

THE EFFECT OF SOCIAL VARIABLES ON THE CAREER  
ASPIRATIONS OF NEW BRUNSWICK ABORIGINAL  
ADULTS

by

Michael Hennessey

Bachelor of Business Administration, University of New Brunswick, 2010

A Thesis Submitted in Partial Fulfilment  
of the Requirements for the Degree of

**Master of Education in Counselling**

in the Graduate Academic Unit of the Faculty of Education

Supervisor: Jeff Landine, Ph.D., Counselling Psychology

Examining Board: José F. Domene, Ph.D., Measurement, Evaluation and Research  
Roger Saul, Ph.D., Faculty of Education  
Margaret Kress-White, Ph.D., Mi'kmaq-Wolastoqey Centre

**This thesis is accepted by the  
Dean of Graduate Studies**

THE UNIVERSITY OF NEW BRUNSWICK

September, 2016

© Michael Hennessey, 2017

## **ABSTRACT**

A recent survey of Aboriginal peoples in New Brunswick by the Joint Economic Development Initiative Inc. (JEDI) collected data regarding social factors that influence career aspiration. These social variables included: gender, marital status, education level, social welfare dependency, and mobility. These variables were analyzed for their significant differences with career aspiration, measured by O\*Net Job Zones. A final data set of 202 survey respondents was used for data analysis. The results aligned with Gottfredson's theory of compromise and circumscription as preparation showed a significant effect with career aspiration. Factors outside of that framework, including marital status, gender, social dependence, and mobility, were also analyzed. The findings showed that women participants had greater career aspirations than men, and that less mobile participants had higher career interests. Implications for Aboriginal career development theory, future research, and career counselling are discussed.

## **DEDICATION**

To my wife, Kathy, who has been my support and encourager throughout this whole process. Je t'aime.

## **ACKNOWLEDGEMENTS**

I would like to acknowledge the Joint Economic Development Initiative Inc. (JEDI) for their support. I would also like to thank Dr. Jeff Landine for his guidance and supervision through this process. Thanks also to Dr. José Domene for his initial guidance and for teaching me statistics and SPSS; and, to Dr. Margaret Kress-White for bringing a focus on Indigenous research perspectives.

## TABLE OF CONTENTS

<b>ABSTRACT .....</b>	<b>ii</b>
<b>DEDICATION.....</b>	<b>iii</b>
<b>ACKNOWLEDGEMENTS.....</b>	<b>iv</b>
<b>Background to Study.....</b>	<b>1</b>
<b>CHAPTER 1: Literature Review .....</b>	<b>2</b>
Social Context.....	2
Career Aspirations .....	5
Career Development in Aboriginal Peoples .....	20
Conclusion .....	32
References.....	34
<b>CHAPTER 2: The effect of social variables on the career aspirations of New Brunswick Aboriginal adults.....</b>	<b>47</b>
Abstract.....	47
Introduction.....	48
Theoretical Framework.....	49
Present Study .....	53
Methods .....	55
Results.....	59
Discussion.....	63
Limitations.....	67
References.....	71
<b>CHAPTER 3: General Discussion .....</b>	<b>78</b>
Overview of Findings .....	78
Counsellor Education and Professional Development .....	78
Implications for Counselling Practice .....	79
Implications for Policy and Governance .....	80
Future Research .....	82
Conclusions.....	83
References.....	85
<b>Appendix A .....</b>	<b>88</b>
<b>Appendix B.....</b>	<b>91</b>
<b>CURRICULUM VITAE</b>	

## **Background to Study**

The first resource that informed the current research was my personal situation as an Aboriginal person living off-reserve in New Brunswick, Canada. I am closely connected to friends and family in the Mi'gmaq communities of New Brunswick. My work experience has enabled me to travel to all 15 Aboriginal communities in the province and I have observed firsthand some of the social challenges in our communities. While working in the field of employment and training, I observed the adverse impact of a seasonal cycle of work that limited the aspirations of community members to merely achieving enough work hours to qualify for government employment insurance. Many others have forsaken the workplace altogether and become resigned to social assistance. I have seen how dependency on government subsidy involves a surrendering of personal autonomy. As I considered these factors of government dependency and poverty observed in my personal experiences working in economic and workforce development in the New Brunswick First Nations, my desire to research the area of Aboriginal career development took shape.

While enrolled in the Masters of Education program at the University of New Brunswick, I was privileged to attend a lecture by Dr. Eve Tuck. Tuck (2009) wrote to "Native communities and/or urban communities – that have troubled relations with research and researchers" (p. 411), and described the historical challenges of academic research with Aboriginal peoples. She calls on researchers to shift from a damage centered approach, that shows Aboriginal peoples as "defeated and broken" (Tuck, 2009, p. 412), to a desire centered approach that can depathologize the colonial past of Aboriginal peoples. Desire centered approaches "are concerned with understanding

complexity, contradiction, and the self-determination of lived lives” (Tuck, 2009, p. 416). This shifts our focus from barriers to opportunities, from viewing our people as victims to viewing us as victors. This confirmed my desire as an Aboriginal researcher to conduct research that could benefit my community, both Pabineau First Nation and my Mi’gmaq, Maliseet, and Passamaquoddy brothers and sisters across Atlantic Canada.

## **CHAPTER 1: Literature Review**

### **Social Context**

The Aboriginal population in Canada is young and growing rapidly. In the most recent survey data collected by Statistics Canada (2011), children under the age of 14 made up 28% of the total Aboriginal population, and youth aged 15-24 made up 18.2% of the total Aboriginal population. In comparison, for the non-Aboriginal population, children aged 14 and under made up just 16.5% of the total population, and youth aged 15-24 accounted for 14.2%. A comparison shows that 46.2% of the Aboriginal population is under the age of 24 in contrast to 30.7% of the non-Aboriginal population (Statistics Canada, 2011). Aboriginal people account for 3.8% of the total Canadian population, yet represent 7% of the total number of children and 5.9% of all youth in Canada (Statistics Canada, 2011). While this comparatively high number of youth represents a significant contrast to the non-Aboriginal population, of more concern are social factors which preclude many Aboriginal youths from gaining employment (Bibby, 2010; Roness & Collier, 2010). This is at least partially attributable to the large gap in educational achievement that exists between the Aboriginal and general population in Canada. As of 2011, 48.4% of Aboriginal people held some postsecondary qualification compared to 64.7% of the non-Aboriginal population

(Statistics Canada, 2011). While trades certification achievement rates outrank those of the non-Aboriginal people, the Aboriginal population lags behind in the attainment of college diplomas and is severely outpaced in university degrees with a ratio of 26.5% (non-Aboriginal) to 9.8% (Aboriginal). This education gap is likely one factor that contributes to the national Aboriginal unemployment rate among working age people of 13%, which is more than twice the national rate of 6% (Statistics Canada, 2011).

Aboriginal Peoples of the Atlantic Provinces account for 7% of the total Aboriginal population in Canada (Statistics Canada, 2011). Although western First Nations such as the Osoyoos Indian Band have become national models of Aboriginal ingenuity and business savvy, similar success stories in Atlantic Canada are less celebrated. Nevertheless, success stories in Atlantic Canada exist and represent a shift in the Aboriginal labour market in this region. For example, in the province of New Brunswick, St. Mary's First Nation has provided, through a number of entrepreneurial ventures, much-needed employment opportunities to both the people of Fredericton and its own band members. Madawaska Maliseet First Nation, in northwest New Brunswick, is also showing signs of economic growth. Their Grey Rock Power Centre was a \$13 million economic development project that launched a truck stop and attracted international franchises, and has bolstered employment opportunities in an otherwise economically depressed region of the province (Taylor, 2013).

While there are successes to be celebrated in New Brunswick, there are also significant challenges. The most recent data on unemployment rates in the province showed Aboriginal unemployment in New Brunswick to be at 20.8%, almost double the rate of the non-Aboriginal population at 11% (Department of Post-Secondary Education, Training, and Labour, 2013). Education completion rates were also well



below those of the rest of the province. In the Aboriginal population, 34.5% of the population had not completed high school, compared to 24.6% of the non-Aboriginal population; only 16.4% had completed a college diploma, compared to 18.8% of the non-Aboriginal population; and, 8.7% had attained a university degree, compared to 15.5% of the non-Aboriginal population (Department of Post-Secondary Education, Training, and Labour, 2013).

A special report by TD Bank, which analyzed the 2011 National Household Survey from Statistics Canada, found that employment and education were correlated (Fong & Gulati, 2013). It also concluded that higher levels of Aboriginal educational attainment translated into higher income levels and better labour market outcomes. It appears to be the case that, as Aboriginal people become more educated, their rate of employment increases. The existing research in this area, however, does not adequately consider the variables that influence career development aspirations and employment in the Aboriginal population of North America broadly and in the Aboriginal population of Atlantic Canada specifically.

Millions of dollars are spent each year in the Aboriginal communities of New Brunswick on health care, training and education, yet the data still indicates that economic challenges persist (Waslander, 1997). Waslander (1997) found that “governments spend at least 50 percent more per Aboriginal person as per Canadian, and that more than half of this discrepancy is a direct consequence of the different health, social, and economic circumstances of Aboriginal people” (p. 976). The money being invested in the Aboriginal communities of Canada is important, but an influx of money alone is not sufficient to shift the current status of Aboriginal people in Atlantic Canada. In fact, research shows that the increased financial investment could result in

increased dependency on the federal government and have a negative effect on employment and mental health (Alfred, 2009). This approach perpetuates the historical colonialism that nearly destroyed Aboriginal culture and identity (Alfred, 2009). Government programs externally imposed on Aboriginal Peoples can become “causes of harm to them as people and as communities, limitations placed on their freedom, and disturbing mentalities, psychologies, and behaviours” (Alfred, 2009, p. 43). Aboriginal communities must become more engaged and self-directed in order for the impacts of colonialism to be overcome (Alfred, 2009). Waslander (1997) states that Aboriginal self-determination is an integral factor in strategically investing in programs and services. As Alfred (2009) states in his conclusion: “It is crucially important for Indigenous people themselves to take the initiative to begin changing their own lives and to contribute to the rebuilding of their communities” (p. 57). The present research was conducted to assist Aboriginal leadership, federal and provincial governments, as well as the private sector, to invest more strategically in the Aboriginal community and affecting greater impact as a result of investment. As investments are made with the full engagement of Aboriginal peoples, the hope is that more Aboriginal people will enter fulfilling careers.

### **Career Aspirations**

Rojewski (2005) defined career (occupational) aspirations as “expressed career-related goals or choices” (p. 132). Elaborating on this concept, Benjamin, Domene and Landine (2014) described career aspirations as “the process by which young people determine their goals while they are transitioning into adulthood” (p. 49). Rojewski (2005) stated that the topic of career aspirations “has probably received as much attention as any other career-related concept” (p. 131), and is best understood by a

collective understanding of aspiration in career development theory. Over the past decades, career aspiration has been addressed in varying degrees of depth through three major career development theories: Super's self-concept, social cognitive career theory (SCCT), Holland's theory of vocational types, and Gottfredson's theory of career circumscription and compromise. Each will be discussed briefly as it relates to career aspirations.

In Super's developmental theory, career choices (aspirations) are a part of one's occupational self-concept. As people mature from adolescence to adulthood, their career aspirations progress from the fantasy of childhood to the reality of adulthood, and different careers are explored and discarded until a stable career is established (Super, 1990; Stromberg, 2008). Although aspirations are an important concept in this theory, Super's theory did not examine external factors such as socio-economic status, gender, culture, and environment (Stromberg, 2008). As such, it is difficult to use Super's theory in an effort to understand the external influencers of career aspiration. In social cognitive theory, external factors are considered.

Lent, Hackett, and Brown (1999) use social cognitive career theory (SCCT) to describe three factors that influence career development: self-efficacy, outcome expectations, and goals. Self-efficacy is influenced by internal and external factors, such as: gender, race/ethnicity, health, and genetic factors (Lent, Hackett, & Brown, 1999). Outcome expectation refers to "what will happen contingent on performance" (Lent, Hackett, & Brown, 1999). Finally, goal setting (career aspiration) is established based on self-efficacy and the expected outcomes of certain actions. This theory posits that aspirations are impacted by gender, race/ethnicity, and socio-economic status. Exposure

to certain careers differs based on those factors, which influences subsequent career aspirations.

Holland's theory of vocational types also addresses career aspirations. Holland found that career satisfaction was achieved when personality and environment were congruent. He grouped an individual's interests into six types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional, or, RIASEC (Holland, 1997). According to Holland (1997), career aspirations were influenced by personality and perceptions of the work environment (Stromberg, 2008). However, this theory has limited usefulness in guiding the current study because personality and personal identity are not among the variables being considered.

Gottfredson's theory of circumscription and compromise explains aspirations through a social psychological lens. Gottfredson (1981) theorized that people aspire to certain occupations due to self-concept, social class, intelligence, and gender (Gottfredson, 1981). According to her theory, as individuals grow older, they increasingly tend to pursue career opportunities with fewer obstacles (i.e. additional preparation and education) and more abundant opportunities for employment rather than those aspired to in childhood. Similar to Holland's theory, individuals compare their own self-concept "with characteristics of the various occupations perceived as options in their cognitive map of the world of work" (Junk & Armstrong, 2010, p. 580). Occupations are then filtered for viability based upon their perceived prestige, preparation requirements, gender roles, and self-concept. Idealistic career aspirations of childhood are discarded and more achievable careers are embraced through a process of compromise (Junk & Armstrong, 2010).

Initial research using this theory showed conflicting results, which led Gottfredson (1996) to revise her theory to “include a set of conditional priorities for the compromise process based on the severity of the compromise being made” (Junk & Armstrong, 2010, p.581). A major compromise is one in which an individual is choosing between equally unacceptable alternative careers. In this case, gender role congruence becomes the most important factor to retain, followed by prestige (social status), and interests. In minor compromises that do not threaten previously held beliefs regarding gender roles and prestige, interests will be the most important factor influencing career aspiration (Junk & Armstrong, 2010). With this amendment, research has shown at least partial support for Gottfredson’s theory as applied to the behaviors of college students and adolescents in North America (Junk & Armstrong, 2010; Cochran, Wang, Stevenson, Johnson, & Crews, 2011) and South Korea (Hwang, Kim, Ryu, Heppner, 2006). This theory has yet to be explored with Aboriginal peoples. The current study with Aboriginal peoples in Atlantic Canada addressed three elements of Gottfredson’s theory: gender, social class and preparation requirements.

Research has shown that present career aspirations can predict future aspirations and attainment: “occupational and educational aspirations of adolescents are among the most useful predictors of eventual educational and occupational choices made in adulthood” (Rojewski, 2005, p. 132). While Rojewski (2005) confirmed the prominent predictive role of career aspirations in career development, he did not address the possible factors that influence career aspiration. More importantly, little work has been done on exploring the factors that influence the career aspirations of Aboriginal peoples in Canada.

Another issue to consider when conducting research on career aspirations is how to quantify a phenomenon usually described in terms of descriptive labels (e.g., “I want to be a professional athlete” or “my aspiration is to become a teacher working in my home community”). Research shows that quantifying these descriptions is very complex. Johnson (1995) explains that oversimplification of this concept is worrisome, stating that words such as “interests”, “goals”, or “preferences” have been used interchangeably to refer to aspiration, resulting in research errors. Recent research has addressed this concern by quantifying career aspirations using existing occupational categorization measures consisting of occupational levels and fields (Rojewski, 2005). Occupational levels refer to a ranking system based on a combination of factors, such as: “wages earned, education required, and perceived value to society” (Rojewski & Lee, 2009, p. 83). Fields are horizontal measures that refer to the “tasks, duties, and responsibilities of the occupation” (Rojewski & Lee, 2009, p. 83). In Canada, occupations are typically classified using a field system called the National Occupational Classification (NOC) system (Government of Canada, 2011). This system is valuable in exploring individual job requirements and duties, however it does not provide a continuous numerical scale for quantitative measure of career aspirations. Career aspirations can be quantified by occupational levels using O\*Net Job Zones, which is the primary source of occupational classification in the United States and classifies over 1,000 occupations on a continuous scale from one to five (Levine, 2003). The Job Zones “indicate level of training, education, and experience required to gain employment” in specific occupations (Levine, 2003, p. 81). The Job Zones are grouped as follows:

- Job Zone One: Occupations that may require a high school diploma or GED certificate, little or no previous experience, and on-the-job training delivered by a more experienced worker. Examples include: dishwashers, cashiers, baristas, and waiters.
- Job Zone Two: Occupations that require a high school diploma, some previous experience or skills, up to one year of on-the-job training working with experienced employees. These occupations may also be associated with recognized apprenticeship programs. Examples include: security guards, bank tellers, and orderlies.
- Job Zone 3: Occupations that require training in vocational schools or associates degrees and up to two years of on-the-job training. These may also be associated with an apprenticeship program. Examples include: barbers, electricians, and medical assistants.
- Job Zone 4: Occupations that mostly require a four-year bachelor's degree, a considerable amount of skill and experience. Examples include: accountants, chemists, and graphic designers.
- Job Zone 5: Occupations that mostly require graduate school and extensive skills and up to five years of experience. Examples include: lawyers, surgeons, veterinarians, and biologists (National Center for O\*Net Development, 2016).

Linderman (2010) used O\*Net Job Zone levels to compare the career aspirations of seventh grade students with their academic achievement. Watt et al. (2012) used the same O\*Net Job Zone levels to examine gender differences in mathematics participation and career aspirations in high school youth from Australia, Canada, and

the United States. This approach proved to be an effective quantitative measure of career aspiration in multi-national studies and was the approach taken in the present research to measure career aspiration.

### **Influences on Career Aspirations**

**Gender.** There is a growing gender gap in North American post-secondary institutions. The most recent Pew Research Center data from the United States shows that “in 1994, 63% of recent female high school graduates and 61% of recent male high school graduates were enrolled in college in the fall following graduation” (Lopez & Gonzalez-Barrera, 2014). As of 2012, the rate for women had risen to 71%, while the college participation rate for males remained at 61% (Lopez & Gonzalez-Barrera, 2014). This pattern has also emerged in Canada. In 2013, 56% of post-secondary enrolments were women, as well as 58% of graduates (Statistics Canada, 2015). This gender gap also exists in the Aboriginal population of Canada, as 27.2% of women Aboriginals have completed post-secondary education compared to 17.7% of males (First Nations Information Governance Centre, 2016). For Canada in general, differences in school grades at age 15 demonstrated the largest effect on subsequent university participation, followed by reading scores at age 15, study habits, parental expectations, and university earnings incentive (Frenette & Zeman, 2007). The fact that more women than men have completed post-secondary education in Canada could indicate that women have a greater interest in careers that require long-term preparation than men. This could also extend to the Aboriginal population of Canada, and the current study explored the relationship between gender and career aspiration in the Aboriginal adult population of Atlantic Canada.



Koul, Lerdpornkulrat and Chantara (2011) studied the role of gender in career decision-making in Thai students. They found that “despite higher mean GPA [for women], many more females than males aspired to traditional service professions with low pay” (Koul et al., 2011). Koul et al. concluded that the cultural environment of Thailand influences young women to aspire to lower paying jobs. Thai women were more likely to aspire to careers compatible with family devotion and child rearing. Conversely, high levels of parental education influenced women to aspire to higher career interests (Koul et al., 2011). Recent research in the United Kingdom suggests that, “women report higher job aspirations than men, and appear to be catching up with men regarding their academic and occupational attainment” (Schoon & Polek, 2011). Schoon and Polek (2011) also conclude that “traditional sorting principles continue to influence the distribution of life chances and opportunities” (p. 215), which funnels women into traditional vocations such as teaching and health services. Francis (2002) examined the career aspirations of 14-16 year old students in the London, England and found that male students aspired to more scientific and technical careers compared to females, however females generally aspired to caring careers such as teaching and medicine. This research confirmed the increase in the career aspirations of female students, stating, “many girls chose professional jobs and those requiring high qualifications indicates that girls view these future occupations as careers, rather than paid work as a stop-gap before marriage” (Francis, 2002, p. 83). Cultural views of gender were also cited as limiting factors to accessing male-dominated careers (Francis, 2002).

In the United States, Howard et al. (2011) examined gender differences as part of a larger study of career aspirations of youth, and found that “across all five racial/ethnic

groups [studied], girls aspired to careers that required more education than did boys” (p. 107). This corroborates the findings of Perry, Przybysz and Al-Sheikh (2009), who investigated gender differences in career aspirations in American urban middle and high school students. They found that “girls dominated the representation of prestigious careers (physician, lawyer, engineer) traditionally regarded as ‘masculine’” (Perry, Przybysz, & Al-Sheikh, 2009, p. 353). It would appear that there is an increasing gap between men and women worldwide with regard to career aspirations and educational attainment and that culture may have a role to play in the differences.

In the Canadian context, Tucker and Fushell (2013) examined factors related to teachers’ decisions to pursue graduate studies and their career options upon program completion in Newfoundland and Labrador. Her findings uncovered gender differences, indicating that “fewer women are in administrative positions and fewer women do a Master of Education program to take on an administrative leadership role” (p. 22). She further stated that women are “more likely to choose family responsibility over career advancement” (Tucker & Fushell, 2013, p. 23). Women pursue graduate studies in order to become better teachers and secure a salary increase, not necessarily to achieve a more senior administrative position (Tucker & Fushell, 2013). She concluded by stating that, “it would be useful to gain further insights into why many educators who may have an interest in leadership positions remain in classroom teaching positions” (Tucker & Fushell, 2013, p. 24). Based on the research in Thailand, Britain, and Atlantic Canada, a gender dichotomy emerges that attests to the high career aspirations of women and the barriers to realizing those aspirations. While the aspirations of women are high, cultural and social factors impact the realization of career aspirations. Research confirms that

unique cultural factors also play a role in the Aboriginal community, specifically in employment and career development (Alfred, 2009; McCormick & Honore, 1995).

While cultural differences are known to exist between Aboriginal and non-Aboriginal populations, the relationship between gender and career aspiration in the Aboriginal community remains unclear. Ball (2009) conducted a revelatory study of Canadian Indigenous fathers. The men in this study referred to “circles of care” that were influential in raising the children in their communities (Ball, 2009, p. 34). This is a departure from the nuclear family structure that is surely influenced by unique Indigenous cultural values and by the void of father-figures in their lives (Ball, 2009). Many of these men were “fathering out of thin air” (Ball, 2009, p. 37). These men expressed the need for both Indigenous men and women to work together to achieve balance, recover Indigenous knowledge, and build “their capacities to parent and live together as families” (Ball, 2009, p. 38). Fitzgerald (2006) was asked to document the biographies of female Indigenous educational leaders in New Zealand, Australia, and Canada. A Canadian participant spoke of “walking between two worlds” (Fitzgerald, 2006, p. 207). Fitzgerald (2006) also described how “community expectations, responsibilities, and accountability” played a role in the lives of the participants (p. 209). They felt the strain of fulfilling the expectations of family and community, while also navigating the “white man’s world” on a daily basis (Fitzgerald, 2006, p. 210). Both Ball (2009) and Fitzgerald (2006) make it clear that differing gender roles do play a part in the lives of Indigenous people around the world, but how they affect the career aspirations of Aboriginal peoples in Atlantic Canada has yet to be explored in the literature. The current study will attempt to determine whether gender affects career

aspirations, but further research will be required to define underlying gender roles and how they relate to career development.

**Marital status.** Marital status could also have some relationship to career aspiration level. Research conducted in the United States found that married individuals have higher salaries, get promoted more often, and have higher career satisfaction (Ng et al., 2005). In a more geographically relevant sample, Brosseau, Domene and Dutka (2010) examined the role of romantic partners in career decision-making among participants in urban Western Canada. They found that “romantic partner involvement is not only important but is also beneficial, both in preparation and during the career decision-making process” (Brosseau, Domene, & Dutka, 2010, p. 37). Their study also concluded that partner involvement reduces decision-making anxiety and helps an individual to clarify their strengths and weaknesses. It appears that the presence of romantic partners (i.e. marital status) has an effect on career development, but the study was not meant to determine the statistical relationship between relationship status and career aspiration level. Further research conducted in Canada examined the question: “What kinds of projects for future work and life together do young adult couples jointly construct and pursue as they transition from post-secondary education into the labor force?” (Domene et al., 2012, p. 17). This study found that careers in the context of a romantic relationship are pursued jointly. Participants developed career plans together and supported each other through career advancement. This study confirms the findings of previous studies (Ng et al., 2005; Brosseau, Domene, & Dutka, 2010) and indicates that being in a romantic relationship aids the career development process, but falls short of defining a relationship between career aspiration level, as defined in this study, and relationship status.

**Education.** Education level also seems to play a role in career aspiration. Brand and Xie (2010) used two longitudinal data sets in the United States to study the economic benefits of higher education. They found that socially disadvantaged people use a college education as “a means for economic mobility” (Brand & Xie, 2010, p. 293). Those who had limited opportunity to complete post-secondary education were severely limited in their career prospects (Brand & Xie, 2010). Jacobson and Mokher (2009) examined the effect of education on earnings in the United States. While high levels of education resulted in higher earnings, two-year college programs can also lead to well-paying jobs (Jacobson & Mokher, 2009). A recent report commissioned by the federal government of the United States indicated that, “job advancement prospects are quite limited for individuals with only a high school diploma or less” (Achieve Inc., 2012, p. 3). Carnevale, Strohl and Melton (2011) estimated the value of post-secondary education degrees in terms of career earnings in the United States. By analyzing the 2009 American Community Survey results, it was found that an individual with a Bachelor’s degree can expect to earn 84% more money, on average, over their lifetime than a peer with a high school diploma (Carnevale et al., 2011). The 2014 Employment Report from the Council of Ontario Universities quantifies a similar number over a lifetime, stating that, “Over a 40-year period, a university graduate earns an average \$915,840 more than a college graduate and \$1.4 million more than a high school graduate” (Council of Ontario Universities, 2015, p. 15). While the statistical link between higher education and increased earnings is significant, the research to date is lacking evidence of a statistical relationship between education level and career aspiration. The proposed research examined the statistical link between education level and career aspiration, not education and career earnings.

**Social welfare dependency.** Social welfare dependency refers to those who are currently receiving income assistance from the government, either through employment insurance or social assistance (Andersen, 2014). Kregel (2009), in testimony to the Social Security Subcommittee of the Ways and Means Committee of the U.S. House of Representatives, pointed out that social welfare clients in the United States are setting employment goals and taking action to achieve those goals. Social service beneficiaries “engaged in employment, vocational training, or job-seeking activities over the past year” (Kregel, 2009, p. 3), indicating a desire to work and advance their careers. These people “desire lives of productivity over idleness, self-sufficiency over poverty, independence over dependence” (Kregel, 2009, p. 3). Zarifa (2012) examined the relationship between socio-economic status (SES) and graduate school enrolment in Canada. He defined SES using two factors: parent’s education level and income. He found that “despite recent improvements in access to undergraduate education for traditionally disadvantaged groups, significant inequality persists at the professional and graduate levels” (p. 131). Applied to level of career aspiration, these findings may indicate a relationship between social background and education. Individuals whose parents have a low level of education are less likely to participate in the educational preparation required for well-paying careers (Zarifa, 2012). However, Zarifa’s (2012) work did not find a relationship between social welfare dependency and career aspirations. Howard et al. (2011) found that “one’s economic situation is related to occupational aspirations within two groups: Asian/Pacific Islander and Native American” (p. 107). In their study, low-income Native American youth reported lower career aspirations than low-income youth from other ethnicities. In addition, Native American youth who are not from a low-income background aspire to higher-level

occupations that require greater preparation through education, training, and experience compared to their low-income counterparts (Howard et al, 2011).

Kendall (2001) examined the social and economic conditions of Canada's Aboriginal peoples and explored how these conditions are being improved. According to Kendall (2001), the main causes of poverty in the Aboriginal population of Canada include: unemployment, geographic location, and lack of self-determination. She concludes by recommending strategies to improve the socio-economic conditions of Aboriginal peoples in Canada, including "developing an educated and skilled workforce" (Kendall, 2001, p. 55). This recommendation is based upon the current lack of education and skilled workers in Aboriginal communities in Canada. Based on the literature, it would appear that low socio-economic status among Aboriginal peoples has a negative effect on career aspiration. The research is less clear on the relationship between social welfare dependency and career aspirations.

**Geographic stability.** Bigliardi, Petroni and Dormio (2005) analyzed geographic stability as a part of an individual's career anchor, a concept that they describe as "psychological attractions that serve to guide, stabilize and integrate an individual's career" (p. 427). Their findings concluded that geographic stability had a significant relationship with turnover intention (Bigliardi et al., 2005). It would appear that as the potential for relocating decreases, job satisfaction increases. In terms of career aspiration, geographic stability allowed participants to thrive and enjoy their work. This study examined design engineers in northern Italy, however, so it is difficult to generalize these results to the Canadian Aboriginal workforce.

In terms of Canadian research, Williams (2001) discussed multiple factors in relation to mobility and blue-collar workers. Several barriers were identified as

preventing these workers from moving, including: community attachment; job security in new location; and higher costs of living (Williams, 2001). Turcotte and Weeks (2014) discussed how labour mobility in the trades is being used as a strategy to reduce regional labour market strains. This has led to an influx of workers into Alberta from 2006-2011, as blue-collar workers move from other provinces in order to find jobs. While tradespeople were mobile during the period of this study, their rate of mobility was comparable to other education groups (university and high school graduates). Much of the mobile workforce consisted of the repatriation of Alberta residents, not necessarily immigrants from other regions (Turcotte & Weeks, 2014).

Delisle and Shearmur (2010) examined the impact of education on mobility in Canada and found that university graduates consider having to move between geographic regions to be less of an obstacle than their non-graduate counterparts. When the geographic distance was increased between regions, both graduates and non-graduates were hesitant to move. Non-graduates tended to move into lower wage localities, while wage level had no impact on the moving locale of university graduates (Delisle & Shearmur, 2010). This could indicate that mobility is not necessarily linked to higher wages and career aspirations, but is instead a function of job opportunities for people with particular levels of educational attainment. Zarifa and Walters (2008) examined the migration patterns of Canadian university graduates from the year 2000 using the National Graduate Survey (NGS). They found that few people migrated to the United States for career reasons. However, those who did were earning significantly more money than their counterparts. Those who relocated were “more heavily awarded in their academic careers and may be more skilled than graduates who stayed in the Canadian labour market” (Zarifa & Walters, 2008, p. 315). Therefore, if the finding that



migration is linked to career aspirations for university graduates can be generalized to workers with all education levels, we can expect a positive relationship to emerge between willingness to relocate and career aspiration.

### **Career Development in Aboriginal Peoples**

The exploration of Aboriginal career development is limited in the academic literature (Spowart & Marshall, 2015), therefore other fields of research with Aboriginal peoples in Canada may supplement this review. One body of literature that may inform the current research is in the area of Aboriginal education in Canada.

Any exploration of factors that affect Aboriginal peoples in the education system must be done with the realities of systemic discrimination and colonialism in mind. Battiste, Bell, and Findlay (2002) recognized that Canadian universities have made the postsecondary education system more accessible to Aboriginal peoples. However, these institutions have not subsequently addressed the Eurocentric views and ways of learning to accommodate Aboriginal learners (Battiste, Bell, & Findlay, 2002). Though many institutions have added Aboriginal programming, they have done so “without animating consultation with and plenary participation of Indigenous peoples - indeed without honest acknowledgement of the history of colonial education’s privileges and benefits” (Battiste, Bell, & Findlay, 2002, p. 83). This colonialism was physically enforced historically, but continues in cultural and educational forms (Battiste, Bell, & Findlay, 2002). Nonetheless, indigenous knowledge has experienced a renaissance over the past decade and is being incorporated into educational best practices across Canada (Battiste & Henderson, 2009). This renaissance is combatting the previous systemic discrimination and colonialism on which these institutions were founded. Some

progress is being made to recognize indigenous knowledge systems in the education systems, but there is more work to be done (Battiste & Henderson, 2009).

Mendelson (2006) examined the success of Aboriginal peoples in the postsecondary education system in Canada and found that the greatest inhibitor of Aboriginal success in postsecondary education was their poor high school completion rates. Aboriginal students who complete high school also complete post-secondary education at a comparable rate to non-Aboriginal students (Mendelson, 2006). Malatest (2004) examined Aboriginal post-secondary education “through the eyes of stakeholders working in the field” (p. 1) and recommended strategies for Aboriginal post-secondary education in Canada. These strategies reveal factors that influence post-secondary success and may also affect career development, including: access programs, community delivery, Aboriginal institutions and curriculum development (Malatest, 2004). These recommendations indicate the importance of community attachment that may also have a positive effect on career development.

In 2009, the Canadian Council on Learning developed the Holistic Lifelong Learning Measurement Framework in collaboration with Aboriginal educators across Canada. This framework emphasized the key components of learning, including: sources and domains of knowledge, lifelong learning, and community well-being (Canadian Council on Learning, 2009). Within these components, several themes emerged which may also inform career development research, including the importance of family and community, early childhood education, and post-secondary education to lifelong learning. The report also addressed the “need to measure social and economic conditions (such as income, employment opportunities, incidence of diabetes) that contribute to (or impede) learning success” (Canadian Council on Learning, 2009, p. 4).

This confirms the importance of the present research to building a greater understanding of career development with Aboriginal peoples in Atlantic Canada.

While this research explored factors that influenced educational success, similar factors may also be important in terms of the career development of Canadian Aboriginal peoples. Despite the deficit in Aboriginal career development research, there is an emerging body of literature in Canada focusing on the career development of Aboriginal peoples. This research will be reviewed in the following section, along with a discussion of relevant research from other countries.

### **Aboriginal Career Development Research**

Research in the area of vocational development in indigenous persons has been conducted in the United States and Australia. Mau (1995) examined racial and cultural influences on American children in middle school. His findings indicate that financial and language barriers may influence Hispanic and Native American students to lower their educational aspirations (Mau, 1995). Lowe and Tassone (2000) described a pilot program in Australia that, through education and career awareness, assisted local schools in retaining indigenous Australian students for their study. Students' aspirations were impacted negatively by "systemic issues such as poor student learning, retention and attendance", geographic isolation, and student self-esteem (Lowe & Tassone, 2000, p. 13). Alford and James (2007) also conducted research with the indigenous population of Australia. They found similar barriers to career aspiration level, including low literacy and education, lack of connection to employment after receiving training, family and community biases, as well as a fear of the world-of-work (Alford & James, 2007). These barriers were attributed to poor economic conditions and negative family influences due to addictions, abuse and violence. Systemic discrimination and racism

also caused of these barriers to exist (Alford & James, 2007). The focus groups that were conducted also revealed that a majority of participants did not have a career plan (Alford & James, 2007). Similar results were shown in the current research as a large percentage of participants reported vague or no response to the career interest question, indicating either a lack of career planning or awareness.

Burgess and Dyer (2009) proposed using workplace mentors as a tool for overcoming some of these barriers in Australia. They found that “a culturally appropriate workplace mentoring program with supporting mechanisms provides a way in which indigenous Australians can be encouraged and nurtured into the workforce” (Burgess & Dyer, 2009, p. 482). Craven et al. (2005) looked at the career aspirations of indigenous Australian students and found that “Indigenous students tended to set their schooling and post-schooling aspirations at lower levels compared with their non-Indigenous peers” (p. 142). They cited numerous challenges to higher career aspirations faced by the participants in their study, including knowledge of career opportunities, lack of family support, awareness of what education or training is needed to pursue their career aspiration, better education facilities, local job opportunities, and employer attitudes towards indigenous people (Craven et al., 2005). Similar barriers would be expected to impact the Aboriginal people of Atlantic Canada, including lack of family support and education level. In a more capacity-focused project, Helme (2010) identified similar barriers to career aspirations in the indigenous population of Australia and identified ways to facilitate career development. Her research concluded that cultural identity, service to the community, case management in career counselling, and workforce experience programs were essential to building positive careers for this population. The present research, “The effect of social variables on the career

aspirations of New Brunswick Aboriginal adults”, examined similar factors for the Aboriginal population of Atlantic Canada.

In the United States, Juntunen and Cline (2010) discovered several factors that limited the career development of Lakota women, including: consequences of social oppression, geographic setting, and cultural identity. Juntunen and Cline (2001) interviewed 18 American Indians and explored the meaning of career concepts in their participants. They found that career was considered a lifelong pursuit, influenced by family, personal identity, the ability of one to give back to the community, and enabled by the pursuit of education (Juntunen & Cline, 2001). These findings align with similar research in Western Canada (McCormick & Honore, 1995).

Jackson and Smith (2001) interviewed 22 Navajo Indian high school graduates and discovered that their career development was hindered by financial strains, family conflict, and substance abuse, which subsequently impacted their ability to attain a higher education and forced them to work in unskilled labour positions. Hoffman, Jackson, and Smith (2005) interviewed 29 Navajo high school students regarding their perceived career barriers and found that family pressure, financial struggles, and lack of career awareness were common themes mentioned by the participants. Relevant to this research, Hoffman et al. (2005) stated that Aboriginal males were more likely to face barriers in their careers due to a lack of understanding of the labour force and unrealistic expectations. They generally assumed that jobs were available and that little training was needed (Hoffman et al., 2005). The present research, “The effect of social variables on the career aspirations of New Brunswick Aboriginal adults”, examined the career aspirations of Aboriginal men and women in Atlantic Canada and the findings also address this gender dichotomy.

There is an emerging body of Aboriginal career development research in Canada. McCormick and Honore (1995) provided a framework for career counselling with First Nations students and described many differences in the relevant career influences, when compared to the rest of Canada. These differences include: a focus on community responsibility compared to the individuality of European culture; greater parental influence on career decision-making; and a lack of career awareness in First Nations communities in Canada. McCormick and Honore's (1995) work shows that there are differences in the relevant career decision-making processes and influences between Aboriginal and non-Aboriginal people in Canada. Factors that may have influenced career aspiration level in the general Canadian population may not be influencers in the First Nations context. While McCormick and Honore's work was completed in Western Canada, the same factors of community responsibility, family influence, and low career awareness emerge in Atlantic Canadian Aboriginal peoples (Bruce, Marlin, & Doucette, 2010). Community responsibility and mobility are linked because Aboriginals generally feel a need to give back to their home community, thus limiting the geographical area of work (Bruce, Marlin & Doucette, 2010). This research explored variations of two of the factors identified by McCormick and Honore (1995): community responsibility (mobility) and career awareness (career aspiration).

The Royal Commission on Aboriginal Peoples in Canada that was released in 1996 provided the impetus for McCormick and Amundson (1997) to develop a career-life planning model for First Nations people in Canada. This career-life counselling model was designed to aid career counsellors in valuing the worldview of First Nations peoples and focuses on key components, such as: connectedness, balance, needs, roles, gifts, and values (McCormick & Amundson, 1999, p. 178). This worldview is founded

on traditional knowledge that teaches how the individual is responsible for “one’s self, the family, the community, the nation, the ancestors, the natural world, and the spiritual world” (McCormick & Amundson, 1997). While career aspirations are definitely involved in this model, it was intended to be a process tool for career practitioners to be culturally sensitive in working with First Nations clients (McCormick & Amundson, 1997). This model was tested with thirteen First Nations youth in Vancouver, BC and proved valuable for acknowledging the participants’ values, gifts, aptitudes, and skills (Neumann et al., 2000). This research focused on career exploration and was not meant to explore career aspirations in the participants, however some of the themes contained in the career-life planning model for First Nations people, such as connectedness to family, community, and kinship to the natural world may emerge in the current research.

In 2010, the Environics Institute conducted an Urban Aboriginal Peoples Study (UAPS) examining the values, experiences, identities, and aspirations of urban Aboriginal peoples. This study found that, while a connection with ancestral communities remained strong, the city had become the primary home for these people (Environics Institute, 2010). They were also confident in their ability to maintain their cultural identity in the city (Environics Institute, 2010). Finally, urban Aboriginal peoples in this study generally aspired to a successful career and financial independence (Environics Institute, 2010). These aspirations were influenced by a desire to pursue higher education along with mentors and role models (Environics Institute, 2010). A large number of the participants in this research resided in Halifax, Nova Scotia in Atlantic Canada. The results from this segment of the population confirm the national trend towards pursuing higher education and career satisfaction, while finding a life

partner/marriage was also a key factor in the life aspirations (Environics Institute, 2010). While this research can assist in understanding the overall life experiences and aspirations of urban Aboriginal peoples across Canada, it is limited in its relevance specific to career development and career aspirations.

Abele and Delic (2014) explored the factors underlying the poor labour market outcomes of young northern Aboriginal people in Canada and found four key themes that were important in supporting northern Aboriginal youth employment, including: educational attainment and transitions to work, building government policies that understand the Aboriginal community social systems, opening opportunities at all levels of the natural resources sector labour force, and strategies to overcome the geographic remoteness of northern Aboriginal communities. These themes were shown to affect employment outcomes in northern Aboriginal communities and align well with similar research in Atlantic Canada (Roness & Collier, 2010; Bruce, Marlin, & Doucette, 2010).

Merrill, Bruce, and Marlin (2010) conducted a literature review in Canada addressing factors that affect successful transitions for Aboriginal peoples into post-secondary education (PSE) and the labour market. They found several factors that affected career transitions in these areas, including: PSE dissatisfaction, historical trauma, social factors, family, community, finances, culture, geography, and education-labour force links (Merrill et al., 2010). The present research examined several of these factors in relation to Atlantic Canadian Aboriginal peoples, namely: geography, education, and family. Looking at Aboriginal people in executive positions, Dwyer (2003) stated that “leadership experience, education and job assignments” were important factors impacting career development (p. 884). Research in the health sector



showed that continuing education (CE) and technology were important tools for service providers in First Nations and remote communities (Scott, Menzies, Chenard, & Spence, 2013). This research adds to previous work in identifying a connection between career aspiration and education.

The labour force participation rates of Aboriginal women trail their non-Aboriginal counterparts, and among those who are active in the workforce, the unemployment rate is higher than for the rest of the population (White, Maxim & Gyimah, 2003). While unemployment does not necessarily indicate low career aspiration, the lack of workforce participation may. According to one study, educational attainment increased labour force participation (White, Maxim, & Gyimah, 2003). The presence of small children, however, replaces a job on the priority list of Aboriginal women, decreasing labour force participation (White, Maxim, & Gyimah, 2003). Urbanization, moving from rural reservations into urban centers, was also shown to have a “moderating effect on the difference in labour force-related issues” (White, Maxim, & Gyimah, 2003, p. 410). While the present research did not specifically address urbanization as a variable impacting the career aspirations of Aboriginal people, it addressed the mobility of the participants, which includes urbanization and movement between rural areas. Although White, Maxim and Gyimah (2003) made a strong case for the link between education, family status, place of residence and labour market participation, the study was not designed to identify statistically significant relationships between these variables.

Offet-Gartner (2008) referred to numerous factors that influence the career possibilities for Aboriginal women in Western Canada, including historical trauma, family, funding challenges, and culturally appropriate supports. Her study found that

education was a perceived key to unlocking the door for Aboriginal women to career possibilities (Offet-Gartner, 2008).

Additional qualitative research in Western Canada showed that career development in Aboriginal adolescents residing in an urban area of British Columbia can be hindered by “family survival” (Marshall et al., 2010, p. 553), meaning actions undertaken by the participants that helped their families “persist in their lives together despite current health conditions and other challenging circumstances” (Marshall et al., 2010, p. 552). While these family projects hindered career development in the participants, they served to “ensure the continuation of their relationships” (Marshall et al., 2010, p. 554). The study concluded that career development in the urban Aboriginal setting was a joint venture with family and community members. Family, in this study, included romantic partners.

A study originating in Alberta stated that, Aboriginal youth are willing to work hard and go where they have to in order to realize their career aspirations, however, they “are not lining up at the same starting line” (Bibby 2010, p. 59). Education and supportive communities are touted as keys to leveling the playing field between Aboriginal and non-Aboriginal people (Bibby, 2010). Bibby (2010) did not measure career aspiration as a part of his research, but rather asked how Aboriginal youth would achieve their goals. Educational aspirations were measured to be lower amongst Aboriginal youth in this study compared to non-Aboriginal counterparts due to a lack of social support, discrimination, conflict, and personal safety concerns (Bibby, 2010). Despite these barriers, the Aboriginal participants demonstrated resilience in believing that they could achieve their goals through hard work (Bibby, 2010).

This body of research could also mean that education and marital status will have a relationship with career development in Atlantic Canada, however, the literature does not provide insight into the relationship between education, marital status, and career aspirations among Aboriginal peoples. The following section will focus more directly on the participant population in Atlantic Canada.

### **Aboriginal Career Development Research in Atlantic Canada**

In one of the few studies conducted with Aboriginal people from Atlantic Canada, Arkwright-Alivisatos (1997) examined career decisions of Aboriginal adult learners from Atlantic Canada and found several themes that guided their career development. She found that role models, family, and community influence the career decisions of Aboriginal people in the Atlantic Provinces. Role models and family were positive influencers on career achievement, while attachment to the community limited career aspirations to occupations that create a positive influence within the Aboriginal community (Arkwright-Alivisatos, 1997). Roness and Collier (2010) conducted research assessing the effectiveness of government labour market participation strategies with Atlantic Canadian Aboriginals. Facilitated by the Atlantic Policy Congress of First Nations Chiefs (APCFNC), this project involved interviews with Aboriginal service providers who identified the following employment barriers: discrimination from non-Aboriginal employees, cultural differences, difficulty with the interview process, lack of education, lack of training, language barriers, literacy challenges, tardiness or absence from work, miscommunication, and geographic challenges (Roness & Collier, 2010). Aboriginal employees were also interviewed and reported similar barriers, including: discrimination, lack of education, and lack of training. They also reported some barriers that were not identified by service providers,

including: community attachment, lack of Aboriginal co-workers, no experience and being unable to afford living off of the reservation (Roness & Collier, 2010). Roness and Collier (2010) advanced ten recommendations for building an adequately prepared Aboriginal labour force, including: pre-employment and career development workshops; establishment of an Aboriginal mentoring program, including internships into training programs; provision of industry-approved training; integration of employment services to Aboriginals; inclusion of employer expectations and employee conduct components in all training; building support programs for students that allow them to succeed academically; and offering life skills training for those preparing to move off-reserve (Roness & Collier, 2010). These findings and recommendations confirm the importance of community, education, and mobility in building Aboriginal workforce participation, but they were not intended to demonstrate a relationship between these factors and career aspirations.

In additional descriptive research, the Atlantic Policy Congress of First Nations Chiefs (APCFNC) sponsored a report in 2010 into the impact of post-secondary education on the Aboriginal labour force in Atlantic Canada. The report showed that those who completed post-secondary education were more likely to find a job in their chosen field of study (Bruce, Marlin, & Doucette, 2010). It also revealed some primary barriers to career achievement, including: “lack of opportunities in their home communities in their chosen fields; a lack of long term career planning and guidance; limited knowledge about employment opportunities outside of reserve communities; and lack of desire to relocate to an off-reserve community to take a job” (Bruce, Marlin, & Doucette, 2010, p. 83). The lack of opportunities in Aboriginal communities

combined with hesitance to relocate may indicate a negative relationship with career aspiration.

Focusing specifically on New Brunswick, the First Nations Education Initiative Inc. (FNEII) conducted an assessment of career planning and guidance services available to New Brunswick's First Nations high school students in 2011. They found multiple barriers to the career development of Aboriginal students embedded in the education system of the province, including: limited exposure of students to careers outside of their communities; lack of consideration given to cultural and socio-economic factors; lack of exposure to the workplace; and guidance staff who are overwhelmed with crisis management and are unable to devote adequate time to career planning (Dragonfly Solutions, 2011). However, the research was not designed to draw statistical relationships between these factors and the career aspirations of Aboriginal students.

### **Conclusion**

Existing research acknowledges that there has been little work identifying the predictors of Aboriginal employment in Canada (Ciceri & Scott, 2006; Spowart & Marshall, 2015). Recent research in New Brunswick records that, "the author cannot provide statistically based conclusions from this report" (Dragonfly Solutions, 2011, p. 35). Furthermore, much of the research that has been done on career aspiration predictors has focused on the non-Aboriginal population and it is problematic to apply those results as indicative of the Aboriginal population (McCormick & Honore, 1995). Considering these factors, the current research was conducted in order to build understanding of the career aspirations of Aboriginal peoples. There are best practices

that describe research with Aboriginal peoples as “primarily qualitative, participatory, collaborative, and community-based” (Ermine, Sinclair, & Jeffery, 2004, p. 13). The current research was designed and conducted by Aboriginal organizations and peoples with the intention of building opportunities in the Atlantic Canadian workforce. The analysis and reporting was also completed by an Aboriginal researcher from one of the surveyed communities. Therefore, this research was done in accordance with the ethical best practices for research involving Aboriginal peoples (Ermine, Sinclair, & Jeffery, 2004).

## References

- Abele, F., Delic, S. (2014). *Aboriginal youth employment in northern Canada*. Retrieved from Carleton University website: <http://carleton.ca/3ci/wp-content/uploads/Aboriginal-Youth-Employment-Report-March-20-2014.pdf>
- Achieve Inc. (2012). *The Future of the US Workforce: The Limited Career Prospects for High School Graduates without Additional Education and Training*. Washington, DC: Author.
- Alford, K., & James, R (2007). *Pathways and barriers: Indigenous schooling and vocational education and training participation in the Goulburn Valley region*. Melbourne, VIC: Centre for Higher Education, University of Melbourne.
- Alfred, T. G. (2009). Colonialism and state dependency. *Journal of Aboriginal Health*, 5(2), 42-60.
- Andersen, S. H. (2015). Serving time or serving the community? Exploiting a policy reform to assess the causal effects of community service on income, social benefit dependency, and recidivism. *Journal of Quantitative Criminology*, 31, 537-563. doi:10.1007/s10940-014-9237-2
- Arkwright-Alivisatos, D. (1997). *The chosen path: Career decisions of aboriginal adult learners* (Master's thesis). Available from ProQuest Dissertations & Theses. (UMI No. 304421857)
- Battiste, M., Bell, L., & Findlay, L.M. (2002). Decolonizing education in Canadian universities: An interdisciplinary, international, indigenous research project. *Canadian Journal of Native Education*, 26(2), 82-95.

- Battiste, M., & Henderson, J.Y. (2009). Naturalizing indigenous knowledge in eurocentric education. *Canadian Journal of Native Education*, 32(1), 5-18.
- Benjamin, A., Domene, J., & Landine, K. (2014). Constructing the future in liminal spaces between adolescence and adulthood: Responsibilities, careers, and social contexts. *Canadian Journal of Career Development*, 13(1), 47-58. Retrieved from <http://cjcdonline.ca/archives/>
- Bibby, R. W. (2010). *Alberta's emerging millenials: A national survey of Alberta teens and other teens*. Lethbridge, AB: Project Canada Books. Retrieved from [http://www.reginaldbibby.com/images/Alberta\\_s\\_Emerging\\_Millennials\\_MASTER.pdf](http://www.reginaldbibby.com/images/Alberta_s_Emerging_Millennials_MASTER.pdf)
- Bigliardi, B., Petroni, A., & Dormio, A.I. (2005). Organizational socialization, career aspirations and turnover intentions among design engineers. *Leadership & Development Journal*, 26, 424-441.  
doi:10.1108/01437730510617645
- Brand, J., & Xie, Y. (2010). Who benefits most from college? Evidence for negative selection in heterogenous economic returns to higher education. *American Sociological Review*, 75, 273-302.  
doi:10.1177/0003122410363567
- Brosseau, D., Domene, J. F., & Dutka, T. (2011). The importance of partner involvement in determining career decision-making difficulties. *Canadian Journal of Career Development*, 9(2), 35-41. Retrieved from <http://cjcdonline.ca/archives/>
- Bruce, D., Marlin, A., & Doucette, M. B. (2010). *The Atlantic Aboriginal post-*



*secondary labour force*. Retrieved from the Atlantic Policy Congress of First Nations Chiefs website:  
<http://www.apcfn.ca/images/uploads/FinalReport-TheAtlanticAboriginalPost-SecondaryLabourForceFinal.pdf>

Burgess, J., & Dyer, S. (2009). Workplace mentoring for indigenous Australians: A case study. *Equal Opportunities International*, 28, 465-485.  
doi:10.1108/02610150910980774

Canadian Council on Learning (2009). *The state of Aboriginal learning in Canada: A holistic approach to measuring success*. Retrieved from the Assembly of First Nations website: [http://www.afn.ca/uploads/files/education2/state\\_of\\_aboriginal\\_learning\\_in\\_canada-final\\_report,\\_ccl,\\_2009.pdf](http://www.afn.ca/uploads/files/education2/state_of_aboriginal_learning_in_canada-final_report,_ccl,_2009.pdf)

Carnevale, A. P., Strohl, J., & Melton, M. (2011). *What's it worth? The economic value of college majors*. Retrieved from Georgetown University Center on Education and the Workforce website: <https://cew.georgetown.edu/wp-content/uploads/2014/11/whatsitworth-complete.pdf>

Ciceri, C., & Scott, K. (2006). The determinants of employment among Aboriginal Peoples. In J. White, S. Wingert, D. Beavon, & P. Maxim (Eds.), *Aboriginal Policy Research – Volume 3: Moving Forward, Making a Difference* (pp. 3-32). Ottawa, ON: Thompson Educational Publishing Inc.

Cochran, D. B., Wang, E. W., Stevenson, S. J., Johnson, L. E., & Crews, C. (2011). Adolescent occupational aspirations: Test of Gottfredson's theory of circumscription and compromise. *The Career Development Quarterly*, 59, 412-427. doi:10.1002/j.2161-0045.2011.tb00968.x

- Council of Ontario Universities. (2014). *University Works: 2014 Employment Report*. Toronto, ON: Author.
- Craven, R. G., Tucker, A., Munns, G., Hinkley, J., Marsh, H. W., & Simpson, K. (2005). *Indigenous students' aspirations: Dreams, perceptions and realities*. Canberra: Department of Education, Science and Training, Commonwealth of Australia.
- Delisle, F., & Shearmur, R. (2010). Where does all the talent flow? Migration of young graduates and nongraduates, Canada 1996-2001. *The Canadian Geographer*, 54, 305-323. doi:10.1111/j.1541-0064.2009.00276.x
- Department of Post-Secondary Education, Training, and Labour (2013). *Profile of the New Brunswick Labour Force*. Retrieved from New Brunswick Department of Post-secondary Education, Training and Labour website: <http://www2.gnb.ca/content/dam/gnb/Departments/petlepft/PDF/Emp/Profile-NB-LabourForce.pdf>
- Domene, J., Nee, J., Cavanaugh, A., McLelland, S., Stewart, B., Stephenson, M., Kauffman, B., . . . Young, R. (2012). Young adult couples transitioning to work: The intersection of career and relationship. *Journal of Vocational Behavior*, 81, 17-25. doi:10.1016/j.jvb.2012.03.005
- Dragonfly Solutions (2011). *Assessment of career planning and guidance services for New Brunswick's First Nations students*. Fredericton, NB: First Nations Education Initiative Inc.
- Dwyer, R. J. (2003). Career progression factors of Aboriginal executives in the Canada federal public service. *Journal of Management Development*, 22, 881-889. doi:10.1108/02621710310505476

- Environics Institute (2010). *Urban Aboriginal peoples study: Background and summary of findings*. Toronto, ON: The Interprovincial Group.
- Environics Institute (2010). *Urban Aboriginal peoples study: Halifax report*. Toronto, ON: The Interprovincial Group.
- Ermine, W., Sinclair, R., Jeffery, B. (2004). *The ethics of research involving indigenous peoples*. Saskatoon, SK: Indigenous Peoples' Health Research Centre.
- First Nations Information Governance Centre (2016). *Educational achievement of First Nations adults by age and gender* [Data file]. Retrieved from <http://data.fnigc.ca/online>
- Fitzgerald, T. (2006). Walking between two worlds: Indigenous women and educational leadership. *Educational Management Administration & Leadership*, 34, 2, 201-213. doi: 10.1177/1741143206062494
- Fong, F. & Gulati, S. (2013). *Employment and education among Aboriginal Peoples: A new perspective from the 2011 National Household Survey* (Special Report, TD Economics). Retrieved from TD Economics website: <http://www.td.com/document/PDF/economics/special/EmploymentAndEducationAmongAboriginalPeoples.pdf>
- Francis, B. (2002). Is the future really female? The impact and implications of gender for 14-16 year olds' career choices. *Journal of Education and Work*, 15(1), 75-88. doi: 10.1080/13639080120106730
- Frenette, M., & Zeman, K. (2007). *Why are most university students women? Evidence based on academic performance, study habits and parental influences*. Retrieved from Statistics Canada Business and Labour Market

Analysis Division website: <http://www.statcan.gc.ca/pub/81-004-x/2008001/article/10561-eng.htm>

Gottfredson, L. S. (1981). Circumscription and compromise: A developmental theory of occupational aspirations. *Journal of Counseling Psychology Monograph*, 28, 545-579. doi:10.1037/0022-0167.28.6.545

Gottfredson, L. S. (1996). Gottfredson's theory of circumscription and compromise. In D. Brown & L. Brooks (Eds.), *Career choice and development* (pp. 179-232). San Francisco, CA: Jossey-Bass.

Government of Canada (2011). *Welcome to the National Occupational Classification 2011*. Retrieved from Human Resources and Skills Development Canada website:

<http://www5.hrsdc.gc.ca/NOC/English/NOC/2011/Welcome.aspx>

Helme, S. (2010). Career decision-making: What matters to indigenous Australians? *Australian Journal of Career Development*, 19(3), 67-74. doi:10.1177/103841621001900309

Hoffman, L. L., Jackson, A. P., & Smith, S. A. (2005). Career barriers among Native American students living on reservations. *Journal of Career Development* 32(1), 31-45. doi: 10.1177/0894845305277038

Holland, J.L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* (3rd ed.). Lutz, FL: Psychological Assessment Resources.

Howard, K., Carlstrom, A, Katz, A., Chew, A., Ray, G., Laine, L., & Caulum, D. (2011). Career aspirations of youth: Untangling race/ethnicity, SES, and gender. *Journal of Vocational Behavior*, 79, 98-109.

doi:10.1016/j.jvb.2010.12.002

- Hwang, M., Kim, J., Ryu, J. Y., & Heppner, M. J. (2006). The circumscription process of career aspirations in South Korean adolescents. *Asia Pacific Education Review, 7*, 133-143. doi:10.1007/bf03031537
- Jackson, A. P., & Smith, S. A. (2001). Postsecondary transitions among Navajo Indians. *Journal of American Indian Education, 40*(2), 28-47.
- Jacobson, L., & Mokher, C. (2009). *Pathways to Boosting the Earnings of Low-Income Students by Increasing Their Educational Attainment*. Washington, DC: Hudson Institute for Employment Policy.
- Johnson, L. (1995). A multidimensional analysis of the vocational aspirations of college students. *Measurement and Evaluation in Counseling and Development, 28*, 25-44.
- Junk, K. E., & Armstrong, P. I. (2010). Stability of career aspirations: A longitudinal test of Gottfredson's theory. *Journal of Career Development, 37*, 579-598. doi:10.1177/0894845309350921
- Juntunen, C. L., & Cline, K. (2010). Culture and self in career development: Working with American Indians. *Journal of Career Development, 37*, 391-410. doi:10.1177/0894845309345846
- Kendall, J. (2001). Circles of disadvantage: Aboriginal poverty and underdevelopment in Canada. *The American Review of Canadian Studies, 31*, 43-59. doi: 10.1080/02722010109481581
- Koul, R., Lerdpornkulrat, T., & Chantara, S. (2011). Relationship between career aspirations and measures of motivation toward biology and physics, and the Influence of Gender. *Journal of Science Education and Technology, 20*,

761-770. doi:10.1007/s10956-010-9269-9

Kregel, J. (2009). Work incentives and assistance: Assisting beneficiaries to obtain employment and reduce dependence on SSA benefits. *Journal of Vocational Rehabilitation, 31*, 1-9. doi:10.3233/JVR-2009-0466

Lent, R. W., Hackett, G., & Brown, S. D. (1999). A social cognitive view of school-to-work transition. *The Career Development Quarterly, 47*, 297-311. doi:10.1002/j.2161-0045.1999.tb00739.x

Levine, J. D. (2003). *Use of the O\*NET Descriptors in Numerical Occupational Classification: An Exploratory Study* (Doctoral dissertation, North Carolina State University). Retrieved from <https://repository.lib.ncsu.edu/handle/1840.16/5102>

Linderman, A. J. (2010). *Seventh grade student career aspirations and academic achievement* (Master's thesis, Brockport State University of New York). Retrieved from [http://digitalcommons.brockport.edu/edc\\_theses/67/](http://digitalcommons.brockport.edu/edc_theses/67/)

Lopez, M. H., & Gonzalez-Barrera, A. (2014). Women's college enrollment gains leave men behind. *Pew Research Center*. Retrieved from: <http://www.pewresearch.org/fact-tank/2014/03/06/womens-college-enrollment-gains-leave-men-behind/>

Lowe, K., & Tassone, J. (2001). *Aboriginal career aspirations program: School and community career education. A report and discussion on a NSW Board of Studies project*. Paper presented at the Annual Conference of the Australian Association for Research in Education, Fremantle, WA. Retrieved from <http://www.aare.edu.au/Olpap/low01351.htm>

Malatest, R.A. (2004). *Aboriginal peoples and post-secondary education: What*

*educators have learned.* Retrieved from

<http://www.turtleisland.org/education/postseced.pdf>

- Marshall, S. K., Young, R. A., Stevens, A., Spence, W., Deyell, S., Easterbrook, A., & Brokenleg, M. (2010). Adolescent career development in urban-residing Aboriginal families in Canada. *The Career Development Quarterly, 59*, 539-558. doi:10.1002/j.2161-0045.2011.tb00975.x
- Mau, W. (1995). Educational planning and academic achievement of middle school students: A racial and cultural comparison. *Journal of Counseling & Development, 73*, 518-526. doi:10.1002/j.1556-6676.1995.tb01788.x
- McCormick, R.M., & Amundson, N.E. (1997). A career-life planning model for First Nations people. *Journal of Employment Counseling, 34*(4), 171-179. doi:10.1002/j.2161-1920.1997.tb00467.x
- McCormick, R., & Honore, M. H. (1995). Counselling First Nations clients on career issues: Implications for the school counsellor. *Guidance & Counseling, 10*(2), 27-31.
- McCormick, R.M., Neumann, H., Amundson, N.E., & McLean, H.B. (1999). First Nations career/life planning model: Guidelines for practitioners. *Journal of Employment Counseling, 36*(4), 167-176. doi:10.1002/j.2161-1920.1999.tb01019.x
- Mendelson, M. (2006). *Aboriginal peoples and postsecondary education in Canada*. Ottawa, ON: The Caledon Institute of Social Policy.
- Merrill, S., Bruce, D., & Marlin, A. (2010). *Considerations for successful transitions between postsecondary education and labour market for aboriginal youth in Canada: Final report*. Sackville, NB: Rural and Small

Town Programme, Mount Allison University.

National Center for O\*NET Development. O\*NET OnLine Help: Job Zones.

*O\*NET OnLine*. Retrieved September 13, 2016, from

<https://www.onetonline.org/help/online/zones>

Neumann, H., McCormick, R.M., Amundson, N.E., McLean, H.B. (2000). Career counselling First Nations youth: Applying the First Nations career-life

planning model. *Canadian Journal of Counselling*, 34(3), 172-185.

Ng, T. W. H., Eby, L. T., Sorensen, K. L., & Feldman, D. C. (2005). Predictors of objective and subjective career success: A meta-analysis. *Personnel*

*Psychology*, 58(2), 367–409. doi:10.1016/j.jvb.2012.06.003

Offet-Gartner, K. (2008). *Sharing the story: Education as the key to unlocking the door of career possibilities with First Nations women* (Doctoral dissertation,

University of Calgary). Available from ProQuest Dissertation & Theses

Global database. (UMI No. 304693647)

Perry, J., Przybysz, J., & Al-Sheikh, M. (2009). Reconsidering the “aspiration-expectation gap” and assumed gender differences among urban youth.

*Journal of Vocational Behavior*, 74, 349-354. doi:10.1016/j.jvb.2009.02.006

Rojewski, J. W. (2005). Occupational aspirations: Constructs, meanings, and

application. In S.D. Brown and R.W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp.131-154). Hoboken,

NJ: John Wiley.

Rojewski, J. W. & Lee, I. H. (2009). Development of occupational aspiration

prestige: A piecewise latent growth model of selected influences. *Journal of*

*Vocational Behaviour*, 75, 82-90. doi:10.1016/j.jvb.2009.03.006



- Roness, L. A., & Collier, M. (2010). *Assessing the effectiveness of labour force participation strategies*. Retrieved from Atlantic Policy Congress of First Nations Chiefs website: <http://www.apcfn.ca/images/uploads/FinalReport-AssessingtheEffectivenessofLabourForceParticipationStrategies.pdf>
- Schoon, I., & Polek, E. (2011). Teenage career aspirations and adult career attainment: The role of gender, social background and general cognitive ability. *International Journal of Behavioral Development, 35*, 210-217.  
doi:10.1177/0165025411398183
- Scott, T., Menzies, C., Chenard, G., & Spence, M. (2013). Bridging the gap: Innovative approaches to continuing education in rural, remote, and isolated First Nation communities. *Seminars in Dialysis, 26*, 164-168.  
doi:10.1111/sdi.12058
- Spowart, J. K., & Marshall, E. A. (2015). Relational and cultural impacts on the work life of young Indigenous men. *Canadian Journal of Counselling and Psychotherapy, 49*, 214-231.
- Statistics Canada (2011). *National Household Survey: Aboriginal Peoples*. Retrieved from Statistics Canada website:  
<http://www5.statcan.gc.ca/subject-sujet/theme-theme.action?pid=10000&lang=eng&more=0>
- Statistics Canada (2015). *Postsecondary graduates by institution type, province, and sex (both sexes)* [Data file]. Retrieved from <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/educ69a-eng.htm>
- Stromberg, C. (2008). *Career aspirations: Similarities and differences between adolescence with learning disabilities and adolescence not receiving special*

*education services* (Master's thesis, Rochester Institute of Technology).

Retrieved from <http://scholarworks.rit.edu/cgi/viewcontent.cgi?>

[article=8381&context=theses](http://scholarworks.rit.edu/cgi/viewcontent.cgi?article=8381&context=theses)

Super, D. E. (1990). A life-span, life-space approach to career development. In D.

Brown, L. Brooks, & Associates (Eds.), *Career choice and development:*

*Applying contemporary theories to practice* (2<sup>nd</sup> ed., pp. 197–261). San

Francisco, CA: Jossey-Bass.

Taylor, M. (2013, April 26). First Nations boost partnerships with business

community. *The Globe and Mail*. Retrieved from

[http://www.theglobeandmail.com/report-on-business/small-business/sb-](http://www.theglobeandmail.com/report-on-business/small-business/sb-growth/day-to-day/first-nations-boost-partnerships-with-business-community/article11555856/)

[growth/day-to-day/first-nations-boost-partnerships-with-business-](http://www.theglobeandmail.com/report-on-business/small-business/sb-growth/day-to-day/first-nations-boost-partnerships-with-business-community/article11555856/)

[community/article11555856/](http://www.theglobeandmail.com/report-on-business/small-business/sb-growth/day-to-day/first-nations-boost-partnerships-with-business-community/article11555856/)

Tuck, E. (2009). Suspending damage: A letter to communities. *Harvard*

*Educational Review*, 79, 409-427. doi:10.17763/haer.79.3.n0016675661

t3n15

Tucker, J., & Fushell, M. (2013). Graduate programs in education: Impact on

teachers' careers. *Canadian Journal of Educational Administration and*

*Policy*, 148, 1-26. Retrieved from [https://www.umanitoba.ca/](https://www.umanitoba.ca/publications/cjeap/pdf_files/tucker_fushell.pdf)

[publications/cjeap/pdf\\_files/tucker\\_fushell.pdf](https://www.umanitoba.ca/publications/cjeap/pdf_files/tucker_fushell.pdf)

Turcotte, M., & Weeks, J. (2014). *The migration of infrastructure tradespersons.*

Retrieved from Statistics Canada website: [http://www.statcan.gc.ca/pub/75-](http://www.statcan.gc.ca/pub/75-006-x/2014001/article/14011-eng.htm)

[006-x/2014001/article/14011-eng.htm](http://www.statcan.gc.ca/pub/75-006-x/2014001/article/14011-eng.htm)

Waslander, B. (1997). Government expenditures on Aboriginal People: The costly

status quo. *Canadian Tax Journal* 45, 959-978.

- Watt, H. M., Shapka, J. D., Morris, Z. A., Durik, A. M., Keating, D. P., & Eccles, J. S. (2012). Gendered motivational processes affecting high school mathematics participation, education aspirations, and career plans: A comparison of samples from Australia, Canada, and the United States. *Developmental Psychology, 48*, 1594-1611. doi: 10.1037/a0027838
- White, J., Maxim, P., & Gyimah, S. O. (2003). Labour force activity of women in Canada: A comparative analysis of Aboriginal and non-Aboriginal women. *The Canadian Review of Sociology and Anthropology, 40*, 391-415. doi:10.1111/j.1755-618x.2003.tb00254.x
- Williams, D. (2001). On the move with blue-collar relocations. *Area Development Site and Facility Planning, 36*(10), 56-60.
- Ying, L., & Michalopoulos, C. (2001). *SSP Plus at 36 Months: Effects of Adding Employment Services to Financial Work Incentives*. Ottawa, ON: Social Research and Demonstration Corporation.
- Zarifa, D. (2012). Persistent inequality or liberation from social origins? Determining who attends graduate and professional schools in Canada's expanded postsecondary system. *Canadian Review of Sociology, 49*, 109-137. doi:10.1111/j.1755-618X.2011.01286.x
- Zarifa, D., & Walters, D. (2008). Revisiting Canada's brain drain: Evidence from the 2000 cohort of Canadian university graduates. *Canadian Public Policy, 34*, 305-319. doi: 10.3138/cpp.34.3.305

## **CHAPTER 2: The effect of social variables on the career aspirations of New Brunswick Aboriginal adults**

Consistent with the School of Graduate Studies' regulations and guidelines for manuscript style theses, Chapter 2 has been written in the form of a journal article manuscript. Specifically, it has been written to conform to the submission requirements of the *Canadian Journal of Career Development*, which can be found at:

<http://cjcdonline.ca/submit/>.

### **Abstract**

A recent survey of Aboriginal peoples in New Brunswick by the Joint Economic Development Initiative Inc. (JEDI) collected data regarding social factors that influence career aspiration. These social variables included: gender, marital status, education level, social welfare dependency, and mobility. These variables were analyzed for their significant differences with career aspiration, measured by O\*Net Job Zones. A final data set of 202 survey respondents was used for data analysis. The results aligned with Gottfredson's theory of compromise and circumscription as preparation showed a significant effect with career aspiration. Factors outside of that framework, including marital status, gender, social dependence, and mobility, were also analyzed. The findings showed that women participants had greater career aspirations than men, and that less mobile participants had higher career interests. Implications for Aboriginal career development theory, future research, and career counselling are discussed.

*Keywords:* Canadian Aboriginal peoples, career aspirations

# **The effect of social variables on the career aspirations of New Brunswick**

## **Aboriginal adults**

### **Introduction**

Aboriginal peoples in Atlantic Canada are a part of a national population that is young and growing rapidly (Statistics Canada, 2011). In contrast, the rest of the Atlantic provinces face an aging workforce and a looming skills shortage (Department of Post-Secondary Education, Training and Labour, 2013). While this represents an opportunity for Aboriginal youth and adults to fill the void in the workforce left by an aging non-Aboriginal population, employment statistics show that significant challenges exist also. Aboriginal employment rates in New Brunswick significantly lag behind the non-Aboriginal population (Department of Post-Secondary Education, Training, and Labour, 2013). Aboriginal educational attainment rates also trail the rest of the province: 34.5% of the population will not complete high school, compared to 24.6% of the non-Aboriginal population; 16.4% will complete a college diploma, compared to 18.8% of the non-Aboriginal population; and, 8.7% will attain a university degree, compared to 15.5% of the non-Aboriginal population (Department of Post-Secondary Education, Training, and Labour, 2013). Recent research has shown the correlation between Aboriginal education and employment (Fong & Gulati, 2013). Career aspirations have also been identified as a key predictor of career attainment (Schoon & Polek, 2011). Considering the lower employment rates of Aboriginal peoples in New Brunswick and the importance of career aspirations on employment, it was informative to explore the influencers of career aspirations in Aboriginal adults in New Brunswick.

## **Theoretical Framework**

Rojewski (2005) defined career (occupational) aspirations as “expressed career-related goals or choices” (p. 132). Benjamin, Domene and Landine (2014) described career aspirations as “the process by which young people determine their goals while they are transitioning into adulthood” (p. 49). While this topic “has probably received as much attention as any other career-related concept” (Rojewski, 2005, p. 131), many prevalent career development theories have not fully defined the concept. The current study, “The effect of social variables on the career aspirations of New Brunswick Aboriginal adults”, used Gottfredson’s theory of circumscription and compromise as a theoretical framework to conceptualize career aspirations through a social psychological lens.

Gottfredson’s (1981) theory links career aspirations with internal and external factors such as, self-concept, social class, intelligence, and gender. As individuals emerge from childhood, a process of circumscription and compromise occurs, in which childhood career aspirations are discarded and replaced by more accessible careers. Theoretically, individuals filter their aspiration based on the perceived prestige, preparation requirements, employment opportunities, as well as the congruence of the career with their self-concept and personal view of gender roles (Junk & Armstrong, 2010).

Gottfredson (1996) amended her theory after conflicting research results to “include a set of conditional priorities for the compromise process based on the severity of the compromise being made” (Junk & Armstrong, 2010, p. 581). For major compromises, defined as a choice between two equally unacceptable careers, gender role becomes the most important factor in career decision-making. Minor compromises

do not challenge the individual's views regarding gender roles and prestige. In these cases, the person's interests will be the most influential factor in the career decision-making process (Junk & Armstrong, 2010). Existing research has shown at least partial support for Gottfredson's theory in populations in North America (Junk & Armstrong, 2010; Cochran, Wang, Stevenson, Johnson, & Crews, 2011) and South Korea (Hwang, Kim, Ryu, Heppner, 2006), but research examining Gottfredson's theory in relation to Canadian Aboriginal peoples is lacking. Gottfredson's theory was chosen as the theoretical framework for this research because it presented the most comprehensive theory of career aspiration that could be used to conceptualize the outcome variable of the current research. This theoretical model may not apply to Canadian Aboriginal peoples, but an Aboriginal model of career aspiration has not yet been developed to use in research. The present research, "The effect of social variables on the career aspirations of New Brunswick Aboriginal adults", will assess some aspects of Gottfredson's theory for its application to Atlantic Canadian Aboriginal peoples.

### **Influences on Career Aspirations**

Based on research in Thailand (Koul, Lerdpornkulrat, & Chantara, 2011), Britain (Schoon & Polek, 2011), the United States (Perry, Przybysz, & Al-Sheikh, 2009), and Atlantic Canada (Tucker & Fushell, 2013), a gender gap has emerged that shows high career aspirations among women. This is supported by Howard et al. (2011), who stated, "Native American youth – especially boys and youth from low SES backgrounds – were more likely than their peers to identify occupations of lower prestige, requiring less education, and yielding lower incomes" (p.108). However, the realization of these women's aspirations is affected by cultural and social factors. Unique cultural and social factors also exist between Canadian Aboriginal communities (Alfred, 2009;

McCormick & Honore, 1995), therefore the relationship between gender and career aspiration in the Aboriginal community of Atlantic Canada is unclear and is not easily explained using similar research results from other Canadian communities.

Preparation requirements (i.e. training and education) for a career were also considered. Employment and education are correlated, as a recent study by TD Bank found, stating that, “higher levels of Aboriginal educational attainment do translate into higher income levels and better labour market outcomes” (Fong & Gulati, 2013, p. 1). This confirms previous research in Canada that showed a direct link between education attainment and employability of Aboriginals (White, Maxim, & Gyimah, 2003; Bruce, Marlin, & Doucette, 2010). As Aboriginal people become more educated, their rate of employment increases. Offet-Gartner (2008) found that education was perceived as a key to unlocking the door to career opportunities for Aboriginal women in Western Canada. Aboriginal youth in Alberta are willing to work hard and go where they have to in order to realize their career aspirations, however, they “are not lining up at the same starting line” when it comes to education (Bibby 2010, p. 59). Roness and Collier (2010) confirmed the importance of education in building Aboriginal workforce participation in Atlantic Canada. While the existing research defines a relationship between education and employability, little is known of the relationship between education and the career aspirations of Aboriginal Peoples in Canada.

Social welfare dependency is a term used to refer to those who are receiving income assistance from the government (Andersen, 2014), such as employment insurance or social assistance. Social welfare dependency may have a limited effect on career aspirations. Kregel (2009) found that socially dependent individuals in the United States “engaged in employment goals, vocational training, or job-seeking



activities”, but face barriers to achieving their aspirations, such as, disability and fears over loss of benefits (Kregel, 2009, p. 3). Ying and Michalopoulos (2001) studied long-term income assistance recipients in New Brunswick, Canada, and also found that health issues and disability hindered the attainment of existing career aspirations. No literature was found that directly measured the effect of social welfare dependency on career aspiration level, however, low preparation careers are more accessible and offer the least number of barriers for social clients. Therefore, if Gottfredson’s theory were applied to social clients, logic would suggest that clients who are dependent on social programs (i.e. employment insurance, social assistance) would have lower career aspirations than those who are not dependent on those programs. This research explored this relationship in Atlantic Canadian Aboriginal peoples.

In addition to the factors defined by Gottfredson (1981), marital status and mobility are may also play a role in the career aspirations of Aboriginals in Canada. Research in the United States found that married individuals generally earn a higher salary, are promoted slightly more often, and have slightly higher levels of career satisfaction (Ng et al., 2005). Recent Canadian research also suggests that romantic relationships play a role in facilitating career decision-making, career advancement and raising income levels (Domene et al., 2012; Brosseau, Domene, & Dutka, 2010; Mitchell, 2014). However, the potential relationship between marriage and career aspiration remains unexplored within the Canadian Aboriginal population.

Turcotte and Weeks (2014) discussed how labour mobility in the trades is being used as a strategy to reduce regional labour market strains. They failed to find differences in rates of mobility based on participants’ education levels. Delisle and Shearmur (2010) found that Canadian university graduates consider movement within a

certain region to be less of an obstacle than their non-graduate counterparts. However, both groups are less mobile across large distances. However, this research focused on the relocation patterns of Alberta residents and the general Canadian population, and may not apply to Atlantic Canadian Aboriginal people. Arkwright-Alivisatos (1997) found that role models and family, as well as a desire to create a positive influence within their own community, were positive influencers on career achievement for Aboriginal adults in Atlantic Canada. This finding has been confirmed by more recent research, which revealed that community attachment was a factor in the employment outcomes of Atlantic Canadian Aboriginal peoples (Bruce, Marlin, & Doucette, 2010). Atlantic Canadian Aboriginal peoples are generally unwilling to relocate and work outside of their community. This could indicate that mobility is also a limiting factor on the career aspirations of this population.

### **Present Study**

The present research adds to the emerging body of Aboriginal career development literature by examining the effect of social variables on the career aspirations of New Brunswick Aboriginal adults. Career development amongst Aboriginal peoples in Canada is an under-researched area of study (Spowart & Marshall, 2015). Spowart and Marshall (2015) recently conducted a qualitative study of supports, challenges, and obstacles that Aboriginal men faced in British Columbia, and found that participants' culture and relatives had a significant impact on their career success. McCormick and Amundson (1997) developed the First Nations career-life planning model which focused on key components in career exploration, such as: connectedness, balance, needs, roles, gifts, skills, and values. This model was tested on Aboriginal youth in British Columbia, and was effective as a career exploration tool with this group

(Neumann et al., 2000). As a career exploration tool, there was little to be gleaned in regards to career aspirations, however similar themes related to community connectedness may emerge in the present study.

In addition to this research, other relevant studies have revealed the presence of career goal-setting in American Indians (Juntunen et al., 2001); family and financial strains as a limiting factor to career aspirations of Navajo Indian high school graduates (Jackson & Smith, 2001; Hoffman, Jackson, & Smith, 2005); and, geographic isolation as a barrier in transitioning from post-secondary education into the labour market (Merrill, Bruce, & Marlin, 2010).

There are unique factors that differentiate the Atlantic Canadian Aboriginal population from Aboriginal Nations in Western Canada or the United States, such as a smaller population, a different economic climate, and a distinct cultural heritage. Arkwright-Alivisatos (1997) conducted research on aspects of career development in the Atlantic Canadian Aboriginal population and found that role models, family, and community attachment aid their career development process. Recent non-academic literature also draw attention to the role of career awareness and community attachment, in career development (Bruce, Marlin, & Doucette, 2010; Roness & Collier, 2010; Dragonfly Solutions, 2011), however this has not been explored in depth in regard to the Atlantic Canadian Aboriginal population. While there has been some career development research conducted in Atlantic Canada, there are also major gaps in the literature with regard to this population, and a lack of quantitative analyses to identify statistically significant differences in the career aspirations of Aboriginal Adults in the region. The current research sought to correct these deficits in the literature.

The current study examined the relationship between career aspirations and the following social variables: gender, marital status, education level, social welfare dependency, and mobility, addressing the following research question: How does gender, marital status, education level, mobility, and dependency on employment insurance and social assistance affect career aspirations for Atlantic Canadian Aboriginal peoples? Supplementary to the overall research question, hypotheses were formed based on the existing research into each variable:

1. Aboriginal women will have significantly higher career aspirations than men.
2. Aboriginal people in a romantic relationship will have significantly higher career aspirations than people who are not in a romantic relationship.
3. Aboriginal people who are currently dependent on social welfare will have significantly lower career aspirations than those who are not.
4. Aboriginal people who are willing to relocate have significantly higher career aspirations than those who are not willing to do so.
5. The career aspiration levels of Aboriginal people who have completed more education will be significantly higher than the career aspiration levels of Aboriginal people who completed less education.

### **Methods**

This study used a secondary analysis of an existing, anonymized data set using a cross-sectional design to assess factors that relate to career aspiration in a sample of Aboriginal people in New Brunswick (n = 356). The study was designed to identify significant differences in the career aspiration levels of sub-groups of Aboriginal adults

from Atlantic Canada through a series of t-tests and a one-way analysis of variance (ANOVA).

Castellano (2004) proposed guiding principles for research with the Aboriginal communities in Canada, including the following principle: “Aboriginal Peoples have an inherent right to participate as principals or partners in research that generates knowledge affecting their culture, identity, and well-being” (Castellano, 2004, p. 109). This was reiterated by Ermine, Sinclair and Jeffery (2004), who expressed the need for Aboriginal ownership and control of any research with Aboriginal peoples. The Joint Economic Development Initiative Inc. (JEDI), an Aboriginal non-profit organization, in collaboration with the Aboriginal communities of New Brunswick, performed the original survey development and implementation. Therefore, the necessary condition of Aboriginal participation in all phases of the research exists, including the analysis that was completed by an Aboriginal researcher from one of the surveyed communities in New Brunswick. The results of the research conducted by JEDI will benefit Aboriginal peoples in New Brunswick. Data used in this research is anonymous in order to protect and respect the privacy of individual survey participants. The present research was aligned with the Tri-Council Policy Statement regarding Ethical Conduct for Research Involving Humans.

### **Participants and Data Collection**

In April 2014, various partners, including Aboriginal Affairs and Northern Development Canada (AANDC), Aboriginal Affairs Secretariat (AAS), Irving Shipbuilding, the NB Aerospace & Defence Association, Saint John River Valley Tribal Council, Mawiw Tribal Council, North Shore Micmac District Council, NB Aboriginal Peoples Council, and NB Building & Construction Trades Council, engaged the Joint

Economic Development Initiative Inc. (JEDI) to develop a provincial Shipbuilding Aboriginal Engagement Strategy. This strategy was intended to maximize the economic benefits to the Aboriginal community of New Brunswick stemming from the \$30 billion shipbuilding contract that was awarded to Irving Shipbuilding Inc. in 2013. The JEDI hired researchers from each Aboriginal tribal council in the province to collect survey data at the community level. A human resources database was compiled from the data collected, allowing JEDI to form a picture of the Aboriginal work force in the province as it related to the Irving Shipbuilding project. The JEDI granted access to the data, in anonymized form, for the present study. The results of the analysis remain the property of JEDI and has been published with their permission.

The number of survey participants, excluding duplicate responses, was  $N = 292$ . However, due to the patterns of missing data, the number of participants for the t-tests ranged from  $n = 193$  to  $n = 201$ , and the number of participants for the ANOVA was  $n = 200$ . These sample sizes meet the power requirements to conduct t-tests on dichotomous variables and a one-way ANOVA. Power calculations with an alpha of .05, anticipated power of .80 and a medium effect size revealed that the minimum sample size for the t-tests was 34 and the minimum sample size for the one-way ANOVA was 180.

### **Measures**

**Career aspiration.** In this research, the outcome (dependent) variable was career aspiration. The subject of career aspiration has been a key aspect of major career development theories, and has received much attention in research (Rojewski, 2005); however, disagreement exists over how to operationalize this variable in quantitative research (Johnson, 1995). This variable is often measured by occupational levels, which refers to a ranking system based on “wages earned, education required, and

perceived value to society” (Rojewski & Lee, 2009, p. 83). In the present research, career aspiration was operationalized using the O\*Net Job Zone levels. O\*Net is the primary source of occupational information in the United States, containing the characteristics of over 1,000 occupations in a hierarchical model (Levine, 2003). The Job Zones in O\*Net “indicate level of training, education, and experience required to gain employment in the various O\*NET occupations” and the levels are assigned a numerical standing ranging from 1 to 5 (Levine, 2003, p. 81). A score of one is an aspired occupation that requires little or no preparation, while a score of five is given to career aspirations that require completion of graduate school along with an abundance of skill, knowledge, and experience in the workplace. While these Job Zones are often not useful in cross-industry analysis, they demonstrate usefulness as “prediction tools within the realms of occupational aptitude and training/education/experience (i.e. Job Zone) requirements” (Levine, 2003, p. 83). They have proven to be an effective measure of career aspirations in the United States, Australia, and Canada (Watt et al., 2012).

The outcome variable was coded based on the occupations reported in response to the question: “What career are you interested in?” (Appendix A). Participant responses were coded on a scale from 1 to 5, based on their place in the O\*Net Online Job Zones. Vague responses that did not indicate specific occupations were coded as missing data.

**Independent variables.** All independent variables were coded from participants’ self-reported responses to relevant survey questions. The six independent variables that were examined are:

1. **Gender:** A dichotomous variable consisting of two distinct answers: male (1) or female (0).

2. **Marital Status:** A dichotomous variable with numbers representing: single (1) or not single (0).
3. **Social Welfare Dependence:** This is a dichotomous variable consisting of two responses: Yes (1) or No (0).
4. **Willing to Relocate:** This is a dichotomous variable consisting of two distinct answers: Yes (1) or No (0).
5. **Highest Level of Education Achieved:** This categorical variable originally consisted of five groups (less than high school (1); high school diploma or equivalent (2); community college diploma, vocational school (3); university degree (4); graduate degree or above (5)). However, there were no participants with an education level of “5” in the final sample.

## **Procedures**

A series of independent samples t-tests explored how each of the dichotomous independent variables relates to the outcome variable, career aspiration. A one-way ANOVA was conducted to explore the relationship between education and career aspiration.

## **Results**

### **Preliminary Analyses**

Prior to testing the hypotheses, it was necessary to conduct preliminary analyses to determine whether the variables met the assumptions for conducting t-tests and ANOVAs. The outcome variable was reviewed for outliers and all scores fell within three standard deviations of the mean. Probability-probability (P-P) plots indicated a normal distribution of the outcome variable. Furthermore, central limit theory indicated that the sample size was sufficiently large that normality could be assumed (Field,



2013). Furthermore, the non-significant Levene's test results suggested that the assumption of heterogeneity of variances had been met.

### **Hypothesis 1**

An independent samples t-test was conducted to compare career aspirations of male ( $n = 132$ ) versus female ( $n = 69$ ) participants. On average, males reported lower career aspirations ( $M = 2.73$ ,  $SE = .068$ ) than females ( $M = 3.13$ ,  $SE = .103$ ). The difference,  $-.396$ , was significant  $t(199) = -3.300$ ,  $p = .001$ ; and represented a small effect size,  $d = -.463$ . These results supported hypothesis 1 and suggest that women Aboriginals have slightly, but significantly, higher career aspiration levels than their male counterparts.

### **Hypothesis 2**

An independent samples t-test was conducted to compare career aspirations of single ( $n = 166$ ) and not single ( $n = 32$ ) participants. On average, single participants did not have significantly different career aspirations ( $M = 2.90$ ,  $SE = .064$ ) than those who were not single ( $M = 2.78$ ,  $SE = .154$ ). The difference,  $.122$ , was not significant  $t(196) = .767$ ,  $p = .444$ ; and representing an effect size of  $d = .140$ . These results failed to support Hypothesis 2.

### **Hypothesis 3**

An independent samples t-test was conducted to compare the career aspirations of participants on social welfare ( $n = 126$ ) and those who were not ( $n = 76$ ). On average, those who were socially dependent reported lower career aspirations ( $M = 2.75$ ,  $SE = .069$ ) compared to those who were not socially dependent ( $M = 3.07$ ,  $SE = .100$ ), and the difference,  $-.312$ , was significant  $t(200) = 2.642$ ,  $p = .009$ . Social welfare

dependency demonstrated a small but significant negative effect size of  $d = -.368$ .

These results support Hypothesis 3.

#### **Hypothesis 4**

An independent samples t-test was conducted to compare career aspirations of participants who were willing to relocate ( $n = 171$ ) compared to those who were not ( $n = 26$ ). On average, those who were willing to relocate reported lower career aspiration levels ( $M = 2.82$ ,  $SE = .061$ ) compared to those who were not willing ( $M = 3.19$ ,  $SE = .167$ ). This difference,  $-.368$ , was significant  $t(195) = -2.167$ ; and represented an effect of  $d = -.433$ . Although these results were significant, they are in the opposite direction to what was hypothesized, and suggest that willingness to relocate has a significant negative effect on career aspiration levels.

#### **Hypothesis 5**

A one-way analysis of variances (ANOVA) was conducted to compare career aspirations of participants who completed different levels of education. There was a significant effect of education on career aspiration,  $F(3, 196) = 8.664$ ,  $p = .000$ ,  $\omega^2 = .117$ . Hochberg's GT post hoc test scores indicated that those with a high school diploma or less have significantly lower aspirations than those with some form of post-secondary education (PSE). In addition, there is no significant difference between people with less than high school vs. people with a high school diploma and no significant difference between people with a college vs. university degree. These results support Hypothesis 6 and suggest that education level has a medium to large effect on career aspirations, with the division being between those who had completed some form of PSE and those who had not.

Table 1

*Post-hoc test: Hochberg's GT*

<b>(I) Level of Education Completed</b>	<b>(J) Level of Education Completed</b>	<b>Mean Difference (I-J)</b>	<b>Std. Error</b>	<b>Sig.</b>
Less than high school	High school diploma or equivalent	-.196	.135	.617
	Community college diploma, vocational school	-.578*	.151	.001
	University degree or above	-1.004*	.248	.000
High school diploma or equivalent	Less than high school	.196	.135	.617
	Community college diploma, vocational school	-.382*	.140	.041
	University degree or above	-.808*	.242	.006
Community college diploma, vocational school	Less than high school	.578*	.151	.001
	High school diploma or equivalent	.382*	.140	.041
	University degree or above	-.426	.251	.431
University degree or above	Less than high school	1.004*	.248	.000
	High school diploma or equivalent	.808*	.242	.006
	Community college diploma, vocational school	.426	.251	.431

\*The mean difference is significant at the 0.05 level.

## Discussion

To summarize the results, gender demonstrated a small effect on career aspiration. Current education level was hypothesized to have a significant effect on career aspiration, which was confirmed in the analysis. This represents a medium to large positive effect, meaning that as the education level of respondents increased, career aspiration level also increased. Specifically, the career aspirations of PSE graduates were significantly higher than those with no PSE. Participants currently in a romantic relationship were hypothesized to have higher career aspirations than the single participants. This hypothesis was not supported by the analysis; generally speaking, single and non-single respondents had similar career aspiration levels. Social welfare dependency was hypothesized to demonstrate a negative effect on career aspiration. The analysis revealed that those who were not currently dependent on social welfare programs aspired to careers that required more preparation than current dependents. Participants willing to relocate were hypothesized to have higher career interests than those who were not mobile. This was disproven by the data. Instead, those who were unwilling to move actually had higher career aspirations than those who were willing to move, although the effect size was small.

The findings of this research are intriguing in the context of Gottfredson's (1981) theory of circumscription and compromise. Gender, social welfare dependency, and education had significant effects on the career aspirations of the participants. The largest effect that emerged was the effect of education level on career aspirations, particularly in regards to PSE attainment. Social welfare dependency was a limiting factor in relation to career aspirations. This finding aligns with Gottfredson's theory as careers

that require less preparation are viewed as more accessible for those participants dependent on social welfare. Additionally, gender and career aspiration were significantly correlated as women tended to aspire to careers that require slightly more preparation than males, confirming the literature that suggests that women aspire to careers that require more long-term preparation than men (Koul, Lerdpornkulrat, & Chantara, 2011; Schoon & Polek, 2011; Perry, Przybysz, & Al-Sheikh, 2009; Howard et al., 2011; Tucker & Fushell, 2013). The underlying cultural factors that influence this finding, such as gender roles in First Nations, should be explored in future research (Alfred, 2009; McCormick & Honore, 1995).

Apart from the variables connected to Gottfredson's (1981) theory, the results seem to contradict previous research suggesting that mobility was a hindrance to career development in Atlantic Canadian Aboriginals (Bruce, Marlin, & Doucette, 2010; Roness & Collier, 2010). Nearly 85% of respondents indicated a willingness to relocate, but willingness to relocate decreased as career aspiration increased. Although this result was the opposite of what was hypothesized, it does seem to align with another aspect of the existing literature. In general, Atlantic Canadian Aboriginal peoples value giving back to their community (Arkwright-Alivisatos, 1997). Arkwright-Alivisatos (1997) refers to "the narrow path", indicating that community is a key factor in limiting career aspirations to those occupations which are perceived as giving back to the community, such as social work, teaching, nursing, and policing (p. 69). Each of these careers requires a high level of preparation and is classified in higher Job Zones. Therefore a lack of mobility may negatively influence employment outcomes while positively influencing career aspirations. The desire to give back to the community might explain the results, but worker mobility should be explored more thoroughly to determine

specific factors that affect Atlantic Canadian Aboriginals. Finally, the results suggested no statistical relationship between marital status and career aspiration level, confirming the existing literature (Brosseau, Domene, & Dutka, 2010; Domene et al., 2012), which also found no significant association between these two variables.

### **Implications for Career Counselling**

The results of the current study confirmed the importance of preparation for future careers, as education had a medium-to-high sized effect on career aspiration. This is an important finding, especially for guidance counsellors working with Aboriginal students in schools. A strategy of encouraging Aboriginal youth to advance their education beyond high school and into post-secondary (e.g., trades, community college, and university) is likely to result in higher career aspirations for future generations, leading to greater employment outcomes. However, the distinction between different types of PSE appears to be less important. No significant difference was found between the career aspirations of participants who completed community college/vocational school and the aspirations of participants who had completed a university degree. For practitioners working with adults in Aboriginal communities (e.g., employment and training officers, education directors), it is important to know that adult clients will benefit from opportunities to advance their education through GED programs, specialized training, and the completion of post-secondary diplomas and degrees. The message here for practitioners is that they should encourage clients to pursue their educational options and provide information regarding the educational requirements for individual career aspirations.

Willingness to relocate has historically presented a challenge for Aboriginal career development in Canada. Numerous studies have stated that community

attachment is a key factor in Aboriginal career decision-making (McCormick & Honore, 1995; Arkwright-Alivisatos, 1997; Roness & Collier, 2010; Bruce, Marlin, & Doucette, 2010). The results of the current research were intriguing, as 85% of participants reported a willingness to relocate for work. One mitigating factor that might explain this phenomenon is that the survey was collected with a regional connection to shipbuilding (an industry that is not located in any of the Aboriginal communities that were surveyed). Therefore, career counsellors and employment and training officers should consider career opportunities across Atlantic Canada while working with clients. Another explanation for the relocation findings could be in relation to the marketing of the survey to the communities. The survey process was implemented to connect people with employment opportunities, making it attractive to participants who were actively interested in employment and omitting those who are already employed or who are not actively seeking work. Neither of those groups would likely be willing to relocate, but the group for which this survey was designed was likely willing to do so out of motivation to find work.

Dependence on social programs was found to have a significant negative effect on career aspirations. This is informative for career counselors working with clients who are dependent on both short-term (EI) and long-term (social assistance) social programs. Dependency on these programs does not indicate a lack of career aspiration (Kregel, 2009), however it may limit those client's aspirations to careers that require less preparation. The First Nations Career Planning Model (McCormick & Amundson, 1997; McCormick et al., 1999; Neumann et al., 2000) should be used in working with these clients to explore realistic career goals and outline a plan of action to achieve those goals.

### **Implications for Aboriginal, federal, and provincial governance**

The results of this research demonstrate a willingness on the part of Aboriginal peoples to participate in the Atlantic Canadian workforce. The Aboriginal workforce in this study aspired to having careers and was willing to relocate to achieve their career aspirations. Post-secondary educational achievement, mobility, and gender were identified as significant factors influencing career aspirations in this population. Strategic investments to support Aboriginal peoples to attain post-secondary education, transition into the workforce, and relocate for career advancement will result in improved employment and social outcomes for Atlantic Canadian Aboriginal peoples.

### **Limitations**

The current study used archival data, which limited the scope of the research to the data that were available in the survey and did not allow the exploration of additional variables that the literature suggests could be important. Some factors that have been shown to influence career aspiration level in other populations (i.e. age, community affiliation, disability) and may have been important to examine for Aboriginals in Atlantic Canada, but could not be included because the sufficient data was not collected as a part of the existing survey process.

Additionally, the quality of responses to some of the survey questions limited the effectiveness of the research. For example, some participants gave clear indication of their career aspirations while others were more vague. Those vague responses were omitted from the analysis, which means that the results do not generalize to individuals without a clear career aspiration. The generalizability of the results is also questionable because the survey was related to the shipbuilding industry, potentially discouraging participation from those with education and training in other sectors, and encouraging



some participants to respond in a way that could make them attractive to the shipbuilding industry (e.g., stating that they would be willing to relocate to where such employment is located; naming career aspirations that are consistent with shipbuilding).

The measure of career aspiration, O\*Net Job Zones, is a measure designed for the United States (Levine, 2003). There may be some careers where preparation requirements differ between the United States and Canada, which could have skewed the data slightly, depending on certification differences between countries. This skewing is likely not drastic enough to significantly influence the results, as evidenced by Watt et al. (2012) who used the same measure to compare the career aspirations of populations in Australia, the United States, and Canada.

Finally, Gottfredson's theory of circumscription and compromise has been tested in the United States, Canada, and South Korea, but unique cultural aspects of Indigenous communities may limit its validity in this context (Junk & Armstrong, 2010; Cochran, Wang, Stevenson, Johnson, & Crews, 2011; Hwang, Kim, Ryu, Heppner, 2006; McCormick & Honore, 1995). One of the outcomes of the research was to test Gottfredson's theory in an Indigenous context. The results confirmed the effect of preparation and education on career aspirations in Indigenous communities, however further research is required to confirm this finding and test additional elements of Gottfredson's theory in an Indigenous context.

### **Future Research**

Future research topics must be determined in consultation with the Aboriginal community, but could include: factors that facilitate greater educational attainment, Aboriginal culture and gender roles, the effect community attachment has on career aspirations and development, and successful counselling strategies for increasing

Aboriginal educational and career achievement. Consultation with communities may reveal different priorities than those listed herein. Such consultation is necessary in building collaborative research directions whereby Aboriginals in Atlantic Canada can continue to research our selves “back to life” (Castellano, 2004, p. 98).

There is a dearth of knowledge about the factors that influence career aspiration level in the Aboriginal population of Atlantic Canada. The current study represents a starting point for research on this topic. Additional research should thoroughly explore the application of Gottfredson’s (1981) theory of compromise and circumscription to Aboriginal Peoples to address questions of whether or not this is an appropriate lens for understanding their career aspirations. It would also be informative to explore the interconnectedness of Gottfredson’s theory of career aspiration and the First Nations career-life planning model (McCormick & Amundson, 1997; Neumann et al., 2000).

The findings of this research determined that women participants had higher career aspirations than males. This needs to be explored more fully to determine the cultural factors and gender roles that underlie this finding, and explore strategies to advance the career aspiration of Aboriginal men and women in Atlantic Canada. Mobility is another area of research focus for future consideration. The findings of this research were unexpected, and further research is needed to confirm these findings and determine factors that impact worker mobility and career aspirations in Atlantic Canadian Aboriginal peoples. Additional factors that have been shown to effect career development (age, social status, disability) were neglected in this analysis due to the archival data set. Additional research is required to measure the impact of these and other additional variables, including those related to revitalization and self-determination, on the career development of Aboriginal peoples in Atlantic Canada.

The career aspirations of Atlantic Canadian Aboriginal students are also in need of further investigation. Research conducted in Australia found that “Indigenous students tended to set their schooling and post-schooling aspirations at lower levels compared with their non-Indigenous peers” (Craven et al., 2005, p. 142). Numerous challenges to higher career aspirations were faced by the participants in that study, including knowledge of career opportunities, lack of family support, awareness of what education or training is needed to pursue their career aspiration, better education facilities, local job opportunities, and employer attitudes towards indigenous people (Craven et al., 2005). These factors may also affect the Aboriginal students of Atlantic Canada. The present research explored the career aspirations of Aboriginal adults. In contrast, future research should explore the career aspirations of Aboriginal students and could compare them with non-Aboriginal students in Atlantic Canada.

The findings regarding social assistance and EI clients can also inform future research. Social welfare dependency had a significant negative effect on career aspirations. Future research should explore the underlying factors that limit employment and career outcomes for these clients. It should also provide recommendations for overcoming barriers to career development. This data could have a great impact on the provincial economy, as clients are empowered to succeed and become less dependent on social welfare.

## References

- Alfred, T. G. (2009). Colonialism and state dependency. *Journal of Aboriginal Health*, 5(2), 42-60.
- Andersen, S. H. (2015). Serving time or serving the community? Exploiting a policy reform to assess the causal effects of community service on income, social benefit dependency, and recidivism. *Journal of Quantitative Criminology*, 31, 537-563. doi:10.1007/s10940-014-9237-2
- Arkwright-Alivisatos, D. (1997). *The chosen path: Career decisions of aboriginal adult learners* (Master's thesis). Available from ProQuest Dissertations & Theses. (UMI No. 304421857)
- Benjamin, A., Domene, J., & Landine, K. (2014). Constructing the future in liminal spaces between adolescence and adulthood: Responsibilities, careers, and social contexts. *Canadian Journal of Career Development*, 13(1), 47-58. Retrieved from <http://cjcdonline.ca/archives/>
- Bibby, R. W. (2010). *Alberta's emerging millennials: A national survey of Alberta teens and other teens*. Lethbridge, AB: Project Canada Books. Retrieved from [http://www.reginaldbibby.com/images/Alberta\\_s\\_Emerging\\_Millennials\\_MASTE R.pdf](http://www.reginaldbibby.com/images/Alberta_s_Emerging_Millennials_MASTE R.pdf)
- Brosseau, D., Domene, J. F., & Dutka, T. (2011). The importance of partner involvement in determining career decision-making difficulties. *Canadian Journal of Career Development*, 9(2), 35-41. Retrieved from <http://cjcdonline.ca/archives/>
- Bruce, D., Marlin, A., & Doucette, M. B. (2010). *The Atlantic Aboriginal post-secondary labour force*. Retrieved from the Atlantic Policy Congress of First

Nations Chiefs website: <http://www.apcfncc.ca/images/uploads/FinalReport-TheAtlanticAboriginalPost-SecondaryLabourForceFinal.pdf>

Castellano, M.B. (2004). Ethics of Aboriginal research. *Journal of Aboriginal Health*, 1(1), 98-114.

Cochran, D. B., Wang, E. W., Stevenson, S. J., Johnson, L. E., & Crews, C. (2011). Adolescent occupational aspirations: Test of Gottfredson's theory of circumscription and compromise. *The Career Development Quarterly*, 59, 412-427. doi:10.1002/j.2161-0045.2011.tb00968.x

Craven, R. G., Tucker, A., Munns, G., Hinkley, J., Marsh, H. W., & Simpson, K. (2005). *Indigenous students' aspirations: Dreams, perceptions and realities*. Canberra: Department of Education, Science and Training, Commonwealth of Australia.

Delisle, F., & Shearmur, R. (2010). Where does all the talent flow? Migration of young graduates and nongraduates, Canada 1996-2001. *The Canadian Geographer*, 54, 305-323. doi:10.1111/j.1541-0064.2009.00276.x

Department of Post-Secondary Education, Training, and Labour (2013). *Profile of the New Brunswick Labour Force*. Retrieved from New Brunswick Department of Post-secondary Education, Training and Labour website: <http://www2.gnb.ca/content/dam/gnb/Departments/petl-epft/PDF/Emp/Profile-NB-LabourForce.pdf>

Domene, J., Nee, J., Cavanaugh, A., McLelland, S., Stewart, B., Stephenson, M., Kauffman, B., . . . Young, R. (2012). Young adult couples transitioning to work: The intersection of career and relationship. *Journal of Vocational Behavior*, 81, 17-25. doi:10.1016/j.jvb.2012.03.005

- Dragonfly Solutions (2011). *Assessment of career planning and guidance services for New Brunswick's First Nations students*. Fredericton, NB: First Nations Education Initiative Inc.
- Ermine, W., Sinclair, R., Jeffery, B. (2004). *The ethics of research involving indigenous peoples*. Saskatoon, SK: Indigenous Peoples' Health Research Centre.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4<sup>th</sup> ed.). Thousand Oaks, CA: Sage Publications.
- Fong, F. & Gulati, S. (2013). *Employment and education among Aboriginal Peoples: A new perspective from the 2011 National Household Survey* (Special Report, TD Economics). Retrieved from TD Economics website: <http://www.td.com/document/PDF/economics/special/EmploymentAndEducationAmongAboriginalPeoples.pdf>
- Gottfredson, L. S. (1981). Circumscription and compromise: A developmental theory of occupational aspirations. *Journal of Counseling Psychology Monograph*, 28, 545-579. doi:10.1037/0022-0167.28.6.545
- Gottfredson, L. S. (1996). Gottfredson's theory of circumscription and compromise. In D. Brown & L. Brooks (Eds.), *Career choice and development* (pp. 179-232). San Francisco, CA: Jossey-Bass.
- Hoffman, L. L., Jackson, A. P., & Smith, S. A. (2005). Career barriers among Native American students living on reservations. *Journal of Career Development* 32(1), 31-45. doi: 10.1177/0894845305277038
- Howard, K., Carlstrom, A, Katz, A., Chew, A., Ray, G., Laine, L., & Caulum, D. (2011). Career aspirations of youth: Untangling race/ethnicity, SES, and gender. *Journal of Vocational Behavior*, 79, 98-109. doi:10.1016/j.jvb.2010.12.002

- Hwang, M., Kim, J., Ryu, J. Y., & Heppner, M. J. (2006). The circumscription process of career aspirations in South Korean adolescents. *Asia Pacific Education Review*, 7, 133-143. doi:10.1007/bf03031537
- Jackson, A. P., & Smith, S. A. (2001). Postsecondary transitions among Navajo Indians. *Journal of American Indian Education*, 40(2), 28-47.
- Johnson, L. (1995). A Multidimensional Analysis of the Vocational Aspirations of College Students. *Measurement and Evaluation in Counseling and Development*, 28(1), 25-44.
- Junk, K. E., & Armstrong, P. I. (2010). Stability of career aspirations: A longitudinal test of Gottfredson's theory. *Journal of Career Development*, 37, 579-598. doi:10.1177/0894845309350921
- Juntunen, C. L., Barraclough, D. J., Broneck, C. L., Seibel, G. A., Winrow, S. A., & Morin, P. M. (2001). American Indian perspectives on the career journey. *Journal of Counseling Psychology*, 48, 274-285. doi:10.1037/0022-0167.48.3.274
- Koul, R., Lerdpornkulrat, T., & Chantara, S. (2011). Relationship between career aspirations and measures of motivation toward biology and physics, and the Influence of Gender. *Journal of Science Education and Technology*, 20, 761-770. doi:10.1007/s10956-010-9269-9
- Kregel, J. (2009). Work incentives and assistance: Assisting beneficiaries to obtain employment and reduce dependence on SSA benefits. *Journal of Vocational Rehabilitation*, 31, 1-9. doi:10.3233/JVR-2009-0466
- Levine, J. D. (2003). *Use of the O\*NET Descriptors in Numerical Occupational Classification: An Exploratory Study* (Doctoral dissertation, North Carolina State University). Retrieved from <https://repository.lib.ncsu.edu/handle/1840.16/5102>

- McCormick, R.M., & Amundson, N.E. (1997). A career-life planning model for First Nations people. *Journal of Employment Counseling, 34*(4), 171-179.  
doi:10.1002/j.2161-1920.1997.tb00467.x
- McCormick, R., & Honore, M. H. (1995). Counselling First Nations clients on career issues: Implications for the school counsellor. *Guidance & Counseling, 10*(2), 27-31.
- McCormick, R.M., Neumann, H., Amundson, N.E., & McLean, H.B. (1999). First Nations career/life planning model: Guidelines for practitioners. *Journal of Employment Counseling, 36*(4), 167-176. doi:10.1002/j.2161-1920.1999.tb01019.x
- Merrill, S., Bruce, D., & Marlin, A. (2010). *Considerations for successful transitions between postsecondary education and labour market for aboriginal youth in Canada: Final report*. Sackville, NB: Rural and Small Town Programme, Mount Allison University.
- Mitchell, P. (2014). Save up to marry? Or marry to save up?. *eReview: Latest Developments in Family Friendly Research, 14* (1), 1-3. Retrieved from <http://www.imfcanada.org/issues/save-marry-or-marry-save>
- Neumann, H., McCormick, R.M., Amundson, N.E., McLean, H.B. (2000). Career counselling First Nations youth: Applying the First Nations career-life planning model. *Canadian Journal of Counselling, 34*(3), 172-185.
- Ng, T. W. H., Eby, L. T., Sorensen, K. L., & Feldman, D. C. (2005). Predictors of objective and subjective career success: A meta-analysis. *Personnel Psychology, 58*(2), 367–409. doi:10.1016/j.jvb.2012.06.003
- Offet-Gartner, K. (2008). *Sharing the story: Education as the key to unlocking the door*



*of career possibilities with First Nations women* (Doctoral dissertation, University of Calgary). Available from ProQuest Dissertation & Theses Global database. (UMI No. 304693647)

Perry, J., Przybysz, J., & Al-Sheikh, M. (2009). Reconsidering the “aspiration-expectation gap” and assumed gender differences among urban youth. *Journal of Vocational Behavior, 74*, 349-354. doi:10.1016/j.jvb.2009.02.006

Rojewski, J. W. (2005). Occupational aspirations: Constructs, meanings, and application. In S.D. Brown and R.W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp.131-154). Hoboken, NJ: John Wiley.

Rojewski, J. W. & Lee, I. H. (2009). Development of occupational aspiration prestige: A piecewise latent growth model of selected influences. *Journal of Vocational Behaviour, 75*, 82-90. doi:10.1016/j.jvb.2009.03.006

Roness, L. A., & Collier, M. (2010). *Assessing the effectiveness of labour force participation strategies*. Retrieved from Atlantic Policy Congress of First Nations Chiefs website: <http://www.apcfn.ca/images/uploads/FinalReport-AssessingtheEffectivenessofLabourForceParticipationStrategies.pdf>

Schoon, I., & Polek, E. (2011). Teenage career aspirations and adult career attainment: The role of gender, social background and general cognitive ability. *International Journal of Behavioral Development, 35*, 210-217. doi:10.1177/016502541139818

3

Spowart, J. K., & Marshall, E. A. (2015). Relational and cultural impacts on the work life of young Indigenous men. *Canadian Journal of Counselling and Psychotherapy, 49*, 214-231.

Tucker, J., & Fushell, M. (2013). Graduate programs in education: Impact on teachers' careers. *Canadian Journal of Educational Administration and Policy*, 148, 1-26.

Retrieved from

[https://www.umanitoba.ca/publications/cjeap/pdf\\_files/tucker\\_fushell.pdf](https://www.umanitoba.ca/publications/cjeap/pdf_files/tucker_fushell.pdf)

Turcotte, M., & Weeks, J. (2014). *The migration of infrastructure tradespersons*.

Retrieved from Statistics Canada website: <http://www.statcan.gc.ca/pub/75-006-x/2014001/article/14011-eng.htm>

Watt, H. M., Shapka, J. D., Morris, Z. A., Durik, A. M., Keating, D. P., & Eccles, J. S.

(2012). Gendered motivational processes affecting high school mathematics participation, education aspirations, and career plans: A comparison of samples from Australia, Canada, and the United States. *Developmental Psychology*, 48, 1594-1611. doi: 10.1037/a0027838

White, J., Maxim, P., & Gyimah, S. O. (2003). Labour force activity of women in

Canada: A comparative analysis of Aboriginal and non-Aboriginal women. *The Canadian Review of Sociology and Anthropology*, 40, 391-415.

doi:10.1111/j.1755-618x.2003.tb00254.x

Ying, L., & Michalopoulos, C. (2001). *SSP Plus at 36 Months: Effects of Adding*

*Employment Services to Financial Work Incentives*. Ottawa, ON: Social Research and Demonstration Corporation.

## **CHAPTER 3: General Discussion**

The purpose of this section is to explore some practical ways that this research could enhance counselling practice and employment services with Aboriginal peoples. A brief overview of the study's findings will be followed by suggestions for incorporating them into employment counsellor education, professional development, practice, and government policy.

### **Overview of Findings**

The main objective of this research was to determine what social factors affected the career aspirations of NB Aboriginals, based on archival survey data collected by JEDI. A series of t-tests and a one-way ANOVA revealed that gender, education, and mobility impacted career aspirations. Women participants aspired to careers that required more preparation than males. Current educational attainment demonstrated a positive effect on career aspirations, meaning that those with higher education levels also aspired to careers that required more preparation. Post hoc tests revealed that this was especially true when comparing participants with no post-secondary education (PSE) versus those who had attained some form of PSE. Finally, the willingness to relocate demonstrated a surprising negative effect on career aspirations. Those who were unwilling to move tended to aspire to careers that required more preparation.

### **Counsellor Education and Professional Development**

Schulz, Sheppard, Lehr, and Shepard (2006) stated that ethical counsellors must be educated and build competencies regarding their personal cultural bias, awareness of the client's worldview, and culturally appropriate intervention strategies. Aboriginal peoples generally hold different values from the rest of Canada, which includes a

stronger attachment to their home community (McCormick & Honore, 1995). This was confirmed in the current study, which found that willingness to relocate hindered career aspirations in the participants. Rather than becoming educated and preparing to move away, the participants who aspired to careers requiring more preparation also desired to enter careers that would keep them close to their community. This factor must be explored with individual Aboriginal clients in order to provide culturally appropriate service. Their community attachment may steer them towards careers that require more preparation, but enable them to stay close to home.

Building upon the literature and present research findings, career and employment counsellors who work with Aboriginal clients should receive professional development in order to enhance their ability to provide culturally competent services to their Aboriginal clients. There are not enough Aboriginal career counsellors to serve the entire Aboriginal population, but government services should provide sensitivity to diversity within its population. This is also an ethical requirement for counsellors (Schulz, Sheppard, Lehr, & Shepard, 2006). Sensitivity to diversity in this context includes increasing the awareness of Aboriginal career development for all practitioners working directly with Aboriginal people through cultural workshops that define the research-based differences between Aboriginal and non-Aboriginal populations.

### **Implications for Counselling Practice**

This study found a strong relationship between education and career aspiration, specifically in the area of post-secondary attainment. This finding should inform school guidance counsellors to encourage Aboriginal students to attend some form of post-secondary education. They should be encouraged to enroll in courses that prepare them for university, community college, or post-secondary vocational schools. Past research

showed that education exerts a strong influence on employment outcomes (Fong & Gulati, 2013; Offet-Gartner, 2008; Bruce, Marlin, & Doucette, 2010). This research shows its positive effect on career aspiration. As the need for post-secondary education is promoted with Aboriginal students, aspirations and employment will increase also.

The surprising mobility results of this study's participants (85% expressed willingness to relocate), bears further study. However, Aboriginal clients should be made aware of career opportunities in Atlantic Canada because this study indicated that at least some Atlantic Canadian Aboriginal adults reported a willingness to move where the work is located.

### **Implications for Policy and Governance**

This research has implications for multiple stakeholders in Aboriginal communities in Atlantic Canada. Despite significant financial investments of Canadian and provincial governments, social challenges persist in First Nations communities across Canada (Waslander, 1997, Milke, 2013). This suggests that, although continued financial support is necessary to Aboriginal advancement, it is not a universal cure. Aboriginal communities must take a leading role in policy-making and program development. This also aligns with the historical Peace and Friendship Treaties that established a nation-to-nation relationship with the Crown (Francis, 2003). This is supported by Alfred (2009), who stated: "It is crucially important for Indigenous people themselves to take the initiative to begin changing their own lives and to contribute to the rebuilding of their communities" (p. 57). This research has provided information that is meant to inform Aboriginal, federal and provincial policy-makers as they devise budgets and design workforce programs in Atlantic Canada. With the knowledge of what factors influenced Aboriginal career aspirations and what factors did not have a

significant effect, government programs and service delivery can be focused on addressing the specific factors that were identified in this research through career guidance services, capacity development for community Employment and Training Officers, and targeted programs for Aboriginal people to assist them in achieving career goals. Due to the comparatively high rate of unemployment and social welfare dependency in Aboriginal communities (Department of Post-secondary Education, Training, and Labour, 2013), it is in policy-makers' best interests to invest in the career development of Aboriginal people, thereby strengthening the tax base of the province of New Brunswick.

This research also has implications for Aboriginal governance. The Assembly of First Nations, along with their regional affiliates and individual community leaders, are lobbying for education and career development for Aboriginal Peoples across Canada (Assembly of First Nations, 2013). The recommendations arising from this research have the potential to assist them in fulfilling their role as community leaders, informing their decisions about community services and budgets so as to effectively, and autonomously, meet career development needs in their communities. For example, the findings of the study suggest that career guidance services should encourage Aboriginal students to attain a post-secondary education. Recent research has shown that guidance counsellors in First Nations schools are overwhelmed by crisis cases, and are unable to effectively provide this much-needed service to Aboriginal students in New Brunswick (First Nations Education Initiative Inc., 2011). Therefore, a priority for funding in the education field must be an enhancement of the career guidance services available to Aboriginal students.

In the individual communities themselves, this research has implications for client service providers. Being aware of the influence of gender, education, and mobility on the career aspiration levels of Aboriginal people in Atlantic Canada will help employment and training officers, social workers, and band administrators perform their job more effectively by assisting clients to achieve their career aspirations. For example, rather than assuming that Aboriginal clients are unwilling to relocate for work, service providers should communicate job opportunities across Canada to their clients. If this study is an indication, those who are actively seeking work are willing to relocate in order to do so. As service providers perform more effectively, more Aboriginal people will advance in their careers, resulting in lower social welfare dependency in Aboriginal communities and greater workforce participation.

The most important benefactors of this research, however, are intended to be Aboriginal youth and adults who are striving to enter the workforce. As government programs, Aboriginal governance, and service providers become more effective at meeting the needs of the clients, those clients will be empowered to achieve their career aspirations, which will subsequently have a positive impact on the Aboriginal workforce.

### **Future Research**

Several areas for future research arose from this study. First, the surprising results surrounding mobility and career aspirations need further research. Previous studies showed that mobility was a limiting factor in employment and career development, however this study's findings revealed that community attachment enhanced the participant's career aspirations. Further research is needed to confirm these results.

The finding that women Aboriginal participants aspire to careers requiring more preparation than males necessitates further research to determine what factors underlie this finding. Similar findings regarding gender and career aspiration in Thailand (Koul, Lerdpornkulrat, & Chantara, 2011), Britain (Schoon & Polek, 2011), the United States (Perry, Przybysz, & Al-Sheikh, 2009; Howard et al., 2011), and Atlantic Canada (Tucker and Fushell, 2013) reveal a gender gap of higher career aspirations of women compared to men. However, cultural factors sometimes preclude women from realizing those aspirations. Aboriginal culture is unique from the rest of Canada (Alfred, 2009; McCormick & Honore, 1995). The current research found the same gender gap in career aspiration; therefore, gender roles within Aboriginal culture must be explored to better understand its effect on career aspirations and career development.

Education has repeatedly been shown to be a key factor in increasing employment outcomes and career development for Aboriginal peoples in Canada (Fong & Gulati, 2013; Offet-Gartner, 2008; Bruce, Marlin, & Doucette, 2010). While educational outcomes are increasing, large gaps in educational attainment remain for Aboriginal peoples in New Brunswick and Atlantic Canada (Department of Postsecondary Education, Training and Labour, 2013). Further research should explore best practices in facilitating greater education outcomes among Aboriginal peoples in Atlantic Canada. As educational outcomes increase, career aspiration and employment outcomes will increase as well.

### **Conclusions**

The findings of this study build upon the emerging body of Aboriginal career development literature in Canada. Incorporating these research findings into career



counselling practice and government policy can assist in advancing employment and career outcomes for Aboriginal peoples in Atlantic Canada.

The future research directions suggested will deepen the collective understanding of Aboriginal career development if they are pursued. However, any research undertaken in the future must also be done in collaboration with Atlantic Canadian Aboriginal peoples. Aboriginal research capacity must be built so that the principles of research with Aboriginal peoples can be followed. These principles call for Aboriginal peoples to be “principals or partners in research that generates knowledge affecting their culture, identity, and well-being” (Castellano, 2004, p. 109). Through a collaborative effort, Aboriginal peoples can continue to conduct research for the benefit of present and future generations.

## References

- Alfred, T. G. (2009). Colonialism and state dependency. *Journal of Aboriginal Health*, 5(2), 42-60.
- Assembly of First Nations Chiefs (2013). *AFN Annual Report 2013*. Retrieved from <http://www.afn.ca/en/policy-areas/education>
- Bruce, D., Marlin, A., & Doucette, M. B. (2010). *The Atlantic Aboriginal post-secondary labour force*. Retrieved from the Atlantic Policy Congress of First Nations Chiefs website: <http://www.apcfncc.ca/images/uploads/FinalReport-TheAtlanticAboriginalPost-SecondaryLabourForceFinal.pdf>
- Castellano, M. B. (2004). Ethics of Aboriginal research. *Journal of Aboriginal Health*, 1(1), 98-114.
- Department of Post-Secondary Education, Training, and Labour (2013). *Profile of the New Brunswick labour force*. Retrieved from New Brunswick Department of Post-secondary Education, Training and Labour website: <http://www2.gnb.ca/content/dam/gnb/Departments/petl-epft/PDF/Emp/Profile-NB-LabourForce.pdf>
- Dragonfly Solutions (2011). *Assessment of career planning and guidance services for New Brunswick's First Nations students*. Fredericton, NB: First Nations Education Initiative Inc.
- Fong, F., & Gulati, S. (2013). *Employment and education among Aboriginal Peoples: A new perspective from the 2011 National Household Survey* (Special Report, TD Economics). Retrieved from TD Economics website: <http://www.td.com/document/PDF/economics/special/EmploymentAndEducationAmongAboriginalPeoples.pdf>

- Francis, R. M. (2003). *The Mi'kmaq nation and the embodiment of political ideologies: Ni'kmaq, protocol and treaty negotiations of the eighteenth century*. (Master's thesis, St. Mary's University). Available from ProQuest Dissertations & Theses Global. (UMI No. 305237622)
- Howard, K., Carlstrom, A, Katz, A., Chew, A., Ray, G., Laine, L., & Caulum, D. (2011). Career aspirations of youth: Untangling race/ethnicity, SES, and gender. *Journal of Vocational Behavior, 79*, 98-109. doi:10.1016/j.jvb.2010.12.002
- Koul, R., Lerdpornkulrat, T, & Chantara, S. (2011). Relationship between career aspirations and measures of motivation toward biology and physics, and the Influence of Gender. *Journal of Science Education and Technology, 20*, 761-770. doi:10.1007/s10956-010-9269-9
- McCormick, R., & Honore, M. H. (1995). Counselling First Nations clients on career issues: Implications for the school counsellor. *Guidance & Counseling, 10*(2), 27-31.
- Milke, M. (2013). *Ever higher: Government spending on Canada's Aboriginals since 1947*. Retrieved from Fraser Institute Centre for Aboriginal Policy Studies website: <https://www.fraserinstitute.org/sites/default/files/ever-higher-government-spending-on-canadas-aboriginals-since-1947.pdf>
- Offet-Gartner, K. (2008). *Sharing the story: Education as the key to unlocking the door of career possibilities with First Nations women* (Doctoral dissertation, University of Calgary). Available from ProQuest Dissertation & Theses Global database. (UMI No. 304693647)
- Perry, J., Przybysz, J., & Al-Sheikh, M. (2009). Reconsidering the “aspiration-expectation gap” and assumed gender differences among urban youth. *Journal of*

*Vocational Behavior*, 74, 349-354. doi:10.1016/j.jvb.2009.02.006

Schoon, I., & Polek, E. (2011). Teenage career aspirations and adult career attainment: The role of gender, social background and general cognitive ability. *International Journal of Behavioral Development*, 35, 210-217. doi:10.1177/0165025411398183

Schulz, W. E., Sheppard, G. W., Lehr, R., & Shepard, B. (2006). *Counselling ethics: Issues and cases*. Ottawa, ON: Canadian Counselling Association.

Tucker, J., & Fushell, M. (2013). Graduate programs in education: Impact on teachers' careers. *Canadian Journal of Educational Administration and Policy*, 148, 1-26. Retrieved from [https://www.umanitoba.ca/publications/cjeap/pdf\\_files/tucker\\_fushell.pdf](https://www.umanitoba.ca/publications/cjeap/pdf_files/tucker_fushell.pdf)

Waslander, B. (1997). Government expenditures on Aboriginal People: The costly status quo. *Canadian Tax Journal* 45, 959-978.

## Appendix A

### New Brunswick Aboriginal Shipbuilding Engagement Strategy HR Research Form

Salutation: Mr. Ms. Mrs. Dr. Prof.

First Name: \_\_\_\_\_

Last Name: \_\_\_\_\_

Consent Form: Yes

Street Address: \_\_\_\_\_

\_\_\_\_\_

City: \_\_\_\_\_

Province: \_\_\_\_\_

Country: \_\_\_\_\_

Postal Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Email: \_\_\_\_\_

Gender:    Male    Female

Marital Status:    Single    Married    Divorced    Separated    Widowed

Date of Birth: \_\_\_\_\_

Community Affiliation: \_\_\_\_\_

Highest Education Achieved: \_\_\_\_\_

Languages Spoken: \_\_\_\_\_

Band Number: \_\_\_\_\_

Driver's License Number and Class: \_\_\_\_\_

Social Insurance Number: \_\_\_\_\_

Disability: \_\_\_\_\_

Social Assistance Claimant: Yes No

Employment Insurance Claimant: Yes No

Current Skills:

---

---

---

---

Certifications (e.g. WHIMIS, safety, computer-related, other):

---

---

---

---

What are you interested in?

- Job Search
- Training-to-Employment
- Skills Upgrading
- Entrepreneurship
- None of the Above

What career are you interested in?

---

---

---

---

Are you currently an Apprentice? Yes No

If yes, in what trade? \_\_\_\_\_ Number of  
hours Completed: \_\_\_\_\_

Do you have your Red Seal? Yes No

If yes, in what trade? \_\_\_\_\_

Are you interested in the Apprenticeship program? Yes No  
If yes, in what trade? \_\_\_\_\_

Are you willing to relocate? Yes No May we contact you in the future? Yes No

Full Name: \_\_\_\_\_

Full Researcher Name: \_\_\_\_\_

Researchers additional question suggestions:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Full Name: \_\_\_\_\_

## Appendix B

### JOINT ECONOMIC DEVELOPMENT INITIATIVE (JEDI) CLIENT CONSENT FORM TO COLLECT, USE AND DISCLOSE PERSONAL INFORMATION

*Last updated: January 2015*

The Joint Economic Development Initiative (JEDI), its agents, and third party external service providers (service providers) are the organizations that provide employment-related programs and services. In providing you, the client, with these services, JEDI, its agents and service providers must abide by the principles and the Code of Ethics contained in the *Canadian Standards and Guidelines for Career Development Practitioners*.

Personal information provided by you for these programs and services is collected by JEDI, its agents and service providers in accordance with paragraph 37(1)(b) of the *Right to Information and Protection of Privacy Act*, SNB 2009, c. R-10.6 (RTIPPA) and subsection 27(1) of the *Personal Health Information Protection and Access Act*, SNB 2009, c. P-7.05 (PHIPAA) for the purposes of administering the employment-related programs and services established under the agreements JEDI has with the Province of New Brunswick and Government of Canada.

Personal information provided by you is protected and handled in accordance with RTIPPA, PHIPAA, and the *Document and Record Management Policy*. If you have any questions or concerns regarding this Consent Form, the handlings of your personal information, or the programs and/or services, please contact JEDI at 1-888-885-9870 or [admin@jedinb.ca](mailto:admin@jedinb.ca).

All personal information provided by you must be accurate; please immediately inform JEDI, its agents, and service providers of any changes.



*Consent to Collect, Use, and Disclose Personal Information*

By clicking the “accept” button below, you hereby consent to allow Jedi, its agents, and service providers to collect and use your personal information and you agree to the following uses to be made of this information:

- to determine and verify my eligibility for the program(s) or service(s) for which I am applying and/or receiving;
- to assist me in attaining my employment and/or training goals, which includes monitoring my progress; and
- to contact me for a period of up to seven (7) years following my participation in the program and/or service, for the purpose of collecting information concerning my employment and/or training status to monitor and evaluate the program(s) or service(s) for research and continuous improvement to programming.
- I understand that in order to accomplish these purposes, my personal information may need to be shared. I hereby consent to allow JEDI, its agents, and service providers to disclose my personal information, if and when necessary, to:

- other branches within JEDI;
  - New Brunswick provincial departments;
  - the federal Department of Employment and Skills Development Canada;
- and
- third party evaluators.

By clicking the "Accept" button below, I acknowledge that this authorization is valid for the duration of my participation in the program(s) or service(s) and the monitoring associated with it, and to carry out the evaluation of the program(s) or service(s), as established by JEDI.

By clicking the "Accept" button below, I understand that I can revoke my consent in writing, at any time and in doing so, I understand that I will no longer be able to participate in the program(s) or service(s), because of the requirements established by the Canada-New Brunswick Labour Market Agreements.

## **CURRICULUM VITAE**

**Candidate's full name:** Michael David Hennessey

**Universities Attended:**

University of New Brunswick, Fredericton, New Brunswick

Bachelor of Business Administration

Graduated in May 2010

University of New Brunswick, Fredericton, New Brunswick

Master of Education, Counselling

Expected to Graduate: May 2017

**Publications:**

Chapter 2 of this thesis will be submitted to the Canadian Journal of Career Development (CJCD) for future publication.

**Conference Presentations:**

This thesis has been presented as a Work-in-Progress (WIP) at the following conferences:

- Atlantic Education Graduate Student Conference (2015)
- UNB Graduate Research Conference (2015)
- UPEI Multi-Disciplinary Graduate Research Conference (2015)
- NB Career Development Action Group (NBCDAG) Conference (2015)
- The Atlantic Roundtable – Capitalizing on local opportunities to propel Aboriginal business to new heights (2015)

- Sponsored by the Social Sciences and Humanities Research Council (SSHRC) and the Canadian Council for Aboriginal Business (CCAB)
- Cannexus Conference (2016)
  - Sponsored by the Counselling Education Research Institute of Canada (CERIC)