THE CAREER ASPIRATIONS OF GRADE 12 STUDENTS IN CENTRAL NEWFOUNDLAND

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Title Page

The Career Aspirations of Grade 12 Students in Central Newfoundland

by

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ABSTRACT

The purpose of this study was to provide a detailed description of the career aspirations of Grade 12 female students in central Newfoundland, the barriers they anticipate in their movement from high school to the workplace or post-secondary institutions and the factors that influence their immediate career plans. Also, a comparison was made with the 1989 Youth transition into the Labour Market Study (Sharpe & Spain, 1991) to determine if any changes in career aspirations have occurred.

Individual questionnaires were administered to 197 Grade 12 female students in the Grand Falls-Windsor and surrounding region. Many of the findings were similar to those in the 1989 YTLM study. The majority of students planned to attend post-secondary school after graduation. Career choices were based mostly on personal interest and were discussed mostly with parents. The job motivational factor of security was of most importance followed by social needs and fulfillment.

The majority of students envisioned a future that involved working in an occupation, however, some expected to have the combined role of worker and homemaker. Most students were unsure if they would have to rely on Employment Insurance benefits to supplement seasonal employment. Occupations associated with medicine and health were most popular followed by those in the social sciences, engineering and mathematics.

The 1999 and 1989 respondents had more similarities than differences in their career aspirations and post-secondary plans. The most noteworthy difference between the two groups was the number of 1999 respondents who were undecided about their future.

The students surveyed identified industries they thought would offer the best employment opportunity in the future, but they did not make their career choice based this information. Also, the students did not choose industries that were in Newfoundland's growth employment sectors. It is recommended that schools implement programs that inform secondary female students and their parents about job market opportunities as well as about non-traditional careers.

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CHAPTER 1

INTRODUCTION

This study addressed the career aspirations of a group of Central Newfoundland Grade 12 (Level III) female students. The data collected in 1999 was compared with the data collected in the same region of the province in the 1989 Youth Transition Into the Labour Market (YTLM) study (Sharpe & Spain, 1991) to determine if career aspirations had changed for Grade 12 female students over the past 10 years. The data collected in this study examined factors that influenced their training and occupation choices. More specifically, the study examined career aspirations immediately after high school and for later years; the influence of family on post-secondary educational pursuits; and student views of possible job opportunities.

Transitions from high school to post secondary and work are major changes for students. It is not a simple decision to either continue with their education at a post secondary institution or to look for work. A student's long term goal or career goal also influences the decision. The choice to continue with a post-secondary education means the student must decide on the program or courses to study, the school to attend, how these plans fit with their long term career goals, the length of time they are willing or able to give to post secondary training and the financing of the additional education. If there is a decision to start work the student must decide on the type of job they want, what is available, where the work will be located and how immediate work plans can help them meet their long term career goals. They need to consider, for example, if they will enter

an apprenticeship program, attend post secondary school part-time while working, work to save money that will enable them to finance additional education, or find work to support themselves or their family.

The factors that influence female decisions differ from the factors that influence males. Females are socialized and influenced by a gender bias that males do not experience. Socialization influences a female's long-term goals concerning career and family. Living in rural areas and urban centers of different sizes also influence decisions concerning the transition from high school. The economic climate, availability of work, availability of secondary schooling in an area, attachment to parents and community, career maturity, self-efficacy and degree of locus of control also influence decisions.

Statement of Purpose

This study had two main purposes: first, to examine a selected group of Grade 12 female students in the Central Newfoundland region (Grand Falls–Windsor area) to determine their career aspirations and factors that influence these aspirations. Secondly, to compare data collected from the 1989 the Youth Transition into the Labour Market survey with the present data to determine if any changes had occurred in Grade 12 female student career aspirations over the last ten years.

In 1989 the Youth Transition into the Labour Market (YTLM) survey was done, in part, to determine the aspirations of Newfoundland and Labrador Grade 12 students and the factors that influenced those aspirations. Follow-up surveys were completed, once a year for five years, as part of the original longitudinal design to determine if the

1989 Grade 12 students had met or changed their aspirations since leaving high school. More recent but limited studies have also been carried out in selected regions of the province to determine if students had different types of aspirations and if different factors influenced their choices. The most recent of these was completed by Genge (1996) using a sample of rural students living on the Northern Peninsula portion of the province. Genge also noted that because economic changes that have occurred, and are occurring in Newfoundland since 1989, Grade 12 students are exposed to unique influences that could affect their career aspirations.

Females were identified specifically for this current study since research has found that women are faced with unique career influences (Astin, 1984; Davey & Stoppard, 1993; Gallos, 1989; Hardesty & Jaobs, 1986; Larwood & Gutek, 1987;). Research has identified socialization and gender characteristics as affecting the career aspirations of women and the impact of these on, for example, the low number of women in high paying, high prestige, nontraditional occupations. Betz and Fitzgerald (1987) and Luzzo (1996) identified past experiences and situations as an influencing factor on career choice. Varpalotai (1996) reported that "women in Canada continue to be constrained by limitations imposed on them through socially constructed gender roles and expectations" (p. 97). Sharpe and Spain (1991) also found gender issues influence the career aspirations of females in Newfoundland and Labrador.

The Grand Falls-Windsor region of Central Newfoundland was chosen because it has an economic foundation different from other rural and urban areas of the province. It is comprised of the towns and communities of Grand Falls-Windsor, Bishop Falls,

Botwood, Peterview, Northern Arm, Point of Bay, Point Leamington, Pleasantview, Glover's Harbour, and Leading Tickles. They have a combined population of 24,777, with communities ranging from 69 to 14,163 people. The fishing industry is not the predominant employer throughout the area, even though it is part of the Provincial economic structure. The pulp and paper industry, through the Abitibi Consolidated Company, offers year round and seasonal employment to a large section of the population in Grand Falls-Windsor and surrounding area. This region also has well-developed secondary and service industries. Tourism is a component of this economy and includes North America's largest Atlantic salmon enhancement project. Manufacturing is a major employer in Point Leamington through the Superior Glove Factory. Botwood's economy is based around the port services it offers to oil companies and Abitibi Consolidated. Overall, this region has an economy based on pulp and paper and manufacturing, with the fishery having little influence on family income.

Also, within the central region a university from Nova Scotia is attempting to open a campus in the main urban center of Grand Falls-Windsor. This may influence student aspiration with respect to taking university courses, especially if there is no longer a need to move away from home for such post-secondary education. In the Central Newfoundland region there is currently only one post-secondary public institution, the College of the North Atlantic, and approximately seven private post-secondary institutions. There are a limited number of programs offered at the provincial college with a specific number of "seats" available to Grade 12 graduates, thus limiting opportunities. Attending a private college locally or moving away from home to attend a

public college or university may be a financial burden that some students are unable to handle.

Significance of the Study

The transition from school to a work environment has become more complex as we enter the twenty-first century (Sharpe & White, 1993). Students have increasing numbers of training institutions, universities and career paths to choose from as they finish their secondary education. Conroy (1997) found that among the females in her sample group, 70% aspired to professional jobs and 9.4% to either clerical or skilled trades. This was supported by Rojewski and Yang (1997) who found that Grade 12 females continued to show statistically higher aspirations than males. Females in the Conroy (1997) and Rojewski and Yang (1997) study aspired to professional jobs, yet a Statistics Canada (1998) report showed there were a high number of females employed in non-professional occupations and confirmed earlier research that adolescents had unrealistic occupational and educational aspirations. Conroy (1997) applied national occupational trends to her sample group and found that, if the sample group followed the national trend, less than one half of the women were likely to complete a four-year degree program.

The situations and experiences that a student has encountered have influenced their career choice (Betz & Fitzgerald, 1987; Herr & Cramer, 1992; Hollinger, 1991; Luzzo 1996). Socialization and gender characteristics are thought to affect the occupation that a woman will choose, and this influence is believed to affect the number of women in high paying, high prestige, nontraditional occupations (Davey & Stoppard, 1993; Gallos, 1989, Hardesty & Jacobs, 1986). Gati, Givon and Osipow (1995) found that

"more men than women preferred negotiation and management and supervision, using tools and instruments and computers, utilizing numerical ability and technical ability, and working in the fields of business and technology. In contrast, more women than men preferred providing mental help and community service, utilizing artistic ability, and working in the fields of culture and service" (p.213). Also in this study, it was reported that men and women clustered working conditions associated with career differently. This invariably leads to a difference in a perspective of the demands of a specific career based on gender.

Greene and Stitt-Gohdes (1997) stated that historically women worked at low paying, low status jobs in the retail, clerical and service industry. This segregation had a large influence on occupational achievement. Hoyt (1988) reported that although women are as predominant as men, the workforce was gender segregated "with women clustered primarily in low status, low paying, retail sales and service jobs, whereas at least 75% of jobs in high paying professions are held by men" (p.35). Astin (1984) and Larwood and Gutek (1987) saw women as faced with barriers due to their socialization. These barriers were affecting women's desire to follow nontraditional occupations, and when they did enter the nontraditional occupations, they faced other barriers due to their gender. Shu and Marini (1998) reported that "young women tend to aspire to occupations in which a high percentage of incumbents are women, and young men tend to aspire to occupations in which a high percentage of incumbents are men" (p. 43).

Shu and Marini (1998) also found that a parents' socioeconomic status positively affected same gender children and that "women from higher socioeconomic backgrounds were more likely to experience gender role attitudinal change"(p. 61). They further reported that a mother's occupation affected the sex typing of a daughter's career aspiration, while Conroy (1997) found that the fathers' job was a significant predictor for

job choice of male and female children. She reported that "the formation of an occupational self-concept includes information, social frameworks, and experiences beyond those related to specific occupations" (p. 15). Other researchers found that family members were not only role models but also gave inspiration to their children's career aspiration (Greene & Stitt-Gohdes, 1997). Farmer and Chung (1995) reported that a student with a less privileged socioeconomic background aimed for higher level careers. The children of parents (mother or father) who had completed a two or four year graduate program had a higher perception of academic and career success than students who were unsure of their parents educational level or whose parents had not completed high school (Jones & Womble, 1997). Gianakos (1999) found that a child is more likely to have a high degree of career commitment, increased efficacy about career related tasks, when their parents encourage functional, emotional and conflictual independence. This is directly linked to having career aspirations and making decisions as to how to achieve their goal. Farmer and Chung (1995) found that an adolescents career commitment was positively correlated with a cooperative and competitive achievement style, low family salience, attributing success to effort and felt their choices were supported by parent or teacher. A longitudinal study by Farmer, Wardrop, Anderson, and Rising (1995) reported that parental support during high school did not increase a females' persistence in science-related careers. Also, they did not find evidence to support the idea that school and teacher support was less important than parental support. O'Brien (1996) found that "women who experienced a moderate degree of attachment to their mothers, relied on their mothers to assist in managing their personal affairs, felt emotionally close to their mothers, and shared similar beliefs and attitudes with mothers and fathers evidenced very strong career self-efficacy beliefs and moderately strong levels of both career orientation and realism" (p, 269). Other researchers have found that

a high level of decision-making self-efficacy was positively related to exploratory intentions and low levels of indecision (Betz & Voyten, 1997).

Rojewski and Yang (1997) reported that "gender, race and socioeconomic status each had a significant effect on academic achievement, self-evaluation and career aspiration" (p.401). As noted earlier, gender and socioeconomic status are predictors of adolescent and college student career aspirations (Farmer & Chung, 1995). Hollinger (1991) and Betz and Fitzgerald (1987) reported that socialization that occurs in early childhood helps an individual develop a gender schema. The environmental circumstances and knowledge about occupations are developed from what individuals experience in their community and home (Herr, 1992; Hollinger, 1991; Rojewski & Yang, 1997). With a lack of female role models and mentors in nontraditional occupations women are more unlikely to aspire to these occupation (Gianakos, 1999). Shu and Marini (1998) studied the influences of adolescence socioeconomic, parental occupation, family size, and community environment as it impacted their career aspiration. They concluded that occupations that require only high school had a greater dissimilarity by sex in aspirations than occupations that required post-secondary education, and that men were affected more by the community than women. Hall, Kelly and Van Buren (1995) reported that rural males had the highest realistic interest of all students in their study and more differentiated career interests than rural females. They also found that rural females had higher realistic interests than urban females. Rojewski (1995) reported that rural males held lower occupational aspirations than females and that females had higher occupational expectations. Looker (1996) found that for both males and females the pursuit of post-graduate education was more common among urban youth than rural youth, and also that more educational options were available for the urban group.

Gottfredson (1981) developed a theory that outlines the selection of job choices through development. As children develop they pass through stages, and at each stage work values are established. By the time an individual reaches adolescence they have eliminated nontraditional occupations and established what type of occupation interested them and held enough prestige for them to seek. If, in the range of acceptable occupations there was not one that fit the criteria that the individual was seeking, then the individual would reconsider an occupation that had been rejected earlier.

Hackett and Betz (1981) suggested that traditional socialization results in difference between men and women in the areas of performance accomplishments, vicarious learning, emotional arousal and verbal persuasion, leading to women's greater domestic tasks and lower self-efficacy for other areas. They also added that women felt they were unable to combine nontraditional jobs with home and family.

In more recent years career counselling programs have been reviewed for their sensitivity to socialization issues (Ward & Benzanson, 1991). Luzzo (1995) found "that career counselors might be successful in increasing the maturity of college students' attitude toward career development by implementing techniques specifically designed to increase career self-efficacy expectations" (p. 65). Innovative programs were developed to deal with the effects of socialization and encourage women to enter any profession they desired (Herr & Cramer, 1992; Stickel & Bonett, 1991). When a program confronts and deals with the issues that face women entering the trades, technological or professional occupations, women will be better able to see themselves in occupations that previously they would not have considered (Conroy, 1997; Stickel & Bonett, 1991; Stockard & McGee, 1990).

Overall, there are many significant impacts on career development and career choice. Females in particular, compared with males, are influenced by gender

socialization, gender-typing of occupations, role conflicts and a lack of mentors. Due to these and other factors not as many females have aspired to, nor are employed in, high prestige careers compared to males.

The 1989 Youth Transition into the Labour Market Study

The proposed study will document and compare the career aspirations and influencing factors of a sample of 1999 and 1989 Grade 12 female students. The 1989 Youth Transition into the Labour Market (YTLM) survey (Sharpe & Spain, 1991) examined factors that included: career exploration, job holding skills, job-related skills, work value and decision characteristics. Comparisons will be made on a selection of these factors.

Research has identified the family as having a major influence on student career choice (Conroy, 1997; Farmer & Chung, 1998; Shu & Marini, 1998). Therefore who a student lives with is important. Sharpe and Spain (1991) found that 97.3% of the students in their study lived with both parents; 8.2% lived with only their mothers; 1.9% with only their fathers; while 2.4% lived with relatives or friends. They also found that generally, student perception of their achievement was positively correlated with their high school marks; the higher the students average the greater the student's perception of their achievement. The support that the students perceived getting from parents, mothers or fathers, varied. Fathers were noted to be less supportive of their children who wanted to continue their education, yet more supportive than the mothers of the students who wanted to take a year off from continuing post-secondary education. When the students were making their decisions about careers they typically discussed their plans with their mothers, fathers and friends. The students reported that they discussed career plans with

their parents and friends a lot more than they did with the school counsellor, persons in the job, relatives or teachers. Once the choice was made to continue with their education as it applied to a career, females typically listed careers in medicine and health (including nursing and nursing assistant), social science, teaching and clerical jobs. The long range goals, in 5 to 10 years, that developed from these discussions indicated that 50% of the females (compared to 72% of males) felt they would be working in a job or career, and 40.1% felt they would be both homemakers and working at a career. About 9% were unable to say what they would be doing. These long-term perspectives were influenced by whether or not the student was willing to move away from family to find work. Females were less willing than males to relocate outside the province, but were more willing than males to relocate within the province if there were relatives living near by.

Sharpe and Spain (1991) also found that there was "a fairly high degree of internal locus of control which could be interpreted to mean that they themselves (students) considered they could influence decisions" (p. 129) concerning work. The study looked at what influenced the immediate plans of students and found that for 65.9% personal interest was the major factor. After personal interest the students listed the next top three factors to be: lack of academic preparation (9.7%); money (5.4%); and a family owned business (4.8%). Other influencing factors were: work opportunity (4.8%); past experiences (4.4%); and friends (2.9%). The YTLM survey noted that "traditional gender-related occupational choices were still very much in evidence, despite some trends toward greater female participation in the traditionally male bastions of construction, transportation, and production fabrication" (Sharpe & Spain, 1991, p. 56).

The 1989 YTLM survey asked the students to judge the availability of future jobs in specific occupational groups. The students had a tendency to "rate the number of jobs in most of the industries to be at least the same, with construction, petroleum (oil), and

health and education in particular being able to provide increased job opportunities. Areas with fewer jobs in the future were considered to be, in declining order, pulp and paper, mining (ore) and fishing" (Sharpe & Spain, 1991, p. 164).

When the students were asked if they considered starting their own business, 33.7% said yes, with a predominate number, 57.5%, being male. Females may not have been considering starting their own business, but 91.1% were planning on attending a post-secondary institution. When the students were asked what institution they planned to attend, their responses were: 35.3% Memorial University, 16.4% provincial colleges (today called the College of the North Atlantic); 11.2% community colleges (today amalgamated with College of the North Atlantic); 3% private colleges; 3.3% nursing schools (today part or Memorial University), and 0.6% armed forces. Twelve point six percent said they planned to move outside the province for post-secondary education.

Overall the study revealed that the career aspirations of female Grade 12 students in Newfoundland and Labrador were in the area of social sciences, health and teaching. Few women had an interest in construction, engineering or nautical science. Women did view their academic performance to be better than their male counterparts but did not plan to enter occupations that required the higher level of achievement. Career plans were discussed more with their mothers, fathers and friends than any other people.

Research Questions

The main purpose of this study was to examine the career aspirations of a sample of Central Newfoundland Grade 12 female students and include comparison with their 1989 counterparts. More specifically, the following research questions were asked with

respect to the group under study:

1. What are the future career plans of female students?
2. With whom are female students discussing career plans?
3. What are the immediate career plans of female students?
4. What factors influence the immediate career plans of female students?
5. What do female students see themselves doing in 5 or 10 years?
6. What influence does family have on a female student's willingness to pursue a post secondary education?
7. What motivation factors do female students perceive as most and least important in their job choice?
8. What is the relationship between female student academic achievement and their pursuit of a post-secondary education?
9. What are the differences between 1999 and 1989 female student perceptions of certain industries offering more, same or less job opportunities in the future?
10. What are the differences between 1999 and 1989 female students with respect to: (a) immediate future career plans; and (b) factors that potentially influence those plans?

Limitations of the Study

This study has limitations that are recognized by the researcher. The data should not be applied to communities that have an economy based on the fishery and where the socioeconomic structure will differ from that of the Grand Falls-Windsor region.

This study did not contain a control group for comparison purposes. Therefore,

the data was used to suggest, rather than confirm, changes in the career aspirations of Central Newfoundland Grade 12 females that have occurred over the past decade. This study focused on females; the career aspirations of males may have changed from the 1989 YTLM survey but were not examined as part of the research. Due to time restraints the survey was completed in late fall. Some Grade 12 students may not begin looking at post-secondary education or employment opportunities until the late winter or spring. The questions on the survey may therefore have addressed issues that some students, at that time of year, had not thought a great deal about.

Definition of Terms

Career: The sequence of occupations that exist in a person's life from adolescence to retirement. It is person-centered and exists only as a person pursues them (Super, 1976).

Career aspiration: "Refers to the prestige or socioeconomic level of a person's ideal occupation" (Farmer & Chung, 1995, p. 265).

Grade 12: Refers to students in their last year of secondary school in Newfoundland. Also, referred to as Level III and includes students who have returned to school (Level IV) to obtain additional credits to graduate.

Job category: A group of positions that have similar pay and contribute to a single organization (Super, 1976).

Occupation: A group of similar jobs found in different industries or organizations. They exist independently of any person (Super, 1985).

CHAPTER 2

LITERATURE REVIEW

This chapter will review literature that studied factors that influence female career aspirations. The literature will be separated into nine sections. Four sections focus on females' career aspirations and influencing factors. One section will outline the data collected through the Youth Transition into the Labour Market as it applies to this study. The theories that outline occupational development of women along with career programs that are available to high schools are also outlined. Government statistics concerning the present occupations of women, and issues they see as barriers to their employment success will also be reviewed. Finally an outline of the region covered in this study.

Female Career Aspirations

Rojewski and Yang (1997) found that female adolescents were more likely to aspire to either high or low prestige occupations while males aspired to moderate prestige occupations. They also found that female aspirations, achievement and self-evaluation had a "consistent, positive and statistically significant influence on occupational aspirations" (p. 403). Hasketh, Elmslie and Kaldor (1990) found slightly different results. They reported that "male sex-typed occupations tend to have a much higher spread on prestige, whereas female sex-typed occupations tend to cluster in the middle or low prestige levels" (p. 50). Farmer, Wardrop, Anderson and Risinger (1995) found that over a 10-year period (1970-1980), women's career aspirations declined more than males. A study by Betz, Heesacker and Shuttleworth (1990) found that a woman's career aspirations or choices were becoming less traditional.

Levine and Zimmerman (1995) did a comparison study to explore the connection between the gender-typing of a females occupational aspirations and occupational achievement in which women's aspirations in 1968 were compared to their achievement in 1979. They found that "there was a weak relationship between the sex-type of occupational aspirations and the sex-type of achievement" (p. 79). In 1979 female aspirations and achievements followed traditional occupations, yet there were fewer aspirations toward traditional occupations than in 1968. Women in 1979 were twice as likely to fulfill their occupational aspirations if they were traditional occupations. Over time there was an increase in success by women with traditional aspirations and a decrease in success with those who had nontraditional aspirations. These findings support Garrison's (1979) report that occupational gender differences were changing, that women were aspiring in greater numbers to management positions because gender segregation of occupations was decreasing. Swatko (1981) reported that "women who choose or aspire to male dominated occupations differ from women who choose occupations that conform to traditional sex roles" (p. 175). Women who do aspire to male dominated occupations have been determined to be introspective, dominant, persevering, less people oriented, less feminine, autonomous, self-confident, more task oriented and independent, and referred to as pioneers, role innovators and nonconformist (Hoyt & Kennedy, 1958; Swatko, 1981).

McNerney (1998) compared the educational and occupational achievement of high school students with that of their parents. The study found that children had higher aspirations than their parents and that there was no difference between female and male aspirations. It was reported that females aspire to the mothers' occupations more than the fathers'; and sons were willing to aspire to the mothers' occupation if it was higher prestige than the fathers'. Shu and Marini (1998) analyzed occupational

aspirations of young Americans between 1966 and 1979 for men and 1968 and 1979 for women, and found that the higher the parent occupational status the less likely a female was to aspire to a typically female occupation. Yet, there was a decline in the prestige and earning potential of the occupations to which young women aspired but no change in the gender-typing of the occupation. These findings were similar to those of Hannah and Kahn (1989).

Stockard and McGee (1990) reported that boys and girls tend to want different occupations. They found that a child has "perceptions of occupations, indicating that they perceive the status, earnings, and difficulty of occupations in ways that are similar to more objective measures or those obtained from adults. When sex differences appear in these perceptions, they tend to be related to the sex-typing of the occupation" (p. 288). They added that "boys, but not girls, may increase their preference for other sex-typed fields, if perceived they have certain desirable characteristics... boys' willingness to consider female-typed occupations may be more open to change than girls" (p. 298). Studies by Hannah and Kahn (1989), Leung and Harmon (1990) and Scozzaro and Subich (1990) differ from Stockard and McGee (1990). They found that women are more willing to consider male-dominated occupations than men were willing to consider female-dominated occupations. Scozzaro and Subich (1990) added that males are less likely to change their occupational choice than females. and that gender typing of an occupation is more important to males than is the social and enrichment aspects of the work. Similar findings were made by McKenna and Ferrero (1991), but they also found that high school boys who pursue nontraditional careers may be viewed by nontraditional women as less attractive socially" (p. 170). This then might influence a male from aspiring to a non-traditional career and this may explain the findings of the above

research.

Conroy (1997) examined predictors of adolescent ideal future occupation. The study found that aspirations did not follow traditional gender-typed occupations, with 70 % of the females aspiring to professional jobs and 9.4 % aspiring to clerical or skilled trade jobs. Conroy noted that the most revealing information of the study was that 61.5 % of the respondents identified an ideal occupation as one that would require at least some post-secondary education, and many required graduate work or special certification.

Erwin (1996) reviewed the gender inequality in educational and occupational achievement despite high aspirations. Students who were interested in pursuing highly competitive programs - education, law and medicine - were unaware of the reject rate (80-90 % of applicants were not accepted). The students did not have any alternative plans if they were unsuccessful entering their program of choice nor were they overly concerned about the competitiveness of a program. Erwin concluded that this lack of anxiety over their acceptance was due to strong parental support for their career choice. Another of Erwin's (1996) findings was that the females who showed an interest in high prestige careers also assumed they would be the primary child-care provider and household manager. They defined a good job as one flexible enough to accommodate domestic responsibilities. Looker (1996) had a similar finding and reported that "provision of affordable, flexible quality child care will go a long way to opening up options to qualified women. The expectations that women should care for young children and men should earn a living are pervasive. So long as these gender stereotypes persist one cannot talk of transition to adulthood without recognizing the gendered nature of those transitions" (p. 160). How females were going to achieve the combination of motherhood and career, could not be answered by the females in the

study. Research by Stickel and Bonett (1991) found that females wanted to be both homemakers and achieve high prestige careers. With a lack of knowledge on how to achieve both goals, women failed to pursue all possible occupations.

Luzzo (1996) found that the more career related barriers an individual perceives the lower their career decision making self-efficacy. Hackett and Betz (1981) and Stickel and Bonett (1991) investigated the importance of self-efficacy and career development in women. Stickel and Bonett stated that "traditional socialization results in differences between men and women in the areas of performance accomplishments, vicarious learning, emotional arousal and verbal persuasion. Women's greater involvement in domestic activities may result in higher self-efficacy for domestic tasks and lower self-efficacy for others" (p. 207). If there was a "greater exposure to childhood activities found to be related to females' subsequent participation in nontraditional curricula or occupations could be coupled with the use of selected female role models to strengthen self-efficacy and interest in previously male-dominated roles in the technical and scientific fields" (Herr & Cramer, 1992, p. 342).

Mortmier (1996) found that "students also learn of their likely occupational destination through observation of their own tracks and the fates of similarly-situated predecessors; they form aspirations accordingly" (p. 34). Students form their aspiration by obtaining information from external consultants such as faculty members, counselors, deans, parents, relatives, peers and employers (McCormick, 1997). Exposure to consultants who have achieved their career aspirations will encourage students to have high aspirations. This also applies to the institution a student attends where the achievement of the individuals (faculty) at the college will

influence the achievement of the individuals attending. It was also reported that students adapted their expectations to match the outcome from a specific type of institution. Thus, if students attended a college that awarded two to four year diplomas, the students would adjust their aspirations to match the type of occupation they could achieve with such a certificate.

The Effects of Family and Community on Career Aspirations

Each family and community socializes its members according to their economic status, occupation and gender. Understanding the community and family a person is a member of can assist in understanding the views on gender specific occupations. This section will review the literature that examines the influence of the family and the social element of community life on female career aspirations.

Herr and Cramer (1992) reported that attitudes and perceptions of what life is about and where a child fits into that perception is influenced by environmental circumstances, and their knowledge about careers is developed from what they experience in the community. By the middle teenage years an individual will have developed a cognitive style for processing information that is influenced by gender, social and contextual factors that is resistant to modification (Fritz, 1994). The influence of family support, ideas, economic status, parental education, attachment, and rural versus urban location have been found to affect a child's (both male and female) career development and aspiration.

Schulenberg, Vondracek and Crouter (1984) found the family influenced

adolescence career aspirations by modeling opportunities in education, financial and socialization practices in parent-child relations. It was also found that parental influence had a lot more effect on students' educational goals than that of peers, and that school influence was only moderately effective as compared to the parents (Williams, 1972). McNerney (1998) reported that "status attainment theory holds that a child's educational and occupational achievements are based on the parents social status, therefore it is important for career counsellors to stress the importance of formal education to students of lower social economic status" (p. 8). Conroy (1997), who studied the crystallization of an adolescent's occupational choice, found that "young people may be viewed as forming a personal template - an identity template - prior to their actual entrance into the labour market. This template can be thought of as an amalgam of ideas/expected work roles and other identities - religion, family, political - based on personal and societal frames of reference" (p. 13). He further stated that:

> First, along the focusing-exploring continuum, balance must be maintained so that focusing does not produce premature crystallization of career choice and identify foreclosure, but neither does exploring lead to overwhelming career ambiguity and identity diffusion. Second, while the adolescent needs to be aware of the realities of multiple life roles, a balance needs to be maintained so that such realities are not perceived to be insurmountable problems. Third, while stereotypical masculine attributes need to be encouraged and fostered, a balance valuing of stereotypical feminine expressive qualities is essential. (p.

138)

Wall, Covell and MacIntyre (1999) looked at students in rural communities in Atlantic Canada and found that social supports predicted the perception of opportunities which influenced educational expectations, education aspirations and career expectations. Powell and Peet (1996) in a study about the effect of a mother's beliefs in a child's educational and occupational achievement, reported that a parent who feels a responsibility for the child's development holds higher aspirations for the child compared to parents who do not. It was also discovered by Rojewski and Yang, (1997) that the influences of selected demographic and latent variables affected adolescent occupational aspiration and that a "negative cultural perception and social expectations may impose lower status and devalued role on adolescents" (p.379).

Female attachment and dependence on a parent was found to influence career maturity, career development and level of achievement. A study by Ryan, Brown and Solberg (1996) found that a dysfunctional attachment to parents affected adolescent career search self-efficacy. They noted that "for women, judgments about their ability to successfully perform personal exploration, job exploration, networking and interviewing activities are associated with parental attachment to both mother and father. These results strongly suggest that the role of family processes within women's career development is more dynamic and complex than it is for a man's career development" (p. 88). O'Brien (1996) found that females who have a moderate degree of attachment to their mothers, and rely on them to manage their personal affairs, share similar beliefs and attitudes of both parents and have a strong level of career

orientation and realism. Students who had undeclared majors were found to be more influenced by their parents, which suggested that dependence on their parents could be hindering their career exploration activities (Orndorff & Herr, 1996). Gianakos (1999) reported that "when parents encourage functional, emotional and conflictual independence in their children, those children are more likely to exhibit higher degrees of career commitment and increased efficacy perception for career related tasks" (p. 255). It was also found that a person with a stable choice pattern is more likely to have available mentors within a chosen field of interest and unlikely to seek advice for their indecisiveness.

Jones and Womble (1997) found that students had a better attitude toward the relationship between education and career success if the mother or father had graduated from a two or four-year college program. Shu and Marini (1998) found that the "mother's and father's SESs (socioeconomic status), as determined by each parents' level of educational and occupational prestige, had positive effects on the prestige of the occupations to which young women and men aspired" (p. 60). Family members were also role models and inspirational for female career aspirations in the trades (Greene & Stitt-Gohdes, 1997). Herr and Cramer (1990), Leung and Harmon (1990), and Scandura and Ragins (1993), found that women who display both masculine and feminine traits benefit more from mentor relationships than those who express one gender-specific set of traits. Yet, because of low numbers of female role models and lack of diversity in the role modeling, young women have few individuals to use as mentors and opportunities for vicarious learning (Herr & Cramer, 1992;

Stickel & Boneli, 1991).

Shu and Marini (1998) studied the factors influencing career aspirations over a ten-year period (1968-1978) and found that a mothe.'s occupation did influence the occupational aspirations of their daughters. On the other hand, a study by Mickelson and Velasco (1998) did not find a strong relationship between maternal influence and a daughter's career aspirations. They reported that "there is little overall relationship in aggregate between mother's occupations and daughter's aspirations" (p. 18), which supports Simpson's (1997) findings. That report found that the mother's occupation was the least useful factor in predicting female's post-secondary aspirations. However, the influence of the father's occupation was found to be a significant predictor of a daughter's job choice (Conroy, 1997).

McNerney (1998) found that male and female children aspired to their mother's occupation. The study suggested two reasons why this is so: one, that the children are more likely to aspire to the mother's occupation because women's work has become more prestigious and therefore more desirable; and two, that children know more about their mother's work than their father's. Davey and Stoppard (1993), and Tuck, Rolfe and Adair (1994) found that a daughter's life role expectation is directly linked to that of the mother. Young (1994) noted that a parent was an active agent in a child's career development, not only in helping develop the skills to explore careers but also in enhancing a feeling of security. Students also (according to Jones & Womble, 1997) get most of their career information from their parents; therefore, economic factors that affect a family could contribute to a female's decision to secure

a productive work role in the trades. A parent's positive attitude toward science has been found to lead an adolescence to retain an interest in science and technology (Farmer, et. al., 1995). An earlier study found that students who majored in science had parents who influenced their career plans (Farmer, Anderson & Brock, 1991).

The influence of a family's economic status is likely to affect a child's aspirations. Farmer and Chung (1995) found that career aspiration was influenced by a family's socioeconomic background, and that students from less privileged backgrounds were aiming for higher level careers. Unfortunately, the study did not look at the gender aspect of the occupation to which students were aspiring. A study by Hannah and Kahn (1989) found that males from all socioeconomic backgrounds and females from low socioeconomic backgrounds showed more same gender preference for occupations. Yet, females from high socioeconomic backgrounds did not demonstrate the same-gender-typed occupational preferences that were supported by Shu and Marini (1998). They found that "women from higher socioeconomic backgrounds were more likely to experience gender-role attitudinal change, to have the resources needed to achieve high levels of educational and occupational attainment, and to be exposed to people who were achieving high status in male occupations" (p. 61). It was also found that children from low socioeconomic backgrounds, male or female, were more traditional in their perceptions of what occupations were appropriate for their gender (Herr & Cramer, 1992). An explanation for this was not always evident, but a study by Mortimer (1996) found that "blue collar workers would promote values and behaviors in children that are adaptive for

similar work, but would not equip them with the self-directed orientations and behaviors facilitative of success in managerial and professional roles" (p. 34). He went on to say that, while socioeconomic origins are strongly linked to work values as a student matures, "poor" adolescents, or those from lower socioeconomic backgrounds, were more successful in obtaining their educational goals if they had high economic efficacy.

Looker and Lowe (1996) reported that youth's transition into the labour market is influenced by social, cultural and economic conditions. Rojewski and Yang (1997) found that a student's socioeconomic status was more likely to influence occupational choice than either gender or ethnicity. They also reported that low social status is likely to devalue work roles and in turn limit occupational aspirations to stereotypical occupational choices.

Luzzo (1995a) reported that perceived barriers do not appear to have a significant negative impact on the career development of college students. Nevertheless, findings do suggest that "students who perceive many occupational barriers in the future might benefit from ways to overcome such barriers in the process of making decisions" (p. 14-15). While Luzzo (1996) reported that individuals "who perceive past family-related barriers exhibit more mature attitudes toward the career decision making process and higher level of career decision making self-efficacy than those who do not perceive such barriers" (p. 246).

Rojewski (1995) found that adolescents in rural areas face more barriers in career development because of a limitation of career alternatives and that gender

difference in rural areas may "reflect parental expectations or family values regarding occupations. It is also possible that reported occupations are a reflection of standards or anticipated options espoused by the local community (including teachers)" (p. 45). Conroy (1997) reported that most students in the rural sample population aspired to professional jobs or those at the upper end of the job hierarchy with approximately 50% of the students from that district going to college and one half of those (25%) completing a four year degree. This could be attributed to the fact that 46% of the respondents' fathers and mothers education was a high school diploma, while 21% had not graduated high school. The students in rural areas were also found to have more realistic interests and aspirations than their urban counterparts (Hall, Kelly & Van Buren, 1995). These findings may lead to rural students seeking employment in enterprising and conventional occupations such as those in the service industries. These types of jobs are often low prestige and low paying, therefore placing rural students at a disadvantage compared to urban students who seek these occupational areas less often. Shu and Marini (1998) reported that living in rural areas did not affect the occupational aspirations of young women; and Conroy (1997) found that females from rural areas had higher job aspirations than males. The problem is these high aspirations might not be realized. McGrath (1996) found that students from small communities were affected by having to leave home to attend a post-secondary institution and that community attachment diminished a young person's desire to seek a post-secondary education.

A study of a female's view of the combined role of mother and career person

produced interesting findings. Shakeshaft (1991) noted that "it is not internal barriers that keep women from aspiring, but rather the reality of a world that expects that if a woman works outside the home she will continue to do the major portion of work inside the home as well" (p. 107). Stickel and Bonett (1991) found that women failed to pursue all possible occupations because of their lack of ability to combine the trade, technology and other professional occupations with the requirements of home and family, and not due to their self-efficacy. Larson, et al. (1994) reported that there was an "increased anxiety consequence to women's frustrations over balancing family and career opportunities and goals is perhaps counterbalanced by an attendant claim that their career is not the sole focus of their life's work" (p. 83). A later study by Erwin (1996) reported that females wanted both a family and a high prestige career, but they had few role models to draw on to help them see how they could accomplish these goals. Only 15% of the females did not see their role of mother as important and, indeed, tended to see motherhood as problematic. The study concluded that females saw higher education and career possibilities available to them as much as to men, but "they still see raising children and running a home as something for which they are uniquely fitted and responsible" (p. 203). Barber (1995) noted that the economy is influenced by the social system, not only by values and norms; thus the economy, like values and norms, is slow to change. The economic benefits that are available to females have developed slowly and will continue to grow, but slowly.

Gender Differences in Career Aspirations

Socialization instills in a child the role they are suppose to assume because of their gender and this role influences the type of occupation they seek. This section will review the literature that examines differences in the career aspirations of males and females.

Farmer and Chung (1995) found that career aspiration was influenced by gender; and the research by Rojewski and Yang (1997) revealed a definite gender difference in the types of occupations aspired to by females, and that gender differences appear to have more impact on career aspirations than ethnicity. Gati, Givon and Osipow (1995) found that "women tend to be engaged in a small range of occupations that are traditional, female sex-stereotyped, and in the lower occupational levels where salary levels are usually relatively low" (p. 204). Mortimer' s (1996) study of transition to adulthood found that females still "encounter traditional values emphasizing the importance of appearance, popularity, marriage and parenthood that may interfere with achievement-related efforts and occupational advancement" (pp. 35 - 36). Their lack of occupational achievement may be due to an awareness of the conflicts in meeting role expectation, combining family life and work, as well as sex-typing of occupations in the job market (Looker & Lowe, 1996; Mortimer, 1996). Erwin (1996) reported that females in post-secondary institutions who had decided on a specific occupation were oriented toward traditionally female-dominated occupations. Those in arts programs were interested in teaching and social work; science and medicine majors preferred pediatrics, obstetrics and family practice; and those interested in following a career in law noted family law as a specialty.

Shu and Marini (1998) and Betz, et al. (1990) found that female career aspirations were becoming less traditional after the women's rights movement,

resulting in more equality and creating additional occupational choice. There continued to be a high level of dissimilarity by gender in the occupations to which young people aspired, and "the differences that persisted have important implications for the earning potential of the occupations to which women and men aspire" (Shu & Marini, 1998, p. 63). The few women who expressed an interest in non-traditional careers aspired to engineering, research, and in one case, to be an astronaut. The Farmer, et al. (1995) study of factors related to persistence in science related careers found that females who viewed themselves as self-reliant and independent were more likely to pursue nontraditional careers. They also found that over a 10-year period (1970 - 1980) women's career aspirations declined more than males.

Wall, et al. (1999), in a study of females in a rural Atlantic Canadian community, found that females reported higher levels of support from others rather than family (for example, peers and teachers) and that this enhanced the perception of future opportunities, education and career. Yet the females did not relate career aspirations with educational aspirations to the same degree as males, who made stronger associations between educational expectations and educational aspirations and career expectations. The study concluded "it is possible that the females have high educational aspirations and career expectations in response to current emphasis in high school on opportunities for females, but because of historic discrimination they believe there are limits on what they can expect to achieve at the upper end of employment types (i.e., professional occupations to which they aspire)" (p. 69). Looker's (1996) study of Canadian youth transition to adulthood, found that females out perform males academically, yet their aspirations and expectations show few differences. Rojewski and Yang's (1997) study of crystallization of adolescent's occupational aspirations found that females were more likely to achieve higher

academic success yet evaluated this success more negatively. Varpalotai (1996) focused on schools in Ontario and how they affected the socialization of students. The study found that females "continue to be constrained by limitations imposed on them through socially constructed gender roles and expectations" (p. 97), and that if this inequity were to change, the whole community must act (Erwin, 1996). The fact that women see their careers interrupted by motherhood may explain why males look further into the future than females (Nurmi, 1991). Looker (1996) reported that even though females outperform males in achievement, their occupational aspirations do not show the same differences. This occurred because most females do not expect to go to university. Females also mentioned the physical demands and possible sexual harassment in male-dominated occupations as a reason for considering certain occupations.

Gati et al. (1995) found that men and women associate the various aspects of work differently and attribute different levels of importance to each aspect. Flexibility of work, for example, was connected to work conditions for women and status of work for men. Females were found to place more importance on relationships with people than income, and on individual and, or social interest rather than instrumental aspects. The opposite was true for men. This has not changed in the last 17 years. Earlier, Wijting, Arnold and Conrad (1977) found that work varied between the genders, with females minimizing extrinsic rewards and placing higher value on activity, involvement and pride in work done. The work of Gati, et al. (1995) revealed a pattern of how females and males viewed aspects of work, resulting in a gender-specific preference for certain work. A higher percentage of men preferred negotiation; management and supervision; using tools and instruments or computers; applying numerical ability and technical ability, and were interested in business

technology and outdoors. A higher percentage of women preferred artistic ability, working in the service and culture industries and providing mental help, community service and culture. Fritz (1994) found that when females made decisions about an occupation, they "would be expected to put their lowest rating on making decisions on their own because this mode seems incongruent with their automatic with-people orientation" (p. 16). The report also found that males prefer autonomous functioning while females preferred interpersonal situations when exploring occupations. An orientation toward expressiveness also means that females place greater emphasize on social skills and relationships. These have been cited as one reason why females do not reach as high a level as males of equal academic ability (Anderson & Tollefson, 1991; Powell & Mariniero, 1992; Scozzaro & Subich, 1990). It was also evident from the work of Scozzaro and Subich (1990) that: "When work values are assessed women tend to value factors of pay, promotion, autonomy and security as much as men, and feedback, skill variety, task significance, supervision and coworkers to a greater extent than do men" (p.117).

When Holland's classifications were applied to the course choices, males were more likely to choose "Realistic" and "Investigative" courses, that match their occupational interest which were high prestige, and nontraditional for females. Males were influenced by the prestige element of an occupation and were willing to place this above other interests in selecting an occupation (Hansen, Collins, Swanson & Foud, 1993). Swatko (1981) found that women in the trades, technology and other professional occupations scored higher on Holland's "Investigative" scale, while women in female-dominated occupations scored higher on the "Social" and "Conventional" scales. They also reported that women in the former group had a greater tendency to be role innovators, had fewer traditional gender-role perceptions,

and were willing to consider male-dominated occupations. It should be noted at this point that occupations on the "Investigative" scale were considered high prestige, while those on the "Conventional" and "Realistic" scale were associated with lower prestige occupations (Hansen & Campbell, 1985; Hasketh et al., 1990). Taylor and Pryor (1988) reported that the "Social" scale occupations are often deemed female-dominated and the "Realistic" scale occupations male-dominated. Jones and Womble (1997) found female attitudes toward work were more positive than that of males.

The difference in adolescent's career aspirations translates into gender differences in socioeconomic status. Shu and Marini (1998) analysis of youth occupational aspirations in the United States between 1966 and 1979 found that the differences would not be overcome without a change in income for traditional female occupations. They reported that "without a reduction in wage differences between typically male and typically female occupations that do not require education beyond high school, a gender gap in earnings will persist" (p. 64).

Academic Achievement

Educators have observed differences in academic success of boys and girls with regard to different subject areas. The success of boys and girls in subject areas varied depending on their grade level and this affects their choice of post-secondary training. This section will review the literature that studied the influence of students' academic success and the impact it has on their career aspirations.

Lent, Brown and Hackett (1994) cited in Wall et al., (1999) noted that academic development influences career aspirations. Females felt they received greater social support at school than did males, possibly because greater academic success would elicit greater support from school personnel. Their deductions were

based on the fact that females outperformed males in all academic areas. Inglehardt (1990) found that it is the educational elite who are more willing to change their view of what is a traditional male or female job. This could mean that, because females are stronger academically, they would be the ones to change gender typing of occupations. Jones and Womble, (1997) found that strong academic students, those who earned "A's" and "B's", had a more positive attitude toward the school-to-work connection than students who earned "C's" and below. McCormick (1997) further reported that "initial educational expectations and related commitment retain a powerful influence on later expectations, even when a variety of factors that might channel expectations have been taken into account" (pp.14-15). Another study found that if a mother believed in the child's future the child had higher academic achievement (Powell & Peet, 1996). This study did note that, it may not be the mother's belief that promoted success, but the child's success that encourages the mother to believe in the child's future success. The same idea could be applied to a child's lack of success: when a child fails to exhibit academic success the mother lowers her belief in the child's future achievement.

Rojewski and Yang (1997) found that females are more likely to aspire to occupations that require a college degree. They also reported that even though females were likely to have higher academic success, they were more likely to negatively evaluate that success. Hollinger (1991) reported that, by the time a female has reached adolescence, a decade of gender role stereotyping has occurred; thus she fears success and avoids mathematics, lowering her expectations for academic success. Females also believed that success in masculine orientated courses, such as mathematics and science, is due to the hard work and not skill. Shu and Marini (1998) found that young women who aspired to occupations that required more than a high school diploma

were less affected by the gender typing of an occupation, and women who aspire to occupations that only require a high school diploma seek occupations that are more sex typed. They also reported that over a 10-year span (1968 - 1978) young women aspired to higher prestige occupations.

McCormick (1997) found that a student who first attends a community college to obtain credit toward a four-year degree program, is less likely to obtain the degree than those who enter a college that offered the four-year program. Association with people who have, or are seeking, similar degrees influenced their success in achieving a four-year degree. If the students did not associate with people who had the similar educational aspirations, they were less likely to achieve their goal. It was reported that females and students in vocational secondary programs were less likely to develop as high expectations as those in academically focused programs. McCormick also reported that the influence of gender appeared to be an independent variable of family, but no definite conclusion could be drawn in the study because of the questionnaire used. Yet it is worth noting because the influence of the academic program might be a stronger influence than anticipated.

Rojewski (1995) also found that students who present at-risk behaviors, or have poor academic achievement in secondary school, have low occupational expectations. This was especially true for males. The difference between aspirations and at-risk behavior was statistically non-significant but noteworthy. High-risk behavior did not lower female occupational aspirations as much as it did for males, but when at risk behavior increased, females showed less agreement between their aspirations and expectations. Moderate-risk females were found to have lower aspirations than moderate-risk males.

The rural youth aspirations were of a higher prestige than their occupational

expectations. Rojewski found that youth in rural areas were at a disadvantage: these findings agree with other research and could be the result of low self-concept, lack of available financial aid or post secondary preparation courses, and restricted employment opportunities in a community (Looker, 1996; McGrath, 1996; Rojewski, 1990; Rojewski, 1995; Sharpe, 1996; Wall et al., 1999). Looker also reported that the pursuit of post-graduate studies appeared to be restrictive for rural students. Urban students were more likely to consider and enter a post-graduate program because more options were available and stayed open longer for them. The lack of financial assistance and availability of jobs were negative influences on individuals going to post-secondary school.

McGrath (1996) found six variables that influence an individual's pursuit of a post-secondary education. Of these six, four were associated with academic success and their view of academic success: academic achievement, value of education, advanced mathematics and academic attainment. McGrath reported that in Newfoundland a "lack of access to courses and programs, lack of career direction and insufficient knowledge of occupations and educational options were also identified as important impediments for many youth" (p. 196).

Varpalotai (1996) found that Canadian females "continue to be constrained by limitations imposed on them through socially constructed gender roles and expectations" (p. 97). The report also found that work identified as gender specific was "exacerbated by encouraging girls to pursue non-traditional (male-dominated and valued) subject areas. Gender equity will not be achieved by changing women alone, while further devaluing what has been viewed traditionally as women's work" (p. 95). It had been noted that a lack of academic preparation in mathematics and science is a limitation and restriction to female's pursuit of a full range of occupations (Herr &

Cramer, 1992).

Youth Transition into the Labour Market

The study which forms the basis for this report is a limited follow-up to the 1989 Youth Transition into the Labour Market survey. The following section will review the findings of the 1989 study as they apply to this current study. Selected tables from the 1989 study have been reproduced and included in Appendix A.

The 1989 Youth Transition into the Labour Market survey was completed by 7460 Level III high school students during the 1988-89 school year and 1274 students (grade 7 to Level III) who dropped out of school between Easter 1987 and Easter 1988 in Newfoundland (Sharpe & Spain, 1991). Three general questions were asked during the analysis of the data:

> Question One: What is the nature of the transition of Newfoundland youth into the labour market, and what are the patterns of transition which related to success and failure in transition?
>
> Question Two: What is the status of the individuals with respect to: 1) aspirations and work values; 2) search skills; 3) decision characteristics; 4) job-holding skills; 5) context factors; and 6) job related skills?
>
> Question Three: What changes take place through a transition stage in terms of: 1) aspirations and work values; 2) search skills; 3) decision characteristics; 4) job-holding skills; 5) context factors; and 6) job-related skills?(p. xiii)

The majority of the students in this survey (87.3%) lived at home with both parents. Eight point two per cent lived alone with their mother and 1.9 per cent lived with their father. A very small percentage lived on their own (0.2%).

The majority of female students (83.7%), when asked what their career choice would be, identified careers in medicine and health (28.2%), service (14.0%), nautical science, engineering and math (5.9%), social science (15.1%), teaching (14.5%), clerical and related (11.5%), and managerial and administrative occupations (8.9%). Among the other categories, there was an interest in artistic, literacy, performing arts (11.5%). The number of respondents interested in machinist and related occupations, fishing and trapping, and mining, oil and gas was almost non-existent. In comparison, males were interested in medicine and health (7.0%), service occupations (16.9%), nautical science, engineering, math (21.6%), social science (5.0%), teaching (5.4%), clerical and related (1.7%) and managerial and administrative (9.5%). Gender difference was reported with females showing no interest, but males showing an interest in the occupations related to production fabricating, assembly repair (10.7%), construction, trades and occupations (7.9%) and transportation, equipment and operation (6.9%). (see Appendix A).

In five to 10 years 60.4 % of the respondents expected to be working at a career or job (50.0 % females compared to 72.3% males). Few students expected to be homemakers and not working outside the home, (0.6% females and 0.2% males). The combination of homemaker and worker was higher with 14.4 % of males and 40.5 % of females expecting to be doing both. The survey also reported that more males (12.6%) did not know what they would be doing in five to 10 years as compared to 8.8 % females. (see Appendix A).

For both males and females there "was a lack of interest in traditional Newfoundland occupations related to primary resource areas of forestry and logging (1.7%), fishing (0.3%) and mining, oil, and gas (less than 0.1%). Given economic fluctuations and the adverse publicity these areas have received over the past few

years combined with an overall growth in the service section (the second highest choice of students), perhaps it is not surprising that students are not aspiring to occupations in these traditional resource areas" (Sharpe & Spain, 1991, p. 56). The student's choices follow the current trend in job creation toward the service industries with a gender choice evident. There was a lower percentage of females than males interested in service (females 14.0%; males 16.9%) and sales (females 1.0%; males - 1.1%) occupations. This might mean that females, who traditionally were represented by high numbers in this area, are now aspiring to other careers or that more males are now aspiring to service and sale occupations.

The main factors that influenced student career choice were personal interest (65.9%), lack of strength in school subjects (9.7%), money (6.8%), family-owned business (5.4%), work opportunities (4.8%) and past experience (4.4%). These results clearly show that far more students were seeking occupations in which they had an interest. "Quite evidently, interest can develop out of experience in school, in the family and community, even though these sources were not cited very frequently" (Sharpe & Spain, 1991, pp.59-60).

There were 33.7% (2,488) of all Level III students interested in starting their own business: of these 57.5% (1,430) were males and 42.5% (1,058) were females. The type of business most students expressed an interest in starting were in service (46.2%), or retail (22.2%), hospitality/food (8.8%) and construction (7.2%). Their reasons for wanting to start their own business were personal interest (49.2%) money (7.2%), family (6.8%), experience (4.6%). and work opportunity (4.2%). Reasons for starting a business were similar to those for choosing a career. (See Appendix A)

There was a gender difference in the percentage of females and males who planned to attend a post-secondary institution (91.1% of females compared to 85.8%

of males). Only 6.9% of females and 12.5% of males in the YTLM study did not plan to pursue a post-secondary education. These findings supported the training required for the career pathways aspired to by the students. (see Appendix A)

The decision to choose a career or plan to attend a post-secondary institution was not made alone. Students discussed their ideas and careers with a number of individuals. They were asked to rate the amount of discussion they had with different individuals. The students reported that they discussed "a lot" of their plans with their mother (59.2%), father (47.5%), and friends (45.4%). There was "a little" discussion with friends (49.7%), school counselor (42.9%) and relatives (58.1%). The students did not discuss their career choice at all with a person in the job (44.5%) or a teacher (47.4%). During these discussions 92.5 % of students felt their mothers agreed and 92.3 % felt their fathers agreed with their plans. (see Appendix A)

The students were asked to rate their academic success. There was no gender difference in the students rating of the statement "marks fairly good, but not among the best". A gender difference was noted in the statement "marks among the best" with more females judging this statement applicable. The same gender difference occurred when students judged the statements: "marks low, but not among the lowest" and "marks among the lowest", more males than females judged this statement as being applicable to them. The female students judged their marks to be average or above, while the males judged their marks as average or below. Sharpe and Spain (1991) noted that generally speaking "as marks increased, so did the students perception of their achievement. For example, most of the students who rated their achievement low, estimated their average marks to be in the 50 to 55 percent range; and most of those who considered their marks to be fairly good, estimated them to be in the 65 to 75 percent range" (p. 100). (see Appendix A)

The students were asked to consider their preferred work site location. This did not mean outside or inside work but near home, in the province or anywhere. The majority of students reported that they would go anywhere to get a job (58.1%) with 59.8 % of the males and 56.6 % of the females willing to move anywhere. Twenty-four point five per cent (24.5%) wanted to find a job close to home. The gender difference in this statement was 34.4 % for males and 24.6 % for females. While 8.6 % of the females in the study were willing to move to another part of the province to find work if they had a relative living near by, only 5.6 % of the males were influenced by the close proximity of a relative. Overall more females (42.6%) than males (38.9%) wanted to work in the province. (see Appendix A)

Student locus of control was evaluated by giving them sets of questions that they rated as important or not important. It was determined that the students had a fairly high degree of internal locus of control. A review of some of the statements could reflect a concern students have, "that employers often seek experienced workers, and that, in many cases, the prior work experience in a chosen career occupation can be difficult to obtain, especially in any reasonable amount" (Sharpe & Spain, p.129). Students also indicated they consider one way of getting a job was through personal contact or knowing someone important. There was little gender difference except males felt more strongly that "you have to know someone to get a job" while females felt more strongly that "there are no jobs to be had" (Sharpe & Spain, p.129).

The students were asked to rate the job prospects in certain industries. They rated the industries as "more", "same" or "fewer" depending on how they saw the possibility of finding work in that industry. The students identified construction first followed by petroleum, health, and education as offering more occupational

opportunities. Pulp and paper, agriculture, printing and publishing, government work, retail trade, and shipbuilding and repairs were rated as the same. The industries rated as offering fewer job opportunities were fishing, followed by mining, agriculture and pulp and paper. (see Appendix A)

The 1989 Youth Transition into the Labour Market also concluded that women in the study showed an "apparent discontinuity between the academic and vocational self-concept" (Sharpe & Spain, 1999, p. 177). As the authors reported:

> The problem can be better understood by considering several related findings. First, relatively more women than men chose careers with specific training levels of one to two years, and relatively fewer chose careers with more than two years training required, especially in the four to 10-year range. On the other hand, more females than males planned to attend a post-secondary institution at some time, and more were considering attending university. This suggests a tendency for women to plan to overeducate, given their occupational aspirations. It is worth noting that the additional education, if attained, could result in changes in levels of aspiration sometime in the future. Many would also argue that the additional education is a worthy end in itself. (p. 177)

Overall, an examination of the data in the survey based on gender indicated that males and females had different occupational aspirations, post-secondary aspirations, academic success, long term goals, academic achievement, willingness to move and view on job availability.

Occupational Development of Women

Females and males have distinct differences in the type of occupations they

pursue and what value they consider important in a job (Stickel & Bonett, 1991. Stockard & McGee, 1990). Erickson (1968) reported that women set up barriers for success in an occupation by focusing on intimacy needs. This aspect of their personality was also implemented in their identity formation, including their occupation identity; and this prevented them from succeeding at an occupation outside the home. Kohlberg (1976) found that "women remain in stages below men in their moral reasoning because they appear to be compromised in their development by concerns for relationships and context" (cited in Powell & Mainiero, 1992, p. 216). Gilligan (1982) disagreed with earlier findings that determined only women had a need for intimacy. She found that women and men had the same needs, the difference being women sought relationships first, while men sought isolation first to become successful, than looked for achievement and success before returning to the development of relationships.

Astin (1984) reported that women's development and occupational choices were a product of their socialization. Women are socialized to see only a few available occupational opportunities especially those that are female-dominated occupations. Therefore, they do not enter male-dominated occupations, take science and mathematics courses or see themselves as being successful in male-dominated occupations. Larwood and Gutek (1987) and Astin (1984) found that women, because of socialization, are faced with barriers such as "constraints in the work place brought about by the use of gender stereotypes in hiring and promotion decisions, and in performance evaluations" (as cited in Powell & Mainiero, 1992, p.218).

Gallos (1989) and Hardesty and Jacobs (1986) reported that women have a different perspective concerning occupational success that must be considered when comparing them to men. The women's perspective was connected to a balancing of

career and personal life that included relationships with fellow workers and employers and relationships outside the work place. Wijting et al. (1977), found that the intrinsic values of work were most important to women; and Lacey (1997) found that working women are also the primary caregivers in the home and that this double role increases the stress and pressure women deal with at home and at work. Davey and Stoppard (1993) also concluded that women place greater importance on their family responsibilities than their jobs. Swanson and Tokar (1991) found that among college students a lack of spousal support was a barrier to women, especially if they desired occupations in the trades, technological and other professional occupations. Davey and Stoppard (1993) supported this when they found that women in the trades and technologies and other professional occupations needed encouragement from the significant others in their lives. Money, status and power were important to women, but not as important as they were to men (Hardesty & Jacobs, 1986; Scozzaro & Subich, 1990).

Super's Developmental Theory

A social cognitive theory identifies the interactions of personal attributes, external environmental factors and a belief in oneself. If people believe in their own ability and expect to be able to accomplish a task, then they will engage in a behavior that will allow them to accomplish their career goal (Stitt-Gohdes, 1997). Super's Developmental Approach integrates and stresses the interaction of personal and environment variables in a life-long career-path.

The theory developed the following 14 propositions that affect career development: (1) people differ in their abilities and personalities, needs, value interest, traits and self-concept; (2) people are qualified, by virtue of these

characteristics, each for a number of occupations; (3) each occupation requires a characteristic pattern of ability and personality traits with tolerances wide enough to allow both some variety of occupations for each individual; (4) vocational preferences and competencies, the situations in which people live and work, change their self concepts with time and work experiences: (5) there is a series of life stages characterized by a sequence of growth, exploration, establishment, maintenance and decline, these stages can be further subdivided by events occurring in the person's life; (6) the sequence, frequency, and duration of trial and stable jobs are determined by the individual's parental socioeconomic level, mental ability, education, skills, personality characteristics and career maturity; (7) success at any stage will depend on the person's career maturity; (8) career maturity is a hypothetical construct and difficult to define; (9) ability, interest, reality testing, and the development of a person's self-concept can guide development through the life stages; (10) the process of career development is essentially that of developing and implementing occupational self-concepts; (11) the process of compromise between self-concept and reality is one of role playing and feedback; (12) work satisfaction and life satisfaction depend on the individual finding adequate outlets for ability, needs, values, interest, personality traits and self-concept; (13) work satisfaction is proportional to the degree to which it matches a person's self-concept; and (14) work and occupation provide a focus for personality organization, (Herr & Cramer, 1992, p. 209-211).

These life stages in Super's theory occur at different ages throughout an individual's lifetime. The first stage (to age 14) involves fantasy and determining their capacity and ability. The next stage ranges from age 14 to 18, which included the majority of respondents in this study, is a tentative stage of trying to balance interest and ability. The third stage (age 18 to 25) included a smaller number of the

respondents in this study and involves exploration or trial and error. The fourth stage (age 30 to 45) is a time of accomplishment in which an individual achieves a certain level of success. This stage can also be a time of innovation or stagnation. The final stage begins at around age 60 and is described as a time of decline as an individual prepares for retirement. After retirement an individual can disengage and not consider any more career choices, or specialize and follow an interest from an earlier stage but never acted on (Super, 1985). Using Super's life stages categorization, the majority of grade 12 students are at the stage of balancing interest and ability. A smaller number of them may also be at Super's stage of exploration and trial and error.

Gottfredson's Theory

Gottfredson (1981) Developmental Theory combines choosing an occupation and the influence of socialization on that choice. She proposed that people have a shared common view of the world of work based on the social meaning of occupations. According to Gottfredson, individuals go through four developmental stages internalizing certain characteristics at each. In the first stage a child (age 3-5) views occupations as an adult's role. Stage two (age 6-8) focuses on gender appropriate occupations and the identification of different occupations as gender-related. When a child examines occupations at this stage they eliminate those occupations that do not match one's gender role. At the third developmental stage (age 9-13), the child recognizes that there is a social value and a certain amount of prestige connected to an occupation. The final stage (age 14 and over) is the internalization of the self as an unique person and identification of occupations that are self gratifying. By the time children reach adolescence they have established the type of occupation that interest them, which occupations hold prestige, and which occupations are

gender-appropriate. If, in this range of acceptable occupations, there is no occupation that fits the criteria, the adolescent will reconsider an occupation that had been rejected earlier.

Based on the work of Gottfredson, Hasketh et al., (1990) described these activities as circumscription and compromise: the development of occupational aspirations, and compromise when aspirations are sacrificed because they cannot be implemented. An individual progressing through the stages internalizes the characteristics, and this influences the occupational choices that will be rejected or accepted. Leung and Harmon (1990) and Stockard and McGee (1990) said, based on Gottfredson's theory, that characteristics internalized at the earlier stages are more resistant to change. While Taylor and Pryor, (1985) concuded that the theory indicated an individual would sacrifice a chosen occupation that is not immediately available for one that is: if one does not have an occupation that is acceptable, they will widen the possibilities and include occupations rejected earlier. Hasketh et al. (1990) did not agree with parts of Gottfredson's theory. They found that occupations were chosen more on interest than any other factor, and gender-role did not play as important a role as Gottfredson proposed. They further proposed that when a person is considering an occupation, the most important factor is the interest in that particular occupation.

Leung and Harmon (1990) found that individuals go through different periods from ages 14-17 which differ from Gottfredson's (1981) theory. They found that during this period the individual considers occupations with the widest range of gender-type and prestige, leading to an expansion of occupation alternatives with the most options. Stockard and McGee (1990) reported that there was a decrease in identification of gender-specific occupations with age and cognitive maturity. During the age range 14-17, women considered some high prestige, male-dominated

occupations, while men considered fewer high prestige, female-dominated occupations. Leung and Harmon (1990) found that males were more concerned about occupational boundaries than women.

Circumscription and compromise influence the factors of prestige, interest and gender-typing. When change occurs the order of change is interest first, followed by prestige and finally gender-typing (Gottfredson, 1981). Taylor and Pryor (1985) found that when these factors were compromised "regardless of whether course choices were congruent with interests or not, they tended to be either sex neutral or in the 'traditional' (or 'appropriate') sex type, indicating the important role that sex typing continues to play in course/career choices" (p. 186). In developmental terms occupational preference is influenced by gender-typing because it occurs before social influences, gender-typing being more visible than the influence of occupational prestige. Females kept their occupational choices longer than males, even though they had lower prestige levels and were gender neutral. When an individual must compromise and select an occupation that was not first choice, prestige differences become minimal and the gender differences become greater (Henderson Hasketh & Tuffin, 1988).

Hasketh et al. (1990) reported that with grade eleven students from middle to high socioeconomic backgrounds, "interests were considered more important than prestige, which was considered more important than sex type" (p. 50). This differs with Gottfredson's (1981) order of change. However, these authors agreed with Gottfredson that an occupation may be rejected because of prestige and/or gender-type, and may be reconsidered if conditions change and the interest potential of the work becomes more important. When individuals explore and consider an occupation they combine and examine the interaction of interest, prestige and gender-typing

before a decision is reached.

Career Guidance Programs

The influence of community, school and family on female career choice has to be understood by a school counsellor especially when assisting a student to make career choices. Taylor and Pryor (1985) noted that it is important for a counsellor to help individuals do a reality test of perceived outcome factors in any occupation, before a decision is made final. This section will review the literature that deals with how a counsellor should approach some of these issues and how they can minimize the influence of these factors.

Since McNerney's (1998) study found that a parent's social status affects a child's educational and occupational achievement, a career counselor needs to stress the importance of formal education to students of lower social economic status. According to McNerney (1998):

> It is also important for counselors to recognize that because of their parents' possible unfamiliarity with educational and occupational opportunities, students who aspire to education and occupation levels higher than their parents may need additional guidance. If counselors work to identify family background and aspiration levels of their students, they can possibly raise the educational aims of children who may otherwise fall behind. This in turn may advance their occupational aspirations. (p. 8)

The time to start an intervention program depends on which theory a researcher follows. Rojewski and Yang (1997) found that career counseling needs to begin in elementary school, especially for individuals from lower social class

backgrounds. The focus should be to deliver an intervention program that deals with "their expectations, biases and preconceived ideas about employment potential of individuals from lower social class backgrounds" (p. 406). Researchers, in applying Gottfredson's (1981) theory to prevent gender biases and sex-typing of occupations, found that career counseling programs need to be introduced at an early age to compensate for the effects of socialization and prevent the internalization of gender biased characteristics (Brook, Holahan & Gilligan, 1985; Pryor, 1985). Herr and Cramer (1992) concluded that intervention programs must be introduced before course selection and academic success starts shaping an individual's future. "To wait diminishes the likelihood that career development can be influenced for females in optimum ways" (p. 375). Hasketh et al., (1990) noted that a career counseling program "ought to involve helping clients make explicit the automated processes that underlie the elimination of occupational alternatives during their early career development" (p. 55). Stickel and Bonett (1991) reported that training programs must deal with alternative methods of satisfying home and family needs for all possible occupations. There is also a need to teach or initiate, early in the occupational decision making process, the methods of satisfying different lifestyles. A multidimensional, multimodular program allows for a self-assessment process, followed by a comparison of other self perceptions from data that will allow for descriptions to be identified, and thereby help guide an individual to the occupation that best fits talents and needs. There also needs to be a support structure that encourages talented female adolescents to investigate occupations that may be congruent with their ability but are of minimal interest at that time (Hollinger, 1991). Erwin (1996) found that females did not have alternative plans if they were unsuccessful in meeting their aspirations. Taylor and Pryor (1985) reported that it would be the counselors' responsibility to "not

only help students decide on future careers but assist students by helping them to devise alternative plans in case they are forced to compromise" (p. 189). It is important to help individuals do a reality test of perceived outcome factors in any occupation, before a final decision is made.

Looker (1996) found that the students who were strong academically were more willing to go to the counselor while those who needed it most (at-risk students) were less likely to do so. McGrath's 1996 study of Newfoundland students reported that it may not be the amount of information given to the students but "the way students process the information that is already available or their perceptions of the value of such information to their career decision making" (p. 197) that is important. The ideal of helping students use the information, instead of giving them more, may better enable them to make career decisions. Luzzo (1996; 1995a) reported that students who perceive barriers might benefit from discussing ways to overcome the barriers. They also reported that "career counselors need to design interventions that are aimed at empowering clients to overcome perceived barriers" (p. 246). Luzzo (1995b) found that counselors could increase the maturity of college students toward career development if they could increase career self-efficacy expectations. Wall et al. (1999) concluded from their study of Atlantic Canada students that a program that helped female students find ways that would allow them to combine family and career could help them in achieving their career aspirations.

Researchers have promoted self-efficacy as a promising area for career counseling. Self-efficacy has been found to play an important role in various issues such as career indecision and employment-seeking behavior (Hackett & Lent, 1992). Herr and Cramer (1992) found that counselors need to consider and identify the importance of self-efficacy in all possible occupations and issues that are involved

when females enter the trade, technology and other professional occupations. By dealing with these issues the counselor will minimize the restrictions placed on students when they narrow their range of courses and occupational choices. "It is our contention that the sources of efficacy expectations described above can be used to develop effective beliefs. It is expected that such programming is especially needed for at-risk populations who might otherwise not conduct the career exploration, career search and job search activities necessary to find a satisfying career" (Solberg, Good & Nord, 1994, p.69).

Farmer and Chung (1995) noted that it would benefit students to receive from the counselor encouragement in instrumental self-concept for both career commitment and mastery motivation. Gianakos (1999) reported that an increase in self-knowledge, expanding the range of careers with the self-knowledge and mentoring relationships in the individual's field of interest, should be involved in career guidance.

Betz and Voyten (1997) found that the counselor should structure career guidance with a focus on anxiety management techniques, verbal persuasion and encouragement, performance accomplishment, and vicarious learning/modeling. A counselor also needs to determine if the individual believes that career exploration will help them with their career development or choice.

Looker and Lowe (1996) linked different types of transition, to adulthood, from school to work, to post-secondary institutions and out of the parental home and stated that a guidance program "should build on skills that young people have, rather than focusing on their academic, social, physical or psychological inadequacies" (p. 139). They also found that a school-based program that included a workplace learning component may be more effective. These findings are similar to McGrath's (1996) report in which he noted that it is important not just to give students more information

but to show them how to use the information they already have.

Stitt-Gohdes (1997) reported that:

> women's career development needs are different from men's needs. Part of the difference is driven simply by individual differences; however, a more significant difference is driven by societal or external factors such as sex discrimination or sex-typing of occupations, much of which women are unable to control in part. The career counselor's role requires acknowledgment of these differences as a tool to use in developing the most appropriate career choice and development pattern possible. Tied with an understanding of these differences is the need for an accurate self assessment of ability. (p. 24)

Meara, Davis and Robinson (1997) added that a counselor needs to see the client's perspective and take into account the affect of social status on a career development to be effective.

A program that meets the need of urban students should involve different aspects of a student's background, socioeconomic status, gender biases, family and community perceptions. A program that is established for rural students must also deal with these issues, along with the problem of lack of direct exposure to different careers and a lack of occupational opportunities. Thus a program developed for a urban or big city school is unlikely to meet the career exploration needs of rural students. Rural schools may be in need of financial assistance to develop programs that will meet their specific needs. Looker (1996) reported that the youth in rural areas would benefit from government intervention because they have fewer options than their urban counterparts.

Newfoundland and Canadian Statistics Concerning Female Education, Occupations and Earnings

The Women's Policy Office of the Government of Newfoundland and Labrador surveyed 756 women ranging from 18 to 86 (Lacey, 1997). They found that the greatest concern in Newfoundland communities was employment issues for women. The survey reported that 87% of respondents felt that they faced obstacles in the workplace despite equivalent knowledge and experience; 86% felt that a woman should have a family and career if she wanted; 49.5% felt all occupations were open to their daughters/young women; and 53.6% believed that women employed outside the home should be responsible for the home and family. The women noted their most important two concerns were lack of employment and education. Concerns about finding only low paying jobs were ranked fourth by the respondents. Their concerns as they relate to the community were focused on opportunities for young people to stay in Newfoundland and employment opportunities for women. When the working females in the survey were asked what they felt to be their major concerns they noted a lack of opportunities for education and training first followed by child-care and the balancing of work and family. The report concluded "women experience difficulties balancing their role as workers, wives and mothers. Women continue to be primary caregivers in their families and this can add stress and pressure to their lives both at work and at home" (p. 9).

The more education a person has acquired affects the income they are likely to earn. Over two-thirds of individuals who have only an elementary education will earn

less than $20,000 annually. Compared to approximately half of those with only a high school education and a quarter of those with some post-secondary education. Only 2% of those with an elementary education will earn over $60,000 annually, compare to one third who have at least some university level education (Lacey, 1997).

Statistics Canada (1998) had reported from September 1990 to September 1998 there has only been a 0.5% increase in the number of female students in Newfoundland between the age 15-29 (see Appendix B). In 1990 over one third of females finished their education at elementary school level, while approximately one quarter of them did not pursue any post-secondary after high school. In 1998 there was a increase in the number of students who continued their education pass the elementary and high school level. In eight years the number of females who earned a college diploma increased by 6.8% and those who earned a bachelor or graduate degree had increased to over 1%.

Employed Newfoundland females in 1989 to 1998 were concentrated in only a few occupations, as classified by Statistics Canada (1998) (see Appendix B). Of the total employed population, females made up 42.4% in 1989 and 45.3% in 1998. In 1989 they were employed in all but five occupations, protective services, contractors and supervisors in trade and transportation, construction trades, other trade occupations, transport and equipment operators. Employed females in Newfoundland were concentrated in the areas of financial and secretarial, clerical occupation, professional occupations in health - nurse supervisor, retail sales, food services, and child-care and home support worker. In 1998 female concentration in selected

occupations remain constant. Females employed in senior management positions declined from 41.6% participation in 1989 to zero per cent participation in 1998. Females employed in other trade occupations went from zero per cent in 1989 to 4.9% in 1998.

The Grand Falls-Windsor and Surrounding Region

This section will describe the region, schools, and communities from which the sample was drawn for this research. Information is included on the population, average income and services (including schools) in each community.

The community of Grand Falls-Windsor has a population of 14,163 and an average family income of $47,156. The town is centrally located on the island of Newfoundland 456 km from St. John's and 480 km from Port aux Basque. Grand Falls was established as a pulp and paper community on January 7, 1905 when the Anglo-Newfoundland Development Company (A.N.D. Company) was incorporated. By 1906 the company had established the town with 60 or more houses serviced by water and sewer and an area was cleared for the construction of a mill, dam and powerhouse. The A.N.D. Company built the first school in December 1905. Today there are five schools, three are primary and/or elementary with grades K to 6, one junior high, (grades 7 and 8), and one high school, Exploits Valley High with grades 9 to 12). Grand Falls was amalgamated with the town of Windsor in 1991 and became known as Grand Falls-Windsor. Today the town has one public and seven private post-secondary education institutions. The public college offers first year Memorial

University courses while a Nova Scotia based university is trying to set up a campus in the town.

Bishop's Falls, 16 km east of Grand Falls-Windsor, is a town with a population of 4,048 and an average family income of $37,919. Its main industry in 1920 was a pulp plant that sent its production to Grand Falls. Today most employment in the community is with the Regional Detention Centre, Department of Mines, Agriculture and Resources, Newfoundland and Labrador Hydro Commission and small retail and service businesses. Currently there are three schools in Bishop's Falls, one primary/elementary with grades K to 5, junior high grades 6 and 7 and a high school, Leo Burke Academy, with grades 8 to 12.

The town of Botwood, is located 19 km from the Trans Canada Highway and Bishop's Falls. It has a population of 3,613 and an average family income of $38,204. In the 1890's it was know as a sawmill town. Since 1910 Botwood has been used and known as a port community. Abitibi Consolidated, Golden Eagle Limited and Irving Oil Limited use Botwood's port today, and along with the Hugh Twonney Health Care Centre, are the main employers in the community. There are three schools: primary/elementary with grades K to 6, junior high grades 7 and 8 and a high school, Botwood Collegiate with grades 9 to 12.

Peterview is a small community on the southeastern edge of Botwood, with a population of 862, and an average family income of $20,106. Employment in the community is derived from a summer resort and seniors complex. Most residents have to travel to other areas to work. The children travel to Botwood to attend school.

Northern Arm is located five kilometers north of Botwood, with a population of 422, and an average family income of $41,659. All workers in the community commute to other areas to work. Again, the children travel to Botwood to attend school.

Point of Bay is located 20 kilometers north of Botwood and has a population of 183. Due to issues of confidentiality Statistics Canada does not report the average family income. The residents in the community commute to work and, as with Northern Arm, the children travel to Botwood to attend school.

Point Leamington is located approximately 55 km from the Trans Canada Highway and Bishop's Falls with a population of 783 and an average family income of $37,201. Migratory fishermen first settled there in the 1700's, although today fishing is a minor part of the economy of the community. The largest sawmill in Newfoundland was built in the 1870's at Point Leamington. Today the forest industry still offers employment to the residents. The Superior Glove Factory is the largest single employer in the community, with some employment through private small business. Some residents commute to other areas to work. Point Leamington Academy is the only school in the community with grades Kindergarten to Grade 12 (Warford, 1999).

Leading Tickles is approximately 26 kilometers north of Point Leamington with a population of 513 and an average family income of $28,473. It is known as a fishing community and built a fish processing plant in 1952 but it has slowed down since the cod moratorium of 1992. This has forced many of the residents to leave

their homes to seek employment elsewhere. There is one school located in the community that is Kindergarten to Grade six. The students travel to Point Leamington to complete their secondary schooling. Employment in the community is the fish plant, a senior's home and a mussel farm (Point Leamington, 1999).

Pleasantview is approximately 8 kilometers east of Point Leamington with a population of 69 and is mainly a "summer home" community. Permanent residents have to travel to other communities to work. A small mussel farm employs a few (4-6) of the residents. There is no school located in the community, the children travel to Point Leamington to attend school (Point Leamington, 1999)

Glovers Harbour is located 21 km north of Point Leamington. It has a population of 121, and an average income of $24,615. Employment in the community is a small amount of fishing with some residents traveling to other areas to work. There is no school located in the community, the children travel to Leading Tickles to attend grades Kindergarten to grade six and Point Leamington grade 7 through grade12 (Point Leamington, 1999).

Overall, the region has one main urban centre where the major employer is located. This centre is also the location of the only public post-secondary college in the region which offers career preparation programs as well as first year university courses. There are also a number of small post-secondary private colleges. Forestry and manufacturing along with the service provide the majority of jobs in the area. The fishery is not a major employer.

Summary

Career aspirations are influenced by factors that individuals are exposed to through socialization in a family and community. These socialization factors affect females and males differently. The environment that females are exposed to will shape their view of what is an appropriate occupation for them, and they will typically aspire to a job within this range of occupations. Females currently aspiring to traditionally male-dominated occupations are relatively few in numbers. Management, trade, transportation and construction are examples of occupations that are still male-dominated, while females dominate secretarial/administrative, health care (nursing) and food services occupations. It has also been found that if a chosen occupation is non-traditional, females are less likely to be successful at a non-traditional occupational than if it were a traditional occupation. For many women the definition of a good job is one that is flexible enough to accommodate their household responsibilities.

Academically females generally out perform males in high school and have higher educational aspirations, but do not often choose to continue with occupations that require high levels of educational attainment. Females underestimate their academic success and do not view themselves as being successful in a program that relate to non-traditional occupations. Matching educational aspirations and personal interest regardless of it being considered a male or female dominated occupation remains an issue for many females. Parents and personnel interest emerge as primary influences on career and educational pathway decisions.

CHAPTER 3

METHODOLOGY

Sample

The overall procedure for this study involved the administration of a questionnaire to a sample of Central Newfoundland Grade 12 (Level III and Level IV) female students located in four senior high schools. There were 110 at Exploits Valley High School, 34 at Leo Burke Academy, 38 at Botwood Collegiate, and 15 at Point Leamington Academy, giving a total sample of 197. This number represented 51.4% of the senior high Grade 12 females in the region.

The schools chosen were situated in communities with varied population size and development and were representative of the region. Also, the four schools included students from the 10 communities of: Grand Falls–Windsor, Bishop's Falls, Botwood, Peterview, Northern Arm, Point of Bay, Point Leamington, Leading Tickles, Pleasantview and Glovers Harbour.

Instrument

The first phase of the Youth Transition into the Labour Market (YTLM) survey (Sharpe & Spain, 1991) was completed in 1989 and examined factors that included career exploration, job holding skills, job-related skills, work value and decision characteristics. The YTLM survey included over 9611 senior high school students from across Newfoundland and Labrador along with 151 students in 1989 from the same region being surveyed in 1999.

The 1989 YTLM study involved individual questionnaires mailed to each high school in the province with directions for administrating the survey and the procedure for returning the completed surveys. There was a response rate of 76.9% from the 1989 survey.

Individual questionnaires were chosen as the method of effectively collecting the data for this current study because a questionnaire, by it's very nature, lends itself to collecting large amounts of data in a relatively short time. It has been reported that a survey can allow a study to have a wide scope and permit a great deal of data to be collected from a large group or sample economically (Kerlinger, 1973).

The questionnaire was composed of 16 items broken down into two sections: Section A, background information; and Section B, career plans (see Appendix C). All items were directly extracted or slightly modified from the items contained in the 1989 Youth Transition into the Labour Market Survey (Sharpe & Spain, 1991). The format also followed that of the 1989 YTLM questionnaire. The latter was pilot-tested and refined prior to use in the 1989 survey. With the questions having been taken from the 1989 survey, it was considered unnecessary to pilot the version used for this study. For the same reason, original validity and reliability were also assumed to apply to the current study. A copy of the original YTLM questionnaire can be found in Appendix F.

Procedure

In October 1999, a telephone call was made to Mr. Domino Wilkins, Director of Education, District # 5, Baie Verte/Central, Connaigre, requesting permission to contact

the principals at the four schools noted above. Mr. Wilkins gave his verbal permission and a letter (see Appendix D) and a sample questionnaire was mailed to him for conformation and formal consent. Following approval from Mr Wilkins, the four schools were contacted by telephone informing them of the study, its procedure and purpose. During the conversation the dates of November 3 and 4, 1999 were set for the administering of the questionnaire to the Grade 12 female students. The principals from the schools chosen were contacted and the purpose and procedure to be followed in the administration of the questionnaire was discussed. A time was then set when the questionnaire could be administered to the Grade 12 female students in each school. At the prescribed time the students were assembled and given an envelope containing the questionnaire. Prior to starting the questionnaire students were read a letter outlining the purpose of the survey, the strict confidential nature of all information collected and informing them that participation in the survey was voluntary. When the students had finished answering the questions they placed the questionnaire in an envelope and returned it to the researcher.

The overall return rate based on the participation of the four schools was 78.2% of the Grade 12 female sample population (154 of a potential 197 students in those schools). The returned questionnaires were later coded and entered into a database file for analysis using appropriate SPSS PC procedures.

Data Analysis

Descriptive statistics (frequency counts and percentages) were used to summarize the data and answer the research question. Additionally, Chi-square and Analysis of Variance statistics were applied to compare the 1989 Youth Transition into the Labour Market and this survey. Crosstabs were used to compare and describe the differences between two or more variables. The Chi-square procedure or Analysis of Variance was used to determine if a difference between two variables was significant based on 95% confidence interval.

CHAPTER 4

ANALYSIS OF THE DATA

This chapter summarizes the data collected to answer the nine research questions outlined in Chapter 1. Descriptive analyses were used to examine the initial results and chi-square analysis was performed to assess the significant differences between the 1989 Youth Transition into the Labour Market and current survey responses. Significance levels of .05 were considered appropriate.

Research Question 1

What are the future career plans of female students?

Responses to three questionnaire items were used to address this question. One related to the students future career (Question 7), the second related to starting their own business (Question 8) and third the training or education their future career required (Question 10).

The largest group of students (31.3%) were interested in medicine and health related occupations. The other three most frequent cited were social sciences (17%), engineering and mathematics (10.2%) and teaching (8.2%). Almost 20% of the students did not list any future career that interested them. There was no interest in the forestry and logging industry and only one student each showed any interest in production and transportation industries (see Table 1). Nearly two-thirds (64.0%) of the students stated they were not interested in starting their own business (see Table 2).

Table 1
Future career aspirations by occupational category
(N=147)

Occupational Groups	Frequency	Percentage
Medicine and Health	46	31.3
Social Sciences	25	17.0
Engineering and Mathematics	15	10.2
Teaching	12	8.2
Managerial Administration	8	5.4
Artistic and Literary	8	5.4
Services	7	4.8
Clerical	3	2.0
Sales	2	1.4
Production and Fabricating	1	0.7
Transport Equipment	1	0.7
Forestry and Logging	--	--
Don' t Know	19	19.9

Table 2
Students thinking about starting their own business in the future
(N = 150)

	Frequency	Percentage
Yes	54	36.0
No	96	64.0

The student's knowledge of the training required for achievement of their occupational choice varied. Most students felt they would require college or university training (36.7%) to qualify them for their career choice, while others (27.9%) felt they

would need both college or university and on the job training. Nearly 30% did not know what training they required to pursue their occupational choice (see Table 3).

Table 3
Students knowledge about required training/education for chosen career (N = 147)

Requirements	Frequency	Percentage
On the Job Training	8	5.4
College and/or University	54	36.7
Both	41	27.9
Don't Know/No Response	17	29.9

Research Question 2

With whom are female students discussing career plans?

Students were asked to rate the degree to which they discussed their career plans with various people. The results are summarized in Table 4.

Table 4
People students have discussed their career plan with.

Person	A Lot		A Little		Not At All		N
	Freq.	%	Freq.	%	Freq.	%	
Mother/Guardian	96	64	51	34.0	3	2.0	150
Father/Guardian	79	54.5	53	36.6	13	9.0	145
Friends	76	50.7	72	48.0	2	1.3	150
Relative	19	13.0	85	58.2	42	28.8	146
A person in the job	18	12.3	55	37.7	73	50.0	146
School Counsellor	17	11.8	59	41.0	68	47.2	144
Teacher	17	11.8	54	37.5	73	50.7	144

The students reported that they discussed their career plans a lot with their mother (64.0%), father (54.5%) and friends (50.7%). The people consulted least of all were teachers, school counsellors and people in the jobs. Most (97%) of the students reported discussing their plans, to some extent, with someone.

Research Question 3

What are the immediate career plans of female students?

Students were asked a three-part question. Part one asked if they were planning to attend a post-secondary school when finished high school. If the response was "yes" to the first section the students were asked to identify the institution they were planning to attend. The final section asked them what program at that institution they were planning to study.

Most students (85.4%) said they were planning to attend an institution next year; only 2.6% of the students responded negatively, but there were 11.9% who, as of the time of the survey, had not decided if they were continuing their education at a post-secondary institution (see Table 5).

Table 5
Students' plans to attend a post-secondary institution
(N=151)

Decision	Frequency	Percentage
Yes	129	85.4
No	4	2.6
Undecided	18	11.9

Of the students who wanted to go to a post-secondary institution, a little more than one third (37.3%) had not decided on the institution they wanted to attend. Of the 110 who had made a decision, there were 36.4% who had decided on Memorial University of Newfoundland, 18.2% the College of the North Atlantic, 4.5% the Canadian Armed Forces and 3.6% private colleges. There were no students interested in attending the Marine Institute (see Table 6).

Table 6
Post-secondary institution students plan to attend
(N = 110)

Post-Secondary Institutions	Frequency	Percentage
Memorial University	40	36.4
College of the North Atlantic	20	18.2
Armed Forces	5	4.5
Private College	4	3.6
Marine Institute	--	--
Undecided	41	37.3

The 40 students who planned to attend Memorial University expressed an interest in one of 15 programs. The greatest percentage showed an interest in Bachelor of Social Work (12.5%), followed by Bachelor of Science-Dentistry (10.0%), Bachelor of Engineering (10.0%), Bachelor of Medical Science-M.D. (7.5%), and Bachelor of Science-Pharmacy (7.5%). One student each indicated an interest in the other nine programs, and the remaining students were undecided about the program they wanted to enter (see Table 7).

Table 7
Program students plan to attend at Memorial University of Newfoundland (N=40)

Programs	Frequency	Percentage
Bachelor of Social Work	5	12.5
B.Sc. Dentistry	4	10.0
Bachelor of Engineering	4	10.0
Bachelor of Medical Science (M.D.)	3	7.5
B.Sc. Pharmacy	3	7.5
Medical Doctor	2	5.0
Bachelor of Education	1	2.5
Bachelor of Fine Arts-Drama	1	2.5
Bachelor of Music	1	2.5
Bachelor of Business Administration	1	2.5
Bachelor of Fine Arts-Visual	1	2.5
Bachelor of Science-Criminology	1	2.5
Bachelor of Psychology-Child Development	1	2.5
Bachelor Psychology-Counselling	1	2.5
Bachelor of Business Administration-Small Business	1	2.5
Undecided	10	25.0

Table 8
Program students plan to attend at College of the North Atlantic (N=20)

Program	Frequency	Percentage
Medical Science Technology	1	5.0
Science Technology	1	5.0
Business Administration	1	5.0
Community Studies	1	5.0
Interior Decorating	1	5.0
Nursing Assistance	1	5.0
Radiologist	1	5.0
Respiratory Therapist	1	5.0
Computer Programming	1	5.0
Art and Design	1	5.0
Criminology	1	5.0
Office Administration	1	5.0
Undecided	8	40.0

Twenty students planned to attend the College of the North Atlantic, with interest spread over 12 programs. Except for eight undecided students, the rest indicated an interest in a different program, but five were related to health care, three to business, two in fine arts and design; and one each in community studies, computer programming and criminology (see Table 8).

Five students were interested in joining the Armed Forces, and indicated an interest in medical and physical education trades. Only one student was interested in attending a Royal Officers Training Program, and two were undecided of the area they would pursue (see Table 9).

Table 9
Program students plan to enlist into in the Armed Forces
(N= 5)

Program	Frequency	Percentage
Medical	1	20.0
Physical Education	1	20.0
Royal Officer Training Program	1	20.0
Undecided	2	40.0

Four students indicated an interest in private colleges. All had decided on a different program, Hairdressing, Helicopter Pilot, Criminology and Travel Tourism (see Table 10).

Table 10
Program students plan to attend at private colleges
(N=4)

Program	Frequency	Percentage
Hair Dresser	1	25.0
Pilot- Helicopter	1	25.0
Criminology	1	25.0
Travel Tourism	1	25.0

Research Question 4

What factors influence the immediate career plans of female students?

This question was analyzed by a two-part question. The first part asked the students to rate ten factors that most influenced their career decision for the up coming year based on a scale of, "a lot", "a little", or "not at all". The second part asked the student to pick three factors that most influenced them, starting with the one that influenced them the most, then the second and third most influential.

The factors that influence a students career choice "a lot" were personal interest (87.3%) followed by entrance post-secondary requirements (31.8%) and work opportunities (22.3%). They were least influenced by factors such as a family owned business, school personnel, school advertising or the financial situation of their family. About 10% indicated they were influenced "a lot" by outside visitors from institutions, a desire to remain near home, and their friends plans for the upcoming year (see Table 11).

Table 11
The influence of perceived factors on immediate career plans

Factors	A lot		A little		Not at all		N
	Freq.	%	Freq.	%	Freq.	%	
Personal interest	131	87.3	17	11.3	2	1.3	150
Entrance requirements to post-secondary school	47	31.8	77	52.0	24	16.2	148
Work opportunities	33	22.3	76	51.3	39	26.4	148
Past experiences	19	12.7	49	32.9	81	54.4	149
Outside visitors from institutions	16	10.9	78	53.1	53	36.0	147
Desire to remain home or near home	14	9.3	55	36.7	81	54.0	150
Friends plans for upcoming year	13	8.7	69	46.0	68	45.3	150
Personal financial situation (unable to get student loan)	12	8.1	47	31.8	89	60.1	148
School personnel involvement	8	5.4	71	47.6	70	47.0	149
Media or school advertisement	8	5.4	56	37.8	84	56.8	148
Financial situation of family (help support family)	8	5.4	40	26.8	101	67.8	149
Family owned business	2	1.4	14	9.4	132	89.2	148

When the students grouped the factors as most, second most and third most influential, personal interest was identified by 80.3% of the students as the most important. The factors identified as the second and third most important, but by a much smaller number of respondents, were entrance requirements to post-secondary school, work opportunities and past experiences (see Table12).

Table 12
Most influential factor in immediate career plans

Factors	Most Influence N=154		2nd Most Influence N=154		3rd Most Influence. N=154	
	Freq.	%	Freq.	%	Freq.	%
Personal interest	114	80.3	15	10.6	4	2.9
Entrance requirements to post-secondary school	9	6.3	19	15.2	24	17.6
Work opportunities	4	2.8	19	15.2	26	19.1
Outside visitors from institutions	4	2.8	8	5.7	14	10.3
Desire to remain home or near home	3	2.1	9	6.4	10	7.4
Past experiences	3	2.1	19	13.5	18	13.2
Personal financial situation (unable to get student loan)	2	1.4	6	4.3	3	2.2
Family owned business	2	1.4	2	1.4	6	4.4
Friends plans for upcoming year	1	0.7	15	10.6	15	11.0
Financial situation of family (help support family)	–	–	6	4.3	3	2.2
Media or school advertisement	–	–	3	2.1	9	6.6
School personnel involvement	–	–	4	2.8	4	2.9

Research Question 5

What do female students see themselves doing in 5 or 10 years?

This question was answered by a two-part questionnaire item. Part one asked the respondent to identify if they thought they would be homemakers, working in a job or

career, or a combination of both. The second part asked the students if they thought they would collect Employment Insurance due to seasonal employment.

Table 13
View of future roles in 5 to 10 years
(N = 150)

Roles	Frequency	Percentage
Working in a job or career	89	59.3
Both (homemaker/working)	53	35.3
Homemaker	1	0.7
Don't know	7	4.7

Over half of the students (59.3%) stated they would be working at a job or career in five to ten years, while 35.3% thought they would work at a job or career and be a homemaker. Only one person (0.7%) thought they would be a homemaker only and about 5% did not know what they would be doing (see Table 13).

Table 14
Students think they will collect Employment Insurance benefits due to seasonal work
(N = 150)

Response	Frequency	Percentage
Yes	15	10.0
No	61	40.7
Don't Know	73	48.7

When the students were asked if they would be collecting Employment Insurance benefits due to seasonal employment 40.7% said no, while 48.7% did not know. Only 10% of the students responded positively, saying they would anticipate collecting Employment Insurance benefits in five to ten years (see Table 14).

Research Question 6

What influence does a family have on female student willingness to pursue post-secondary education?

This research question was answered using four survey items. One item asked the student to describe their living situation. The second and third items asked the students to pick a response that describes their father's and mother's support of their career plans. The final item asked them to pick their preferred work location.

As can be seen from the information in Table 15, the majority of students lived with both their parents (83.4%) while 11.3% lived with only their mother and 3.3% lived only with their father. Few students (2%) lived with relatives or friends.

Over 70% of the students were willing to live anywhere in Canada to find employment, only 6% indicated anywhere in Newfoundland as their preferred place to work. Eleven point six percent preferred to work close to home and 10.6% wanted to work near where they had relatives living (see Table 16).

Table 15
Living arrangements
(N = 151)

Living Situation	Frequency	Percentage
Living with both parents	126	83.4
Living with only the mother	17	11.3
Living with only the father	5	3.3
Living with relative/friend	3	2.0
Living alone	--	--

Table 16
Preferred location of employment
(N = 151)

Location	Frequency	Percentage
Work anywhere in Canada	108	71.5
Work close to home	18	11.9
Work close to where relatives live	16	10.6
Work anywhere in the Newfoundland	9	6.0

Over half (54.7%) of the students felt their father would "definitely" like them to continue their education and another 29.7% thought their father would "insist" that they continue their education. Only 10.1% thought their father "might" like them to continue their education and one student reported that their father did not care what they did after high school (see Table 17).

Table 17
Father's support for career plans
(N=148)

Type of Support	Frequency	Percentage
Definitely would like me to continue my education	81	54.7
Insists I continue my education	44	29.7
Might like me to continue my education after high school	15	10.1
I don't know what he would like me to do.	7	4.7
Thinks I should start working after high school	--	--
Wants me to work for the family after high school	--	--
Does not care what I do	1	0.7

Table 18
Mother's support for career plans
(N=148)

Type of Support	Frequency	Percentage
Definitely would like me to continue my education	86	57.3
Insists I continue my education	45	30.0
Might like me to continue my education after high school	13	8.7
I don't know what she would like me to do.	4	2.7
Thinks I should start working after high school	2	1.3
Wants me to work for the family after high school	--	--
Does not care what I do	--	--

A similar pattern of responses were evident when students were asked about their mother's support for their career plans (see Table 18). Fifty seven point three percent of the students felt their mother "definitely" wanted them to continue their education, and an additional 30.0% reported that their mother "insisted" they continue their education.

Only 8.7% of the students felt their mother "might" like them to continue their education, while 1.3% did not know what their mother would like them to do.

Research Question 7

What motivation factors do female students perceive as most and least important in their job choice?

This research question was answered using one survey item. The item contained three sets of three statements. Each statement represented a job motivational characteristic related to either security, fulfillment or social needs. The students were asked to select two of the descriptive statements in each of three groups. One statement represented what they felt was the most important characteristic about a job and the other represented what they felt to be the least important characteristic.

From two of the three statement sets, the largest proportion of respondents indicated that job fulfillment was the most important characteristic, while from the third statement set, security was selected as the most important motivational factor. Overall, though, when all factors and choices were taken into account, security was the highest priority followed by fulfillment and social needs (see Table 19).

Table 19
Perceived importance of factors influencing job choice

Question Group	Motivation type	Level of Importance: Most Freq.	Most %	Most (N)	Least Freq.	Least %	Least (N)
A. Work that pays well	Security	54	37.0		51	36.2	
Work that gives a feeling of accomplishment	Fulfillment	73	50.0	(146)	27	19.1	(141)
Work where others are friendly and helpful	Social needs	19	13.0		63	44.7	
B. Workplace that is healthy and safe	Security	75	51.7		11	7.7	
Work where you make most of your own decisions	Fulfillment	11	7.6	(145)	117	81.8	(143)
Work that gives you a chance to help others	Social needs	59	40.7		15	10.5	
C. Work with little chance of being laid off	Security	30	20.5		62	43.7	
Work that is interesting	Fulfillment	75	51.7	(145)	27	19.0	(142)
Work with a good chance of promotion and advancement	Social needs	40	27.9		53	37.3	

Note: Overall mean scores for each composite variable were 6.31 for security, 5.91 for fulfillment, and 5.92 for social need (based on a total score of 9 = high priority to 3=low priority).

Research Question 8

What is the relationship between female students' academic achievement and their pursuit of a post-secondary education?

This research question was addressed by two survey items. The first item asked students to circle a statement that described their academic performance, and the second item asked students to circle a grade that best represented their marks. The marks the students circled were also compared to the post-secondary institution they aspired to attend.

Table 20
Student perception of their marks
(N =151)

Statements	Frequency	Percentage
Marks good but not among the highest	104	68.9
Marks among the highest	39	25.8
Marks low but not among the lowest	8	5.3
Marks among the lowest	–	–

The majority of the students (68.9%) felt their marks were good but not among the highest while 25.8% of the students felt their marks were among the highest. A combination of these two statements reveal that 94.7% of the students felt they had good to excellent marks in high school (see Table 20). The respondents also indicated that 85.4% of them plan to attend a post-secondary institution (see Table 21).

Table 21
Students' plans to attend a post-secondary institution
(N=151)

Decision	Frequency	Percentage
Yes	129	85.4
No	4	2.6
Undecided	18	11.9

When the students gave an estimate of their marks, 86.8% indicated they had marks of 70 or above. One third estimated their marks to be more than 80 and another 16.6% said their marks were in the 80 range. Only one student reported a failing mark at 45 (see Table 22).

Table 22
Student estimate of their high school marks
(N = 151)

Marks	Frequency	Percentage
More than 80	51	33.8
80	25	16.6
75	31	20.5
70	24	15.9
65	--	--
60	16	10.6
55	3	2.0
50	--	--
45	1	0.7
40	--	--

Twenty three point six percent of the students who indicated they had plans to attend Memorial University estimated their marks to be above 80%. The students who estimated an average of 80%, 4.5% wanted to attend Memorial University and the College of the North Atlantic, while 8.2% had not decided on a post-secondary school. The students who indicated an average of 75%, 3.6% wanted to go to Memorial University, 6.4% the College of the North Atlantic, 1.8% the Canadian Armed Forces and 9.1% did not know. Students with an estimated average of 70%, 3.6% wanted to go to Memorial University, 2.7% wanted to attend the College of the North Atlantic and private colleges, 0.9% wanted to join the Canadian Armed Forces, while 6.4 did not know what post-secondary institution they wanted to attend. Respondents who estimated an average mark of 60%, 3.6% wanted to attend the College of the North Atlantic, 1.8% each wanted to attend Memorial University or did not know what school they wanted to attend, while 0.9% wanted to attend a private college. Two students estimated their mark to be 55% and they did not know what school they wanted to attend (see Table 23).

Table 23
The relationship between the student's estimate of their marks and the post-secondary institution they want to attend
(N= 110)

School	Estimated Mark															
	50		55		60		65		70		75		80		>80	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Memorial University	--	--	--	--	1	1.8	--	--	4	3.6	4	3.6	5	4.5	26	23.6
College of the North Atlantic	--	--	--	--	4	3.6	--	--	3	3.6	7	6.4	5	4.5	1	0.9
Private Colleges	--	--	--	--	1	0.9	--	--	3	3.6	--	--	--	--	--	--
Armed Forces	--	--	--	--	--	--	--	--	1	0.9	2	1.8	--	--	2	1.8
Don't Know	--	--	2	1.8	2	1.8	--	--	7	6.4	10	9.1	9	8.2	11	10.0

Research Question 9

What are the differences between 1999 Grade 12 female student and 1989 female student perspectives on certain industries offering more, same or less job opportunities in the future?

One item from the questionnaire was used to answer this research question. It asked their opinion of the degree to which specific industries would have more, the same or fewer jobs in the future. This information was compared to the results collected on the same item in the 1989 survey from females in the same region of the Province.

The data indicated that in 1989 about half the students felt there would be more jobs in construction, health, education and petroleum and about two-third of the students listed retail sales, pulp and paper, printing and publishing, government, agriculture and shipbuilding and repair industry as staying the same. About half of the students felt there would be fewer jobs in the fishing and mining industries (see Table 24).

The data indicated that in 1999 about two-thirds of the students felt there would be fewer jobs in the fishing industry. While over one third of the students also felt there would be fewer jobs in mining, and shipbuilding/repair industries. The information/ communication technology and silviculture industries were not part of the 1989 questionnaire. The information/communication technology industry was considered by 1999 students to be offering more job opportunities (83.4%) in the future.

The 1999 students felt there would be more job opportunities in mining, retail sales and printing/publishing industries while fewer jobs in fishing, petroleum, pulp and

paper, construction, education, health and ship building/repair compared to the 1989 students.

Significantly more of the 1999 students felt there would be reduced job opportunities in shipbuilding, education, health, fishing, pulp and paper and construction. The way they perceived opportunities in sales, government services, agriculture, and publishing were similar. It was also evident that the 1999 cohorts felt there would be more opportunities in mining.

Table 24
1999 compared to 1989 female student perception of future job opportunities

Industry	Frequency and Percentage in Survey Year														
	1989							1999						Chi-square	p
	N	More		Same		Less		N	More		Same		Less		
	1989	Freq.	%	Freq.	%	Freq.	%	1999	Freq.	%	Freq.	%	Freq	%	
Fishing	133	15	11 3	53	39.8	65	48 9	149	2	1.13	29	19.5	118	79.2	31.509	0.000
Mining	133	16	12 0	54	40.6	63	47.4	150	40	26.7	60	40 0	50	33 3	11.116	0.004
Petroleum	133	63	47.4	53	39.8	17	12.8	149	61	40.9	73	49.0	15	10.1	2 432	0.296
Pulp and paper	131	30	22.9	86	65.6	15	11.5	150	24	16.0	87	58.0	39	26.0	10 101	0.006
Construction	133	74	55.6	55	41.4	4	3.0	149	65	43.6	72	48.3	12	8.1	5.97	0.051
Retail sales	129	31	24.0	89	69.0	9	7.0	148	51	34.5	86	58.1	11	7.4	3 844	0.146
Education	132	69	52.8	46	34.8	17	12.9	150	68	45.3	29	19 3	53	35.3	21.313	0.000
Health	132	74	54.5	58	43.9	2	1.5	149	77	51.7	45	30 2	27	18.1	22 414	0 000
Government	132	41	31.1	85	64.4	6	4.5	149	40	26.8	103	69.1	6	4.0	0 71	0.701
Agriculture	126	18	14.3	78	61.9	30	23.8	148	26	17.6	90	60.8	32	21.6	0.614	0.736

continued

Table 24 (continued)

Ship building & repair	130	17	13.1	80	61.5	33	25.4	149	16	10.7	74	49.7	59	39.6	6 347	0.042
Printing and publishing	131	37	28.2	86	65.6	8	6.1	147	56	38.1	78	53.1	13	8.8	4 557	0.102
Silviculture	--		--	--	--	--	--	145	56	38.1	78	53.1	13	8.8	--	--
Information & communication technology	--		--	--	--		--	--	150	125	83.4	14	9.3	11	7.3	--	--

Note: Silviculture and Information & communication technology was not recorded in the 1989 survey

Research Question 10

What are the differences between 1999 Grade 12 female students and 1989 female students with respect to: (a) immediate future career plans; and (b) factors that potentially influence those plans?

To answer this question the information collected through the 1999 survey was compared to the data collected from a sample group in the 1989 survey. To compare their immediate career plans use was made of the data collected in survey items that inquired about the student's occupational choice, post secondary institution they want to attend, what program they want to study, and if they were considering starting their own business. Factors that potentially influence those plans, used the data collected in the survey question that asked who they talked to about their career plans, their parent's/guardian's support, where they preferred to work, and job characteristics they felt were important.

a. Immediate career plans of students

A significant difference was evident between the number of students who wanted to start their own business in 1989 compared to the number of students who wanted to start their own business in 1999. In the latter group there was an increase of 16.3% in students thinking about starting their own business, that is 36% compared to 19.7% in 1988 (see Table 25).

Table 25
Comparison of 1989 and 1999 students who are thinking about starting their own business in the future

Plans to Start Own Business	Frequency and Percentage in Survey Year			
	1989 (N=142)		1999 (N=150)	
	Frequency	Percentage	Frequency	Percentage
No	114	80.3	96	64.0
Yes	28	19.7	54	36.0

Chi-square = 9.575, $p < .002$

As can be seen in Table 26, a significant difference was also evident in the number of students who were planning to attend a post-secondary institution next year. There was an 11.3% increase in the number of students who were undecided about attending a post-secondary institution in the coming year among the 1999 respondents. Overall though, the number that indicated they would be attending a post-secondary institution was high in both groups (89.7% in 1989 compared to 85.4% in 1999).

A significant change occurred in the student's choice of going on to post-secondary educaton since 1989. Eighteen point one percent more of the 1999 respondents (37.3% compared to 19.25%) were undecided about what school they want to attend. Interest in programs at Memorial University and the College of the North Atlantic were only slightly different between the two groups with fewer choosing either institution, (see Table 27).

Table 26
Comparison of 1989 and 1999 students who plan to attend a post-secondary institution

Decision	Frequency and Percentage in Survey Year			
	1989 (N=145)		1999 (N=151)	
	Frequency	Percentage	Frequency	Percentage
Yes	130	89.7	129	85.4
No	14	9.7	4	2.6
Undecided	1	0.7	18	11.9

Chi-square = 20.657; $p < .000$

Table 27
Comparison of 1989 and 1999 post-secondary institution students plan to attend

Institution	Frequency and Percentage in Survey Year			
	1989 (N=130)		1999 (N=110)	
	Frequency	Percentage	Frequency	Percentage
Memorial University	52	40.0	40	36.4
College of North Atlantic	28	21.5	20	18.2
Armed Forces	–	–	5	4.5
Private College	3	2.3	4	3.6
Marine Institute	–	–	–	–
Universities outside the province	22	17.0	–	–
Undecided	25	19.2	41	37.3

Chi-square = 6.879; $p < .000$
Notes: The interest in universities outside of Newfoundland was only collected during the 1989 survey

The 1989 student's programs of choice were compared to their 1999 counterparts. Whilst the data indicated an overall significant difference in choice between the two groups, the only substantive change was in the number choosing a nursing degree (10.9% in 1989 compared to 1.3% in 1999). The other major difference was in the group of

undecided students, which contained 20.9% in 1989 compared to 48.3% in 1999 (see Table 28).

Table 28
Comparison of programs that 1989 and 1999 students plan to attend

Programs	Frequency and Percentage in Survey Year			
	1989 (N= 129)		1999 (N=151)	
	Frequency	Percent	Frequency	Percent
Bachelor of Science	12	9.3	14	9.3
Bachelor of Social Work	2	1.6	6	4.0
Bachelor of Business Administration	2	1.6	5	3.3
Bachelor of Medical Science–unspecified	--	--	5	3.3
Bachelor Engineering and Applied Science	1	0.8	4	2.6
Bachelor of Education	3	2.3	4	2.6
Bachelor of Science-Pharmacy	2	1.6	4	2.6
Bachelor of Legal Laws	1	0.8	3	2.0
Bachelor of Arts	7.8	10.0	2	1.3
Bachelor of Journalism	2	1.6	2	1.3
Bachelor of Nursing	14	10.9	2	1.3
Bachelor Physiotherapy	3	2.3	1	0.7
Hair Stylist	3	2.3	1	0.7
General Studies	7	5.4	--	--
Criminology	--	--	4	2.6
Computer Application in Business	4	3.1	--	--
Computer Technology	4	3.1	1	0.7
Other*	32	24.8	20	13.2

Chi-square = 47.29; $p < .000$

* Note: Programs that were indicated by only one student are combined in the "other" category

A comparison of 1989 and 1999 student's aspirations indicated the 1999 respondents were less interested in jobs in the services, teaching, clerical, managerial administration, artistic/literary, transportation and forestry/logging industries. More 1999 students were interested in jobs in the medical/health, engineering/mathematics, and in the social sciences. The number of respondents who were undecided about a career choice increased from 1.4% in 1989 to 19.9% in 1999 (see Table 29).

Table 29
Comparison of future career aspirations of the 1989 and 1999 students categorized by industry

Occupational Choice	Frequency and Percentage in Survey Year			
	1989 (N=141)		1999 (N=147)	
	Freq.	%	Freq.	%
Medicine and Health	39	27.7	46	31.3
Social Sciences	19	13.5	25	17.0
Services	16	11.3	7	4.8
Teaching	15	10.2	12	8.2
Clerical	14	9.9	3	2.0
Engineering and Mathematics	12	8.5	15	10.2
Artistic and Literary	9	6.4	8	5.4
Managerial Administration	8	5.7	8	5.4
Transport Equipment	3	2.1	1	0.7
Sales	2	1.4	2	1.4
Forestry and Logging	2	1.4	--	--
Production and Fabricating	--	--	1	0.7
Don' t Know	2	1.4	19	19.9

Chi-square = 41.496; $p < .000$

Table 30
Comparison of 1989 and 1999 student's knowledge about required training/education for their chosen career

Knowledge of Requirements	Frequency and Percentage in Survey Year			
	1989 (N=142)		1999 (N=130)	
	Frequency	Percentage	Frequency	Percentage
College and/or University	110	77.5	54	41.5
Both (post secondary and job training)	7	4.9	41	31.5
On the Job Training	10	7.0	8	6.2
Don't Know	15	10.6	27	20.8

Chi-square = 46.417; $p < .000$

A comparison between the 1989 and 1999 students regarding their opinion of the training they required to pursue their job choice indicated that there was a decrease in the perceived need for just a post-secondary education (from 77.5% in 1989 to 41.5% in 1999); and an increase in the perception that both post-secondary and on-the-job training would be required (4.9% in 1989 compared to 31.5% in 1999). The number of respondents who did not know what training was required for their job choice increased from 10.6% in 1989 to 20.8% in 1999 (see Table 30). Overall, these differences in perception of career preparation requirements were significant

b. Factors that potentially influence student career choices

A comparison of how 1989 and 1999 students felt about the support their fathers gave their career plans were significantly different (see Table 31). Many more (8.3% in 1989 compared to 29.7% in 1999) felt that their fathers would insist on them continuing

their education; whilst fewer (72.7% in 1989 compared to 54.7% in 1999) fathers, they considered, would simply like them to continue their education. There were no students in either group who considered that their father thought they should start working after high school.

Table 31
Comparison of 1989 to 1999 fathers support for student career plans

Type of Support	Frequency and Percentage in Survey Year			
	1989 (N=132)		1999 (N= 148)	
	Freq.	%	Freq.	%
Definitely would like me to continue my education	96	72.7	81	54.7
Insists I continue my education	11	8.3	44	29.7
Might like me to continue my education after high school	11	8.3	15	10.1
I don't know what he would like me to do.	9	6.8	7	4.7
Does not care what I do	5	3.6	1	0.7
Thinks I should start working after high school	--	--	--	--
Wants me to work for the family after high school	-	--	--	--

Chi square = 23.767; p< .000

A comparison of how 1989 and 1999 students felt about the support their mothers gave their career plans were similar to those of their fathers (see Table 32). Significantly

more felt their mothers would insist they continue their education after high school (13.4% compared to 30.0% in 1999).

Table 32
Comparison of 1989 to 1999 mothers support for student career plans

Type of Support	Frequency and Percentage in Survey Year			
	1989 (N=142)		1999 (N= 150)	
	Freq.	%	Freq.	%
Definitely would like me to continue my education	105	73.9	86	57.3
Insists I continue my education	19	13.4	45	30.0
Might like me to continue my education after high school	10	7.0	13	8.7
I don't know what she would like me to do	3	2.1	4	2.7
Thinks I should start working after high school	5	3.5	2	1.3
Does not care what I do	–	–	–	–
Wants me to work for the family after high school	–	–	–	–

Chi square = 14.064; $p < .007$

Table 33 shows a comparison between 1989 and 1999 student's perception of factors that potentially influence their immediate plans. The item contains three groups, A, B and C with each group containing three descriptive statements. Each statement represented a different characteristic about employment that addressed security, fulfillment or social needs.

Table 33
Comparison of the 1989 and 1999 student's perception of the factors that influence their immediate career plans

Occupation Characteristic		Frequency and Percentage in Survey Year							
		Most				Least			
		1989		1999		1989		1999	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%
A.		(N=135)		(N=146)		(N=128)		(N=141)	
Work that pays well	Security	41	30.4	54	37.0	57	44.5	51	36.2
Work that gives a feeling of accomplishment	Fulfillment	71	52.6	73	50.0	24	18.8	27	19.1
Work where others are friendly and helpful	Social needs	23	17.0	19	13.0	47	36.7	63	44.7
B.		(N=137)		(N=145)		(N=141)		(N=143)	
Workplace that is healthy and safe	Security	46	33.6	75	51.7	26	18.4	11	7.7
Work where you make most of your own decisions	Fulfillment	7	5.1	11	7.6	103	73.0	117	81.8
Work that gives you a chance to help others	Social needs	84	61.3	59	40.7	12	8.5	15	10.5

continued

Table 33 (continued)

C

		(N=136)		(N=145)		(N=137)		(N=142)	
Work with little chance of being laid off	Security	29	21.3	30	20.7	65	47.4	62	43.7
Work that is interesting	Fulfillment	49	36.0	75	51.7	26	19.0	27	19.0
Work with a good chance of promotion and advancement	Social needs	58	42.6	40	27.9	46	33.6	53	37.3

The 1999 respondent choices differed somewhat from those of the 1989 group in their selection of most and least important factors. Overall, the need for security increased significantly (based on mean score on all items) and social needs decreased significantly from the 1989 to the 1999 group. The fulfillment factor scored the lowest in each group with little difference in mean score. Job security scored the highest, followed by social needs in the current 1999 survey, while social needs, was highest, then security ten years earlier in 1989 (see Table 34).

Table 34
Comparison of overall job motivational factors

Motivational Factors	1989	1999	ANOVA Results	
	Mean Score	Mean Score	F	Sig.
Security	5.75	6.21	7.36	0.01
Fulfillment	5.5	5.39	0.49	0.48
Social Needs	6.42	5.89	12.83	0.00

Note: Mean scores were based on assigning value to the factors, three being assigned to the least important factors to nine being assigned to the most important factor.
Difference significant ($p < 0.05$)

Those selecting Memorial University in 1999 generally considered that they had high marks, with significantly more indicating their marks were over 80%. Marks for those selecting the College of the North Atlantic in 1999 were also higher overall compared to their 1989 counterparts. In the undecided group, there was a significant increase in the 1999 students with higher marks (see Table 35).

Table 35
Comparison of 1989 and 1999 students estimated marks and the post-secondary institution they plan to attend
1989 N= 130, 1999 N=110

Estimated mark	Memorial University				College of the North Atlantic				Private Colleges				Don't Know			
	1989		1999		1989		1999		1989		1999		1989		1999	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
50	--	--	--	--	--	--	--	--	--	--	--	--	1	0.7	--	--
55	--	--	--	--	--	--	--	--	--	--	--	--	1	0.7	2	1.8
60	--	--	1	0.7	1	0.7	4	3.6	1	0.7	1	0.9	7	5.4	2	1.8
65	5	3.8	--	--	6	4.6	--	--	1	0.7	--	--	4	3.1	--	--
70	11	8.5	4	3.6	8	6.2	3	2.7	1	0.7	3	2.7	5	3.8	7	6.4
75	11	8.5	4	3.6	5	3.8	7	6.4	--	--	--	--	3	2.3	10	9.1
80	4	3.1	5	4.5	4	3.1	5	4.5	--	--	--	--	--	--	9	8.2
>80	21	16.0	26	24.0	4	3.1	1	0.9	--	--	--	--	4	3.1	11	10.0
Chi-square	11.812				11.298				1.896				21.888			
df	5				5				2				7			
Sig.	0.037				0.046				0.388				0.003			

Table 36
Comparison of 1989 to 1999 students career choice based on General Educational Development and Specific Vocational Preparation levels with their high school marks

Marks	GED means		SVP means	
	1989	1999	1989	1999
45	--	4.0	--	7.0
50	3.0	--	5.0	--
55	4.0	3.0	5.7	3.5
60	4.2	4.0	6.2	5.8
65	4.2	--	6.3	--
70	4.6	4.5	6.4	6.5
75	4.6	4.4	6.9	6.3
80	4.4	4.8	6.4	6.9
more than 80	5.1	4.9	7.2	7.0

Note: Analysis of Variance comparison of scores
for GED ($F = 1.93$, $p = 0.297$)
for SVP ($F = 2.98$, $p = 0.086$)

There were no significant differences found between the 1989 and 1999 student's score on the General Educational Development (GED) or Specific Vocational Preparation (SVP) levels based on their future occupational choice (see Appendix E for description of the various GED and SVP levels). The mean GED levels showed an increase in 1999 students compared to 1989 students, who indicated their marks to be in the 45, 55 and 80 range. The 1999 students who estimated their marks to be in the 45, 70 and 80 range showed an increase in the SVP levels compared to 1989 students. The greatest difference was among students on both the GED and SVP scale with those who estimated their marks in the 50 and 65 range while the greatest increase was among students with marks in the 45 range (see Table 36).

The 1989 and 1999 students were compared in relation to whom they discussed their career plans with. The overall pattern of responses was similar for both years, with parents and friends by far the most consulted groups. There were, however, some significant differences evident in the data (see Table 37). For example, there was a very significant drop in the choice of the school guidance counsellor (34% "a lot" in 1989 compared to 11.8% in 1999). Also, fewer of the 1999 cohorts consulted their friends "a lot" (50.7% compared to 56.9% in 1989), although this was still one of the most consulted groups by each cohort. Significantly more in 1999 also consulted teachers "a lot", but the numbers were still relatively small (5.1% in 1989 compared to 11.8% in 1999).

Table 37
Comparison of 1989 to 1999 students concerning with whom they are discussing their career plans.

Whom students discuss career plan with	Frequency and Percentage of Influencing Factors									
	1989				1999					
	A lot	A little	Not at all		A lot	A little	Not at all		Chi	
	%	%	%	N	%	%	%	N	Square	Sig.
Mother/Guardian	64.1	32.4	3.5	142	64.0	34.0	2.0	150	0.672	0.714
Father/Guardian	46.8	39.0	14.2	141	54.5	36.6	9.0	145	2.632	0.268
Friends	56.9	39.6	3.5	144	50.7	48.0	1.3	144	3.3137	0.028
Relative	13.6	61.4	25.0	140	13.0	58.2	28.8	146	0.517	0.772
A person in the job	12.9	42.4	44.6	146	12.3	37.7	50.0	146	0.865	0.649
School Counsellor	34.0	46.1	19.9	141	11.8	41.0	47.2	144	31.714	0.000
Teacher	5.1	49.6	45.3	137	11.8	37.5	50.7	144	6.499	0.039
Nobody	5.0	--	90.0	80	--	3.0	97.0	101	5.76	0.056

CHAPTER 5

SUMMARY, DISCUSSION AND RECOMMENDATIONS

This study was designed to investigate the career aspirations of Grade 12 female students in the Grand Falls–Windsor region of Newfoundland. To achieve this, 10 research questions were generated and a questionnaire was developed and administered to the Grade 12 female students in four schools located in the region. The questionnaire was based on the 1989 Youth Transition into the Labour Market (YTLM) survey by Sharpe and Spain (1991). Some of the data collected were compared to the 1989 survey to determine if any changes had occurred over the past 10 years in the student's career aspirations.

Summary and Discussion

Research Question 1

What are the future career plans of female students?

The students in this study were mainly interested in occupations in the area of medicine and health, social sciences, engineering and mathematics and teaching. Thirty six percent of students surveyed indicated an interest in starting their own business. Careers in the service industries were of little interest to the students in this study. These findings were also similar to those of Mickelson and Velasco (1998) who reported that, "women who pursue education beyond high school continue to fill the traditional, gender-segregated "semi-professions" for women – nursing, teaching and social work" (p. 1). The only difference in the findings from this study and that of Mickelson and

Valeasco (1998) was a greater interest in careers related to engineering and mathematics. Less than two percent of the students indicated any interest in clerical occupations. Conroy (1997) reported fewer than 10% of females in her study aspired to clerical or skilled trade jobs. This was similar to Betz, et al. (1990) and Shu and Marini (1998) who found that woman's career aspirations or choices were becoming less traditional. This could suggest that students are looking beyond tradition service industry careers for themselves.

The Canadian Government has identified the following areas as growth sectors in Newfoundland: adventure tourism, information industries, aquaculture, environmental industries, cultural industries and manufacturing. None of the industries identified as being of interest to students fell into such growth sectors identified by the government.

Most of the students felt that to achieve their career goal they need at least post-secondary education (41.5%) or both additional education and on-the-job training (31.5%) after high school. These findings were similar to Conroy's (1997) study that indicated over two-thirds of her sample population identified an occupation that required at least some post-secondary training. These changes in the students perception of education and on-the-job training may be the result of job advertisement stating what education and experience is required to fill the position. Today employers, media, schools and parents emphasize the importance of an education. More parents today are insisting that their children continue with their education.

Research Question 2

With whom are female students discussing career plans?

The students reported that they are discussing their career plans mostly with their parents and friends. They were not discussing their career plans with their teachers, people in specific jobs, or school counsellors. The results support those of Young (1994) and Jones and Womble (1997) who found that children get most of their career information from their parents, especially mothers, because parents are the most active agents in their child's career development. This study does not support the Looker (1996) report that found it was the strong students who were more willing to obtain career information from the school counsellor. The majority of students in this study indicated they were earning "B's" and above, yet few were seeking career information from the school counsellor.

Research Question 3

What are the immediate career plans of female students?

The students immediate plans were to attend a post-secondary institution (85.4%), with the majority planning to attend Memorial University (36.4%) or the College of the North Atlantic (18.2%). A study by Rojewski and Yang (1997) reported females were more likely than males to aspire to programs requiring university degrees. This study did not survey males, but about one third of the females plan to study a university level program.

Students that indicated they planned to attend Memorial University indicated an interest in Bachelor of Social Work followed by a Bachelor of Science-Dentistry, and Bachelor of Engineering, Bachelor of Medical Science and Bachelor of Science-Pharmacy. Approximately one quarter of the students who planned to attend Memorial University were undecided about the program they wanted to enter. The Erwin (1996) study indicated females were interested in highly competitive programs, but concluded that even though the programs were highly competitive the students did not have any alternative plans if they were unsuccessful. This study did not survey the students alternative plans but did indicate that the students were interested in highly competitive programs.

The majority of students interested in attending the College of the North Atlantic indicated programs related to health care followed business, fine art and design, community studies, computer programming and criminology. The students planning to join the Armed Forces indicated an interest in medical and physical education trades. Those planning to attend private college indicated hairdressing, helicopter pilot, criminology and travel tourism.

It should be noted that the programs selected by the respondents did not match the industries the government identified as growth sector such as, a Bachelor of Science in Marine Biology or technology related careers. Wall, et. al. (1999) discussed factors that may have impacted on participants decisions in this study, they reported "females have high educational aspirations and career expectations in response to current emphasis in high school on opportunities for females, but because of historical discrimination they

believe there are limits on what they can expect to achieve at the upper end of employment types" (p. 69). Studies by Astin (1984), Osipow (1995), Erwin (1996) reported that women are socialized to see few occupational opportunities because they are focused on female specific gender-role careers. Osipow also said that females tend to aspire to occupations that are of lower salary and occupational levels. The majority of students in this study may be "role innovators" as identified by Swatko (1981) for they indicated an interest in non-traditional female occupations. The most common program the students identified was a Bachelor of Science and findings by Farmer et. al. (1995), and Farmer, Anderson and Brock (1991) found that females who pursue a career in science had parents that had a positive attitude toward science and influenced their child's career plans. A study by Erwin (1996) found that even though females may aspire to non-traditional female occupations they gravitated toward specific areas of these occupations that would be viewed as female orientated, such as pediatrics, obstetrics or family medicine when they pursue a career in medicine. The current study disagrees with Looker's (1996) report that found females do not expect to go to university which leads to high prestige careers, even though they out perform males academically.

Research Question 4

What factors influence the immediate career plans of female students?

The students indicated that personal interest (87.3%) was the most influential factor when choosing a career. This was followed to a much lesser extent by the entrance requirements for a program, work opportunities and past experiences. The students also

indicated that a family owned business, family situation (need to help support their family), and personal financial situation (unable to get a student loan), did not strongly influence their career decision. The respondents in this study grouped financial resources (personal and family) in the lower third of the factors. The time of year the 1999 survey was administered when compared to the previous study may have had some influence on the students lack of concern for financial factors. Overall, however, personal interest remains by far the strongest influencing factor for each group.

A review of the literature indicates that students are influenced by their family life (Astin, 1984; Jones & Womble 1997; Looker & Lowe, 1996; Young, 1994) including socioeconomic status (Farmer & Chung, 1995; Shu & Marini, 1998). This influence may be translated into what the students identify as personal interest due to the influence a family has on a child as they develop. An interest that is fostered and encouraged by a family could become the child's personal interest when choosing a career. Luzzo (1995a) reported that perceived barriers do not negatively affect students aspirations. This study supports these findings for the students indicated personal interest as the strongest factor with family and financial barriers not affecting their choices.

Research Question 5

What do female students see themselves doing in five or ten years?

The majority are aspiring to some kind of career. Over half the students saw themselves working in a job or career in five to ten years, while approximately one third saw themselves combining homemaker and working. This could reflect an awareness by

the students of the conflicts between having a family and a career (Stickel & Bonett, 1991) or the trend for people to marry at an older age. When asked to look five or ten years into the future, some would just be finishing their program of choice, if that was the case the student may be looking at just starting a career and not a home. Studies by Erwin (1996), Looker (1996), Shakeshaft (1991) and Stickel and Bonett (1991) found that even though females are aspiring to higher prestige occupations they still felt they would be the primary child-care provider and household manager. Also, students may see the difficulties their mothers have combining family and work. Since studies have found a direct link between a mother's life role and a daughter's life role expectations (Davey & Stoppard, 1993; Tuck, Rolfe & Adaire, 1994), seeing their mothers having difficulties could be influencing the students choice to delay becoming a homemaker at the beginning of their career.

Almost half of the students did not know if they would be collecting Employment Insurance Benefits, while 40.7% said they would not. This may be due to the changing financial climate in Newfoundland. Government statistics say the economy of Newfoundland is improving, but many of the respondents find themselves in an area where seasonal employment, or moving away from home, are the only options available. The career areas indicted by the students to not involve seasonal employment. Medicine and health, social sciences, engineering and mathematics were the top three choices while no student in the 1999 study indicated an interest in seasonal work such as forestry and logging.

Research Question 6

What influence does a family have on a female students willingness to pursue a post-secondary education?

The majority of students lived with both parents (83.4%), but of those who lived in a single parent household nearly four times as many lived with their mother compared to their father. Over eighty percent of the students felt their parents strongly encouraged them to continue their education. Young (1994) reported that parents are active agents in their child's career plans. This study supports these findings with the students stating that their parents were encouraging them to continue with post-secondary education and the majority of them deciding to attend a post-secondary institution. The parent's encouragement for their child to pursue a post-secondary education could be the result of the job market becoming more focused on trained people. The parents may see the job market and acknowledge the necessity for their children to have training to become employable in higher level jobs as reported by Larcy (1997). These findings appear different from a study by Wall, et al. (1999) who found that females felt they received a higher level of support from others, peers and teachers, than from family. This study suggests the females felt they received more support from their families than others.

A study by O'Brien (1996) found that children who was moderately attached to their mothers had a stronger level of career orientation and realism than those who were strongly attached to them. This study found that over 85% of the students were planning to attend a post-secondary institution to achieve their career goals. Yet, of the students who indicated they planned to attend a post-secondary institution many did not know

what program they wanted to study. A study by Orndorff and Herr (1996) found that students who had undeclared majors were too dependent on their parents. This survey did not study the students dependence on their parents, but the students responses suggest many were dependent on them. Powell and Peet (1996) found that if a parent feels a responsibility for their child's education the child holds higher aspirations than children whose parents do not. The students in this study did have high aspirations, therefore even though this study did not look at the parents sense of responsibility the students responses indicated this to be the case.

With unemployment being high in Newfoundland students realize they themselves may have to migrate to other parts of Canada to find employment. Nearly three quarters of the females surveyed said they would go anywhere in Canada to find employment, while approximately 12% would prefer to work close to home. McGrath (1996) studied students willingness to move away from a small community to attend a post-secondary institution. This study looked at a students willingness to move away to seek employment. Even though the two studies looked at different reasons for moving they did look at young people having to leave their homes. The results from this study does not agree with those of McGrath, who found that students were not willing to move away from home, yet this study found they were. This could be a result of a further decrease in job opportunities in small Newfoundland communities and out migration of Newfoundlanders to other provinces is more common today than it was four years ago.

Research Question 7

What motivation factors do female students perceive as most and least important in their job choice?

Overall, the students identified security as being the most important factor while fulfillment and social factors held similar importance. This was different from those of Wijting, Arnold and Conrad (1977), who found that women were interested in work that allowed them to have a sense of pride or a sense of fulfillment in the work they had done. The statement "work where you make your own decisions" was rated as least important by the students, which supports a study by Fritz (1994) who found that women "would be expected to put their lowest rating on making decisions on their own" (p. 16). Scozzaro and Subich (1990) reported that "women tend to value factors of pay, promotion, autonomy and security as much as men, and feedback, skill variety, task significance, supervision and co-workers to a greater extent than do men" (p. 117). Females indicated they valued work that was interesting and gave a sense of accomplishment but they did not value the social element (others are friendly and helpful), autonomy (making most your own decisions) nor security (little chance of being laid off) as being of much importance.

Research Question 8

What is the relationship between female students academic achievement and their pursuit of a post-secondary education?

One quarter of the students perceived their marks to be 70 or above while two thirds perceived their marks to be good but not among the highest. A comparison of their perceived marks and the actual marks revealed the students were underestimating their academic success. This data supports a study by Rojewski and Yang (1997) who reported that females are more likely to negatively evaluate their success. A study by Powell and Peet (1996) found that students who earn "A's" and "B's" have a more positive attitude toward the school-to-work connection than students who earn "C's". Inglehardt (1990) reported that the educational elite are the people to challenge gender typing of occupations. This study found the majority of students earning "A's" and "B's" are applying to high prestige programs at university, mostly non-gender specific programs.

Only one student of those who indicated they wanted to attend Memorial University did not meet the entrance requirements. Of the students who wanted to attend the College of the North Atlantic, most of them reported an average that would allow them to enter a two or three year technology course, while all students interested in the armed forces were earning "B" and higher. Studies by Looker (1996), Rojewski and Yang (1997) reported that females have higher academic achievement than males and this survey appears to support these findings. Wall et. al. (1999) found that females did not relate career aspirations with educational aspirations, but did relate educational aspirations and career expectations. This study appears to support the later part of their findings that indicated students who reported strong academic success also planned to attend a university or college.

Research Question 9

What are the differences between 1999 Grade 12 female student and 1989 female student perceptions of certain industries offering more, same or less job opportunities in the future?

A comparison of the 1989 and 1999 students surveyed indicated the 1999 students felt there would be less job opportunities in the area of fishing, education, pulp and paper, construction, health, and shipbuilding. They also felt they would have similar job opportunities in the areas of sales, government services, agriculture and publishing with more in mining compared to 1989. Two industries were added to the 1999 questionnaire, silviculture and information technology. The students thought there would be the same job opportunities in silviculture but more opportunities in information technology.

Genge (1996) reported "jobs in rural Newfoundland are disappearing without new ones emerging. Newfoundlanders must either create new sources of employment within their communities, or else leave the communities for employment elsewhere" (p. 4). Since 1992 the fishing industry has been restricted to all but a few fisher-people. This has resulted in fisher-people changing their method of fishing, the species they catch or leaving the industry all together. Today the fishing industry is slowly being revived in certain regions including the surveyed area. It should be noted that residents of this region are employed in many other industries besides fishing. Therefore many students who participated in this survey may only be aware of the issues in the fishing industry due to topics in school texts and media reports. For these reasons students may be more

exposed to the negative issues, past and present, in the fishing industry than the revitalization that has occurred in the past two or three years.

Students also felt there would be fewer job opportunities in the area of education and pulp and paper. The students in the surveyed area experienced first hand job opportunities in these industries. They see the cuts in school programs and activities due to cutbacks in government funding and restructuring of the education system. The Grand Falls-Windsor region was developed to support a pulp and paper industry, and as the pulp and paper industry slows down students can see the results of these cutbacks in their community.

The industries of mining and information technology were seen as offering more job opportunities in the future. The mining industry is very popular today due to the discovery of new minerals in the province and the discussion by government with mining companies toward developing these new finds. Information technology, the new computer age industries, has become the 'industry of the future' and students are aware that there are job advertisements for trained technology people.

Research Question 10

What are the differences between 1999 Grade 12 female students and 1989 female students with respect to: (a) immediate future career plans; and (b) factors that potentially influence those plans?

A comparison of 1989 and 1999 students indicate a large increase in the number of students who were undecided about their future career plans and a slight decrease in

the number who planned to attend university or public college. There was also an increase in the number of students who were thinking about starting their own business, and those who planned to join the armed forces, five respondents compared to zero in 1989.

When the student's grades were compared to the post-secondary institution entrance requirements they were planning to attend significant differences were observed for all post-secondary institutions except private colleges. The greatest difference was among the students who responded "don't know". The majority of students who planned on attending Memorial University and the College of the North Atlantic estimated their marks to be above 70. This supports studies by Looker (1996), Rojewski and Yang (1997) who reported that females have higher academic achievement than males, but this study did not survey males therefore it cannot conclusively agree or disagree with these reports.

The 1999 and 1989 studies had similar findings concerning the amount of education students plan to acquire. The students who estimated their marks to be 70 or above in 1999, indicated an average Specific Vocational Preparation code which meant they would attend a post-secondary institution for not less than one year and up to four years. The General Educational Development code for the same group of students indicated they planned to acquire 11 to 16 years of schooling. This study supports the findings of Looker (1996) and Rowjewski and Yang (1997). Looker found that females expressed educational and career aspirations that were similar, while Rowjewski and Yang's study found females were aspiring to occupations requiring a college degree.

A comparison of the 1999 and 1989 student's perception of factors that influence their career choices were not similar and showed significant differences. There was a significant difference between the importance placed on job security and social needs. The 1999 students considered job security to be more important than their social needs, while social needs were considered less important as compared to the 1989 students. The motivational factor of fulfillment was rated third by both groups with no significant difference. This data is different from a study by Gati, et.al (1995) and Fritz (1994) who reported that females place more importance on relationships with people than other aspects of work. These findings are more similar to those by Scozzaro and Subich (1990) who reported that "women tend to value factors of pay, promotion, autonomy and security as much as men, and feedback, skill variety, task significance, supervision and co-workers to a greater extent than do men" (p. 117).

The student's knowledge about the training they required to achieve their career plans decreased from 1989 to 1999. This may be due to the fact that students have not investigated the training they require to meet their career goals, or they have not decided on an occupation. More 1989 students reported that a college diploma or university degree would be enough to secure their chosen occupation. In 1999 more students felt it was necessary to have a college or university education and on-the-job training. This may reflect the change in college programs to have students participate in work terms or on-the-job training during their post-secondary education, and potential employers requiring experienced applicants.

A comparison of the programs students are planning to attend show a significant difference. The greatest difference was an increase in the number of students who did not know what program they wanted to attend after graduation. Among the respondents who had decided to attend post-secondary school the greatest difference was the decrease of interest in a Bachelor of Nursing, and General Studies, while there was an increase in Bachelor of Medical Science-unspecified and Bachelor of Social Work. The change in the nursing program could be contributed to the fact that students are not willing to attend a university to pursue a career in that field. In 1989 you could earn a nursing certification through a three-year program offered at a hospital while in 1999 you have to attend university and earn a Bachelor of Nursing. The lack of interest in a Bachelor of Arts and General Studies could reflect the rising cost of attending university and students may feel they should decide on a program of study before they begin an expensive venture. An interesting finding was that no student was interested in a computer degree through a university and only one student indicated an interest in a computer program at a college. yet they did identify the computer industry as one that will be offering more job opportunities in the future. There was an increased interest in careers in the health industry (for example physiotherapy, medical technical, radiology), yet the 1999 respondents indicated they felt this industry would offer the same or fewer jobs in the future. The findings support a study done by Erwin (1996), who found that students who planned on attending highly competitive programs were unaware of the difficulties of being accepted into these programs and did not have alternative plans. The respondents

indicated interest in programs that were very competitive and which they identified as offering the same or fewer jobs in the future.

The 1999 students showed similar results as their 1989 cohorts concerning the discussion of their career plans with their parents first and then friends. There was an increase in the discussions students had with their teachers, but a decrease in the discussions with the school counsellor. This supports the findings of Wall et al. (1999) who found that females received more support from peers and teachers. An increase in the discussion students are having with their teachers could indicate teachers are a good support for students aspirations. Teachers and parents together were good support for the students, but many students had not yet decided on a course of study. This could mean the students are in need of career counselling, but they did not seek advice from their school counsellor.

This study and the 1989 YTLM survey found that females felt their parents encouraged then to pursue a post-secondary education. There was a significant increase in the support parents gave their daughters career plans between 1989 YTLM and the current study. This could reflect the parents awareness that a post-secondary education is becoming very important in securing employment. As the Women's Policy Office reported, as an individuals education increases so does their chances of securing employment and the higher their earning power (Lacey, 1997).

Conclusion

The purpose of this study was to determine the career aspirations of female Grade 12 students in the Grand Falls-Windsor and surrounding region and compare this information to the 1989 YTLM survey for the same region, and identify changes in their aspirations. The findings in this study reveal that student aspirations have changed slightly over the last ten years and the factors that influence these choices have remained fairly constant. An important finding is that the majority of students in their last year of secondary schooling have decided on a possible career and know the kind of training they will need and the school they want to attend to begin their career path.

This study revealed students career plans show an interest in attending university to study medicine, social science and engineering, mathematics and teaching. This was similar to the interest indicated in previous studies. Notable changes in the 1999 study were, less interest in the service industries, increased interest in finding a job that offered security and decreased interest in finding a job that fulfilled social needs.

The students discussed their career plans mostly with their parents and friends, but not with teachers, school counsellors or people in the job. They tended to follow their personal interest in choosing a career path, but did not research the entrance requirements for highly competitive programs, and in most cases had no alternative plans.

Academically females overall are qualified to study the courses they indicate an interest in. Although they have high aspirations and the academics to achieve their career goals they still tended to aspire to traditional occupations. Even those who aspire to non-traditional occupations tend to choose female oriented areas of these occupations. This

may be because females felt they would be the primary caregiver for their family. The students did not indicate an interest in the growth sectors as identified by the Government of Newfoundland but did indicate more willingness to move away from home to find employment.

Recommendations

Future research could survey different regions of the province. Newfoundland is a vast province with unique regions and research could determine if secondary school students have different career aspirations to accommodate their regions uniqueness. The effectiveness of programs that encourages females to enter non-traditional careers should also be studied. A study that would determine if educating parents about non-traditional careers, post-secondary education and the job market could benefit a student, since parents are the students greatest source of information.

Further studies in the surveyed region of Newfoundland should attempt to determine the parents educational and occupational status, and also the parents social economic statues and compare its effects on the students educational and career aspirations. A survey that determines the educational and career aspirations of males and females would allow a researcher the opportunity to determine if gender differences in aspirations are present. This study did not distinguish between the students in the urban centre and the rural areas therefore it was unable to determine if a difference does exist and what factors cause these differences. A survey to investigate how personal interest is

a product of a students social environment and determine the factors that could intervene to prevent the environment from restricting a students aspirations.

A follow up survey in five to ten years that would look at the 1999 Grade 12 students to determine if they pursued their post-secondary and career plans after graduation. This would help determine if the 1999 secondary students had the knowledge to implement a career plan after graduation.

To assist female students to reach their full potential schools could invite the parents of Grade 12 students to workshops that would inform them of the positive trends in todays and future job markets. This information session should include post-secondary institutions entrance requirements for different programs. Finally, the school could make career planning and exploration courses a compulsory part of the curriculum so students would have to investigate the different occupations and their requirements while they are still in high school.

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APPENDIX A

Youth Transition into the Labour Market Results

Source: Youth transition into the labour market
Sharpe, D. B., and Spain, W. H. (1991).

What students expect to be doing in 5 to 10 years

	All students (%) (N=7390)		Males (%) (N=3519)		Females (%) (N=3871)	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Working in a job or career	4467	60.4	2544	72.3	1923	50.0
Homemaker	30	0.4	7	0.2	23	0.6
Both Homemaker & working in a job or career	2073	28.1	506	14.4	1567	40.5
Don't know	785	10.6	445	12.6	340	8.8
No response	35	0.4	17	0.5	18	0.5

(Sharpe & Spain 1991, p. 90)

Businesses students thought of starting on their own (N=2488)

Business categories	Freq.	Percent
Service (other than hospitality)	1150	46.2
Retail	553	22.2
Hospitality/food/lodging/tourism	219	8.8
Construction	178	7.2
Arts/crafts	72	2.9
Agriculture/husbandry	30	1.2
Manufacturing/fabrication	26	1.0
Communications	10	0.6
Mining/oil(primary)	6	0.2
Woods (primary)	5	0.2
Fishing (primary)	5	0.2
Other (not categorized)	25	1.0
Not sure/don't know	242	9.7
No response	95	3.8

Note: Up to 3 responses recorded
(Sharpe & Spain, 1991, p.60)

Plans to attend post-secondary institutions by gender

	All students (N=7390)	Males (%)_ (N=3519)	Females (%) (N=3871)
Yes	88.6	85.8	91.1
No	9.5	12.5	6.9
Undecided	0.4	0.6	0.5
No response	1.4	1.5	1.5

(Sharpe & Spain, 1991, p. 63)

Training, education and post-secondary plans (N=7390)

Will chosen career/business require training/education	Plan to attend post-secondary institution			
	Percent	Yes (%)	No (%)	No response/ undecided (%)
1. Don't know	12.5	75.4	21.4	3.1
2. On-the-job training	11.2	71.2	26.4	2.4
3. Required to attend school	68.6	94.6	4.6	0.9
4. Both 2 and 3	5.1	90.4	8	1.6
No response	2.6			

(Sharpe & Spain, 1991, p. 64)

Persons students discussed career plans with

Persons	Amount of Discussion (%)		
	A lot	A little	Not at all
Mother/guardian	59.2	35	5.8
Father/guardian	47.5	39.7	12.8
Friends	45.4	49.7	4.9
School Counsellor	19.2	42.9	37.9
Person in the job	12.8	42.8	44.5
Relatives	13	58.1	28.4
Teacher	8.9	43.7	47.4

Note: Rows totals = 100
(Sharpe & Spain, 1991, p. 73)

Student perception of their general achievement level

Achievement level of student	All students (N=7390)		Male (%) (N=3516)	Female (%) (N=3871)
	Freq.	Percent		
Marks among lowest	162	2.2	2.7	1.8
Marks low, but not among the lowest	1301	17.6	20.1	15.3
Marks fairly good, but not among the best	4177	56.5	56.5	56.6
Marks among the best	1675	22.7	19.7	25.3
No response	750	1.0	1.0	1.0

(Sharpe & Spain, 1991, p. 100)

Preferred work location of students

Preferred work location of students	All students (N=7390)		Male (N=3519)	Female (N=3871)
	Freq.	Percent	Percent	Percent
Go anywhere, including other provinces to get a job	4295	58.1	59.8	56.6
Work that is close to home	1810	24.5	24.4	24.6
Go anywhere in province for job	679	9.2	8.9	9.4
Wouldn't mind going somewhere else in the province where I had relatives	529	7.2	5.6	8.6
No response	77	1.0	1.3	0.8

(Sharpe & Spain, 1991, p. 116)

Student jobs in Newfoundland industries in 1994

Newfoundland industries	Frequency of jobs						
	(1) More		(2) Same		(3) Fewer		
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Average Rating
Construction	4259	62.7	2305	33.9	231	3.4	1.41
Petroleum (oil)	4388	64.9	1703	25.2	665	9.8	1.45
Health	3745	55.4	2796	41.3	224	3.3	1.48
Education	3516	51.7	2497	36.7	785	11.5	1.60
Retail trade	2415	36.2	3895	58.5	353	5.3	1.69
Government work	2364	34.9	4006	59.1	408	6.0	1.71
Printing and publishing	2071	30.6	4253	62.8	447	6.6	1.76
Shipbuilding/ repair	1830	27.0	3580	52.9	136	20.1	1.93
Agriculture	1240	18.5	4041	60.3	1419	21.2	2.03
Pulp paper	801	11.8	4848	71.5	1128	16.6	2.05
Mining (ore)	1387	20.5	2703	39.9	2683	39.6	2.19
Fishing	431	6.3	2495	36.7	3879	57.0	2.51

Note: Average rating on more = 1, to fewer = 3
(Sharpe & Spain, 1991, p.165)

APPENDIX B

Statistics Canada Results

Source: Statistics Labour Force Historical Review (CD-ROM). Canada (1998). Statistical Reference Centre, Ottawa, ON.

Educational Attainment in Newfoundland for 1990 and 1998

Schooling	Males and Females		Females	
	1990	1998	1990	1998
	(thousands)		(thousands)	
Elementary School	98.7	79.0	45.7	36.9
High School	67.7	65.2	35.1	34.6
Post-secondary School	99.1	127.7	50.1	64.7
University				
Bachelor	17.5	26.5	8.5	13
Graduate	8	11.4	2.6	4.3

Statistics Canada (1998)

Number and Percentage of Newfoundland Females in Specific Occupations

	1989 thousand	1989 % of total Employed Workforce	1998 thousands	1998 % of total Employed Workforce
All Occupations	87.3	42.3	89.6	45.3
Management	5.7	34.3	6.1	33.3
Senior Management	0.5	41.7	0.0	0.0
Other Management	5.2	33.8	5.9	34.5
Business, Finance & Administrative Occupations	22.7	70.7	20.2	71.9
Professional Occupations in Business & Finance	1.1	45.8	1.6	48.5
Financial, Secretarial & Administrative Occupations	9.1	83.5	8.5	84.2
Clerical Occupations, (i.e. Supervisor)	12.6	67 0	10.2	68.9
Natural & Applied Science	1.0	11.8	1.5	15.0
Health Occupations	8.7	75.0	10.5	78.4
Professional Occupations in Health, Nurse	5.1	83.6	6.0	81.1
Supervisor -technical, Assisting & Related Occupations	3.6	65.5	4.5	75
Occupations in Social Science, Education & Government	7.3	53.3	8.9	54.6
Social Science, Government Services & Religion	2.0	48.8	3.0	55.6
Teachers & Professors	5.2	54.2	5.9	54.1
Occupations in Arts, Culture, Recreation & Sports	1.6	50.0	2.0	55.6
Sales and Services Occupations	32.4	61.2	33.9	64.5
Wholesale, Technical, Insurance, Real Estate	0.8	22.0	1.1	28.2

continued

continued

Retail Sales, sales Clerk, Cashier	11.5	77.7	10.0	76.3
Chefs, Cooks, Food Service Occupations	5.1	78.5	5.1	78.5
Protective Services	0.0	0.0	0.0	0.0
Child Care & Home Support Workers	5.4	94.7	8.1	95.0
Sales and Services Occupations (Trade Occupations)	9.1	49.5	9.3	52.5
Trade, transport & Equipment Operators	1.2	3.4	1.3	4.4
Contractors & Supervisors in trade and Transport	0.0	0.0	0.0	0.0
Construction trades	0.0	0.0	0.0	0.0
Other Trade Occupations	0.0	0.0	0.5	4.9
Transport & Equipment Operators	0.0	0.0	0.0	0.0
Trade helpers, Construction & Transportation	0.5	7.0	0.6	11.8
Occupations Unique to Primary Industries	1.1	7.1	1.8	11.9
Occupations Unique to Processing	5.5	33.3	3.1	29.5
Machine Operator & Assemblers	3.6	31.6	2.2	29.7
Manufacturing	1.9	38.0	1.0	32.2
Labourer in Processing, manufacturing Unclassified	0.0	0.0	0.0	0.0

Statistics Canada (1998)

APPENDIX C

The Questionnaire Used in Current Study

Adopted from: The questionnaire used in the 1991 Youth in Transition into the Labour Market survey.

Section A
Background Information

1. School; _____

2. Which of the following describes you home most of the time (*Circle one*).

I line at home with my father and mother 1
I live with relatives or friends 2
I live alone 3
I live at home with my mother 4
I live at home with my father 5

3. Compared to all students in your grade at your school, which of the following statements best describes your achievement in school this year? (*Circle one*).

My marks were among the lowest 1
My marks were low but not among the lowest 2
My marks were fairly good but not among the best 3
My marks were among the best 4

4. Which of the following best describes your average mark so far this year? *(Circle one*).

40 45 50 55 60 65 70 75 80 More than 80

5. Which ONE of the following statements best describe what your father/male guardian think you should do after you finish high school?

Does not care what I do after high school 1
Might like me to continue my education after high school 2
Definitely would like me to continue my education after high school 3
Insists that I continue my education after high school 4
Thinks I should start to work for pay after high school 5
Wants me to work for the family after high school 6
I don't know what he would like me to do after high school 7

6. Which One of the following statements best describes what your mother/guardian thinks you should do after you finish high school?

Does not care what I do after high school 1
Might like me to continue my education after high school 2
Definitely would like me to continue my education after high school 3
Insists that I continue my education after high school 4
Thinks I should start to work for pay after high school 5
Wants me to work for the family after high school 6
I don't know what she would like me to do after high school 7

SECTION B
Career Plans

7. Think of the career you would like to enter in the future. Please name or describe it.

_____

_____

8. Have you thought of starting a business of your own in the future?

Yes 1
No 2

9. Do you plan to attend a post-secondary institution after you finish your secondary education?

Yes 1
No 2

<u>If No or Undecided</u>: go to question = 11

If Yes:

What institution do you plan to attend?

Undecided 1
College of the North Atlantic 2
Marine Institute 4
Memorial University 7
Private College (e.g. Academy Canada) 8
Armed Forces 9
Other institution outside the province (please name the institution) 10

b. What program/course do you want to study? _____ 1
or don't know 2

10. Will the career or business you have chosen require further education/training?

Don't Know 1
On the job training 2
College and/or University 3
Both 4

11. How much have you discussed your career plans with the following people (*Rate each one*).

	A lot	A little	Not al all
Friends	1	2	3
Father/guardian	1	2	3
Mother/guardian	1	2	3
A person in the job	1	2	3
Relatives	1	2	3
School Counsellor	1	2	3
Teacher	1	2	3
Nobody	1	2	3

Other (please specify) _____

12. Think ahead 5 or 10 years from now. (*Circle one*).

a. What will you be doing?

Working in a job/career 1
Homemaker 2
Both of the above 3
Don't know 4

b. Do you think you will get seasonal work and collect Employment Insurance?

Yes 1
No 2
Don't know 3

13. Where would you prefer to work? (*Choose only one.*)

I'd like to work close to home 1
I wouldn't mind going somewhere else in the province where I had relatives ... 2
I'd go anywhere in the province for a job 3
I'd go anywhere, including other provinces, in order to get a job 4

14. When people look for a job, there are some characteristics about the job which are more important to them than other characteristics. Read the following groups of three and for each group write in the number of what is most important to you, and what is least important to you?

a. 1. Work that pays well
2. Work that gives a feeling of accomplishment
3. Work where the other people are friendly and helpful

Most important ..... _____
Least important ..... _____

b. 1. Workplace that is healthy and safe
2. Work where you make most of the decisions yourself
3. Work that gives you a chance to help other people

Most important ..... _____
Least important ..... _____

c. 1. Work with little chance of being laid off
2. Work that is interesting
3. Work with good chance of promotions and advancement

Most important ..... _____
Least important ..... _____

15. Below is a list of factors that may or may not have had an influence on your plans for the upcoming year. How much of an influence have the following had on your plans (*Circle the appropriate number for each*).

	A lot	A little	Not al all
Personal Interest	1	2	3
Friends plans for the upcoming year	1	2	3
Entrance requirements to post-secondary school	1	2	3
Desire to remain home or near home	1	2	3
Financial situation of family (need to help support family)	1	2	3
Personal financial situation (unable to get student loan)	1	2	3
Family owned business	1	2	3
Past experiences	1	2	3
Work opportunities	1	2	3
Media or school advertisement	1	2	3
Outside visitors from institutions	1	2	3
School personnel involvement	1	2	3

b. Which of the factors above has the most influence? _____

Which of the factors above has the second most influence? _____

Which of the factors above has the third most influence? _____

16. In the column on the left are listed industries which provide jobs in Newfoundland. Read the title and decide whether you think the industry is going to provide the same number of jobs in 2000 as it provided in 1989. If you think it will be the **same**, circle (same), if you think there will be **more**, circle(more), and if you think there will be **fewer**, jobs circle (fewer).

Industry	Newfoundland		
Fishing	More	Same	Fewer
Mining (ore)	More	Same	Fewer
Petroleum (oil)	More	Same	Fewer
Pulp and paper	More	Same	Fewer
Construction	More	Same	Fewer
Retail Sales	More	Same	Fewer
Education	More	Same	Fewer
Health	More	Same	Fewer
Government	More	Same	Fewer
Agriculture	More	Same	Fewer
Shipbuilding and Repair	More	Same	Fewer
Printing and Publishing	More	Same	Fewer
Silviculture	More	Same	Fewer
Information and Communication Technology	More	Same	Fewer

APPENDIX D

Letter to Superintendent

LETTER TO SUPERINTENDENT

Dear Mr. Wilkins:

I am presently completing my masters of educational psychology thesis at Memorial University of Newfoundland. The focus of the thesis is on the career aspirations of Grade 12 (Level III) female students and particularly, the problems they encounter in making their decisions in their transition from high school to post secondary school education and the workforce. With your permission, I would like to have the Grade 12 female students at Exploits Valley High (Grand Falls - Windsor); Leo Burke Academy (Bishop Falls); Botwood Collegiate (Botwood); Point Leamington Academy (Point Leamington) be my sample group from central Newfoundland. The study has received the approval of the Faculty of Education's Ethics Review Committee. I am now requesting your permission to approach the principals of the high schools, under your administration, and ask for their permission to have the students from their schools participate in the study.

At no time will any attempt be made to identify the student participants. Group results will be reported only. The results of the study will be made available to you, school board committee, and participating schools upon request.

If you approve of the study and are in agreement with the above request, please sign below and return this sheet to me as soon as possible. If you have any questions or concerns, I can be contacted at 707-579-5353. If you wish to speak to my supervisor, please contact Dr. Dennis Sharpe, Faculty of Education, Memorial University of Newfoundland, at 709-737-7549. If you wish to speak to a resource person not associated with this study, contact Dr. Bruce Sheppard, Associate Dean, Research and Development, 709-737-3402.

Participation in strictly voluntary. You, the school, or individual student, may withdraw at any time without prejudice.

Thank you for your anticipated cooperation.

Sincerely yours,

Sandy Maher

I, _____, approve of the study discussed above and hereby give permission for you to approach the school principals requesting their permission to have students from their school participate in your study. I understand that participation is entirely voluntary and that the students, principals or I can withdraw from the study at any time. All information is strictly confidential and no individual will be identified.

_____ _____

Mr. Domino Wilkins Date

APPENDIX E

General Educational Development (GED) and the Specific Vocational Preparation (SVP) Code Definitions

The General Educational Development (GED) "embraces those aspects of education (both formal and informal) which contribute to a worker's reasoning development, the ability to follow instructions, and the acquisition of such tool knowledge as mathematical and language skills" (Minister of Supply and Services Canada, 1989, p. 5).

The GED code is expressed as a number ranging from one to six depending on the approximate duration of formal schooling.

1 - Less than six years of schooling. Common sense understanding to carry out one or two-step instructions. Do simple addition and subtraction and learn duties from oral instructions or demonstrations.

2 - Six to eight years of schooling. Common sense understanding to carry out detailed but uninvolved written or oral instruction. Able to use arithmetic to add, subtract and divide whole numbers. Be able to copy, file, post and mail materials, give guided tours or collect data for surveys.

3 - Nine to ten years of schooling. Apply common sense understanding to carry out instructions furnished in written, oral or diagrammatic form. Able to make arithmetic calculations involving fractions, decimals and percentages and perform the same type jobs as a number two rating.

4 - Eleven11 to 12 years of schooling. Apply principles of rational systems to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Perform ordinary arithmetic, algebraic and geometric procedures in standard, practical applications. Able to transcribe dictation, make

appointments, interview job applicants to determine work who would be best suited for a job, and interpret technical manuals.

5 - Thirteen to 16 years of schooling. Apply principles of logical or scientific thinking to define problems, collect data, establish facts, and draw valid conclusions. Have knowledge of advance mathematical and statistical techniques. Comprehension and write reports, write or edit articles for publications as newspapers, magazines and technical or scientific journals, prepare and deliver lectures, interview counsel or advise people, and evaluate engineering technical data.

6 - Seventeen years of schooling. Apply principles of logical or scientific thinking to a wide range of intellectual and practical problems, deal with formulas and scientific equations. Have the ability to complete the same type mathematical problems and work related duties as number five.

The Specific Vocational Preparation (SVP) "is an expression of the time required to learn the techniques and skills needed for satisfactory performance in an occupation. SVP and GED are separate, although related factors, which are interdependent in their functions: both must be considered in determining the training time requirements of a give occupation" (Minister of Supply and Services Canada, 1989, p. 5). It is a numerical code that ranges from one to nine.

1 Short demonstration

2 Anything beyond short demonstration up to and including 30 days.

3 Over 30 days up to and including three months.