

Apprenticeship completion rates continue to lag behind increases in construction employment and apprenticeship registrations. An Ontario Construction Secretariat study of apprenticeship in Ontario's construction industry explored the role of joint union-employer partnerships in apprenticeship training and their impact on apprenticeship outcomes.

# Completion Counts

## Raising Apprenticeship Completion Rates in Ontario's Construction Industry

by | Sean W. Strickland

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The Ontario Construction Secretariat (OCS), a joint labour-management organization, has a mandate to provide research on the construction industry that helps guide union, employer, government and industry initiatives in building a highly skilled workforce that meets the needs of the economy. To this end, OCS commissioned the Apprenticeship Research Group to undertake a study of apprenticeship in Ontario's construction industry. In particular, we wanted to explore the role of joint union-employer partnerships in apprenticeship training and their impact on apprenticeship outcomes, particularly as it relates to completions. This article highlights the key findings of our report *Completion Counts: Raising Apprenticeship Completion Rates in Ontario's Construction Industry*.<sup>1</sup>

OCS has years of experience working with and preparing research on construction training programs and offers new insights into these discussions. This comprehensive assessment of the state of construction apprenticeship in Ontario is presented to add to stakeholder understanding of apprenticeship issues, successes and challenges. Furthermore, insights gathered will assist government policy makers in making better decisions with respect to key features and characteristics of apprenticeship training.

### Productivity and the Skilled Trades

For more than 20 years, governments and businesses have focused on innovation and rising productivity as the main factors that drive economic development. The investments in machinery, equipment and infrastructure needed to reach these goals require a skilled workforce to design, build, install, integrate and operate new systems. Shortages of skilled trades and occupations are often cited as barriers to the success of economic development plans.

This focus on innovation and productivity has shifted the attention of government and employers to the apprenticeship programs that train and certify skilled trades. Ontario's 2012 budget clearly highlighted the importance of apprenticeship to Ontario's economy: "Ontario's apprenticeship system is a key part of building the well-educated and highly skilled workforce the Province needs to compete in the current and future economy."<sup>2</sup>

Construction has been leading other industries in job creation for more than a decade, and apprenticeship is the main source of skilled labour. Indeed, the skilled construction trades make up the largest single group of apprentices, and these trades often work in other industries.<sup>3</sup>

### Trends in Apprenticeship Registrations and Completions

Government and industry initiatives have resulted in significant growth in construction apprenticeship registrations and an expansion in the number of recognized trades. Figure 1 tracks the cumulative change in construction employment, apprentice registrations and completions.

Propelled by a strong expansion in construction activity, construction employment rose from a low of 262,000 in 1996 to 428,000 in 2010. This represents a 63% increase, or an average annual increase of 5%. This growing need for well-trained, qualified workers revived demand for apprenticeship training and sparked a resurgence in registrations. By 2003 the number of registered apprentices in construction trades surpassed 1991 levels. Registrations increased by 80% from 1991 to 2010, reaching a record high of 61,857.

Despite rapid gains in employment and apprenticeship registrations, the number of apprenticeship completions remains at or below 1990 levels. In fact, while construction employment began to recover as early as 1997, the number of apprentices completing their programs in construction trades continued to decline until 2002, when completions reached a low of 1,878. By the early 2000s, the number of apprentices completing construction programs had fallen to less than one half (46%) the number of completers at the beginning of the 1990s. Completions only began to rise in 2003, topping out at 4,008 in 2009.

Low levels of completion signal a limited return on investment in the apprenticeship system as the certified, skilled workforce has not kept pace with demands. The Jobs and Prosperity Council, a group of private sector leaders reporting to the Ontario government on actions needed to take advantage of global opportunities, focused on low completion rates in apprenticeship and the skilled trades. In its report, the council stated "too few young Ontarians pursue the skilled trades as a career and only half of those that select apprenticeship will actually complete the training and receive a certificate of qualification."<sup>4</sup>

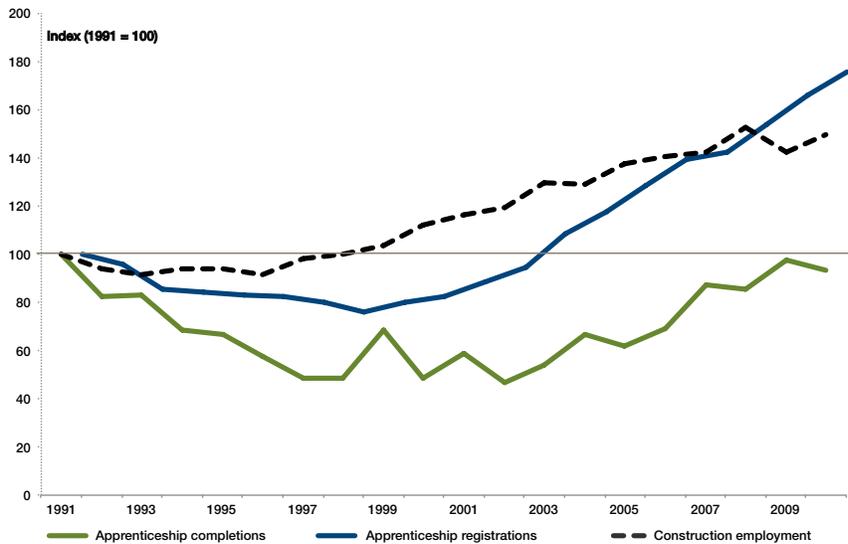
### Increasing Role of Union-Employer Partnerships

The unionized construction industry plays a leading role in apprenticeship trades training that improves the outcomes for apprentices and upholds the high standard of Ontario's highly skilled and qualified construction workforce.

Through labour-management partnerships called joint apprenticeship training trusts (JATTs) and cooperation with government, Ontario's unionized construction industry has collectively invested more than \$260 million in 95 training facilities across the province. This investment makes possible

**FIGURE 1**

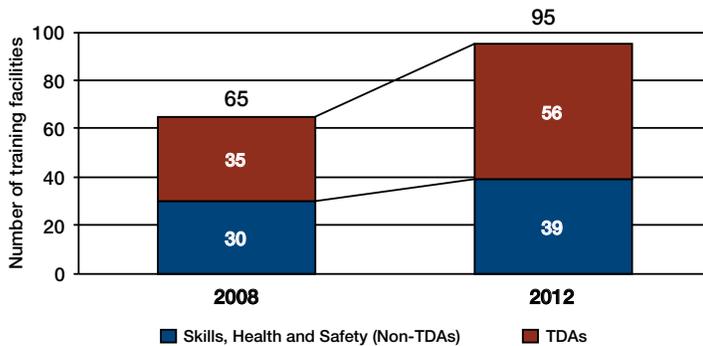
**Index of Construction Apprenticeship and Employment in Ontario**



Source: Statistics Canada, Registered Apprenticeship Information System.

**FIGURE 2**

**Growth in Unionized Construction Sector Training Facilities**



Source: *Completion Counts: Raising Apprenticeship Completion Rates in Ontario's Construction Industry*, Ontario Construction Secretariat.

the delivery of 3 million hours of apprenticeship, skills upgrade and health and safety training to youth, apprentices and journeypersons across Ontario each year.

Ontario's union-employer training

centres are an integral and growing part of the province's apprenticeship trades training infrastructure. Figure 2 reports the recent growth in training centres. Since 2008 the number of facilities has grown from 65 to 95 (46%).

Industry training facilities can be administered by union locals, employer associations or JATTs. Facilities accredited by the Ontario Ministry of Training, Colleges and Universities (MTCU) as training delivery agents (TDAs) deliver the formal in-school portion of apprenticeship training, while non-TDA facilities deliver skills upgrade and health and safety training that supplement apprenticeship curriculum.

These investments are driven by the 185% gain in apprenticeship enrolment in union-employer training facilities from 2000 to 2012, shown in Figure 3. With this rise in enrolments in JATT facilities, union-employer training centres account for about one-fourth of total in-school construction apprenticeship seats funded by MTCU. In fact, union-employer training centres are the exclusive TDA for 12 voluntary construction apprenticeship programs.

**The Union Advantage**

Anecdotal evidence has long supported that the investments and unique practices by JATTs result in higher completion rates for union apprentices. Our analysis of detailed MTCU apprentice registration and completion data provides initial evidence confirming higher completion rates in the unionized sector.

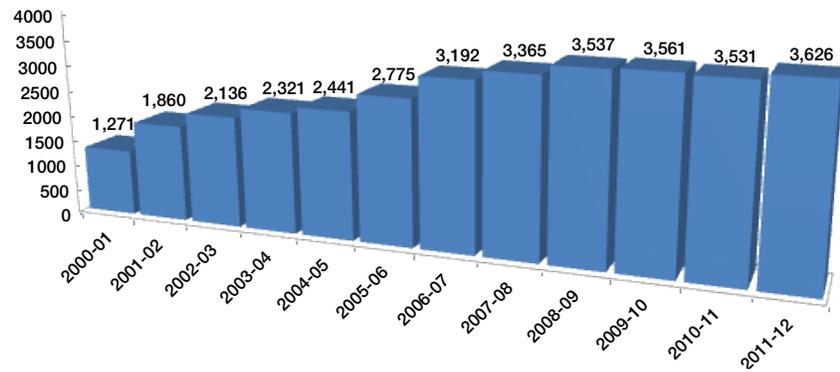
Data obtained from MTCU allowed for a direct comparison of notional apprenticeship completion rates<sup>5</sup> for apprentices indentured to JATTs (mostly unionized apprentices) and those indentured to individual employers (proxy for nonunion) in four compul-

sory trades:<sup>6</sup> (1) sheet metal workers (2) plumbers (3) steamfitters and (4) electricians. Notional completion rates for apprentices indentured to JATTs were compared to apprentices indentured to individual employers. This analysis found notional completion rates for apprentices indentured to JATTs to be significantly and consistently higher than apprentices indentured to individual employers.

Figure 4 shows the average notional completion rates for apprentices indentured to JATTs compared to those indentured to individual employers for apprentices that registered between 2004 and 2009. The data showed a notional completion rate of 75% for apprentices indentured to JATTs compared to 58% for those indentured to individual employers. Apprentices indentured to JATTs show a notional completion rate 30% higher than non-union apprentices.

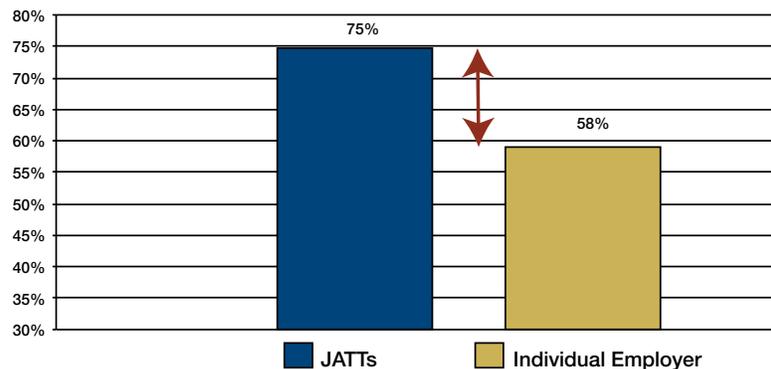
The union advantage in achieving higher completion rates stems from the significant investment in facilities and the unique system of supports provided in the delivery of apprenticeship training. Through partnership and commitment to a strong training culture, the JATT system provides resources for screening apprentice candidates, preparing apprentices for their training and supporting them during the training period. The unionized approach focuses on work experience with multiple employers, providing both a depth and breadth of skills and experience. In some trades, union locals support night school programs to prepare

**FIGURE 3**  
**Apprenticeship Enrolment at Ontario Union-Employer Training Facilities**



Source: Ontario Ministry of Training, Colleges and Universities.

**FIGURE 4**  
**Notional Completion Rates (average duration of seven years)\***



\*Estimated rates are based on four trades: plumber, steamfitter, sheet metal worker and electrician construction and maintenance.

Source: *Completion Counts: Raising Apprenticeship Completion Rates in Ontario's Construction Industry*, Ontario Construction Secretariat.

union apprentices for trade school. Many locals also provide apprentices with refresher training to prepare them for the certificate of qualification examination.

Results from OCS research and the National Apprenticeship Survey<sup>7</sup> show

higher completion rates in the unionized environment can be explained by the experience of union apprentices who are:

- More likely to attend the technical in-school portion of apprenticeship training

## BIO

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- More likely to complete when their work experience is extended beyond the prescribed program duration
- Start their apprenticeship with higher levels of education
- Less likely to change employers to seek better employment opportunities during the course of their apprenticeship and exposed to work with a larger number of employers.

This preliminary research provides additional insight as to why completion rates are higher among apprentices in the unionized construction industry in Ontario. The evidence of significantly higher rates of completion among union apprentices indentured to JATTs suggests the significant investments made by the unionized industry are paying off.

### Next Steps

This evidence points the way to a new apprenticeship strategy that can

be linked to emerging policy initiatives and achieving higher completion rates. In particular, strategic goals would be achieved by leveraging government investments in training with private funds so that the fiscal impact is minimized. Three objectives of the strategy would be to:

1. Focus on apprenticeship completions.
2. Implement apprenticeship requirements on all government-procured construction projects to help create more opportunities for apprentices.
3. Increase apprenticeship and training in related areas like health and safety and supervisory skills through incentives to multiple employer training programs to leverage government initiatives.

Finally, you can't change what you can't measure. Measures of completion rates for all trades must be built up from administrative records and/or

surveys that track the experience of each apprentice from start to completion. OCS and our labour-management stakeholders have proposed the implementation of a longitudinal study of apprentices to answer the question "Who completes, who quits and why?"

Such a study has the potential to help stakeholders develop additional strategies to raise completion rates and capitalize on what is now a missed opportunity. ☒

## Endnotes

1. A copy of *Completion Counts: Raising Apprenticeship Completion Rates in Ontario's Construction Industry* is available at [www.iciconstruction.com/resources/industry\\_publications/apprenticeship\\_issues.cfm](http://www.iciconstruction.com/resources/industry_publications/apprenticeship_issues.cfm).

2. Ontario Budget, 2012

3. There are several examples of closely related skill sets that are shared by the trades in construction and other industries including, for example, equipment and crane operators, electricians, millwrights and heavy-duty equipment mechanics and welders.

4. *Advantage Ontario*, Jobs and Prosperity Council, 2012

5. The notional completion rate is calculated by taking as the denominator the number of new apprentices registered in "year X" (e.g., 2000) and as the numerator the number of certificates of qualification issued to apprenticeship completers in "year X plus 4" (e.g., 2004) or "year X plus 5" (e.g., 2005), depending on the expected length of the apprenticeship program. This notional completion rate improves the accuracy of the completion ratio by accounting for the lag between the time an apprentice registers and completes. Notional completion rates differ from actual completion rate to the extent that the actual duration of the program is not known.

6. An analysis on additional trades was not possible due to an insufficient number of apprentices from each group to make a direct comparison.

7. The *National Apprenticeship Survey* was conducted by Statistics Canada in 2007.