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Project Insights Report

Career pathways for mid-career workers through work-based learning

PARTNERS

Work-Based Learning Consortium

Canadian Association of Mold Makers

LOCATIONS

Ontario

INVESTMENT

$964,601

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Executive Summary

The Work Based Learning Consortium (WBLC) and its partners developed and delivered a training program in response to a shortage of workers with the right skills for entry- to mid-level jobs in the advanced manufacturing industry in Ontario. This project aimed to bridge those skills gaps by helping mid-career workers with little relevant work experience get hired in mold maintenance jobs and acquire industry-valued skills and certifications on the job, and by upskilling current workers in mold maintenance.

Between January 2020-July 2021, 10 advanced manufacturing employers participated in this pilot innovation program, including 31 mid-career workers in the Greater Toronto and Kitchener-Waterloo areas. The project worked to overcome long standing challenges in convincing employers to invest in training, a feat made even more difficult by the uncertainty created by the pandemic. The project also demonstrated the importance of regional specificity in workforce development programs (connecting would-be workers to local employers to improve employment outcomes).

KEY INSIGHTS

1. Experienced employees with technical skills are more effective as trainers of new workers when they participate in training on how to instruct participants to perform specific tasks and how to use interpersonal techniques in working with them.
2. Program participants who were nominated by an employer for upskilling completed the core program in about half of the average time it took for new employees.
3. It remains challenging for employers to quantify the return on investment from skills training. Employers need a lot of encouragement to both invest and measure results in skills development.

The Issue

Ontario's auto sector is experiencing huge disruption with the advent of new technologies and automation that have the potential to displace large numbers of mid-career workers. At the same time, parts of the industry are experiencing a shortage of skilled workers. Mold-making and injection-molding companies in the Kitchener-Waterloo and Greater Toronto Areas report a severe shortage of experienced, skilled workers to fill mold making and repair job vacancies.

What We Investigated

This project aimed to bridge skills gaps in the advanced manufacturing industry. It aimed to upskill current workers, as well as connect mid-career workers with little relevant work experience with employment in mold-maintenance jobs and the development of industry-valued skills and certifications on the job.

The pilot program included:

- **A competency screening** administered by the WBLC that gauged a candidates cognitive skills, personal and relational competencies (i.e. energeticness, focus, friendliness, teamwork skills) and business competencies (i.e. planning, problem solving, a safety focus, oral communication skills). Candidates that passed the competency screening were then interviewed by an employer. If hired, the candidate then proceeded to the core program, earning while learning. Current employees

nominated by participating employers for upskilling also went through the competency screening, and if qualified, they could take the core program without the interview and hiring process.

- **Core program**: Candidates who passed the competency screening and employer interview received on-the job technical training after being hired, including online and in-person classroom and practical training. This included 40-50 hours of e-learning online over approximately 10 weeks, covering 11 modules on basic technical knowledge; two in-person practical training shop sessions lasting four days each; shop-floor learning for 3-4 months guided by an employer-provided trainer; and, finally, an industry-recognized certification as a Mold Maintenance Technician, Level 1.
- **Bridging Competency Gaps (BCG) program**: Candidates who did not pass the competency screening received competency coaching to prepare for re-entering the core program. The BCG program consisted of short, non-technical online coaching modules on interviewing, analytical thinking, problem-solving, safety, 3D spatial visualization, basic math, verbal communication, detail orientation, reliability and stress management. Candidates only needed to take modules in the competency areas where they had gaps.
- **E-learning program:** Candidates who passed the competency screening but were not hired due to a lack of participating employers received the online classroom technical training only, after which they had the opportunity to re-enter the core program.

✔ What We're Learning

This pilot program was intentionally focused on a small number of participants and employers, in order to test the viability of this approach. The project engaged 31 mid-career workers and 10 advanced manufacturing employers in the Greater Toronto Area (GTA) and the Kitchener-Waterloo area from January 2020 to July 2021. These employers hired 7 candidates and nominated 11 current employees for up-skilling. 15 of these participants completed the core program and were certified as Mold Maintenance Technicians, Level 1. Current employees who were nominated for upskilling completed the core program in about half of the average time it took for new employees.

Lessons learned through implementation included:

Align shop floor training with classroom learning
Work-based learning programs need to ensure that practical training on the company shop floor aligns with the materials covered in classroom learning. Technical competency standards can be used to guide this alignment. Employer-provided trainers need to be familiar with the standards and expectations of the shop floor training through orientation sessions or targeted training such as the "train the trainer" workshop delivered in this project.

Build employers' interest and buy-in
Despite the development of the training program starting with the recruitment of employers who had job vacancies and were committed to hiring and training workers or who were committed to upskilling current employees through the work-based learning model, it still proved difficult to recruit enough employers to hire all of the eligible participants. Employers other than those recruited demonstrated an overall hesitancy to change current recruiting processes and hire mid-career workers with little relevant work experience. It is necessary to build in time and resources to raise employer awareness about the program and its benefits, even when the need for such a program is indisputable.

Good trainers need more than technical skills and experience
Both the evaluation and project teams pointed out gaps in the coaching skills of employer-provided trainers. In response to this, WBLC developed and delivered a four-hour online “train the trainer” workshop in the spring of 2021 to seven trainers from two participating employers. This workshop was aimed at enhancing the effectiveness and efficiency of the shop floor learning through training trainers on how to instruct participants to perform specific tasks and how to use interpersonal techniques in working with them.

Why It Matters

Recruitment and retention of qualified workers is proving difficult across sectors and industries in Canada. More short, sector-specific training programs are required that deliver industry-recognized certifications for in-demand jobs, alongside practical experience and non-technical skills with widespread applicability. These programs have proven effective for training new workers and upskilling those already working. However, the effectiveness of these programs depends heavily on the willing participation of employers in these sectors to develop curricula, act as trainers and commit to hiring participants.

This pilot project provided further evidence that it remains very challenging for training providers to convince employers to get on board, even where there are well-known skills shortages in the sector. Eight participants who were eligible for the core program in this project could not complete their certification because of a lack of participating employers in their region. This problem is widespread – though the data on employer-sponsored training in Canada are largely unreliable, out of date, and ill-suited for comparison across time and jurisdictions, what is available demonstrates that Canadian employers as a whole invest less than is necessary in training. Employers are wary of the investment itself, concerned about the risk of employees leaving and may have insufficient staff to cover workers who are taken off the shop floor for training.

State of Skills: Innovation in Training, Recruitment and Upskilling for Skilled Trades

Canada needs to address long standing shortages of skilled tradespeople to advance policy priorities around decarbonization, affordable housing and transforming industry to add more value to what we produce

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However, the recruitment and retention challenges that are already impacting productivity in many sectors and industries are predicted to worsen as more workers retire in the coming years. Employer hesitation to invest in training will worsen these skills shortages. More research is needed on what strategies work, including broader public policy initiatives that successfully incentivize employers to make these investments, especially small and medium sized enterprises that face even more barriers in terms of resources and time.

Have questions about our work? Do you need access to a report in English or French? Please contact communications@fsc-ccf.ca.

How to Cite This Report

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