## Research on Issues Related to Women and "Non-Traditional" Apprenticeships Where Women are Under-Represented

Report 1: Literature review on barriers to women in skilled trades apprenticeship and employment, and promising practices to address them

## **EXECUTIVE SUMMARY**

The key purpose of the project on *Issues Related to Women and "Non-Traditional" Apprenticeships Where Women are Under-Represented* is to provide foundational research that will inform the development of pilot projects in order to address barriers to entry and increase success in apprenticeship for women. This report represents a literature review of available and current information on barriers to the greater participation and retention of women in non-traditional skilled trades apprenticeships and employment, and effective strategies to address them.

While the participation of women in the workforce has more than doubled in the past three decades and their representation has increased in many fields that were once male-dominated, including medicine, law and finance, occupational segregation remains pervasive in science, engineering, trades and technology. Skilled trades are consistently highlighted as an area of workforce shortages, yet women remain an underutilized source of labour in this area.

The literature reviewed for the purposes of this report suggests that the poor representation of women in non-traditional skilled trades occupations is attributable to a range of interconnected causes. The barriers that women encounter at every step on the journey to careers in skilled trades have a cumulative negative effect on the representation of women in employment in these occupations. The literature reviewed for the purposes of this report leads to an overall conclusion that a coordinated approach to addressing barriers in all stages of women's career paths is necessary to effect change. The interventions need to help women and girls to choose careers in the trades and complete the required training, and help employers to make changes in the workplaces to recruit and retain more women.

The barriers that women face in participating in non-traditional skilled trades can be summarized as follows:

Making a career choice to enter occupations in non-traditional skilled trades is impeded by the low level of awareness of opportunities for women in these occupations, combined with negative perceptions of the skilled trades as a suitable career choice for women. As a result, girls and women do not develop an interest in careers in non-traditional skilled trades in the first place. Stereotypes about gender-based professional aptitudes are communicated to girls and boys from a young age through key influencers

such as families, teachers and guidance counsellors at schools, affecting their choice of academic subjects. Girls are typically discouraged from taking up math- and science-related subjects, which subsequently limits their preparedness to enter apprenticeships or training in occupations that require technical skills. Women and girls are also inadequately informed about careers in the trades. Informal exposure to skilled trades and tradespeople play a major role in influencing career choices, while girls and women typically lack access to both. At the same time, advice received from more formal channels such as career centres or schools can be insufficient or misleading. It is often assumed that girls and women would not be interested in skilled trades and they are either not informed of the career options in these occupations or they are actively discouraged from pursuing them.

Entering the non-traditional trades via formal training is an essential pathway for women, but entering apprenticeship is challenging. Because women lack access to the informal networks which are the primary means of securing employment in the skilled trades, even at the entry levels, the more structured route through apprenticeship training holds more promise for women. However, entering apprenticeship training is a challenge in itself. As a result of the streaming of girls towards non-technical subjects at schools, their level of academic skills is often less that what is required to participate in apprenticeship programs. Finding employers willing to sponsor female apprentices is difficult, disadvantaging women relative to men. In addition to the lack of personal contacts who can introduce women to potential employers, the perception that training female apprentices costs more than training men further reduces the likelihood of securing sponsorship for women. Employers can be generally cautious towards investing in apprenticeship, but they tend to regard women apprentices as a higher risk in that they may interrupt their apprenticeship or subsequent careers due to family responsibilities. The cost of training female apprentices may also be an issue for colleges. They may require additional funding to provide services targeted specifically at female apprentices, such as childcare facilities or mentoring, while finding work placements for them takes more effort than for men.

Completing apprenticeship is more challenging for women compared to their male peers due to a variety of personal factors and unfair treatment on the jobsites and in the classroom. While the cost of tuition, tools, living expenses and transportation incurred during apprenticeship training can represent a big outlay for both men and women, women typically have to shoulder additional costs related to childcare. Childcare is a significant barrier as female apprentices tend to be younger and often have pre-school or school-aged children. In addition to the cost, the working day tends to start and finish outside the opening hours for schools and daycares, making it difficult to juggle family and training responsibilities.

Sexist attitudes in workplaces as well as in the classrooms can make female apprentices feel isolated. Because apprentices in the non-traditional skilled trades primarily acquire skills through informal learning from their colleagues, this type of isolation means that women may not acquire all the skills they need for the successful completion of the apprenticeship. The quality of on the job training provided to women can be inferior to the training delivered to men, with employers placing male apprentices more readily into roles where they can develop the relevant technical skills. A scarcity of female journeypersons who can act as role models and mentors for women apprentices in the workplace further hinders their progression. Female classroom teachers and instructors are also quite rare.

The recruitment and retention of women in non-traditional skilled trades is hampered by biased recruitment practices, working conditions and hostile workplace culture. Work in the skilled trades is largely contract-based, particularly in the construction industry, and both male and female journeypersons need to secure new employment on a regular basis. While information about jobs typically circulates by word of mouth, women are often excluded from these informal networks. Like female apprentices, female journeypersons are perceived as higher risk due to the expectation that their caregiving responsibilities might conflict with their work and they are more readily laid off. Additionally, perceptions that tradeswomen lack the physical strength necessary to carry out manual work further prejudice employers against them.

Workplace culture is a major impediment to the long-term retention of women in the trades. Unwelcome attitudes towards tradeswomen range from open hostility and harassment to more subtle forms of unfair treatment. Exclusionary behavior on the part of their male colleagues, coupled with the constant questioning of women's abilities to do the work, make it difficult for tradeswomen to advance in their careers, leading to further disillusionment about their prospects in the trades. This is despite the fact that

female journeypersons often have to repeatedly prove that their technical skills exceed those of their male colleagues in order to be accepted on the jobsites. Inadequacies in the physical working environment are also a deterrent for women. Examples include the absence of separate washrooms or sleeping quarters at remote worksites. In addition, ill-fitting clothing and safety equipment which often is not appropriately sized for women pose health and safety risks to women at worksites.

In addition to the barriers faced by women in the trades in general, particular sub-groups of women face additional challenges due to intersections of gender and other factors such as ethnicity, income or culture. Examples include Aboriginal women, immigrant women, and women who belong to visible minorities, who may face additional resistance towards taking up a trade from families and communities. Transportation costs or the necessity of relocate to be closer to training centres or worksites represent significant obstacles for women living in remote areas. Women from low-income backgrounds often face financial and personal disadvantages, while older women seeking to return to work after a period of absence face a distinct set of challenges related to their age and skills.

## The approaches to addressing the barriers to women in non-traditional skilled trades can be summarized as follows:

A review of the literature for the purposes of this report leads to a conclusion that the barriers encountered by women at all stages on their career path, including school, training and employment, need to be addressed simultaneously in order to achieve a lasting impact on the better integration of women in non-traditional skilled trades. A co-ordinated long-term approach is required, as opposed to isolated pilot projects. Given the depth of gender inequities in the schools, training institutions and workplaces that employ skilled tradespeople, focusing on women alone through initiatives such as targeted outreach or training programs does not seem effective. For example, changing the attitudes of girls towards math and technical subjects in schools will not by itself lead them to enter apprenticeship training. The attitudes of parents and schools about the suitability of occupations in the skilled trades for girls also need to be addressed. Channelling more women into apprenticeship training is not likely to open up employment opportunities to women or improve their long-term retention unless the barriers that exist in workplaces are also addressed. Information from the various research studies reviewed for the purposes of this paper suggests that a great majority of the initiatives implemented to date have focused on awareness raising and training activities for women, with fewer initiatives aimed at schools, training institutions and employers. Furthermore, many initiatives last for a short time, while changing deeply entrenched cultural attitudes about the place of women in non-traditional occupations requires a longterm approach.

Girls and women can be encouraged to consider careers in the skilled trades through initiatives involving targeted outreach and exploratory programs, and by changing the attitudes of those who influence women's career decisions. Targeted outreach typically includes the provision of tailored information materials or sessions at schools or institutions frequented by women, and, to a lesser extent, by advertising campaigns. Exploratory programs provide opportunities for girls to try out practical exercises to boost their confidence in their ability to accomplish hands-on tasks. A number of initiatives and programs of this type that were implemented in Canada, United States and the United Kingdom have demonstrated measurable positive effects on the attitudes of girls and women towards non-traditional occupations, at least in the short-term. Changing the perceptions of parents, teachers, guidance counsellors and career advisers about the academic inclinations of girls and the viability of skilled trades as a career option for women is crucial. These individuals play a key role in influencing the career choices of girls and women and their support is essential. Examples of initiatives targeted at key influencers include information sessions and awareness campaigns, and professional development activities aimed at teachers and guidance counsellors. Professional development activities address topics such as how to challenge gender-stereotypes about academic subjects, dealing with harassing behaviours in the classroom, and making learning curricula more female-friendly.

Women-only pre-apprenticeship training, combined with employer outreach to secure the sponsorship and workplace integration of female apprentices, is identified in literature as a particularly promising pathway into the skilled trades for women. The evaluations of pre-apprenticeship programs and other sources of information reviewed during the course of conducting research for this report suggest that pre-apprenticeship training can lead to several types of positive outcomes for women. Some of the graduates from pre-apprenticeship programs enter apprenticeships, while the rest tend to undertake other programs

of study related to the trades at colleges or enter employment. The employability of participants in preapprenticeship programs tends to increase whether they enter occupations in the trades or elsewhere following the completion of the program. The long-term impact of pre-apprenticeship programs on career choices and employment outcomes for women does not seem to be tracked.

According to the literature reviewed, successful pre-apprenticeship programs include an extensive ecosystem of supports which ensure that participants can cope with personal and workplace challenges during training and the transition to employment. The careful selection of "work ready" candidates into pre-apprenticeship programs ensures that women who enrol are able to cope with the demands of the program and careers in the trades. While programs need to ensure that women receive solid technical training, they also need to equip them with skills to help them deal with the challenges of working in male-dominated workplaces. The key to the successful transition of women into apprenticeship and the skilled trades workforce lies in providing a continuum of support beyond the duration of the pre-apprenticeship program. This includes helping women to secure employer sponsorship for apprenticeship and mentoring during apprenticeship and employment. In some cases, offering subsidies to employers for taking on female apprentices proved to be an effective strategy.

The completion of apprenticeships by a greater number of women can be encouraged via providing supports to educational institutions and employers, in addition to those targeted at women. Introducing a more formal structure to the on-the-job training component could help ensure that women receive adequate training during apprenticeship. Well planned work placements with clear roles and training goals for apprentices would help make women less reliant on the goodwill of their male colleagues to deliver relevant training. The need to proactively support women during apprenticeship to help them cope with unfair treatment in workplaces through initiatives such as mentoring is prominently emphasized in the literature. Creating cohorts of female apprentices in co-ed apprenticeship programs was found to be effective in some programs, but female-only cohorts do not seem to be desirable either on the part of women or employers. Financial supports, such as grants and scholarships, can encourage more women to complete their apprenticeship but few seem to be offered for apprenticeships relative to university education. The gender sensitization of training institutions and employers plays an important role in ensuring that colleges and workplaces are prepared to welcome female apprentices.

The recruitment and retention of women in non-traditional skilled trades can be encouraged by supporting employers to create more inclusive workplace culture and practices, and by continuing to provide mentoring for women. As a starting point, it is important to persuade employers of the value of employing female tradespersons. Several business cases have been developed to address this point. The tools that have been developed to support employers to change their recruitment practices and workplace culture include employer guides and checklists, and more direct assistance in the form of seminars and workshops. There are some indications that employers may not be aware of the available supports, while small and medium-sized employers could particularly benefit from some guidance in this area. Employment equity legislation is another instrument for promoting change in workplaces and it can take various forms, from setting recruitment targets to broader commitments to the increased hiring and retention of women. Whether the legislation is mandatory or voluntary, the enforcement mechanisms are essential to ensuring that legal obligations will actually be met. In addition to helping employers to introduce change in the workplace, mentoring continues to play an important role in supporting tradeswomen throughout their careers.

A diversity of women should be a consideration in the design and delivery of programs. The targeted recruitment of women from specific backgrounds and engagement with their communities have shown positive results in programs that have used these approaches. The feasibility of distance learning methods could be considered to help women from remote areas remain in their communities during training. Services that are critical for women from economically disadvantaged backgrounds include child care, housing support, mentorship and transportation. Training in life skills such as financial planning and work ethics, and personal counselling, can also be important for women who have had limited labour force attachment.

The success of programs depends not only on the features of the services provided, but also on operational aspects of design and implementation, such as the strength of partnerships, timelines for developing and implementing programs, the sustainability of programs, and the mainstreaming of

promising practices. No single stakeholder can enact change across the entire range of barriers and a collaborative approach is required to achieve this. The type of partnerships established will depend on the nature of the project, but some of the key stakeholders to consider are educational institutions. employers, labour unions, professional associations, women's organizations, government and community organizations. Some stakeholders, such as women's organizations, are well positioned to represent the voice of women and provide tools for change, while others such as government or training institutions can provide financing or training expertise. A collaborative approach is not only required to help gain the commitment of various stakeholders to removing barriers to women, but to also understand their perspective and needs. Sufficient time should be set aside for the planning and implementation of programs and surrounding supports, as innovative programs take time to develop and build a reputation. Supporting women to enter non-traditional occupations requires a sustained investment over the longterm, while many programs are short-lived due to a lack of funding. A stable source of core funding, complemented by diversified sponsors for supplementary funding, can help promote the sustainability of the programs. Individual programs are relatively small in scale and it is unrealistic to expect that they can overcome the deeply entrenched barriers on their own. However, mainstreaming the promising practices developed through programs into the delivery of existing and new programs related to the apprenticeship and employment of women in the skilled trades can multiply the impacts beyond the boundaries of individual interventions.