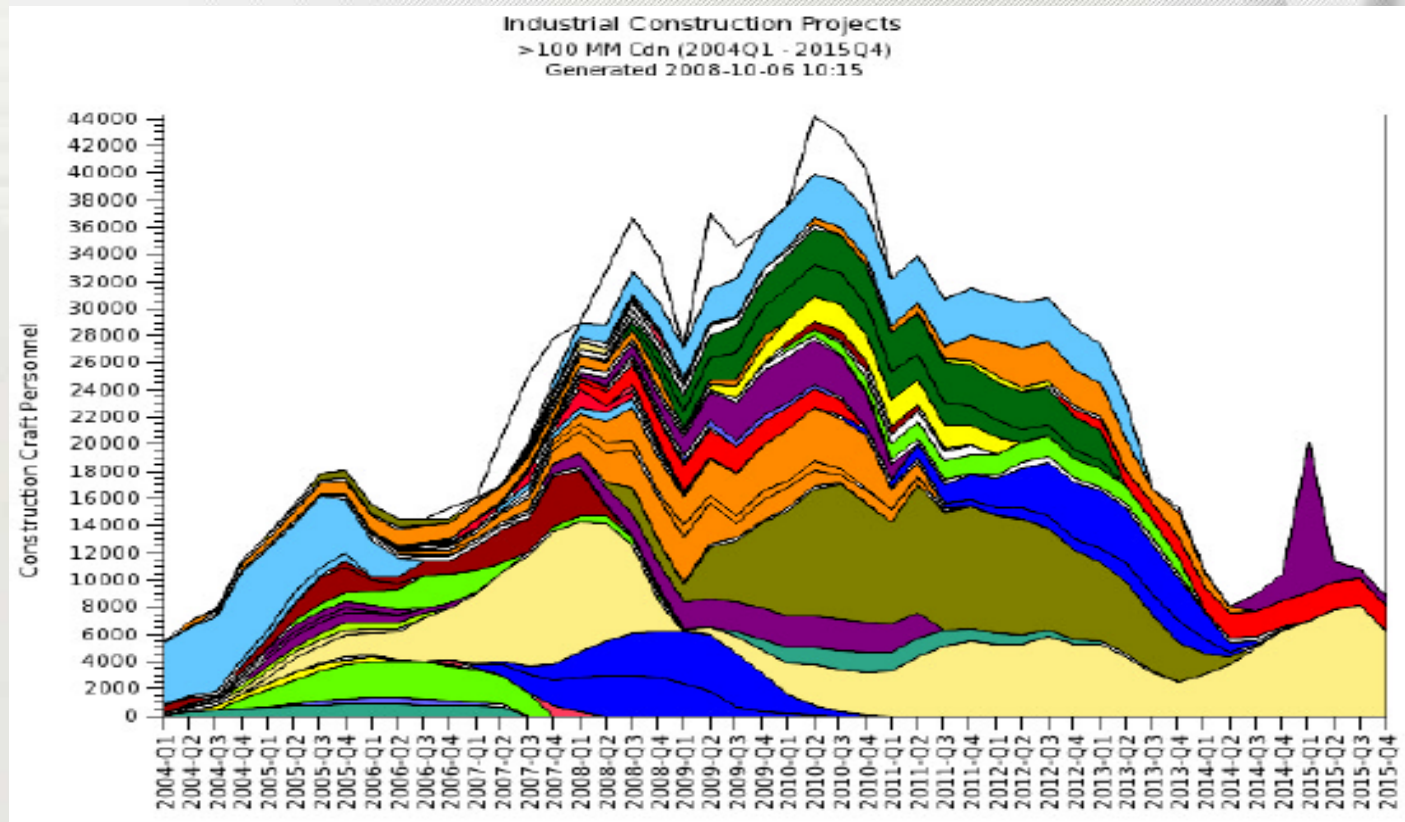


Source: Construction Sector Council



# CSC's Marketplace . . .

October 2008: Major industrial & resource based construction projects will continue



Source: Construction Owners Association of Alberta  
Construction Sector Council

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# Economic Uncertainties . . .

- **Credit constraints will impact segments of construction (residential, small / medium ICI)**
- **Weaker profitability**
  - In the short term, lower commodity prices negative for commodity producers, positive for commodity consumers (lower input costs)
- **In the medium to long term, lower construction costs could boost investment (e.g., industrial projects)**
- **We still need to replace and augment aging private and public infrastructure**



# Economic Uncertainties . . .

- **Slower economic growth in short term across the country, recovery is expected in 2010**
- **With slower growth comes weaker investment expenditures**
- **Slowdown in Ontario will worsen in short term, but medium term may be offset by major infrastructure announcements (e.g., Ontario Power Generation, Bruce Power)**
- **Western provinces will see investment increasing but at a decreasing rate**
- **Major projects scheduling now manageable**



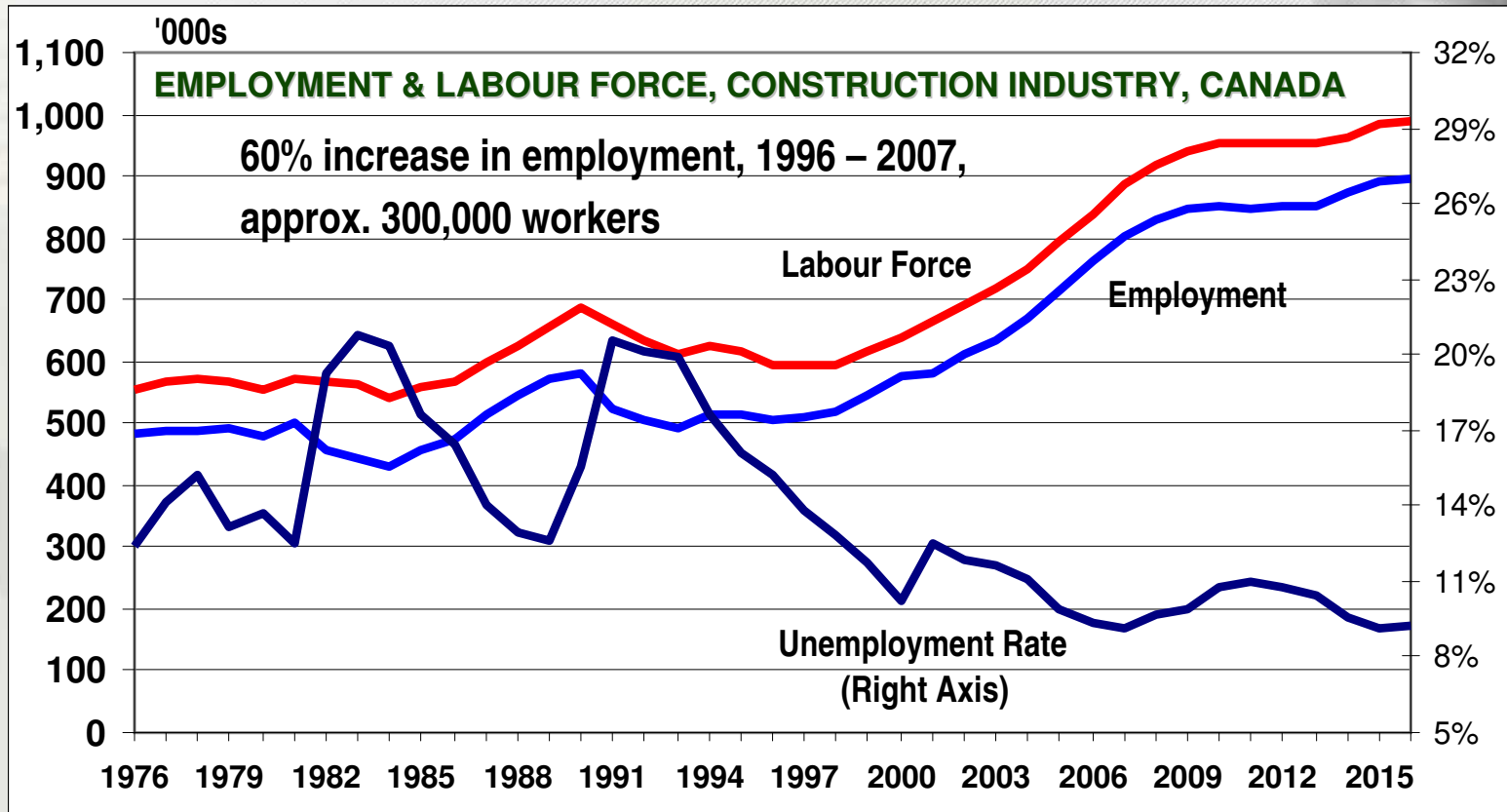
# Economic Uncertainties . . .

## Is labour / skill shortage still an issue for Canada's construction industry?

- Structural demographic change – including slowing population growth, an aging population, and retirements from the labour force – will intensify the competition for workers
- Weaker than expected economic and investment growth would take some pressure off of construction labour market in the short to medium term
- In the medium to long term the challenge to find skilled labour will continue



# Workforce Realities

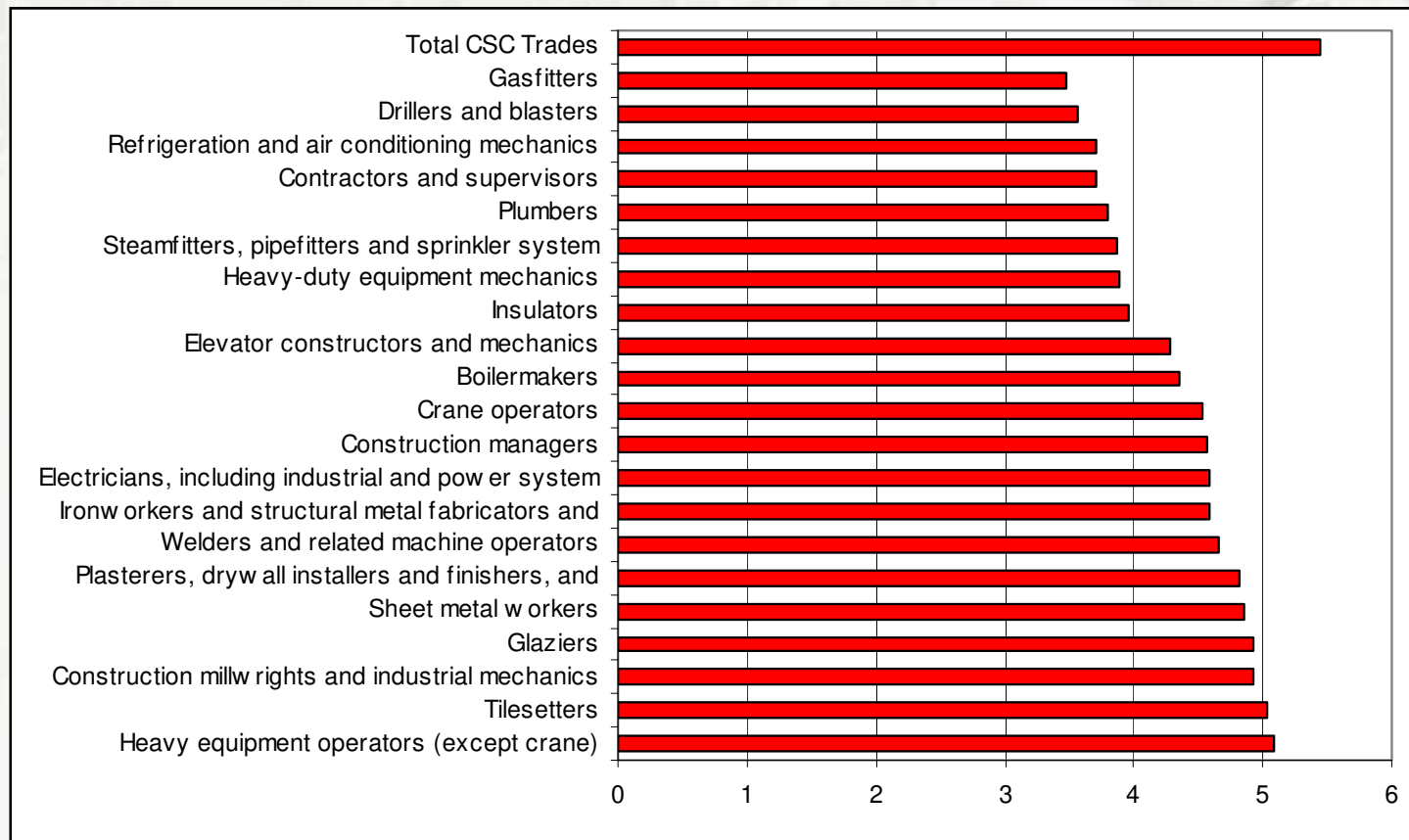


**CSC trades / occupation are 70% of the Construction Industry**

Source: Statistics Canada and Construction Sector Council

# Workforce Realities

**Average Peak Unemployment Rate (%) - Tighest Trades / Occupations: 2007-2010 - Canada**



**Source: Construction Sector Council**

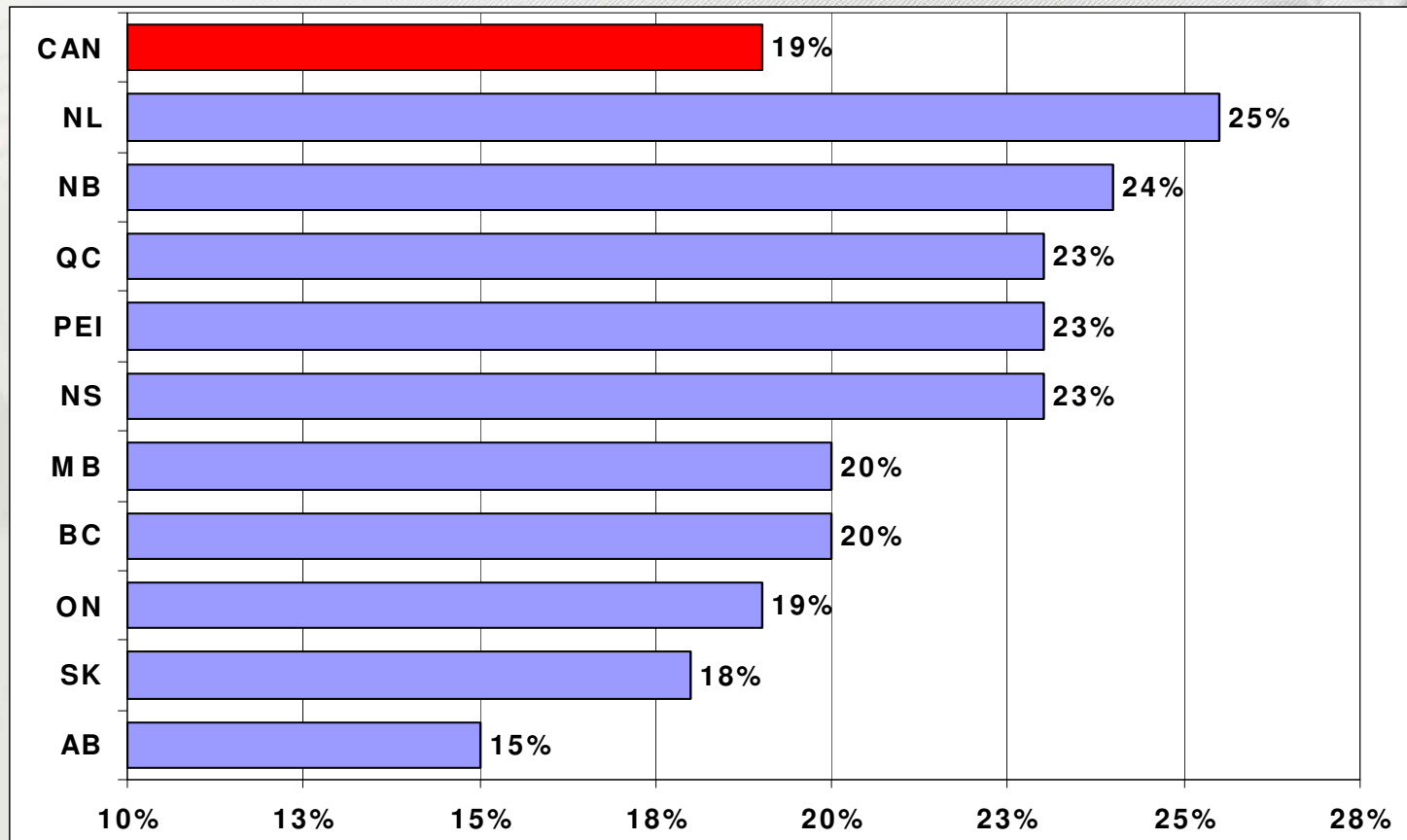


# Workforce Realities

- **Replacement demand increasing**
  - Retirement rates increasing
    - 1.5 % of the construction labour force is retiring annually
    - Over the next ten years, this retirement rate is forecasted to increase to 2% of the labour force annually
    - By 2015, the number of retirees will exceed the number of new entrants
    - Over the next 15 years, most skilled trade workers, and operations and maintenance people are retiring or preparing to retire
- **Workers being pulled out of construction**
  - Increase in demand for maintenance and operations personnel

# Workforce Realities

Cumulative Construction Workforce Retirements as % of 2007 Workforce, 2007 - 2016



Source: Construction Sector Council

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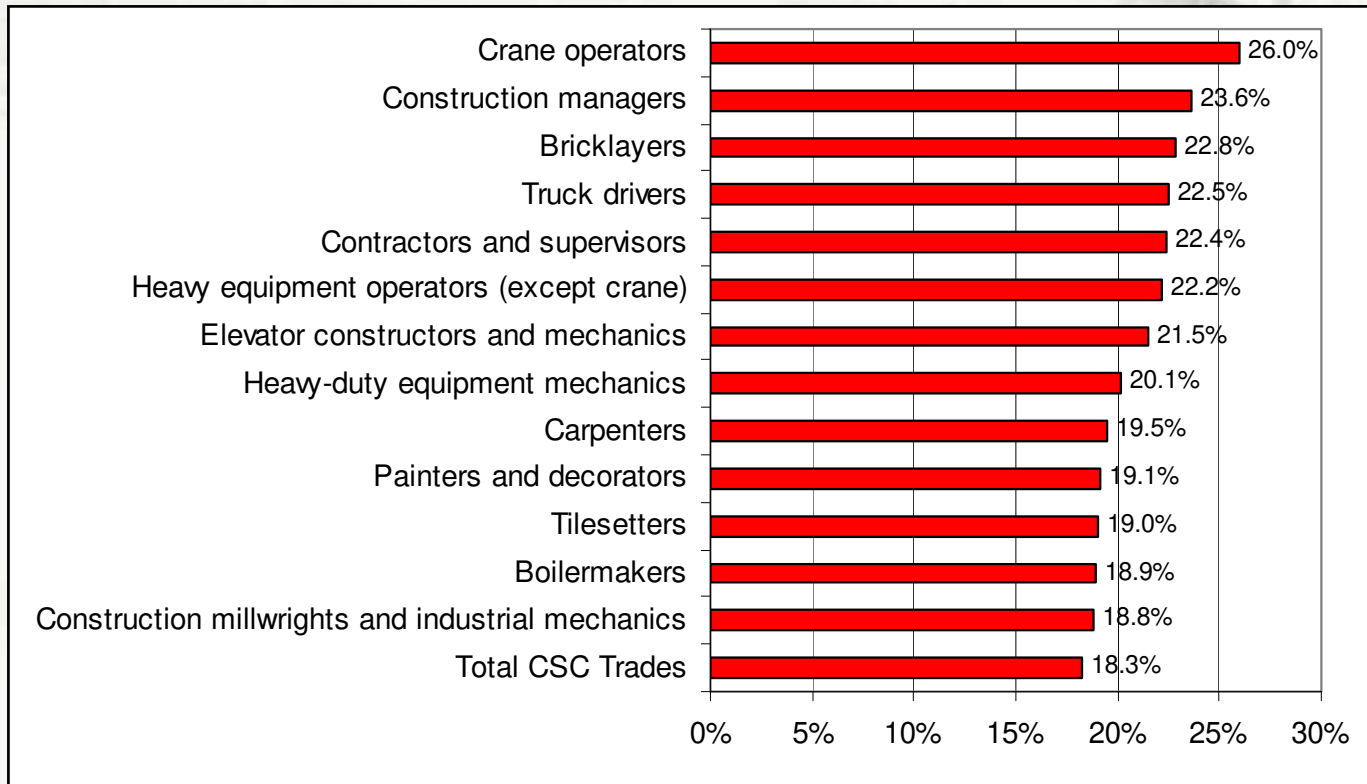


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# Workforce Realities

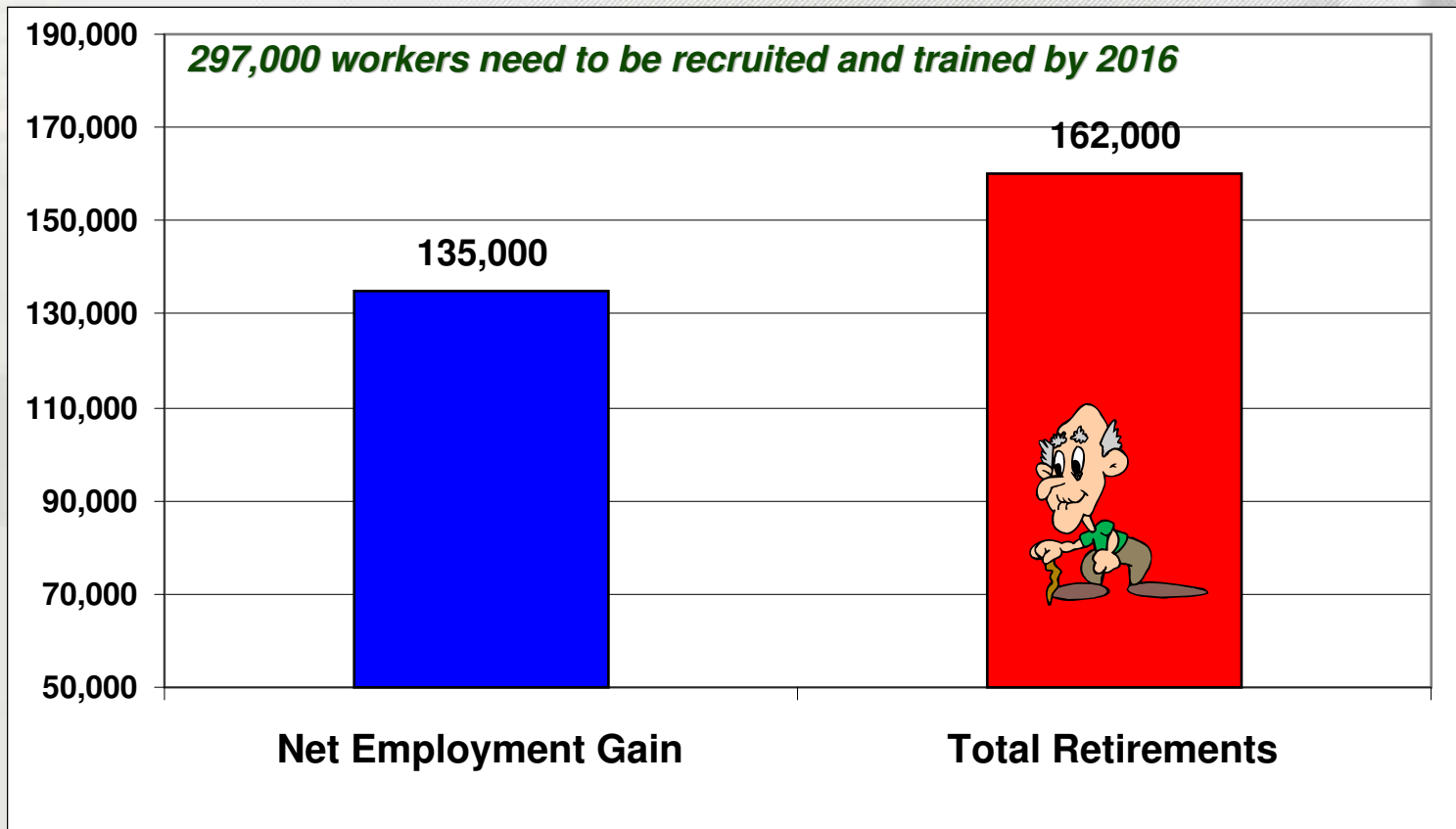
**Cumulative Retirements: selected trades / occupations  
as % of 2006 Workforce, Canada, 2007 to 2016**



Source: Statistics Canada and Construction Sector Council

# Workforce Realities

Net Employment Change & Construction Retirements Canada, 2007-2016



Source: Construction Sector Council

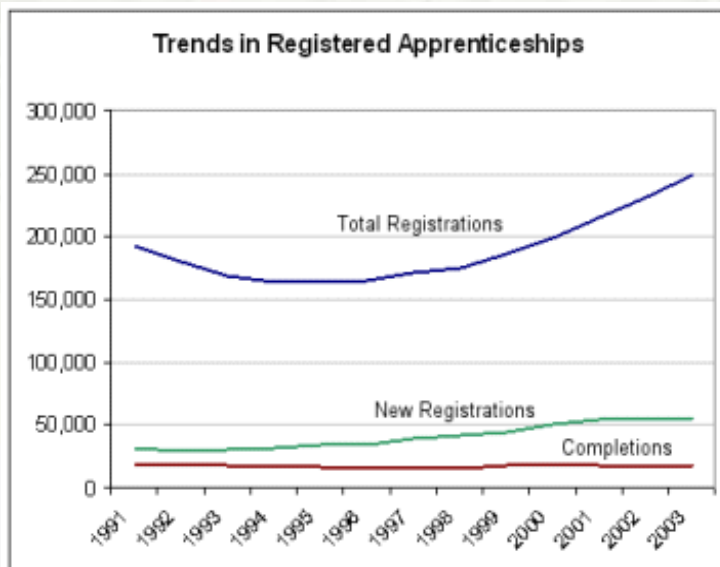


# Workforce Realities

- **Competition for workers in all sectors**

- According to a Bank of Canada survey 40% of firms across all sectors reported that labour shortages is impacting their ability to meet demand
- Canadian Manufacturers & Exporters reported that 41% of CEOs surveyed felt that skills shortages is a significant challenge for their businesses, 30% stated that the issue is critical
- Canadian Federation of Independent Business survey reported that 300,000 jobs were not filled for at least four months, 38% of firms had missed opportunities because of the shortage

# Challenges



Many employers are unaware of the value of apprenticeship, and ascribe little importance to apprenticeship as a means of meeting skill needs. This attitude means that apprentices often face problems in finding employers willing to make an apprenticeship commitment.

**According to the most recent National Apprenticeship Survey non-completers left their program for a number of reasons:**

- Not enough work
- Insufficient income
- Better job offers
- Disliked the work
- Career change
- Family issues



# Challenges

- **Industry, Government, Educators, Trainers planning capacity . . .**
  - **Industry (80% of apprenticeship on-the-job)**
  - **Community Colleges**
  - **Construction Associations (Local or Regional)**
  - **Trade Contractor Associations**
  - **Joint Training Trust Funds**
  - **Provincial Construction Safety Associations**
  - **Labour Groups**
  - **Private Trainers**
  - **Owners (User of Construction Services)**
  - **Suppliers**
- **In many cases, they work in isolation . . .**

# Workforce Strategy

1. Labour Market Efficiency (supply = demand);
2. Labour Supply (youth, immigrant worker, aboriginal, women, older workers);
3. Labour Quality and skill level of labour;
4. Labour Mobility (inter and intra provincial, other sectors)
5. Labour Productivity (maximize the potential of the workplace – safety, R&D, innovation etc . . .)



# Labour Market Efficiency

## *Why labour market forecasting ?*

- **Anticipate the demand for Construction Services**

- Where are the “hot spots”
- Getting better demand information
- Translating demand into worker requirements

- **Paint a “Realistic” Picture of Labour Supply**

- Demographics by trade and by province / region
- Define the supply of labour by province / region
- Understand the movement of labour

- **Target Supply Side Solutions**

- Replenishes supply of labour in an effective manner
- Youth, Aboriginals, Women, Immigrant Workers

# Labour Market Efficiency



- **Currently, the Construction Sector Council produces an annual construction labour requirements forecast:**
  - 9 year time horizon (2008 to 2016)
  - 32 trades / occupations
- **For each province:**
  - Economic and investment outlook
  - Construction activity
  - Construction Employment requirements
  - Rank labour availability



# Labour Market Efficiency

## Who is involved in developing the forecasts?

- Owners, Contractors, Labour, Educators and Trainers
- Governments
  - Federal, provincial, municipal
  - Apprenticeship and Human Resource Departments
  - Public Works
- CSC Economists and Labour Market Analysts

## How are they involved ?

- Provincial / Regional LMI Committees
- National and Atlantic Owners Forum
- National Residential LMI Committee

# Labour Market Efficiency

- **Regional Network of Labour Market Information Committees**

- Provincial, regional, local
- Comprised of labour, contractors, owners, governments, educators and trainers
- Roles and responsibilities include:
  - reviewing / commenting on macroeconomic assumptions
  - establishing regional major projects lists for non-residential sectors
  - compiling, information on housing starts and renovation activity
  - reviewing and validating forecasts to ensure they reflect regional realities
  - assisting in defining the labour supply relationships (training, demographics, measuring replacement demand, labour mobility)
  - determining whether trades need further analysis
  - assisting in the preparation of the final report



# Labour Market Efficiency

- **Produce provincial / Regional Labour Market Rankings for each trade / occupation**
- **Scale of 1 (excess supply) through 5 (excess demand) summarizes the market conditions**
  - **Regional Rankings are determined through a weighted average of four measures**
    - Estimated unemployment rate relative to natural unemployment rate
    - Employment Growth
    - Replacement demand as a % of the Labour Force
    - Industry Surveying and Consultation
- **The potential for mobility signals possible changes in provincial / regional rankings**

# Labour Market Efficiency

**TABLE 7 MARKET RANKINGS AND COMMENTS FOR TRADES AND OCCUPATIONS IN ALBERTA**

Trades	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Boilermakers	4	4	4	4	4	4	4	5	4	3
<i>Comments: Strong industrial demands hold excess supply conditions at low levels to 2010. The Alberta LMI Committee anticipates that delays or extensions to big projects will sustain tight labour markets from 2011 to 2013. New projects add to work during 2014 and 2015. Retirement demand is high late in the forecast.</i>										
Bricklayers	4	3	3	3	3	3	3	4	4	4
<i>Comments: The drop in residential activity is partly offset by renovation work and continuing commercial and industrial building, but employment declines to 2012. The age profile is older and retirement demand is high late in the period.</i>										
Carpenters	4	4	4	3	3	3	3	4	4	3
<i>Comments: The drop in residential activity is partly offset by renovation work and continuing commercial, institutional and industrial building, but employment declines to 2012. The Alberta LMI Committee notes that strong demand for scaffolding work on big projects may sustain tight labour markets from 2011 to 2013. The age profile is average and retirement demand is significant late in the period.</i>										
Concrete Finishers	4	5	4	4	4	4	4	4	4	3
<i>Comments: Strong industrial and engineering demands hold excess supply at low levels to 2010. The Alberta LMI Committee raised the rankings from 2011 to 2013 in the expectation that major projects will be delayed or extended. Project activity reaches a plateau from 2011 to 2013 and additions to the workforce restore more normal recruiting conditions. New projects add to work during 2014 and 2015. Retirement demand is below average later in the period.</i>										
Construction Managers	4	4	3	3	3	3	3	4	4	3
<i>Comments: There is a chronic shortage of experienced and trained managers. The Alberta LMI Committee raised the rankings in 2008 and 2011 in the expectation that major projects will be delayed or extended. The age profile is older than average and retirement demand later in the period is high.</i>										



# Labour Market Efficiency

- **Example of requests for LMI forecast data:**
  - Syncrude, Shell, Suncor, CNRL
  - Carpenters Training Centre in New Brunswick
  - Alberta Infrastructure (City of Edmonton, City of Calgary)
  - Infrastructure Ontario
  - Ontario Power Generation
  - Citizenship and Immigration
  - Algonquin College
  - 2010 Winter Olympics, B.C. Whistler
  - Manitoba Hydro
  - B.C. Hydro

*“Looking for workers in our backyard is not good enough anymore”*

*“Workforce availability is the biggest risk factor in undertaking major projects”*

# Labour Market Efficiency

## Some notable results realized by LMI users include:

- Focused training program for a major \$1.5 billion hydro project
- Established preliminary estimates for a mega project on the possible need for foreign workers
- Used to determine need to open up a training center for heavy equipment operators in central Alberta
- Used to analyze potential migration to Alberta from other provinces for a multi-billion dollar oil sands project
- Used by provincial government to assist scheduling of major public infrastructure projects
- Used during policy making discussions on a Provincial Nominee program
- Assisted in the development of the LMO submission for the TFW program through Service Canada

Source: Conference Board of Canada



# Labour Market Efficiency

## Who uses the LMI tool?

- 27% Government
- 23% Construction Associations
- 18% Private Sector Business
- 16% Labour Organizations
- 10% Educational Institutions

## Overall value of the LMI tool

- 32% Extremely Valuable
- 34% Very Valuable
- 30% Valuable
- 4% Limited Value
- 0% Not at all Valuable

n = 358

Source: Conference Board of Canada

## How is LMI being used?

- 78% Identify & evaluate HR challenges
- 69% General information
- 52% Make or support policy changes
- 42% Overcome human resources challenges
- 27% Budgeting & planning decisions
- 21% Help minimize business risks
- 16% Identify & evaluate business opportunities

# [www.constructionforecasts.ca](http://www.constructionforecasts.ca)

- CSC has developed online tool that provides instant access to construction forecast data
- Interactive website called [www.constructionforecasts.ca](http://www.constructionforecasts.ca)
- Customize reports by obtaining data from combination of trades, provinces and other variables
- Eliminate long hours of sifting through reports and trade publications



The screenshot displays the homepage of the Construction Forecasts website. At the top, there is a navigation bar with links for 'About Us', 'Contact Us', and 'Français'. Below this is a header section featuring the 'CONSTRUCTION SECTOR COUNCIL' and 'CONSEIL SECTORIEL DE LA CONSTRUCTION' logos, along with a row of four images depicting construction activities: a worker on a roof, a concrete structure, a crane, and a welding process. A yellow navigation bar contains links for 'Home', 'Browse Forecasts', 'Search Forecasts', 'Using the Data', 'LMI Program', 'Methodology', and 'Reference'. The main content area is titled 'Construction Forecasts' and includes a descriptive paragraph about the website's purpose. Below this, there are two main sections: 'Browse Quick Picks' and 'Search Data Selection'. The 'Browse Quick Picks' section includes a 'Welcome' message and a brief description of the website's role. The 'Search Data Selection' section includes a 'Forecast Quick Picks' section with a list of categories and a 'Quick Picks Categories' section with a list of specific forecast types.

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Home Browse Forecasts Search Forecasts Using the Data LMI Program Methodology Reference

## Construction Forecasts

The Construction Forecasts Website is an online delivery system that provides construction organizations with timely forecast data on residential and non-residential construction investment activity and labour supply and demand at the national, provincial and regional levels.

To begin viewing the Construction Forecasts data, select from one of the following two options:

**Browse Quick Picks**  
view the forecasts

**Search Data Selection**  
filter and combine data

### Welcome

Welcome to the Forecasts Website of the Construction Sector Council (CSC), a national organization made up of partners from labour, business and government that is committed to the development of a highly skilled workforce for Canada's construction industry.

As a key component of CSC's comprehensive Labour Market Information (LMI) program, the Forecasts Website is an online delivery system that provides that provides construction organizations with timely forecast data on residential and non-residential construction investment activity and labour supply and demand at the national, provincial and regional levels.

### Forecast Quick Picks

The forecasts listed below are a random selection of some of the most commonly accessed data.

- Housing Starts by Region
- Construction Employment by Region
- Key Economic Indicators
- Employment Growth by Province

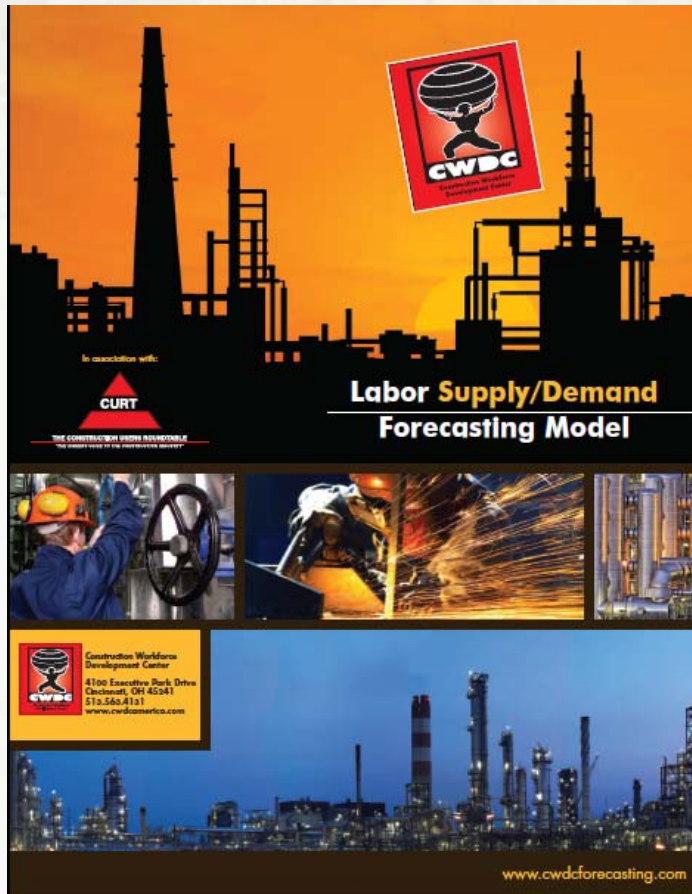
To view the full list of Forecast Quick Picks, click [here](#).

### Quick Picks Categories

- Construction
- Economy
- Employment
- Residential
- Unemployment



# Labour Market Efficiency



- **Agreement with U.S. Construction Owners Group**
  - Share Canadian model approach with U.S. Owners
  - Southwest Forecasting Tripartite Alliance (SWFTA)
  - Southeast Manpower Tripartite Alliance (SEMTA)
- **Agreement with Australian Construction Industry**
  - Forecasting expertise
  - Productivity measures

# Labour Supply

## *Future Sources of Labour . . . diversity of approaches*

- **Current Workforce**

- Efficiency of the labour market (supply meets demand – unemployed from other regions)

- **Youth**

- Over last 30 years unemployment consistently higher among 15 to 24 year-olds workers

- **Aboriginal Peoples**

- Fastest growing population in Canada, more than 50% under 15 years of age

- **Women**

- Women account for approximately 50% of the paid labour force,
- Proportion of women remains low (about 3% in the trades)

- **New Immigrants**

- Immigrants will compose an increasing share of working-age population in the future

- **Older Workers**

- Workers over the age of 50 make up a significant portion of the workforce
- Role of older workers important in areas like mentorship

# Labour Supply



**Gateway into construction careers** tells youth what the jobs are like and how to get started.

**Solution for a changing workforce** highlights skilled trades and helps career seekers find their place in the industry.

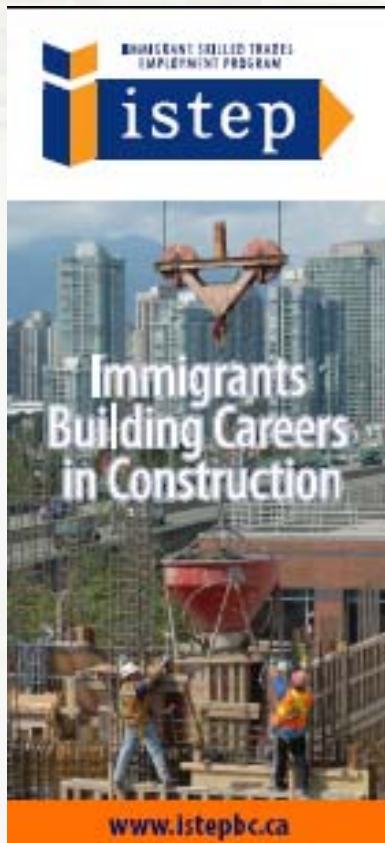


**One-stop resource** explores career possibilities, salary potential and labour market information.



# Labour Supply

## Immigrant Skills Training Employment Program



- Partnership with British Columbia Construction Industry
- Pilot project
- Assist landed immigrants by assessing their foreign trained skills and connecting them with employment in construction
- Continue to work with individuals to further skills development in the construction industry

# Labour Supply

## Temporary Foreign Workers (TFW)

TEMPORARY FOREIGN WORKERS  
TempForeignWork.ca

Home | About Us | Contact Us | Français

TEMPORARY FOREIGN WORKER GUIDE | INDUSTRY GUIDE | TOP SOURCE COUNTRIES | YOUR VOICE

SEARCH

### The best match for the job

Temporary foreign workers (TFWs) comprise a key part of Canada's construction industry. They are a small group, but their numbers are on the rise, over the past few years, more and more foreign workers have applied to work in Canada.

Like most industries, construction faces several human resource challenges. The TFW program is helping to fill critical short-term labour gaps within Canada's construction industry, meeting employers' needs while providing jobs for foreign workers.

Whether you are an industry member, or a foreign worker looking for employment, this website provides everything you need to know about the TFW program.

#### 01 Temporary Foreign Worker Guide

Learn what it takes to join Canada's construction industry. Apply your skills and knowledge on the job while exploring a new country.

[Go to the TFW Guide](#)

#### 02 Industry Guide

Discover the necessary steps to successfully integrate temporary foreign workers into your business.

[Go to the Industry Guide](#)

#### 03 Top Source Countries

Canada's construction industry hires the best employees from across the globe. Find out where most of our temporary foreign workers come from.

[Go to Source Countries](#)

TempForeignWork.ca is an initiative of the Construction Sector Council.  
Funding for this project is being provided by the Government of Canada's Sector Council Program.

Home | About Us | Contact Us | Français

[Temporary Foreign Worker Guide](#) | [Industry Guide](#) | [Top Source Countries](#) | [Your Voice](#)

- Examined the entire TFW process that involves a number of stakeholders
- Identified ways the processes and mechanisms could be improved
- Developed web based guides for employers and workers on how to navigate through the TFW process

# Labour Supply

## *Reviewing Best Practices to Retain Older Workers . . .*

- **Some construction industry groups are taking action:**
  - Part time work where the older worker is responsible for one aspect of a construction project rather than several aspects
  - Transitioning older skilled trades workers into supervisory or management positions thereby retaining valuable knowledge and expertise
- **Heavy equipment suppliers are responding:**
  - Joysticks have replaced manual operating systems in many heavy pieces of equipment, climatized cabs, custom seating, all of which reduces fatigue
- **New Technology**
  - Computer assisted construction equipment like - GPS is a simple, easy-to-use, machine accessory that allows the operator to complete more efficiently and with less time





**Français (Bientôt)**

[CSC HOME](#) | [GETTING STARTED](#) | [COURSE CATALOGUE & DEMOS](#) | [FIND A DISTRIBUTOR](#) | [FAQS](#) | [CONTACT US](#) | [DISTRIBUTOR LOGIN](#)

## 🏠 E-Learning Centre Home

### Register

New user?

[Click Here to Register](#)

### Login

Already registered? Please login.

Username/email:

Password:

[Login](#)

[Forgot your password?](#)

### Purchase Courses

Looking to purchase our e-Learning courses?

[Find a Distributor](#)

### Course Catalogue

Looking to see the full catalogue of our e-Learning courses?

[Course Catalogue & Demos](#)

## Welcome



## Welcome to our new E-Learning Centre

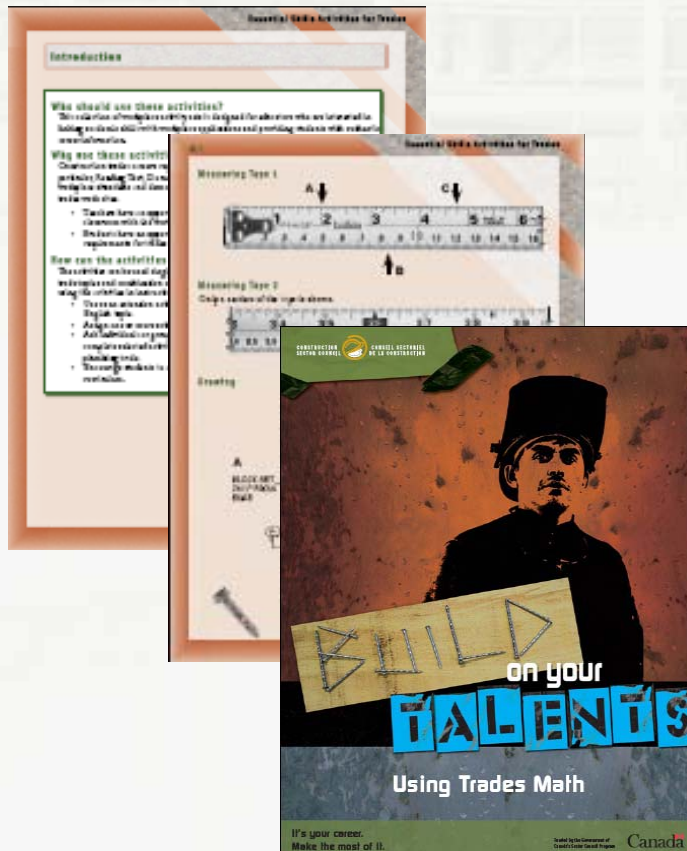
The CSC is a national organization committed to the development of highly skilled construction workforce. One of our ongoing programs is the development of e-Learning courses supervisory and managerial personnel.

All of our e-learning courses are administered through local distributors. In order access any of our e-learning courses and complete your registration, you must contact a distributor to receive the PIN # that is required to access our online courses.

To locate a distributor go to [FIND A DISTRIBUTOR](#) for the full list of our distributor partners.

# Labour Quality

## Essential Skills Tools for Construction



- **Using Trades Math**
  - For employees & students
- **Plain Language for Construction**
  - For supervisors & managers
- **Essential Skills Activities for Trades**
  - For educators & trainers
- **Self Assessment: Construction Workers Workbook**
  - For employees, students, and those interested in the trades

# Labour Quality

## On-the-Job Training Best Practices Guide

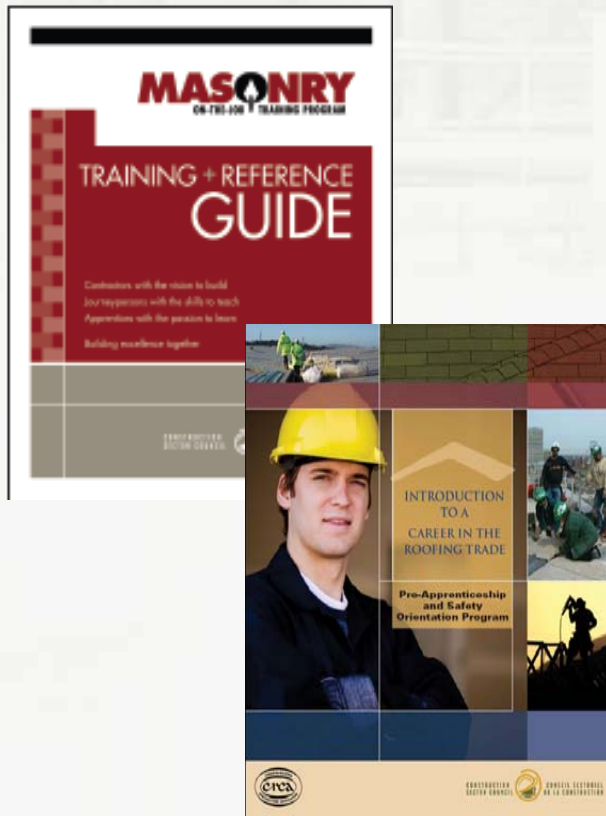
Pan-Canadian mentoring training tool for use by the entire construction industry

Improves on-the-job training experience for apprentices

Improves apprentice retention and completion rates over the long term

Improves the transference of skills and knowledge from journeyperson to apprentices

Upgrades the mentoring skills of tradespeople



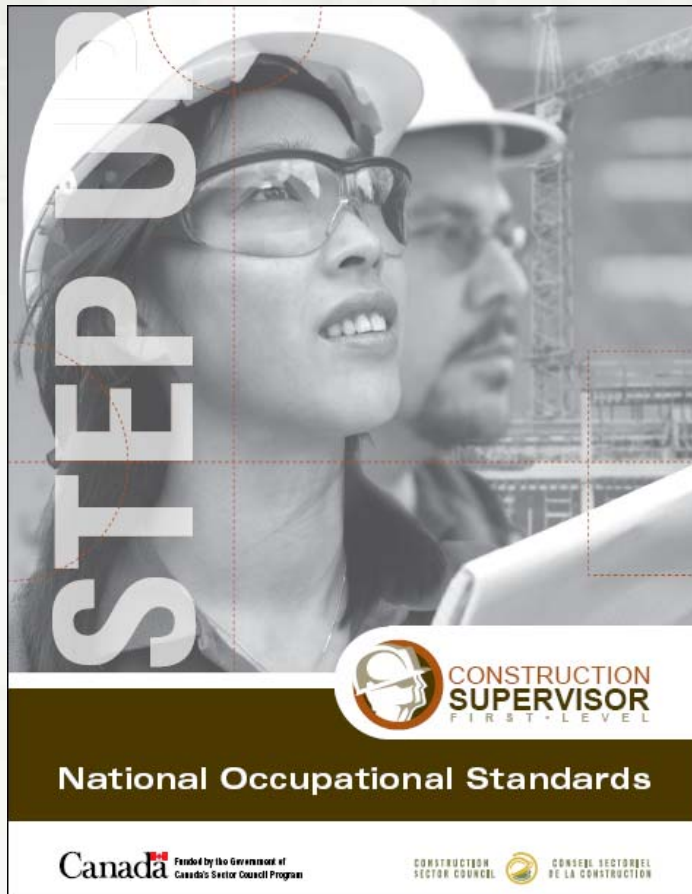


# Labour Quality

## ■ National Mentoring Training:

- Create a pan-Canadian mentoring training tool that can be used by the entire construction industry
- Contribute to the improvement of the on-the-job training experience for apprentices
- Contribute to the improvement of apprentice retention and completion rates over the long term
- Improve the transference of skills and knowledge from journeyperson to apprentices
- Upgrade the mentoring skills of tradespeople

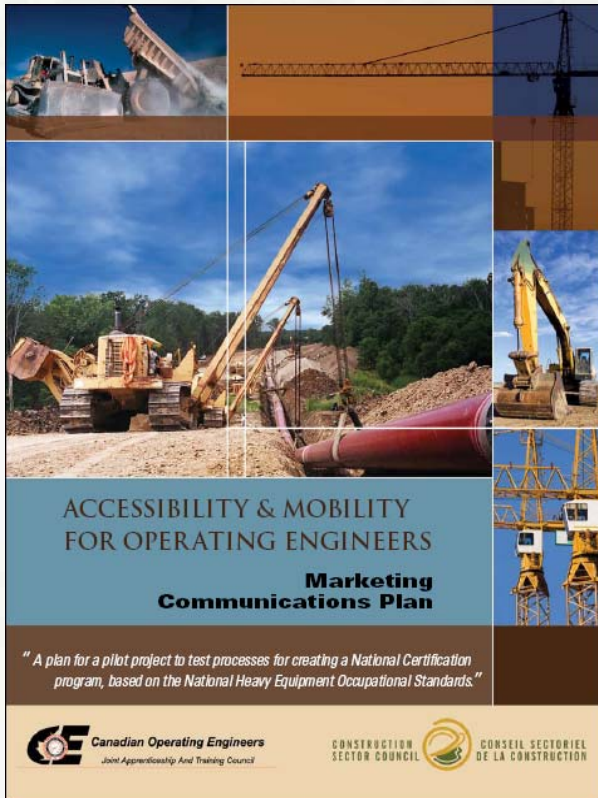
# Labour Mobility



- **Developed National Occupational Standard for first level Construction Supervisor**
  - Recognized all sectors
  - Incorporated Essential Skills
- **Next Steps:**
  - Developing preparation for supervision tool that includes self directed assessment tool based on essential skills
  - Supervisor refresher workbook
  - National e-learning supervisory training program

# Labour Mobility

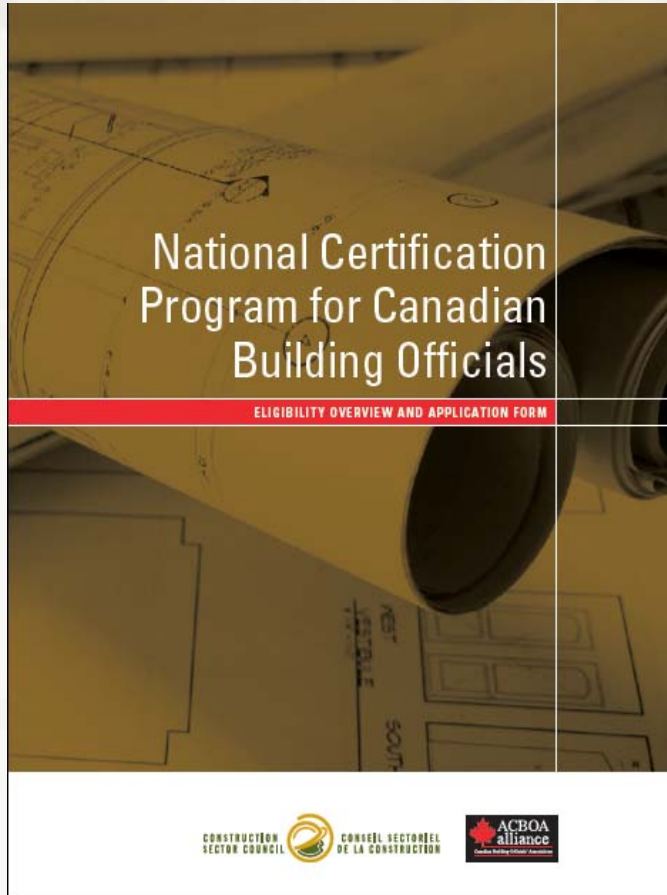
## Accessibility & Mobility for Operating Engineers



- **National Occupational Standards for 27 Operating Engineer Occupations / Trades**
- **National Certification and Accreditation**
- **Industry Training Centres**
- **Community Colleges**
  - Alignment of Training
  - Assessment Tools
  - Testing Strategies



# Labour Mobility



- **Developed National Certification Program for Building Officials**
- **Increased recognition for building officials, safer buildings, and a better public image for the profession**
- **Reduce exposure to legal action when projects are not up to code or delayed**
- **Same level of inspection services resulting in safe, code-compliant buildings across Canada**
- **Enables mobility, skills are recognized anywhere in Canada**

# Construction Productivity Benchmarking and Metric Project

- Construction Sector Council agreement with a group of Canadian University researchers in Construction Engineering and Management (Civil Engineering Programs) to measure and address labour productivity

## **Aminah Robinson Fayek**

University of Alberta  
NSERC Associate Industrial Research  
Chair in CEM

## **Alan Russell**

University of British Columbia  
Chair of Computer Integrated  
Design and Construction

## **Jeff Rankin**

University of New Brunswick  
M. Patrick Gillin Chair in CEM

## **Carl Haas**

University of Waterloo  
CRC Chair in Sustainable Infrastructure

# *Thank you!*

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*For more information:*

[www.csc-ca.org](http://www.csc-ca.org)

[www.careersinconstruction.ca](http://www.careersinconstruction.ca)

[www.constructionforecasts.ca](http://www.constructionforecasts.ca)

[www.elearning.csc-ca.org](http://www.elearning.csc-ca.org)

