

# Women in Male Dominated Trades

## It's still a man's world

Prepared for the Saskatchewan Apprenticeship and Trades Certification Commission

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## Table of Contents

Executive Summary	3
1.0 Introduction	6
2.0 The labour movement of women into non traditional trades: What do we know?	7
3.0 Challenges women face when entering non traditional trade	12
3.1 Socialization Factor	13
3.2 Access: recruitment and hiring practices that create <i>de facto</i> entry barriers for women	16
3.3 Workplace environment	21
3.4 Result of the workplace environment	26
4.0 Attracting women to and retaining them in non traditional trades	29
4.1 Attracting women to the skilled trades	29
4.2 Creating workplaces that work	30
5.0 Programs supporting women's entrance into non traditional trades	32
5.1 Traditional technical training	32
5.2 Special initiatives for women across Canada	34
6.0 Conclusion	39
7.0 Recommendations	41
8.0 Avenues for further studies	44
9.0 References	45

## **Executive Summary**

### **ES1. General**

The information presented is intended to build on existing knowledge of women in the trades and assist the Saskatchewan Apprenticeship and Trades Certification Commission (SATCC) and other decision makers to attract and retain a greater number of women in the skilled trades as a solution to labour shortages.

In the last quarter of the 20<sup>th</sup> century women in Saskatchewan have been entering the paid labour market on a large scale. From 1976 to 2006 participation rates for women have increased from 43% to 62%. This finding is fairly consistent with the national statistics of women in the workforce. Still, there is a very low percentage of women employed in the skilled trades in Saskatchewan. In 2005 most industries report less than 15% of workers in the trade industry were women.<sup>1</sup> The highest increase of female participation was reported in transportation and equipment operators with 13%, followed by occupations unique to primary industry with 12%, and construction and other trades with 3.3%. While wages in these areas are better than average, there are still few women entering these occupations.

### **ES2. Research purpose**

The purpose of this paper is to discuss some of the factors which may be influencing low participation rates of women in the skilled trades, as well as the issues that affect women in these occupational areas in Saskatchewan. There are many definitions used to describe skilled trades; this paper focuses on those trades designated as male dominated or non-traditional. This paper examines both professional literature, interviews conducted with several tradeswomen across Saskatchewan (trade experience ranges from one to 30 years), and secondary interviews from a documentary entitled “Telling Trade Secrets.”

### **ES3. Methodology**

The research methodology used in this paper was a descriptive review of personal stories and accounts obtained through interviews with tradeswomen, supplemented by a review of the literature to understand what is known about the issues that affect women entering male

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<sup>1</sup> Saskatchewan Trends Monitor (2006, December). Women in the Saskatchewan Labour Market: A Comparison of Wage Rates. Regina, Saskatchewan: Author.

dominated trades. The interviews were conducted with six women from Saskatchewan who currently work in non traditional trades. Interviews were either conducted over the phone or in person, and were approximately one hour in length. Three out of the six women interviewed were Aboriginal and attended technical training at the Saskatchewan Indian Institute of Technologies; all three were preparing to write their level one exam in carpentry. The other three women possessed journey person certifications either in welding, plumbing, or carpentry. Their experiences as tradespersons ranged from eight to 30 plus years. In addition, one of the women interviewed received the distinguished title of “Canada’s first lady plumber” in 1974 at the Canadian Environment Exposition in Toronto. It should be noted that the names of the women interviewed were changed.

#### **ES4. Some Key Findings**

- 1) Women continue to be under-represented in the trades and progress to increase their representation is moving slowly. Laws, policies and regulations are only helpful when complied with, ensuring positions for women and workplaces that are free of discrimination.
- 2) Limited access is the first hurdle faced by women seeking skilled trade jobs. While progress has been made in certain areas, recruiting and hiring practices that make use of traditional networks (e.g. word of mouth recruitment) often overlook the available pool of women. Once on the job, many women face discrimination, harassment, allegations of reverse discrimination (e.g. employment equity policies), lower salaries compared to their male co-workers and other aspects of the male oriented culture that are hostile to women. While policies are in place to protect against such behaviours, they are not always enforced, resulting in strained working relationships between males and females.
- 3) It was reported that when workplaces uncover the principle cause of under-representation in their organization and implement effective strategies for change, their initiatives can yield measurable improvements in retention rates of women.

## **ES5. Recommendations**

### Education

- 1) Continue to support the efforts of those promoting the skilled trades to young females through conferences, workshops, etc.
- 2) Encourage industry, employers, the provincial government and educators to fund a province wide campaign to change the stereotypical image of the trades and to foster the idea that the skilled trades are a dynamic field for women.
- 3) Provide educational institutions and parents better access to career information that gives young girls a real understanding of the pay, rewards and challenges of occupations in the trades, particularly those not traditionally taken up by their gender.
- 4) Efforts should be made to increase the number of female role models in schools, either by hiring more female industrial arts teachers or by creating other opportunities for tradeswomen to participate in the classroom/shop setting (via demonstrations, guest instructors).

### Workplace

- 1) Encourage employers to attend workshops and eventually set up industry committees to help strategize ways to recruit and retain women in the trades.
- 2) Industry, through the Construction Sector Council or the CAF, should create a tool kit describing specific strategies for effective recruitment and retention.
- 3) Provide workshops and training sessions for employees that familiarize and sensitize participants to the abilities and cultural differences of women.
- 4) Ensure that Employment Equity expectations are met by all companies, including the private sector.
- 5) Assess barriers within organizations and broadcast these findings in order for employers and employees to understand what is not working.
- 6) Provide incentives to employers who institute policies (e.g. support for child care) that support the integration of women into the skilled trades.

### Training: Special Initiatives for Women

- 1) To remedy the static number of women in the skilled trades, efforts should be concentrated into creating more “women-only” pre-apprenticeship training programs across Saskatchewan.

## 1.0 Introduction

*I was required to weld up to 50 hydro drums; after I had completed my task; my coworkers thought it would be funny to write with soap stone all over my work that read NFG (no f-----g good). When I talked to my co-workers about this they would tell me, “I don’t know why you take this so personally.” The men never treated the other men this way. I was their only target. I was the only woman working in the shop (Mary, Journey person Welder with over 8 years of trade experience).*

*I was working in a crawl space with several of my male co-workers when the guys above us turned the lights off; it was pitch black. I kept very quiet hoping no one would bother me. The lights were off for about ten minutes; I was very upset. The guys of course found it funny, but I didn’t. There are still barriers for women entering the trades; there is this attitude that it’s still a male dominated industry (Sue, Journey person Plumber with over 30 years of trade experience).*

The participation of women working in the labour force is not a new phenomenon; since the early sixties there has been a significant increase in the number of employed women. In 2004, Canadian women 15 years and older made up 58% of the general work force, up from 42% in 1976.<sup>2</sup> Of that, 67% worked as teachers, nurses and related health occupations, clerical or other administrative positions, and sales and service occupations. Only 30% of employed men work in these areas.<sup>3</sup> In other areas such as non traditional occupations (i.e. positions where less than 45% of the jobs are typically held by women)<sup>4</sup> women’s representation has remained stubbornly low. In 2004, 31% of women worked in manufacturing, while 19% held jobs in primary industries and 7% were in transportation, trades and construction work. The representation of women has grown somewhat in the latter category since the late 1980s, while there has been almost no change in the representation of women in either manufacturing or primary occupations in the past two decades.<sup>5</sup> Even though the workforce participation of women has grown, gendered work segregation has remained static.

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<sup>2</sup> Statistic Canada (2005). Women in Canada: a gender based statistical report (5<sup>th</sup> edition). Minister of Industry.

<sup>3</sup> ibid

<sup>4</sup> Saskatchewan Labour. (2003). Action plan for Saskatchewan Women: moving forward. Regina, SK: Saskatchewan Government printing office.

<sup>5</sup> Statistic Canada (2005). Op.cit

One of the major issues that kept surfacing in the literature and interviews was discrimination; an issue that has a significant impact on woman's social and physical environment. Discrimination can be a contributing factor to unfair hiring practices, poor retention rates, harassment, stereotyping, etc. All of these factors can lead to women either not entering or dropping out of the skilled trades early in their careers.

Research suggests that Canada could face a shortfall of one million skilled workers by 2020, mostly in the trades and technology sectors. With industry's huge labour demand, the promotion/retention of women in the trades would not only benefit women but also improve the situation for employers across all sectors of the economy.<sup>6</sup>

While women are underrepresented in the employment world of the skilled trades, their representation in non traditional apprenticeship programs (nationally and locally) is even lower. According to Statistics Canada, in 2001 just over 2% of apprentices registered in 15 non traditional trades in Canada were women,<sup>7</sup> up from under 0.5% in 1988. In the 15 trades selected, women made up the largest percentage (8%) in the painter/decorator apprenticeship program.<sup>8</sup> In that same time period, Saskatchewan reported similar findings. From 1988 to 2002, the number of women registered in those same 15 non traditional trades rose from 0.4% to 1.7%; however, by 2006 this number had almost doubled reaching a high of 2.9%.<sup>9</sup> Despite some growth, a representative participation rate for women should be around 45%.<sup>10</sup>

## **2.0 The labour movement of women into non traditional trades: What do we know?**

The movement of women into non-traditional trade occupations originated on a small scale during World War I and reoccurred on a much larger scale during World War II. Women's efforts were essential during the war as they performed vital roles that kept industry functioning.

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<sup>6</sup> Women in Trades and Technology National Network (WITTNN), Canada. (2003, January). Final Report for a Study to Assess and Identify Ways of Increasing Women's Participation in Trades, Technology and Operations Occupations in Canada. SPR Associates Inc. Toronto, Ontario.

<sup>7</sup> Bricklayer, Carpenter, Electrician(construction and industrial), Heavy duty Mechanic, Millwright, Machinist, Motor Vehicle Body Repair, Motor Vehicle Mechanic, Painter/Decorator, Plumber, Refrigeration/Air Conditioning, Sheet Metal Worker, Steam/Pipe Fitters, Welder.

<sup>8</sup> Statistic Canada (2005). op cit

<sup>9</sup> The Saskatchewan Apprenticeship and Trades Certification Commission: Female apprenticeship registration, 2007 [Database].

<sup>10</sup> Statistic Canada (2005). op cit

During World War I, thousands of women worked in Canadian weapons factories, with 5,000-6,000 employed in civil service, hospitals, offices, factories and farms.<sup>11</sup> During World War II approximately 255,000 women worked in non-traditional areas such as welding, electronics, drafting and industrial chemistry or as radio operators and vehicle mechanics. The largest proportion (33,000) worked in the aircraft industry. Women also accounted for more than 60 per cent of agricultural workers. Since both wars demanded the participation of a large number of Canadian men, women were finally able to get jobs that once had been open to men only. Most women enjoyed their work experiences because of the companionship with other working women, the good salaries and the chance to demonstrate their independence. When the war ended, many of the jobs filled by women had to be relinquished to make available to the men returning from service.<sup>12</sup> Despite giving up their new roles positive social changes came slowly for women in the realm of employment. Some of those changes were spurred on by second wave feminism<sup>13</sup> which started to address the systemic discrimination which imposed negative practices and engendered negative attitudes towards hiring women.

According to the report published by Human Resources Development Canada, *Gender Equality in the Labour Market*, discrimination can come in two main forms: intentional or systematic. Intentional discrimination is when employers believe that a woman's physiological make-up will not allow her to perform certain jobs, and/or her personality/behaviours will prevent her from fitting in with a team of men. Employers may see women as imposing hardships in the workplace or on other workers. Systematic discrimination, on the other hand, is characterized by socialization practices which lead males and females to socially acceptable employment. Systematic discrimination is threaded throughout the course of a woman's career in the trades as it is more subtle and more difficult to sanction.<sup>14</sup> Unfortunately, women who seek careers in the skilled trades will battle both types of discrimination whether it's embedded in career choices, workplace practices or workplace culture. To combat the effect of workplace discrimination, policies were introduced as a means to this end:

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<sup>11</sup> Ontario Women Directorate: Women's History. Women in WWI.

<sup>12</sup> Vaidyanath, Sharda. *Exhibit Depicts Triumphs and Trials of 1940s Women*. The Epoch Times, May 18, 2007.

<sup>13</sup> Refers to a period of feminist activity which began during the early 1960s and lasted through the late 1980s.

<sup>14</sup> Human Resources Development Canada. *Gender Equality in the Labour Market*. 24 June 2003



1) In 1978, The Canadian Human Rights Act came into force. This act forbids discriminatory policies and practices in employment and allowed special programs to remove any employment barriers.

2) In 1984, the Royal Commission on Equality in Employment (EE) defined Employment Equity as a way to open up employment opportunities for those who were being arbitrarily excluded.

3) In 1995, the Employment Equity Act (EEA) replaced the EE legislation. The purpose of the EEA (voluntary or mandatory) was to identify and remove systemic barriers in employment practices and implement measures to improve the representation of equity group members which include women, visible minorities, Aboriginal people, and people with disabilities.<sup>15</sup> The most significant change brought by the new act was to clarify employers' responsibilities.

4) In 2002, the EEA was reviewed. Almost all the witnesses who appeared before the committee reiterated the need for this legislation as it has helped employers to meet their future needs for skilled workers.

Positive changes leading to equality have resulted from the above policies and legislation that challenged the status quo. Equity actions have been necessary as equal opportunity did not always result in equal outcomes. According to the Construction Sector Council women need to be given priority status when being hired so they can dispel the beliefs and biases that employers/employees have about their capabilities. It was suggested that as more women enter the trades and make up a significant portion of the trades that priority status would no longer be needed.<sup>16</sup> However, many women today who gained positions through Employment Equity have reported feeling shunned by their male coworkers. Sue, a journeyperson plumber with over 30 years of trade experience, remarked:

*Employment Equity is a mixed blessing; some of the guys are resentful towards women for supposedly taking jobs away from them, however, if we didn't have Employment Equity a lot of us women wouldn't have jobs.*

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<sup>15</sup> Saskatchewan Human Rights Commission (1996, July). *Renewing the Vision: Summary Report*.

<sup>16</sup> Construction Sector Council (2004). *Future Labour Supplies for Canada's Construction Industry*.

Although the persecution of women who are hired based on Employment Equity is unconscionable, the legislation is at least a first step in getting women in the door. Mary, a welder, who was employed with a unionized shop, stated:

*The reason I was hired was because I was a woman, and they needed to fill their Employment Equity quota. Employment Equity causes more animosity around the workers; the men see us women as just filling up a number quota, it makes it harder for us to fit in (Journeyman Welder with over 8 years of trade experience).*

Achieving equity can be undermined without proper monitoring, enforcement and general understanding of the EEA. According to the Canadian Apprenticeship Forum's 2004 study on perception of barriers experienced by women, adopting workplace policies is simply not good enough. This is especially true when companies operate without clearly articulated policies, leaving female apprentices/ tradespersons viewed merely as the fulfillment of a quota obligation.<sup>17</sup> Even though legislation and policies have been a positive first step, and have many benefits, more needs to take place.

Voluntary Employment Equity policies aim to encourage employers to adopt measures intended to rectify employment inequities; there is no provision for an enforcement component.<sup>18</sup> According to the Construction Sector Council, voluntary programs are not very successful. They indicated that without an effective enforcement component, improvement of employment opportunities for women, aboriginal people, disabled persons or visible minorities are minimal. For example, in the 2005 Yukon follow-up report, 77% of employers felt that women were not being represented in adequate numbers in the trades. However, when asked if they were involved in activities that were related to increasing the participation of women in the trade, 67% responded that they were not.<sup>19</sup> Since mandatory equity programs do not exist in the Yukon, women are left to rely on the good will of employers to correct employment discrimination.

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<sup>17</sup> Canadian Apprenticeship Forum. (2004, January). Accessing and Completing Apprenticeship Training in Canada: Perceptions of Barriers Experienced by Women. Ottawa: Canadian Labour and Business Centre.

<sup>18</sup> Judge Silberman Abella, R. (1984, October). Report of the Commission on Equality in Employment. Canadian Government Publishing Centre Supply and Services Canada, Ottawa.

<sup>19</sup> Government of Yukon Women's Directorate (2005). Yukon Women in the Trades: Follow up Report 2005.

While mandatory programs have rarely been used in any jurisdiction in Canada, when they are, they have reported a higher success rate. In 1993, Quebec passed legislation that aimed to increase the involvement of women in the construction sector. Even though employers were resistant and initially did not support legislated solutions, the program was successful. Since its inception, the number of women employed in construction grew from 185 in 1993 to 616 in 2001.<sup>20</sup> It should be noted that Quebec did not lower its standards with respect to training or testing apprentices. Rather it brought the standards within reach of women by adjusting for some of the barriers that women face in the industry.<sup>21</sup>

Federal mandatory Employment Equity legislation applies to only federal government departments, crown corporations and federal contractors who have 100 or more employees.<sup>22</sup> Private shops or other businesses have the option of being exempt. Kathy recalls a time when she was sitting on an interview panel in a private, non unionized mechanics shop:

*Myself and two or three other panellists who were men were conducting interviews for a mechanic position. The majority of the applicants were men with the exception of one woman. When it came time to interview the woman, the interview went well and she seemed to be very qualified for the job. After the interview, the men on the panel said that they would not hire her because she would be too distracting to the other men in the shop (Kathy, Journeyperson Carpenter with 28 years of trade experience).*

Partly because of incidents like this, in 1996 the Saskatchewan Human Rights Commission recommended that equity programs be changed from voluntary to mandatory for larger employers while smaller employers would continue to be encouraged to support equality of opportunity in the workplace.<sup>23</sup> The recommendation met with resistance from industry and the policy continues to remain voluntary. To date, the Saskatchewan Humans Right Commission

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<sup>20</sup> Construction Sector Council (2004). Op.cit

<sup>21</sup> ibid

<sup>22</sup> Saskatchewan Labour. (2003). Op.cit

<sup>23</sup> Saskatchewan Human Rights Commission (1996, July). Op.cit

Employment Equity program only encompasses 38 employers with some 43,000 employees. The total workforce of equity sponsors represents approximately 10% of all Saskatchewan workers.<sup>24</sup>

It seems fairly clear that a change in attitude is necessary in workplaces and in industry in terms of Employment Equity policies. Employment Equity policies do not mean that standards need to be changed or lowered or that employers need to hire under-qualified workers just to reach a numerical goal. Employment Equity means providing all qualified individuals with equal employment opportunities. Employment Equity encourages the selection, hiring, training, promotion and retention of qualified individuals. However, some employers have systems, policies and practices that could impede the persons in the aforementioned designated groups. In cases like these, mandatory equity policies would ensure that those barriers are identified and eliminated.<sup>25</sup> In order to increase employment opportunities for equity group members, government, industry associations (both business and labour) and individual employers need to be genuinely committed to equality in the workplace. By implementing and supporting mandatory equity policies, the concept of employment equity would be given the credibility that it seems to be lacking. Mandatory equity policies may not be the only answer to increasing the number of women moving into the trades, but without such policies, how do women get a chance with biased employers?

### **3.0 Challenges women face when entering non traditional trades**

While skilled trades can offer many positive benefits for women, a strong deterrent is the underlying feeling that “it’s still a man’s world.” The battle with this statement resonated among all the women interviewed as they spoke of dealing with ubiquitous discrimination, which ranged from subtle to overt, at worksites. Although it is a part of everyday life (reflected in comments, jokes and attitudes), most people might be largely unaware that discrimination on a job site exists unless they are directly affected by it. According to the women interviewed, being discriminated against had significant implications on their social and physical environment and was found at every stage of career development.

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<sup>24</sup> Saskatchewan Human Rights Commission. (2007). 2006-2007 Annual Report.

<sup>25</sup> Human Resources and Social Development Canada. *Employment Equity Myths and Realities*.

The themes that resonated throughout the interviews included ways that women were being discouraged or excluded from the skilled trades. Because the experiences of women in non traditional trades are diverse and complex, only specific issues confronted by the women interviewed for this report will be highlighted below.

### ***Socialization Factors***

As industry has grown over the years, employment expansion has provided more opportunities in the skilled trades. However, the participation of women as compared with men has remained stagnant. Why is this happening? The explanations of why women end up in predominantly female dominated careers vary and may depend on factors such as cognitive ability and skills, personal experience with certain work environments, training requirements, cultural beliefs, etc. Some theorists would say that the impact of socialization may be the main driving force behind the slow entry of women into the skilled trades. According to Rosenfeld<sup>26</sup>, women are socialized to plan for and enter occupations that society considers appropriate for women. In some cases, occupations have already been labelled as male or female and strong forces act to keep those gender assignments. Rosenfeld states that once men work in an occupation and start to identify with it they act together to keep its gender designation.<sup>27</sup> These labels can act as a mechanism for members/groups in society to steer women to avoid jobs that are typed as male by not providing the right sort of information or communications about careers.<sup>28</sup> According to several published studies (e.g. *Yukon Women in the Trades: Follow up Report 2005*, CAF: *Accessing and Completing Apprenticeship Training in Canada* and *Creating a Workplace that Attracts, Retain and Promotes Women*) influencers in the lives of women (such as teachers, guidance counsellors and parents) often promote occupations that are typically female dominated by discouraging young women's interests in mathematical and technical subjects.<sup>29</sup> Some of those influencers may not even be aware of the advantage of a career in the trades and ultimately

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<sup>26</sup> Rosenfeld, R.A. (1984). Job Changing and Occupational Sex Segregation: Sex and Race Comparison. In Reskin, B.F (Eds.). *Sex Segregation in the Workplace: Trends, Explanations, Remedies* (pp.56-86). Washington DC: National Academy Press

<sup>27</sup> ibid

<sup>28</sup> ibid

<sup>29</sup> Canadian Apprenticeship Forum. (2004, January). *Accessing and Completing Apprenticeship Training in Canada: Perceptions of Barriers*. Ottawa: Canadian Labour and Business Centre.

discourage their female students/daughter(s) from exploring other options.<sup>30</sup> Many assume that women are simply not interested or capable of doing the work. Cynthia, a first year carpentry apprentice, Mary, a welder of 8 years, and Sue, a 30-year veteran plumber, all reported being negatively stereotyped in one form or another when pursuing a career in a non traditional trade:

*Both my uncles are carpenters so when I got older they allowed me to help them out on jobs by cleaning up after them. Since I was a girl, my uncles did not want me using the tools in case I broke them or got hurt. The trades are not pushed on women like they are on men; women are more pushed towards administrative jobs. Girls need to be informed that trades are an option. I didn't know about the apprenticeship system in high school (Cynthia, Carpenter Apprentice with 1 year of trade experience).*

*The trades are typically not an option told about in school, but when it is, the boys are usually the ones it is directed at. There is still gender stereotyping going on (Mary, Journeyperson Welder with over 8 years of trade experience).*

*When I applied to trades school in the 70's I was sent to see a counsellor who encouraged me to become a secretary instead (Sue, Journeyperson Plumber with over 30 years of trade experience).*

According to Rosenfeld, the consequences of reinforcing sex segregation are great. She states that once women become excluded from male dominated occupations, their chances of returning are reduced. And it is even more unlikely for women to change careers midstream after they have invested their time training in a female dominated career. Channeling women into female dominated careers may lock them out of certain opportunities, and often lead them to earning lower wages. For example, in Saskatchewan, the median income for a female journeyperson across trades is \$29,371 as opposed to \$52,305 for a male journeyperson.<sup>31</sup> This is almost a \$23,000 wage gap. The difference is partially attributed to the choice of profession; for example, a large majority of female journeypersons go on to become hairstylists or cooks, while most of

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<sup>30</sup> Government of Yukon Women's Directorate (2005). Op.cit

<sup>31</sup> Inshtrix Research Inc. (2007, February). Saskatchewan Advanced Education and Employment: Graduate Outcomes of 2004-2005 Class.

the males become electricians, mechanics, or welders. According to Harlan, male dominated occupations require no more training on average than do female dominated occupations, yet the jobs for which men train typically pay higher wages. More alarming than this is that wage gaps exist between genders in the same field. According to Elliot, wage rates of women who work in occupations such as construction, transport and equipment operators, occupations unique to primary industry, machine operators, etc, tend to make considerably less than their male counterparts. In construction for example, the differential between men and women's hourly wage is approximately \$4.00 which translates to about \$8,000 less in salary for women each year.<sup>32</sup> According to Sue, this wage differential has been going on for years. She recalls when she first worked for a unionized environment in the 70's:

*I first apprenticed for a unionized company, where I was not allowed in the union and was paid 50 cents an hour less than my male counterparts for doing the same level of work. Today unions have pay equity policies in place, so women are paid the same amount as the men, but in non unionized environments, some women are paid less even though they are performing the same tasks as the men.*

According to Elliot, there are still wage differentials happening in both the private and public sectors. He suggests these wage discrepancies between men and women are narrower in the public sector than the private. Women who are covered by a collective agreement have wage rates that are 48% higher than those who are not. Women union members have wage rates that are 10% less than the average for union men compared with a differential of 24% for non-union women and men.<sup>33</sup>

Even though pay differentials between men and women have narrowed in certain work industry sectors, there is still much work to be done to rectify the problem. While pay equity policies and legislation can be effective in reducing inequalities in gender pay they also have their shortcomings. For example, if a woman thought she was being underpaid she could launch a pay equity complaint which typically requires financial resources, time commitment and legal skills

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<sup>32</sup> Saskatchewan Trends Monitor (2006, December). Op.cit

<sup>33</sup> ibid

to which most women do not have access.<sup>34</sup> If more proactive plans are in place, narrowing the gender wage gap will be easier to monitor and rectify.

Socialization factors that funnel women into lower paying jobs have costs not only for women but also for employers. Sectors experiencing the most severe skill shortages are typically in male dominated trades where women are under-represented in the workforce. Sue and the other women firmly believe that in order to offset this, women need to be given support and encouragement to make non-traditional career choices at an early age. This will require a cooperative effort from all those involved (industry, policy makers, parents, high school teachers, guidance counsellors). Actively promoting the trades to young girls as well as recognizing the important contribution female tradespersons make were also recommended by the women interviewed. Readily available access to this information would ensure that women develop a real understanding of the rewards in a male dominated trade.

***Access: recruitment and hiring practices that creates de facto entry barriers for women***

While some companies have opened their doors to hiring women and have yielded significant progress in recent years, barriers that limit access to industry jobs for women still remain. Personal experiences shared by the women interviewed revealed some of those common barriers include word of mouth recruiting, physical strength and family responsibilities. Mary, who was eager to join the trades, and willing to do whatever was asked, felt the unfair effect of her being a woman even before she started working.

*Initially getting a job was hard; some work places were leery of hiring women because employers were not sure if the men in the shop would accept us (women) (Mary, Journey person Welder with over 8 years of trade experience).*

The rapidly changing work environment in the skilled trades today, coupled with competition for head count (i.e. full-time employees), creates pressures to fill jobs quickly. Consequently, positions are often not advertised externally and employers resort to recruiting and hiring practices using personal contacts commonly known as word-of-mouth recruitment. Word-of-

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<sup>34</sup> Human Resources Development Canada (2002, October).Op.cit



mouth recruitment is the practice of using current employees to spread information concerning job vacancies to their family, friends and acquaintances. Since Saskatchewan is a province of small employers, where 93% of workplaces employ fewer than 25 people, word of mouth recruiting is quite common.<sup>35</sup> According to the Canadian Federation of Independent Business, 70.6% of small business operators rely on referrals from friends while 43.8% also rely on unsolicited applications. In fact fewer than 25% of small business owners use job ads or employment centres to find workers. According to the women interviewed, word of mouth recruitment is very common in Saskatchewan. The consequence of this is that women are not privy to information about job vacancies; it was something men shared only with other men. Similar hiring practices were also reported in other jurisdictions.<sup>36</sup> In the Yukon, for example, most of the employers interviewed recruited by word of mouth; one described these recruitment strategies as “the old boys’ club” and admitted it might be harder for women to walk onto a job site and ask for a job.

Gaining access into the trades through traditional recruiting and hiring practices (posting jobs externally) may also exclude women, although not consciously. These hiring practices embody a preference for replicating the attributes of the existing work force. According to Reskin and Hartmann<sup>37</sup>, companies are looking for a model applicant, a stereotyped perception of the ideal candidate. If an applicant fits an ideal model and the group is willing to accept that applicant, the person is hired and the group reproduces itself. However, if the group is not willing to accept the candidate, then the employer may defer to the pressure of the group and not hire the candidate in order to maintain harmony on the job site. Often the model of the ideal candidate in the male dominated trades is one where the applicant’s physical strength is assumed to be a necessary attribute for a particular assignment. The Canadian Apprenticeship Forum reported that employers will often evaluate men and women differently by assuming men have the physical strength to complete the job while women are questioned on their physical capabilities. Further studies (*Yukon Women in the Trades: Follow up Report 2005*, CAF: *Assessing and Completing Apprenticeship Training in Canada*) have supported these findings. Employers admit that lack of

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<sup>35</sup> Saskatchewan Human Rights Commission (1996, July). Op.cit

<sup>36</sup> Government of Yukon Women’s Directorate (2005). Op. cit

<sup>37</sup> Reskin, B. & Hartmann, H. (Eds.). (1986). *Women’s Work, Men’s Work: Sex Segregation on the job*. Washington, DC: National Research Council.

physical strength is seen as a barrier for women and does play a role in influencing their hiring decisions as well as determining what tasks women will be given if hired. While men on average are typically stronger than women, women have proven they are resourceful enough to develop their own strategies. The women interviewed reported using existing safety policies to enable them to perform the necessary physical work safely, without requiring brute strength and physical stamina. According to the Newfoundland Safety Council, 80% of back injuries resulting from work in the trades were reported by men. Most were caused by lifting more than they could handle coupled with a lack of experience. In that same study, women who worked in non traditional trades were reported to have fewer injuries because they planned their work more carefully and took more precautions.<sup>38</sup>

Sue remarked that:

*On the job site, I would devise ways to make lifting easier, I would put extensions on my pipe wrenches to allow me to do heavier work; when taking water heaters into a basement, I would leave the heater in the box and use a wheeler to get into the house and slide the box down the stairs (Journeyman Plumber with over 30 years of trade experience).*

Even though female trades workers learn to use tools and leverage to make heavy lifting easier, Sarah and Mary reported that there are still commonly held misperceptions that only men have the necessary brute force, physical strength and endurance to work in the trades.

*Employers think women can't handle the lifting aspect; we don't have any trouble with lifting. I don't find physical strength to be a problem (Sarah, Carpenter Apprentice with 1 year of trade experience).*

*Employers don't think women will be able to do the work (physical). But I don't think that assumption is correct; some women are stronger than men (Mary, Journeyman Welder with over 8 years of trade experience).*

Physical strength requirements for male dominated trade jobs can sometimes be over exaggerated. Many of these jobs can be less physically demanding than housework and many

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<sup>38</sup> Women in Resources Development Committee. Misconceptions and Realities.

traditional women's jobs, such as nursing and waitressing, are just as physically demanding as some non-traditional jobs.<sup>39</sup> However, despite those facts the perceptions employers hold of female strength undermines their abilities.<sup>40</sup> The women interviewed for this study along with other women interviewed in external reports<sup>41</sup> all agreed that physical strength was not a barrier but often were not offered the opportunity to prove themselves. The implication of this common misperception excludes women from the skilled trades as their capabilities continue to be scrutinized and resistance to de-segregation allows stereotypes to persist. In reality, competence in applying logic to the task at hand, skill and persistence should be given more consideration than is brute strength of a candidate when hiring.

Another example of where recruitment and hiring practices create *de facto* entry barriers for women occurs in cases where employers doubt a woman's willingness or ability to handle both work and family responsibilities. This scepticism very often extends to doubting the future reliability of a woman candidate. This attitude is not new. Women are, by and large, the primary caregivers in the home, whether it's looking after children or elderly parents. Due to this role, many women may be locked out of opportunities in the trades because of insufficient support or barriers created by employers viewing them as risky investments.<sup>42</sup> According to the Canadian Apprenticeship Forum research, employers are concerned about hiring women for fear the employee may interrupt her apprenticeship training to take maternity leave or attend to family responsibilities.<sup>43</sup> Other employers perceive married women or those with children as being less dedicated to their career.<sup>44</sup>

Mary and Cynthia commented that:

*I have heard of them (employers) not hiring women because of family; they think it's too much of a hassle or they (the women) won't last (Mary, Journey person Welder with over 8 years of trade experience).*

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<sup>39</sup> Myths and Facts about Women and Nontraditional Occupations.

<sup>40</sup> Government of Yukon Women's Directorate (2005). Op.cit

<sup>41</sup> *ibid* and Canadian Apprenticeship Forum. (2004, January). Op.cit

<sup>42</sup> Canadian Apprenticeship Forum. (2004, January). Op.cit

<sup>43</sup> *ibid*

<sup>44</sup> Government of Yukon Women's Directorate (2005). Op.cit

*Employers often frown on you having to miss work for family issues; it causes some problems. Sometime it leads to some women not even being hired. It's easier for men to be in the trades because they are not totally responsible for family issues; women usually have to drop the kids off at daycare or miss work for family issues (Cynthia, Carpenter Apprentice with 1 year of trade experience).*

According to the Human Resources Development Canada report, difficulties in obtaining childcare are a major barrier women face. This problem may result in negative career effects for women who have to take extra sick days to stay at home or who are overlooked for promotion or training courses. When there is available and affordable childcare, flexible work hours and other practices that support work life balance, the labour force participation of mothers has been reported as much higher.<sup>45</sup> Nancy remarked that:

*Sometimes you have to work long hours. It's hard to balance when your kids have appointments; some women have to worry about daycare. My employer is flexible; if I need to go because of an appointment I am accommodated; we are also given the options of working 8 or 10 hour shifts so I don't find having a family a hard thing to balance. My employer's flexibility is what keeps me here (Carpenter Apprentice with 1 year of trade experience).*

McLean suggests that parental leave, flexibility in scheduling and assisting employees to find high quality childcare can lower costs by improving retention and lowering absenteeism.<sup>46</sup> Employers can support childcare issues in various forms: 1) providing information and referral services to child care centres, 2) providing on-site or near-site child care centres, 3) providing child care subsidies. McLean claims that employers often provide information and referral services rather than the other 2 options. Nevertheless, it was also reported that the majority of employers do not feel that child care is a high priority item on their agenda; thus the authors of the study conclude that without a national policy the child care issues of female employees are not likely to be addressed.<sup>47</sup> Ignoring childcare needs places additional barriers on women desiring to pursue a job in a non-traditional trade. It also undermines the value and contribution

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<sup>45</sup> Human Resources Development Canada (2002, October).Op.cit

<sup>46</sup> McLean.D. (2003). Creating a Workplace that Attracts, Retain and Promotes Women. Queens Printer for Ontario.

<sup>47</sup> Human Resources Development Canada (2002, October).Op.cit

women make to the trades leaving them feeling penalized for taking on traditional roles of mothers or caregivers.

To alleviate skill shortages, recognizing the advantages inherent in utilizing women in the skilled trades will not only expand available talent pools but will enable the employer to hire the very best workers. The recruitment strategies of employers need to be reassessed to make the necessary changes in order to recruit the best applicants for the job, regardless of their gender. Even though some of these changes may cost employers money initially, employers need to understand they will gain more in the end from their investments.

### ***Workplace environment***

Getting hired is only the first of many obstacles for women entering non traditional trades. Once on the job, the atmosphere may be one in which women do not feel comfortable or welcome. Subtle aspects of the male-oriented culture that are hostile only increase harassment and persecution, which have several negative results. These causes are rooted in the belief systems and behavioural patterns held and practiced by the majority of men in these workplaces. The individual statements dealing with negative work environments gathered from the women show that the discriminatory practices continued throughout their career, regardless of it being their first or last day on the job.

Sheila, an equipment operator for over 18 years who was interviewed for the “Telling Trade Secrets” documentary recalls what her first day on the job was like:

*The guys had a meeting before I got here and decided they were going to make my life as miserable as possible; they didn't want me here. They didn't want a woman here and were going to fix it (Sheila, Equipment Operator with over 18 years of trade experience).*

Reskin and Hartmann offered a number of theories that might explain why men have been slow to accept women into the workforce. These theories ranged from men's desire to keep women socially and economically dependent to a resentment of being around women all day (at home and at work).<sup>48</sup> According to Kathy, a Journeyperson Carpenter with over 28 years of

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<sup>48</sup> Reskin, B. & Hartmann, H. (Eds.). (1986). Op.cit

experience, there are just as many women entering the trades as there are leaving. She claims that the reasons why many women leave centre around being continually discriminated against on the job site. Sue recalls an incident when she was a new apprentice in the 70's:

*The one job I was given was digging basement trenches for a new home. Typically this job was done by a couple of guys, but that was not my experience. I was dropped off at the site at 9:00 in the morning with my shovel and lunch and was made to dig these trenches all by myself; eventually the guys would return back at 5:00 and pick me up. This lasted for about three months (Journeyman plumber with over 30 years of trade experience).*

Even 30 years later, these deeply embedded cultural norms still persist. Like Sue, Mary describes a similar situation where she was being treated unfairly by her co-workers while apprenticing in a unionized environment:

*The work environment to start with was decent, but once the men figured out that I wasn't going to leave they started treating me poorly. Not only would they tease me, but they wouldn't teach me anything and I was so willing to learn. The shop did everything to keep me from gaining the knowledge I needed to become a welder, mostly by keeping me from welding. I did some work in the private industry just to keep my hours up. I complained to my boss that I was being treated unfairly. He told me there was nothing wrong with the situation and that I should get over it, and that the problem was all in my head (Mary, Journeyman Welder with over 8 years of trade experience).*

These experiences of unfair treatment, in which issues of gender are clearly at play, highlight the efforts that are made by some men to point out that women on the job site are simply not welcome. Persistent and deeply entrenched gendering in the trades clearly makes women feel they are being excluded, isolated or generally unwelcome. Women often become targets because men are able to protect and reinforce this institutional barrier through their highly evolved degree of male bonding which can lead them to behave with a pack mentality.<sup>49</sup> Men who are a part of

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<sup>49</sup> Saskatchewan Women in Trades and Technology (Producers). (n.d.). Telling Trade Secrets [DVD]. Live Wire Video Productions.

this “pack mentality” have underlying allegiances to each other that involve protecting the strength of the group which often makes women feel isolated and vulnerable.<sup>50</sup> When one sex dominates, it is that group that tends to set the tone in the workplace. Kate, a carpenter of 15 years who was interviewed for the “Telling Trade Secrets” video, remarked:

*When a guy was giving me a hard time every guy on the job knew that was happening but no one would say a word. I knew they all felt bad about it; they just would not break the bond, the brother bond, the pack. They really hurt me. We were a crew together you know. Why couldn't they talk to the other guys, that's not cool (Kate, Carpenter with 15 years of trade experience).*

Nancy and Mary both described similar situations:

*Some men don't take us seriously or are not interested in getting to know us. Men seem to be able to bond with each other easily as they share common interests, but when women are on the job sites, the men seem less interested in knowing if we share common interests as well. It's still very much a man's world (Nancy, Carpenter Apprentices with 1 year of trade experience).*

*At work this one guy in particular liked to pick out my grinder for me. The grinder he always gave me was quite powerful and I got quite a workout using it. When he retired the other guys in the shop told me he always intentionally picked out the biggest grinder for me to use while the rest of them used smaller, more manageable ones. I had no idea this was happening to me or even that these occurrences were seen as just a big joke among the guys. I was very upset that no one told me about this until this guy retired, or for that matter, told him to stop. He never did this to the other guys (Mary, Journeyman Welder with over 8 years of trade experience).*

According to Cynthia her experience with the pack mentality was different, as it only existed if the leader of the group was there to reinforce it.

*At one job, I had a male boss who always wanted me on the broom; he would not allow me to do real carpentry jobs. Some of the other men would take me aside and let me watch how they did certain tasks while explaining things to me. It was a great learning experience; however*

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<sup>50</sup> ibid

*whenever I got busted by the foreman I was sent back to the broom. I am not sure why the other guys never said anything to him, but they didn't.*

Instead of demonstrating the courage to come forward to defend women, men typically shy away from this practice for fear they will be accused of breaking the pack and be ousted from the group. However, according to Kate, when men do stick up for women it has an immediate positive impact. Kate states:

*[Once in 15 years], one guy said one sentence to another guy who was harassing me and it was as if the heavens broke and the gods descended. All he said to a labourer that had been bugging me was "lay off." I told him to lay off but it made no difference at all, but suddenly after being spoken to by another guy that labourer could not do enough for me (Carpenter with 15 years of trade experience).*

A friendly word only once in all that time that Kate was working with this crew highlights how little is done for women on job sites, and also how little it really would take to offset this type of mentality. The result of men sticking up for women on the job site seems to have a positive impact but, according to Kate, is rarely practiced. Because of this, most women believe that they need to choose their battles carefully. In order to fit in and avoid isolation, women do not want to gain a reputation as someone who is overly sensitive or can't take a joke, or is an easy target. But where does the line start to be drawn? And for what? For some women the desire to fit in may result in them reconsidering their self image as genderless and they just become "one of the guys." Sarah remarks:

*You have to have a sense of humour and can't get too defensive or we (women) just won't be accepted by our male co-workers. Sometimes you find yourself acting like one of the guys just to fit in (Sarah, Carpenter Apprentice with 1 year of trade experience).*

Problems can occur when women start to emulate the male culture to the extent that women start compromising their own values. For example, one of the women interviewed for the documentary "Telling Trade Secrets" who worked as a rigger for over 10 years, stated:



*Emulating the culture was a good strategy for me to become accepted, but it caused me to put on the back burner some of my own values, because my own values were and are different from their values. I can emulate good drinking, punch people in the arm when it's required and be abusive to some as a way of saying good morning to them (Susan, Rigger with 10 years of trade experience).*

Conforming to the norm in order to feel a sense of belonging can sometimes come at a cost by way of undermining a woman's self confidence or having her question if she has a right to be in the trades. The concern of not fitting in even drove many of the women to become perfectionists. Cynthia explained:

*If you messed up the guys would tell the other guys and then you would hear talk about tradeswomen's lack of abilities (Carpenter Apprentice with 1 year of trade experience).*

Besides trying to fit in, the need to measure up was also something that weighed heavily with the women interviewed. A common theme among all the women interviewed was their belief that they had to work harder than men to prove themselves. Many women felt they were judged by an entirely different set of standards and that respect came slowly at best. Because of double standards an uphill battle for acceptance had become a way of life, despite its mental and emotional toll. Nancy and Kim remarked that:

*Women always have to prove themselves on the job site where men are just accepted, no matter what their abilities are (Nancy, Carpenter Apprentices with 1 year of trade experience).*

*When I work with the men I tend to do things differently. When I do attempt to do a job and they don't understand the way I am doing it they tend to accuse me of doing it wrong or feel I am doing it wrong. I feel they are giving me no credit for the amount of time I have had in the trades. They don't wait to see how it turns out; they are not concerned about that. They are only concerned about how they think it should be, and if it's not that way it's not right (Kim, Welder with 19 years of trade experience, Telling Trades Secrets Video).*

However, not all work places are negative environments for women. In Sarah's case she got along with her crew right away.

*When I started I felt welcomed; I always spent time with the guys; they were very respectful. I have never had a problem at work (Carpenter Apprentices with 1 year of trade experience).*

Sarah was the only one interviewed who characterized her employer/co-workers as those who challenged the gendering nature of the trade. This practice fostered emotional inclusion and an inviting work atmosphere for her and the other women working there. When the notion of equality is not present on the job site, occupational segregation will stubbornly persist protecting and reinforcing systemic barriers that make it more difficult to de-segregate these jobs. If gendering in the trades persists then women will be left trying to find coping strategies in order to adapt to their workplace or ultimately be excluded from the trades.

### ***Result of the workplace environment***

Men's treatment of women in the skilled trades may be due to a perceived notion that women are barging into an area where they 'don't belong' and should not be in competition with men for jobs. These notions can lead to the persecution of women to the point they develop serious health issues. Even though these types of behaviours seem unfathomable, it's a continual problem in the trades. According to Mary:

*I thought of quitting but couldn't find another job; I stayed because the money was good; I never used to think like that. I really did love welding; I just hated the work environment. Some men even try to intentionally break down the women so they won't make it in the trades. I became so stressed on the job that I started to lose my hair, it was coming out in clumps (Journeyman Welder with over 8 years of trade experience).*

Bergman and Hallberg cited a correlation in their study between women who experienced workplace stressors (i.e. harassment, unfair treatment) and those who developed unhealthy symptoms such as "gastrointestinal symptoms, psychological consequences, worry about health hazards and cardiovascular symptoms, as well as correlations in quality of work variables, such

as psychological stress and job satisfaction.”<sup>51</sup> Bergman and Hallberg reiterated that gender related harassment is also a serious stressor and warrants serious attention. According to the authors, this problem faced by women in the workplace needs to be viewed in the context of institutional male power, the “chilly climate.” They claim that gender harassment is the abuse of power and status and is solely brought about by unwelcoming sexual invitations. This can lead to serious psychological consequences as well as impaired work performance.<sup>52</sup> In Saskatchewan, harassment is illegal under the Saskatchewan Human Rights Code and the Occupational Health and Safety Act, and is defined as a course of vexatious comments or conduct that is known or ought reasonably to be known to be unwelcome.<sup>53</sup> However, unless enforced, policies won’t stop remarks like “nice ass,” or “let’s go for drinks on Friday and then get crazy afterwards.” These comments were reported by Cynthia, who was the only woman on a job site with 75 men. Cynthia and all of the women interviewed for this study indicated the one thing that has kept them in the trades was the fact that they developed “thick skin.”

*To survive on the job you have to have a sense of humour; you can’t report everything because if you do, your co-workers will think you are complaining all the time and they won’t want to hang around with you; you will be isolated (Cynthia, Carpenter Apprentice with 1 year of trade experience).*

*You have to have a sense of humour and can’t get too defensive or we (women) just won’t make it. Some guys will make sexual comments or are generally rude and swear a lot. Some guys even think they will find a mate with the women they are working with or they will score. It’s better just to ignore it most times (Nancy, Carpenter Apprentice with 1 year of trade experience).*

*I have been harassed on the job, but never complained about it; I deal directly with the worker(s) who offend(s) me. Another woman on the job site was harassed for over a month before she finally went to the boss (Nancy, Carpenter Apprentice with 1 year trade experience).*

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<sup>51</sup> Bergman, B. and Hallberg, L. (2002, May). Women in a male dominated Industry: factor analysis of a women workplace culture questionnaire based on grounded theory model.

<sup>52</sup> *ibid*

<sup>53</sup> Human Rights Code.

According to McLean, approximately half of all working women have experienced sexual harassment but less than one quarter of those harassed report the incident to an authority and fewer than one in ten file a formal complaint.<sup>54</sup> She also indicated that women often prefer not using gender equity or sexual harassment policies at work as they want to be able to resolve things on their own and to be seen as an individual who can take care of themselves. Those who do decide enough is enough and lodge a formal complaint will be surprised to discover that harassment policies do not adequately protect their rights. According to the Occupational Health and Safety Act, 1996, no specific penalties are prescribed as corrective action against harassment, rather its left up to the discretion of the individual employer.<sup>55</sup> Even though the majority of employers of tradespersons have harassment policies, it seems little emphasis is placed on regulation and enforcement. Sue commented that:

*When I started working in the trades in the 70's harassment policies were in place but were not enforced. If I had a problem I went to the boss, but nothing was typically done. Sometimes co-workers would assist me, though, and were supportive. The policies were just not enforced (Journeyman Plumber with over 30 years of trade experience).*

Mary agreed with Sue and stated:

*Harassment policies at work are not helpful, they are a joke. In order for them to be helpful they need to be properly adhered to by the employer or management (Journeyman Welder with over 8 years of trade experience).*

Employer awareness of and diligence to enforce the policies is key to dealing with harassment or discrimination in the workplace. According to the Canadian Construction Sector Council, workplace conduct policies rarely work unless the behaviour they require is supported and modeled by management. When it is, the message communicated should be that all employees must be seen as equals and treated with the same respect.<sup>56</sup> In order to keep women in the trades,

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<sup>54</sup> McLean.D. (2003). Op.cit

<sup>55</sup> The Occupational Health and Safety Regulations, 1996.

<sup>56</sup> Construction Sector Council (2004). Op.cit

industry needs to continue to reduce instances of workplace harassment through education and enforcement of workplace policies.

Harassment, discrimination and stereotyping exist in every workplace whether traditional or non-traditional. But as the number of jobs continues to outpace the number of applicants in the trades, there is a need for industry associations and individual employers and employees to find solutions to overcome these barriers. Over the years men who work in the trades have become accustomed to an all-male working environment. This was accepted practice in the past but if firms want to continue to be successful, they must recognize the need for skilled labourers from both genders who will help them keep up with workloads. It is paramount that a commitment be made by all to allow women easier access into the trades so they reach equality in the workplace, and so that the workplace itself can maintain quality in service and a sufficient number of employees.

#### **4.0 Attracting women to and retaining them in non traditional trades**

A growing concern for the skilled trades occupations is that there are simply not enough workers. With traditional labour pools not meeting current and projected skill shortages, there is a need for women to have a more significant presence in male dominated trades. In order for companies to meet market demand, well-developed incentives, practices and policies need to be the catalysts for firms to attract and retain women. In this section, evidence regarding what attracts and retains women in non-traditional trades will be summarized.

##### ***Attracting women to the skilled trades***

Higher pay, fringe benefits, job security and training are typically the factors that attract both men and women to the trades. However, for the women interviewed, the trades also provided them with an opportunity to work on tasks they could do well and competently and which they enjoyed. Many of the women interviewed tended to be entrepreneurial in their thinking and enjoyed the work which allowed for autonomy and flexibility. Both Sue and Mary attended university prior to entering the trades but felt the trades could offer them opportunities that might not be attainable with a university degree. Sue explained:

*I initially graduated with an arts degree but I knew it would be difficult to find a job. My husband and I were planning to open up our own plumbing business in rural Saskatchewan. I enrolled in a trade's school and never looked back. I become a journey person plumber (Journey person Plumber with over 30 years of trade experience).*

Both Nancy and Cynthia chose the skilled trades as their first choice for a career. They both recounted what drew them to enter the skilled trades:

*I chose a career in the trades because I did not want to sit behind a desk. I am a strong person and I love the physical aspect of the job. I love to feel the sweat on my brow. I like to see what I have accomplished right away. I often go back to the job sites to show my family what I have done (Nancy, Carpenter Apprentice with 1 year of trade experience).*

*I like hands on stuff. I like assembling things and building things (Cynthia, Carpenter Apprentice with 1 year of trade experience).*

For these women, a career in a non traditional trade allowed them to cross the occupational gender lines with the ability to advance in the labour market, both in terms of status and income and with a sense of accomplishment and pride in the work they do.

### ***Creating workplaces that work***

Creating workplaces that are friendly to women in non traditional trades may require industry to make some changes in how it functions and operates on a day to day basis. According to McLean, workplace cultures in which diversity is valued and inclusiveness is practiced will attract and retain women with the skills and drive to succeed in the trades. McLean offers 6 different strategies for organizations to provide a workplace that will attract more women. These strategies are characterized by: (1) culture norms and values that support positive relations between men and women, (2) freedom from stereotyping about women's and men's roles and occupations, (3) conditions (work schedules, job titles, physical environments) that are inclusive of both men and women, (4) a strong critical mass of women; usually 30 per cent or more

throughout the organization, (5) opportunities for advancement, (6) an emphasis on reducing sources of unnecessary stress such as harassment and work/family conflicts.<sup>57</sup> McLean believes that inclusive workplaces that promote physical safety and demonstrate good management will benefit not only women but also men. She states that fully committed employees make a big difference to an organization's success, and the right workplace culture makes a big difference to employee engagement and commitment. According to the Hay Group, leadership accounts for an average of 70% of the variance in climate and a positive climate will increase important bottom line performance measures by up to 30%. So in essence, the more you improve the environment, the higher the performance of your team will be.<sup>58</sup> McLean adds that organizations that offer welcoming work environments to women will mostly likely be able to increase the size of their talent pool and will generally be able to hire more qualified workers and ultimately become recognized as an employer of choice. Improving workplace culture not only leads to enhanced retention rates but will also have positive financial benefits for companies in terms of lower absenteeism and turnover rates.<sup>59</sup>

For one employer, preparing a welcoming workplace for women was not taken lightly. After 92 years in operation Halifax Water Front Local 269 finally accepted its first female, heavy duty mechanic in 2000. For two years prior to hiring women, the Local worked with industry consultants, employers and union representatives to ensure that they would provide an environment that would attract and retain women. To date, this initiative has been cited as a successful and worthwhile investment. They were able to pair supply-side initiatives that encouraged women to consider and train for long shore occupations, with demand-side initiatives that created welcoming workplaces.<sup>60</sup>

Halifax Water Front Local 269 realized that achieving sexual equality in the work force required more than just recruiting and training. They knew there would be issues that had to be dealt with according to the changing demands of the workplace and the needs of women. There is no denying that changing the culture of a company or sector takes dedication and time, but if there

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<sup>57</sup> McLean.D. (2003). Op.cit

<sup>58</sup> The Hay Group. [n.d]. The in and outs of successful leadership: Helping you to be a more effective leader.

<sup>59</sup> McLean.D. (2003).Op cit

<sup>60</sup>ibid

is a real sense of commitment at all levels (industry to individual employers to schools), changes can be realized. Simply attracting women to the trades through Employment Equity policies or incentives of good pay is not enough to create a representative workforce; retention strategies also need to be implemented and monitored on an ongoing basis to effect change.

## **5.0 Programs supporting women's entrance into non traditional trades**

In this section evidence will be summarized regarding what programming has worked to increase the number of women entering the skilled trades. Many of the programs studied underwent evaluations which measured change in participation rates. Information has been collected on both traditional technical training and specialized initiatives (women only training programs). Both showed promise helping women gain entry into the trades.

### ***Traditional technical training***

While registered apprenticeship in Saskatchewan is not the sole route for acquisition of skills, it has been a significant port of entry for women. Women, who have less access in comparison to men to informal networks within the industry, are more likely to benefit from the formal structure. There are many benefits to apprenticeship training, not least of which is subsidized technical training in an institutional setting. Over the past 30 years, there has been much progress towards successfully integrating women into technical training. This success has not been reached without difficulty. It took women like Sue to triumph over past socialization practices (the belief women should not be doing men's work) and gender assumptions (that women lacked physical strength, tool familiarity, etc) to expand the number of occupations in which training is offered. Sue recalled her experience applying to trades school in the 70's:

*I was accepted into Red River Community College but ran into difficulties when Manpower who controlled all the plumbing seats would not accept me into their program unless I met certain conditions. Manpower first sent me to a guidance counsellor who was not even connected with the plumbing trade, who told me that the work would be too hard and that no one would hire me. After that Manpower required me to get a medical exam from a specific doctor, even though my own doctor declared me physically healthy. After several attempts, I was not able to get a hold of*



*this doctor. I didn't think I would ever get into the program. These requests were never asked of the male applicants. When someone tells you, you can't succeed, determination takes over. I am glad I fought for what I wanted (Journeyperson Plumber with over 30 years of trade experience).*

Even though Sue discovered early in her training that pursuing a career in a male dominated trade would not be easy, her perseverance eventually led her to become the first woman plumber in Canada. In 1977, Sue graduated with her inter-provincial ticket and was the winner of three awards; achievement of excellence, most outstanding student in the construction and drafting programs and top marks in plumbing.

Because of women like Sue, and the eventual implementation of affirmative action and anti-discrimination regulations, institutional barriers that once kept women from entering technical school were abolished.

Years later, women like Nancy, Mary, and Cynthia had a much different experience entering and attending technical training:

*I was more intimidated working with 75 men on a job site than spending time in a co-ed training class as it was more supportive (Cynthia, Carpenter Apprentice with 1 year of trade experience).*

*I was the only woman in all three years of training. I had a good class, they were all very supportive and the instructors were good; it was a better situation than at work (Mary, Welder Journeyperson with over 8 years of trade experience).*

*There was no gender discrimination at technical school; everyone there was really supportive (Nancy, Carpenter Apprentice with 1 year of trade experience).*

Most of the women attributed their positive academic experiences to the instructors as they found them to be supportive and encouraging. The environment the instructors created was one of respect and equality; something these women reported was generally missing from the job site. It was also noted by some of the women that technical training maximized their satisfaction and engagement in the trade.

Directing women towards apprenticeship programs without dealing with gender problems in the workplace is doomed for failure. Further research is needed to examine why there is such a gap between the academic environment and the workplace environment. Is school friendlier because men and women aren't competing for employment at the time? Are schools held to higher standards in terms of enforcing policies and regulations? Means to address these differences between the environment in the technical institute and that in the workplace must be sought in order to improve the participation rates of women.

### ***Special initiatives for women across Canada***

To date, there are several successful “women-only” pre-apprenticeship/apprenticeship training programs run at several schools across Canada (i.e. Saskatchewan, Alberta and Newfoundland). These programs assist women in entering the trades and typically follow standards and guidelines established by Women in Trades and Technology National Network (WITTNN). The program targets women who, as mentioned earlier, have less access to informal networks in the industry and generally face more challenges and frustration trying to pursue a career in the skilled trades. The programs focus on recruiting, mentoring and preparing women for entry level requirements. More specifically, they act as support organizations where women can share problems and brainstorm together, as well as have someone to advocate on their behalf when they need it – or at least help them work through the necessary channels.

The success of these programs has hinged on a number of facets which have included the design and implementation strategy, sustainable funding and support from industry. Saskatchewan, Alberta and Newfoundland, for example, have all been successful in delivering “women-only” pre-apprenticeship programs by using a multifaceted training approach in the form of life skill training, mentorship, job placements, etc. Unlike Alberta and Newfoundland, Saskatchewan has not been able to maintain consistent funding which has led to irregular programming and inconsistent completion rates. Without these programs many women may not know how to pursue their interests or have an opportunity to do so. In order to illustrate the successes of these “women- only” pre-apprenticeship/apprenticeship programs, highlights of the work that has been accomplished in each of the aforementioned provinces will be provided, with emphasis on the work done in Saskatchewan.

## *Saskatchewan*

The body of knowledge that has been accumulated in Saskatchewan provides a fairly clear overview of what the province has provided in terms of women's only pre-apprenticeship/apprenticeship programs. Starting in the late 70's, trades training programs for women emerged in Saskatchewan, primarily in the form of exploratory programming in which women gained basic technical knowledge and hands-on skills in selected trades. Due to funding problems the majority of these programs were not offered on a consistent basis and tended to be short term in nature. However, in 1995, Saskatchewan Women in Trades and Technology (SaskWITT), a local network of volunteers who support the efforts of women entering careers in the trades and technology sectors, solicited funding for five years to develop the Women's Work Training Program (WWTP). This program was designed to support low income women to gain employment in the carpentry trade by acquiring their inter-provincial journey certification along with establishing the Regina Women Construction Co-op (RWCC). The course offered hands-on training, life skills and business skills, which proved to be a good recipe for success. From 1995 to 2000 the training centre enrolled 75 women in the program, 42 of whom wrote and passed their 1<sup>st</sup> year level carpentry exam. Four women even completed their final level of training and were registered to write their inter-provincial exam.<sup>61</sup> Despite the program ending in 2000, its presence made a lasting impact on the women by allowing them to become successful in doing something beneficial for others, as well as providing them with positive self-esteem and a healthy work ethic. Besides adding significantly to each woman's human capital, the WWTP also increased the number of women registered in the carpentry trades. According to SATCC, the number of registered female carpentry apprentices more than doubled from 1995 to 2000. In fact, over the past decade, carpentry has had one of the highest female apprentice rates in any of the male dominated trades in Saskatchewan.

Another successful women only pre-apprenticeship program that has recently surfaced (2005) is the Saskatchewan Indian Institute of Technology (SIIT) Women in the Trades program. This 16 week program provides First Nations Women with the basic skills for entry level work in residential and commercial construction. During these sessions women are exposed to several

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<sup>61</sup> Overend, V. (2001). *Foundation for Success: The story of the women's work training program in Saskatchewan*. LM Publications.

different trades such as carpentry, electrical, plumbing, framing, drywall application and painting. Those who complete the program are eligible for a one to two week practicum; all practicums are coordinated through the SIIT job coach. Overall, this program has been hugely successful. For example, in 2006, 60 applicants applied to the program with 17 selected to participate. Of the 17, 15 completed the program with 10 becoming employed in the construction industry in Saskatoon. The reasons for its successes are multiple: promotion and recruitment, skillful and attentive instructors, the use of role models and guest speakers, job coaching and on-going follow up, life skills and mentorship components, viable funding and industry support. The most salient part about this program is the continuing service provided to the women once they have graduated. Graduates are still able to use the services of a job coach as well as other supports as long as required.<sup>62</sup> Recent graduates of the program remarked:

*The program was very helpful; it linked me to a job where I was hired as an apprentice (Nancy, Carpenter Apprentice with 1 year of trade experience).*

*The job coach gave me information on upcoming jobs, updated my resume and came and checked on me at my job site. On one of the job sites there was a problem with my pay; at that time I was too intimidated to talk to my boss, so I talked to the job coach and she helped me work it out (Cynthia, Carpenter Apprentice with 1 year of trade experience).*

The success of both the WWTP and SIIT's Women in Trades programs can be attributed to the fact that the programs were well designed and supported by Industry. Each program allowed the women to expand their capacity as tradespersons and as well increase their self esteem by realizing their full potential. Unfortunately, these programs are only as successful as resources allow them to be. Without proper funding such short term initiatives, commonly practiced in Saskatchewan, will only reach small pockets of women leaving a vital avenue of entry into the skill trades in jeopardy.

### ***Alberta***

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<sup>62</sup> Saskatchewan Indian Institute of Technologies (2006). Saskatchewan Indian Institute of Technologies Women In Trades Program 2005-2006 report. Regina, Saskatchewan: Author

In response to the growing number of women and children living in poverty in Edmonton the Women Building Futures organization (WBF) was founded in 1998. Women Building Futures is a registered, not-for-profit, charitable organization that works to help women build better lives and achieve economic prosperity through training and mentorship. WBF employs 11 paid staff and, to date, has graduated more than 200 women from its 16 week pre-apprenticeship program. The program maintains a 90 percent success rate and is recognized as a key supplier of quality tradeswomen in Alberta. WBF offers hands-on skills training in trades disciplines ranging from plumbing to welding to pipefitting to carpentry. The course includes classroom and shop training, life management and job retention skill development, academic upgrading if needed, safety training, 2 weeks of optional work experience and job placement. WBF also offers current and graduating students mentoring services to help them transition into new positions, and to keep them connected to what's happening in the trade networks. In 2005, they expanded their services and started a program called Fixit Chicks. This program offers home renovation, repair and maintenance services plus workshops for women. In 2007, the federal government allocated an additional \$331,292 towards the program increasing its overall funding to \$1,181,292. With this new injection of cash, WBF will be renovating an old warehouse to use as a training centre as well as an affordable housing facility for those women accepted in the program. The housing facility will provide 42 units with 18 earmarked for single moms with up to four children each. When the facility opens January 1, 2008 the number of graduates will increase from 60 to 400 per year.<sup>63</sup> The catalyst to the success of the WBF is not only Alberta's booming economy but also WBF's longevity in the province. Through this program, the trade industry in Alberta has been made aware of the potential of women to fill their labour shortage gaps.

### *Newfoundland*

The Women in Resource Development Committee (WRDC) was established in 1999 to raise awareness among women in Newfoundland and Labrador of occupations in the petroleum industry and other natural resources industries. WRDC is a non profit organization that currently employs 9 female staff who deliver the Orientation to Trades and Technology (OTT) program. Since inception, the program has graduated almost 200 participants. The program is 24 weeks in length and designed to give women practical experience in natural resources based industries.

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<sup>63</sup> Women Building Futures (2006). Report to the community 2005-2006.

There are 5 components in the program which include: Essential Work Skills; Personal Development; Hands-on Skills Development; Exploration of the Natural Resource Sector; and Job Shadowing. Besides delivering the OTT program, the WRDC is also involved in educating the public about barriers and issues that may prevent women from entering the trades. Their message is conveyed using several different avenues: (1) presenting a unified voice to government, industry and non-governmental organizations on barriers women face, (2) providing expertise and resources to those developing and implementing strategies that encourage training, recruitment and retention of women in the resource industries, (3) advocating the use of gender-based analysis to assist policy makers in understanding these differences as they pertain to the natural resources and trade/technical industries. WRDC's success likely can be contributed to its commitment to addressing barriers that lie between women and employment in the natural resources industries. Not only do they provide education and training to women, they also act as advocates to increase awareness of women's skills through promotion of policies, presentations and public consultations.<sup>64</sup>

Each of the programs in these three jurisdictions has met many needs, not only through supporting and encouraging women to enter the trades but by bringing about public awareness that women are capable, serious and willing to work in the trades. Recognizing that women are diverse in their abilities and being realistic about the barriers they face requires programs to take a multifaceted approach. According to the Construction Sector Council, programs that report successful outcomes typically include the use of role models and/or female instructors, mentoring programs, good screening of candidates so that there is a good fit, work placements, follow up and support to all participants (new or graduated), as well as courses that emphasize assertiveness training, conflict resolution, dealing with workplace harassment and/or working in non-traditional environments.<sup>65</sup> The Construction Sector Council also reported that the success of programs relies on stable funding. Without stable funding, programs tend to lack sufficient support from industry and have difficulties finding work placements for their participants or find that work places are not welcoming. Programs facilitated through WBF in Alberta and WRDC in

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<sup>64</sup> Women in Resources Development Committee. Orientation to Trades & Technology : Overview.

<sup>65</sup> Construction Sector Council (2004). Op.cit

Newfoundland are great examples of how the presence of flexible and consistent funding coupled with industry's support can be successful in integrating women into the trades. Not only have these two programs been able to increase the number of student enrolments but they also reported high success rates. In Saskatchewan, difficulty in obtaining long term funding does not allow successful program like the WWTP to have a long lasting impact on increasing a relatively low number of women entering the trades. In order to reduce labour shortages in Saskatchewan, the provincial government, industry and employers need to support more programs that encourage women to enter the skilled trades, and to encourage proactive approaches whose aim is retaining women after they enter the job market. As more long term pre-apprenticeship/apprenticeship training programs for women emerge throughout Saskatchewan (with advocacy, mentorship and job coaching components included), improved recruitment and retention rates of skilled women in the trades will start to emerge.

## **6.0 Conclusion**

By the end of the decade, women will start to constitute a large portion of the new entrants to the work force and our ability to compete in the global economy will depend on the extent to which society utilizes their talents. If businesses want to stay competitive, changes need to be made that will not only provide women with meaningful work but will invite them in. According to current statistics (labour force participation rate and female apprenticeship enrolments) much work is needed in supporting the entrance of women into the skilled trades.

The origin of many of the difficulties faced by women in the skilled trades is that workplaces generally reflect a male culture. Most of the women interviewed endured sexist remarks and inappropriate behaviours from their male co-workers, while the self confidence of some was undermined when allegations arose that their hiring was based on Employment Equity or company quotas. Even though several of these women did really well in technical training thus validating their capacity to learn, they still faced challenges. The constant questioning and/or scrutiny of their physical strength and of their commitment to the company due to assumed family responsibilities took a toll on them mentally. Other problems arose when the women felt they had to work harder than the men in order to prove themselves even though in some cases they were paid a lower annual salary for doing the same tasks. These difficulties and many

others mentioned by women clearly show that there is a need for change not only in the workplace but also in the culture of the industry. Ignoring the barriers that women face today is synonymous with hanging a “Men Only” sign on these occupations. Even though the skilled trades are not for every woman or, in fact, every man, women who are interested in a career in the trades and are dedicated to learning a valuable skill should not be excluded based on gender.

Integrating women into male dominated trades takes more effort than merely recruiting or paying lip service to the policies or laws that assist the entry of women into the trades or “protecting” them against harassment. It requires government, employers, employees, business and labour organizations, teachers, parents, etc to work together to change perceptions and to encourage and support the entrance of women into the trades. Active strategies need to be put into place to counteract negative attitudes, thus allowing women to be comfortable in choosing a skilled trade career. Collaboration between industry and government is also needed as current problems on job sites are not being adequately addressed.

In conclusion there is no easy “12 step” process to increase the participation of women in non traditional trades. Each situation will be unique and the principals involved must collaborate on solutions. However, several factors that are *sine qua non* for success include:

- 1) well developed pre-apprenticeship/apprenticeship programs that include female staff, long term job coaching and hands on training;
- 2) diffusion of the progressive, supportive atmosphere found in the training institutions to the workplace;
- 3) training at all trades sector workplaces in the value of diversity and teamwork;
- 4) sustained funding from both the provincial and federal governments for training, mentoring and monitoring of female apprentices in the workplace.

Initiatives for improving the climate for women are exceedingly important but without commitment from those involved in the skilled trades to take a more active role in providing solutions, women will continue to be underrepresented, and the health of the skilled trades sector may be in jeopardy. There is a huge amount of work to be done in Saskatchewan and all stakeholders need to do their share.



## **7.0 Recommendations**

Based on the work SATCC have done in this study, the following suggestions are offered on how stakeholders can work together to increase the number of women entering the trades, their rates of attainment of journey person status and their potential of long-term employment in male dominated skilled trades.

### Education

- 1) Continue to support the efforts of those promoting the skilled trades to young females through conferences, workshops, etc.
  
- 2) Encourage industry, employers, the provincial government and educators to fund a province wide campaign to change the stereotypical image of the trades and to foster the idea that the skilled trades are a dynamic field for women.
  
- 3) Provide educational institutions and parents better access to career information that gives young girls a real understanding of the pay, rewards and challenges of occupations in the trades, particularly those not traditionally taken up by their gender.
  
- 4) Efforts should be made to increase the number of female role models in schools, either by hiring more female industrial arts teachers or by creating other opportunities for tradeswomen to participate in the classroom/shop setting (via demonstrations, guest instructors).

### Workplace

- 1) Encourage employers to attend workshops and eventually set up industry committees to help strategize ways to recruit and retain women in the trades. The workshop could include the importance of employers' roles and responsibility in fostering a healthy, woman-friendly learning and working environment in their shop. Other topics might include how to set the right tone and how to model appropriate behaviour as well as how to deal with harassment and other

issues in a timely and effective fashion. To help employers with these workshops, assistance from Status of Women office, SaskWITT and SATCC may be warranted.

2) Industry, through the Construction Sector Council or the CAF should create a tool kit describing specific strategies for more effective recruitment and retention strategies. Tool kits developed could be placed on SATCC's website for broad access. The kits would not only help managers to build the most inclusive candidate pools but provide concrete and proven guidance that will aid in the successful recruitment, hiring and retention of women. Creation of these tool kits may require the collaborated efforts of SaskWITT, SATCC and inter-provincial agencies.

3) Provide workshops and training sessions for employees in the target sectors that familiarize and sensitize participants to the abilities, and cultural differences of women.

4) Ensure that Employment Equity expectations are met by all companies, including the private sector. Therefore, the implementation of mandatory equity polices should be revisited and strongly endorsed until a critical mass of women (typically 30 per cent or more) are working within male dominated organizations. In the meantime, in order to combat the notion that women are getting all of the advantages, a library of case studies will need to be compiled and information on how opportunities within firms are filled, including lateral transfers, promotions, and the like, must be distributed more widely.

5) Assess barriers within organizations in order for employers and employees to understand what is not working. This work may be accomplished by hiring outside consultants to work in collaboration with industry to identify the barriers and re-evaluate practises in order to create an acceptable workplace environment where both genders are valued and made to feel comfortable.

6) Provide incentives to employers who institute policies (e.g. support for child care) that support the integration of women into the skilled trades. Establish a provincial award program to recognize and reward employers for their efforts.

*Training: Special Initiatives for Women*

1) To remedy the static number of women in the skilled trades, efforts should be concentrated into creating more “women-only” pre-apprenticeship training programs across Saskatchewan. The success of these additional programs will hinge on long term commitments (e.g. providing stable funding, encouraging inviting work environments) from government and industry. The design and implementation of the programs should be based on current and past programming successes which have included the use of role models and/or female instructors, mentors, work placements, follow up and support to all participants (current or graduated), as well as courses that emphasize assertiveness training, conflict resolution, dealing with workplace harassment and/or working in non-traditional environments. Programs should be open to all women regardless of their age, economic status, ethnicity, etc. Besides delivering training programs, program staff may also be involved (by providing expertise, conducting presentation or acting as advocates) in educating the public on barriers and issues that may prevent women from entering the trades. To help move this recommendation forward, a steering committee should be assembled with representation from SaskWITT, SIIT, SATCC, the provincial government, industry, associations, labour organizations, and other interested members.

## **8.0 Avenues for further studies**

There are several different areas in which there are opportunities for further work as a result of this report.

1) From 1995 to 2000 the Womens Work Training Program (WWTP) enrolled 75 women in the program. Out of those, 42 wrote and passed their 1<sup>st</sup> year level carpentry exam, while four completed their final level of training and were registered to write their inter-provincial exam. Even though this program single-handedly doubled the number of registered female carpentry apprentices, it is not known how many women actually continued their career in carpentry. In order to fully measure the impact of the program (e.g. alleviating barriers faced by women, increasing the number of women with journey person tickets); follow up interviews with past participants should be conducted.

2) According to the women interviewed for this report, there seems to be a disparity between institutional technical training environments and worksite environments. Further research is needed in order to uncover what those differences are and what additional strategies need to be incorporated at worksites to create welcoming environments for female apprentices.

3) Further research is needed in the form of a longitudinal study so that completion rates for women in male dominated trades can be monitored to gain a better idea of whether or not the barriers reported are increasing or decreasing. Not all variables are monitored on an ongoing basis and it is difficult to determine if previous or current strategies are helpful or not.

4) There is a large enough body of knowledge available in this report in order that practical measures to improve the retention of women in male-dominated trades could effectively be implemented. Therefore it is recommended that, in 5 years, a similar follow up study be conducted in order to track the progress that is being made to increase the number of women entering and being retained in the skilled trades in Saskatchewan.

## 9.0 References

- Bergman, B. and Hallberg, L. (2002, May). *Women in a male dominated Industry: factor analysis of a women workplace culture questionnaire based on grounded theory model*. Retrieved May 12, 2007 from [http://findarticles.com/p/articles/mi\\_m2294/is\\_2002\\_May/ai\\_94407541](http://findarticles.com/p/articles/mi_m2294/is_2002_May/ai_94407541)
- Canadian Apprenticeship Forum. (2004, January). *Accessing and Completing Apprenticeship Training in Canada: Perceptions of Barriers*. Ottawa: Canadian Labour and Business Centre.
- Canadian Apprenticeship Forum. (2004, January). *Accessing and Completing Apprenticeship Training in Canada: Perceptions of Barriers Experienced by Women*. Ottawa: Canadian Labour and Business Centre.
- Construction Sector Council (2004). *Future Labour Supplies for Canada's Construction Industry*. Retrieved on June 4, 2007 from [http://www.csc-ca.org/pdf/LMI\\_Future\\_E.pdf](http://www.csc-ca.org/pdf/LMI_Future_E.pdf)
- Government of Yukon Women's Directorate (2005). *Yukon Women in the Trades: Follow up Report 2005*. Retrieved June 13, 2007 from [http://www.womensdirectorate.gov.yk.ca/pdf/witt\\_report\\_2005.pdf](http://www.womensdirectorate.gov.yk.ca/pdf/witt_report_2005.pdf)
- Human Resources Development Canada (2002, October). *Gender Equality in the Labour Market. Lessons Learned. Evaluation and Data Development Strategic Policy*. Retrieved June 4, 2007 from [http://www.hrsdc.gc.ca/en/cs/sp/hrsdcc/edd/reports/2002-002440/spah14910\\_e.pdf](http://www.hrsdc.gc.ca/en/cs/sp/hrsdcc/edd/reports/2002-002440/spah14910_e.pdf)
- Human Resources and Social Development Canada. *Employment Equity Myths and Realities*. Retrieved June 12, 2007 from [http://www.hrsdc.gc.ca/en/lp/lo/lswewe/publications/mr/myths\\_realities.shtml](http://www.hrsdc.gc.ca/en/lp/lo/lswewe/publications/mr/myths_realities.shtml).
- Human Rights Code. Retrieved June 5, 2007 from [http://www.e-laws.gov.on.ca/html/statutes/english/elaws\\_statutes\\_90h19\\_e.htm](http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90h19_e.htm)
- Insightrix Research Inc. (2007, February). *Saskatchewan Advanced Education and Employment: Graduate Outcomes of 2004-2005 Class*. Retrieved May 24, 2007 from <http://www.aee.gov.sk.ca/graduate-outcomes>.
- Judge Silberman Abella, R. (1984, October). *Report of the Commission on Equality in Employment*. Canadian Government Publishing Centre Supply and Services Canada, Ottawa.
- McLean.D. (2003). *Creating a Workplace that Attracts, Retain and Promotes Women*. Queens Printer for Ontario.

- Myths and Facts about Women and Nontraditional Occupations. Retrieved May 17, 2007 from [http://www.womenintech.com/wanto\\_myths\\_facts.php](http://www.womenintech.com/wanto_myths_facts.php).
- Ontario Women Directorate: Women's History. *Women in WWI*. Retrieved June 13, 2007 from [http://www.citizenship.gov.on.ca/owd/english/history\\_month/studyunits\\_4.htm](http://www.citizenship.gov.on.ca/owd/english/history_month/studyunits_4.htm)
- Overend, V. (2001). *Foundation for Success: The story of the women's work training program in Saskatchewan*. LM Publications.
- Reskin, B. & Hartmann, H. (Eds.). (1986). *Women's Work, Men's Work: Sex Segregation on the job*. Washing, DC: National Research Council.
- Rosenfeld, R.A. (1984). Job Changing and Occupational Sex Segregation: Sex and Race Comparison. In Reskin, B.F (Eds.). *Sex Segregation in the Workplace: Trends, Explanations, Remedies* (pp.56-86).Washington DC: National Academy Press
- Saskatchewan Human Rights Commission. (2007). *2006-2007 Annual Report*. Retrieved July 23, 2007 from [http://www.shrc.gov.sk.ca/pdfs/07196\\_SHRCAnnualReportWEB-06-07.pdf](http://www.shrc.gov.sk.ca/pdfs/07196_SHRCAnnualReportWEB-06-07.pdf).
- Saskatchewan Human Rights Commission (1996, July). *Renewing the Vision: Summary Report*. Retrieved May 20, 2007 from <http://www.shrc.gov.sk.ca/codereview/summary/default.html>
- Saskatchewan Indian Institute of Technologies (2006). *Saskatchewan Indian Institute of Technologies Women In Trades Program 2005-2006 report*. Regina, Saskatchewan: Author
- Saskatchewan Labour. (2003). *Action plan for Saskatchewan Women: moving forward*. Regina, SK: Saskatchewan Government printing office.
- Saskatchewan Trends Monitor (2006, December). *Women in the Saskatchewan Labour Market: A Comparison of Wage Rates*. Regina, Saskatchewan: Author.
- Saskatchewan Women in Trades and Technology (Producers). (n.d.). *Telling Trade Secrets* [DVD]. Live Wire Video Productions.
- Statistic Canada (2005). *Women in Canada: a gender based statistical report (5<sup>th</sup> edition)*.Minister of Industry.
- The Hay Group. [n.d]. *The in and outs of successful leadership: Helping you to be a more effective leader*. Retrieved September 18, [http://www.haygroup2007from.com/tl/Downloads/Leadership\\_booklet.pdf](http://www.haygroup2007from.com/tl/Downloads/Leadership_booklet.pdf)
- The Occupational Health and Safety Regulations, 1996*. Retrieved June 5, 2007. <http://www.qp.gov.sk.ca/documents/English/Regulations/Regulations/O1-1R1.pdf>

*The Saskatchewan Apprenticeship and Trades Certification Commission: Female apprenticeship registration, 2007* [Database].

Vaidyanath, Sharda. *Exhibit Depicts Triumphs and Trials of 1940s Women*. The Epoch Times, May 18, 2007.

Women Building Futures (2006). *Report to the community 2005-2006*. Retrieved June 28 from <http://www.womenbuildingfutures.com/siteIndex.php>.

Women in Resource Development Committee. *Misconceptions and Realities*. Retrieved May 19, 2007 from <http://www.wrdc.nf.ca/myths.htm>

Women in Resources Development Committee. *Orientation to Trades & Technology : Overview*. Retrieved June 27, 2007 from [http://www.wrdc.nf.ca/programs\\_overview.htm](http://www.wrdc.nf.ca/programs_overview.htm)

Women in Trades and Technology National Network (WITTNN), Canada. (2003, January). *Final Report for a Study to Assess and Identify Ways of Increasing Women's Participation in Trades, Technology and Operations Occupations in Canada*. SPR Associates Inc. Toronto, Ontario.