COMPARISON AND PREDICTION OF THE LEVEL OF CAREER ASPIRATIONS OF ADOLESCENT MALES AND FEMALES

by

WENDY ANN JOHNSTON

B.Ed., The University of British Columbia, 1980

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF

THE REQUIREMENTS FOR THE DEGREE OF

MASTERS OF ARTS

in

THE FACULTY OF GRADUATE STUDIES

Department of Counselling Psychology

We accept this thesis as conforming

to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

April 1992

In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

(Signature)

Department of Counselling Psychology

The University of British Columbia
Vancouver, Canada

Date April 22, 1992

ABSTRACT

The purpose of the study was to investigate gender differences in educational and occupational aspirations, and commitment to work and to home and family of adolescents. Attempts were made to identify factors that are associated with the levels of aspirations. The factors considered were family SES, parents' educational level, grade-point average, and commitment to working, studying, home and family, community services, and leisure. Comparisons were made regarding the number of same-gender-dominated, opposite-gender, and balanced-gender occupations selected by the males and females.

The 208 Grade 11 and 12 students, selected from four Vancouver Schools, completed a questionnaire that included: personal information (sex, age, grade, and grade-point average); family background (education and employment information of parents/guardians); adolescent's future plans (educational and occupational aspirations). Subjects also completed the commitment scale of the Salience Inventory to determine their commitment to work, home and family, studying, leisure, and community service. T-tests, step-wise multiple regression, and chi-square analyses were conducted on the data.

At the $p < .05$ level, no statistically significant gender-based differences were found between the level of educational or occupational aspirations, or commitment to work or to home and family. The regression analysis indicated that grade-point average, commitment to studying, family SES level, and commitment to work were predictive males' educational aspirations; grade-point average, commitment to

studying, and father's educational level were predictive of females' educational aspirations; family SES level and commitment to studying were predictive of males' occupational aspirations; and grade-point average, father's educational level, and commitment to studying were predictive of females' occupational aspirations. The chi-square analysis indicated there was a significant relationship between a subject's gender and the percent of women in the aspired to occupation.

The results of this study indicated that there are not significant gender differences in the levels of educational and occupational aspirations of adolescents. However, different factors were seen to predict the levels of educational and occupational aspirations of adolescent males and females. The results also showed that although females are beginning to select non-traditional occupations, males still select mainly traditional occupations.

TABLE OF CONTENTS

LIST OF TABLES

ACKNOWLEDGEMENTS

Appreciation is expressed to the Vancouver School Board Student Assessment and Research Department and the schools and teachers whose participation made this research possible and also to Dr. Donald Macnab for making the Salience Inventory available for this research. Special thanks is also given to my Committee Chair, Dr. Richard Young, and the other committee members, Dr. David Bateson and Dr. Beth Haverkamp, for their assistance.

Also, thanks to my friends Kim, Dianne, Joan, Jacquie, and Laurie for their support and assistance.

CHAPTER ONE

Statement of the Problem

A career is defined as "the combination and sequence of roles played by a person during the course of a lifetime" (Super, 1980, p. 282). Greenhaus and Sklarew (1981, p. 5) agree that the "concept of 'career' has a lifespan connotation." Super (1980) discusses the nine roles that an individual can move through during his/her career: child, student, leisurite, citizen, worker, spouse, homemaker, parent, and pensioner. These roles vary in importance to an individual as he/she moves through life (Nevill & Super, 1986). The Work Importance Study, a twelve-country project and related studies considered the roles of work, study, homemaking, leisure, and community service as appropriate roles that should be studied relating to career decisions (Nevill & Super, 1986, 1988; Macnab, Fitzsimmons & Casserly, 1985; Super, 1990; Super & Nevill, 1984). The importance of these five roles is a determinant of the time and energy that will be devoted to them (Nevill & Super, 1986).

The "behavioral life of an individual is a stream of activity characterized by change from one activity to another" (Atkinson, Lens, & O'Malley, 1976, pp. 30-31). Focus of theoretical interest is on the change in activity - ending one activity and beginning another (Atkinson, Lens, & O'Malley, 1976). Decisions must be made at times that an individual moves from one role to another. One of these decision points occurs when a student considers entering college or university after completing high school (Danziger, 1983; London & Greller, 1991; Super, 1980).

According to Levinson's model (Ornstein, Cron, & Slocum, 1989) this is considered the early adult transition stage that takes place from ages 17-22 and is a time for career and life exploration. Individuals begin thinking about separating themselves from the familiar institutions such as parents and school and begin thinking about their place in the adult world (Ornstein, Cron, & Slocum, 1989). Osipow (1990) believes that a career theory should cover these decision points and that this transition of leaving high school in a major transition point for adolescents.

Educational and Occupational Aspirations

Educational and occupational decisions are not necessarily one decision since different educational routes can lead to a similar occupation and similar educational routes can lead to different occupations (Osipow, 1986). Educational decisions are important since the level and area of study is one determinant of future occupations (Betz & Fitzgerald, 1987; Marini, 1978; Super, 1980). London and Greller (1991) discussed the changing nature of jobs. As use of technology increases, a higher level of education and skill is required for a successful career and more frequent job changes may be required (London & Greller, 1991). The first occupation entered is also important, as this is another determinant of later possible occupations (Super, 1980).

Farmer, Keane, Rooney, Vispoel, Harmon, Lerner, Linn, and Martin (1981, p. 8) defined occupational aspirations as "the level of occupation that a person says he or she is interested in or expects to end up in" and educational aspirations as "the level of education a person expects to complete." Marini (1978) stated that

aspirations of adolescents are of particular interest because it is a time they are about to make choices as they leave school. Based on their seven-year follow-up study of Wisconsin high school students, Sewell and Hauser (1975) and Sewell and Shah (1967) reported that the level of occupational and educational aspiration plays a role in later career achievement. Aneshensel and Rosen (1980), Danziger (1983), Farmer (1985a), Farmer, et al. (1981), and Marini (1978) also reported that adolescent expectations are related to their attainments as adults. Therefore, educational and occupational aspirations are both measured in this study as in several previous studies (Farmer, 1983, 1985a, 1985b; Farmer, et al., 1981; Holms & Esses, 1988).

Role Salience

Vocational psychologists have recently started to study the concept of role salience, which is the importance of the role to the individual at a given point in time (Nevill & Super, 1986). The five major roles of student, worker, homemaker, citizen, and leisurite need to be studied together along with the importance of role salience (Nevill & Super, 1988). Brown (1990) emphasized the importance of considering roles others than work because needs of many individuals cannot always be met in the workplace. Individuals differ in the degree to which work figures in their lives (Nevill & Super, 1986). Roles other than work have begun to command more attention and the relative importance of the work role needs to be considered in context of other life roles (Nevill & Super, 1986). For some individuals, work may not be the central role and other roles such as leisure and

homemaking may be more important (Fitzsimmons, Macnab & Casserly, 1985; Super, 1990). The number and strength of competing, time consuming activities will lessen the amount of time given to each activity (Atkinson, Lens, & O'Malley, 1976). Nevill and Super (1988) stated that more research was needed on the importance of the five roles of work, homemaking, studying, leisure, and community service, and their importance to educational and occupational behaviour at various ages and social levels. Nevill and Super (1986) also felt that it would be valuable for research to study the commitment to these roles as it is related to occupational differences. Therefore, commitment to the five roles of working, studying, home and family, community service, and leisure will be measured in the present study.

Gender-Based Comparisons

Originally, research on career development focused on male career development only, since it was felt that women's career development was uncommon, and where it existed, the male model would be sufficient (Betz & Fitzgerald, 1987; Harmon, 1981). In the early 1900's, women were members of the work force until marriage and family unless they did not have a husband to support them (Betz & Fitzgerald, 1987). Women, however, began entering the labour force during World War II and the number of working women has increased since that point (Betz & Fitzgerald, 1987; Holms & Esses, 1988; Lemkau & Pottick, 1984; London & Greller, 1991; Lueptow, 1981).

In the 1960's and 1970's, events such as the women's movement caused researchers to start to focus interest on the career development of women (Betz & Fitzgerald, 1987; Brown & Brooks, 1990; Hackett, Lent, & Greenhaus, 1991). Current aspirations of young women usually now include both work and family roles (Betz & Fitzgerald, 1987; Aneshensel & Rosen, 1980). The traditional role of wife and mother may not be the desired career path for the majority of women (Gernstein, Lichtman & Barokes, 1988).

The majority of working age women now participate in the labour force (Statistics Canada, 1990). In 1975, 67% of women between the ages of 20 and 24, 52.9% of women 25 - 34, 51.5% of women 35 - 44, 46.1% of women 45 - 54, and 30.8% of women 55 - 64 participated in the labour force (Statistics Canada, 1990). By 1988, these figures had increased to 74.9% between 20 and 24, 74.9% between 25 and 34, 76.2% between 35 and 44, 66.6% between 45 and 54, and 35.5% between 55 and 64 (Statistics Canada, 1990). In 1970, approximately 33% of the total labour force were women, and by 1988 women accounted for 44% of the labour force (Statistics Canada, 1990).

Changing roles show more women working outside the home and more men raising children (Farmer et al., 1981). In 1975, 41.6% of married women and 85.1% of married men were members of the work force, and by 1988, 59.1% of married women and 79.5% of married men were members of the work force (Statistics Canada, 1990). In 1976, only 43% of women with children under 16 years of age were members of the work force, but by 1988, this figure had increased to 67% (Statistics Canada, 1990). Since more women are entering the

labour force, there is a need to prepare adolescent women for the reality of the labour market in the form of the anticipated labour force participation (Holms & Esses, 1988).

Most research has not compared the sexes directly, and Osipow (1986) felt that this direct comparison was needed in order to determine what and how large the differences in women's and men's career development actually are. Fitzgerald and Crites (1980) believe that a similar process is involved, but that women's career development is more complex than men's career development. According to Kriger (1972), women's career decisions involve two decisions: first, whether to work and the degree of focus work will have; and second, what occupation to choose, whereas men need only decide on an occupation.

Fitzgerald and Crites (1980) reported that all people share the need for self-fulfilment through meaningful work. However, Brown (1990) questioned whether or not work is the most salient of life roles. Women's achievement, however, is inhibited by sex-role socialization even though a number of women do have the same motivation as men (Fitzgerald & Crites, 1980). Attention to the career motivation in women is becoming important because of the increased participation of women in the labour force (Farmer, 1985b). Kriger (1972) found that women in male-dominated occupations were the most achievement oriented, women in traditional female-oriented occupations were second, and homemakers were the least achievement oriented. As stated by Osipow (1986, 142) ". . . work 'occupies' all of us of significant portions of our lives" and . . . "that work exerts a strong influence on life style".

The effect of family issues on women's career development has been studied. However, its effects on both women's and men's career development should also be studied (Osipow, 1986). From early childhood, young women are socialized to become wives and mothers and young men are socialized to work and provide for their families (Aneshensel & Rosen, 1980; Betz & Fitzgerald, 1987). Since the socially accepted role for a woman is not the breadwinner, young women have been able to choose between a commitment to homemaking or to work (Kriger, 1972). Women are still exposed to pressure to achieve success in marriage and childrearing more than pressure to achieve career and economic independence (Danziger, 1983). The choice between work and marriage, and the influence of marriage on career is important for men as well women (Fitzgerald & Crites, 1980). Further study is needed about the gender differences in commitment to work and to family (Super & Nevill, 1984). Therefore, gender-based differences in educational aspirations, occupations aspirations, commitment to work, and commitment to home and family will be compared in this study.

Influences on Educational and Occupational Aspirations

Most previous studies did not consider commitment of work and commitment to home and family as influences of level of occupational and educational aspirations. However, Farmer (1985b) felt that it would be an interesting question for future research to consider how commitment to working affects aspiration levels. Homemaking is not considered an occupation in itself because it is not a paid occupation. It is, instead, considered an influence on occupation choice, not

the choice itself (Fitzgerald & Crites, 1980). Aneshensel and Rosen (1980) found that plans for future adult domestic roles were related to female adolescents' occupational aspirations, but not to male adolescents' occupational aspirations. All young people should consider the importance of both work and family roles and use this information in career planning (Farmer et al., 1981). Osipow (1986) stated that the effect of family issues on both men and women should be researched. Therefore, effects of commitment to work and commitment to home and family on level of educational and occupational aspirations for both adolescent males and females with be studied.

Sewell, Haller, and Straus (1957) and Sewell and Hauser (1976) found that educational and occupational aspirations of adolescents were associated with family socioeconomic status (SES) level, intelligence level, and parental educational level. Featherman and Carter (1976) reported that family SES level, parental educational level, and students' grade point average were associated with educational and occupational aspirations. Sewell and Hauser (1975) found that students' grade point average was a better indicator of future aspirations than intelligence level. Several studies (Farmer, 1985a, 1985b; Farmer et al., 1981; Holms & Esses, 1988) included family SES level and students' grade point average as variables affecting adolescent aspirations. Betz and Fitzgerald (1987), however, felt that parental educational level was also an important variable. Falk and Salter (1978) and Goodale and Hall (1976) reported that both father's and mother's educational level had a statistically significant relationship with daughter's educational and occupational aspirations. Falk and Salter (1978) also felt that

because of the importance of mother's educational level on the level of daughter's educational aspirations, mother's educational level should be included in future research. This study, as in Danziger (1983), therefore includes the three variables of family SES level, students' grade point average, and parental educational level.

Gender Domination of Occupations

Many occupations are still dominated by a single gender since few members of either sex enter opposite-gender dominated occupations (Astin, 1984; Gottfredson, 1981; Herzog, 1982; Lemkau, 1984; London & Greller, 1991; Marini, 1978). Occupational stereotypes are learned early in life and both sexes select mainly gender-stereotypical occupations (Betz & Fitzgerald, 1987). Little change occurred in the pattern of gender-typing of occupations between the years 1964 to 1975 (Leuptow, 1981) and the years 1976 and 1980 (Herzog, 1982). This is a negative situation for both men and women, however, it more seriously limits the occupations for women (Gottfredson, 1981). Society has tended to undervalue the kinds of occupations traditionally chosen by women (Astin, 1984). In 1987, full-time working women earned only 66% of the amount of men's earnings (Statistics Canada, 1990).

Women have increased their labour force participation, however, only a few have entered male-dominated occupations (Hannah & Kahn, 1989). Although most young women are still aspiring to the restricted range of tradition female-dominated occupations (Betz & Fitzgerald, 1987; Fitzpatrick & Silverman, 1989), there has been some increase in the number of non-traditional career aspirations (Betz &

Fitzgerald, 1987), although this increase has occurred mainly at the professional level only (Hannah & Kahn, 1989). Heilman (1979), however, found that the lack of women in male-dominated occupations deters young women from aspiring to those occupations. As the percentage of women employed in an occupation increases, young women become more interested in considering that occupation and feel more confident of their success, whereas young men become less interested in the occupation and believe it to be less socially favourable (Heilman, 1979). This is significant for women because female-dominated occupations are generally lower in status and salary than male-dominated occupations (Betz & Fitzgerald, 1987).

Men are less likely than women to enter opposite-gender-dominated occupations (Farmer, 1983; Leung & Harmon, 1990). There has been a major social movement to encourage women to enter cross-gender-dominated occupations, however, this has not occurred for men (Hannah & Kahn, 1989). There are also more incentives for women to enter cross-gender-dominated occupations than for men (Hannah & Kahn, 1989) since women's professions are lower in status and pay than men's professions (Lemkau, 1984). Young men are socialized early to seek high status, high pay occupations (Lemkau, 1984). Broadening career options should apply equally to men and to women (Fitzgerald, 1980). Both men and women must cross boundaries traditionally defined for their gender if occupational gender-segregation is to be overcome (Lemkau, 1984).

Gottfredson (1981) developed her theory to explain why individuals choose mainly same-gender segregated occupations. She reported that young children

learn appropriate gender-roles early and thus eliminate all occupations that do not fit the stereotype; later, they eliminate occupations that are not of acceptable prestige level according to family SES; and, finally, during adolescence, individuals consider their interests, capacities, and values (Gottfredson, 1981). The result is the individual's zone of acceptable alternatives, from which they try to select a specific occupation (Brooks, 1990; Gottfredson, 1981; Hannah & Kahn, 1989). This zone of acceptable alternatives expands until age 18 and then stabilizes with respect to prestige and gender-type of occupation (Leung & Harmon, 1990). Women are generally required to select from a restricted range (Betz & Fitzgerald, 1987; Corder & Stephen, 1984). When individuals have to compromise on their choice, they first sacrifice their interests, second, the prestige, and only finally, the gender-type of the occupation (Gottfredson, 1981). This causes many occupations to remain segregated by gender (Gottfredson, 1981). Gender differences in occupational aspiration levels have been found to parallel gender segregation levels in the occupational structure (Marini, 1978), therefore, this study will investigate gender composition of adolescent occupational aspirations.

Objectives of Research

The objectives of this research are to study the gender differences in educational and occupational aspirations, commitment to work, and commitment to home and family of adolescent males and females. Attempts will be made to identify the factors that are associated with the observed levels and differences of occupational and educational aspirations. The predictor factors considered will be

commitment to working, commitment to studying, commitment to home and family, commitment to community services, commitment to leisure activities, family SES, mother's and father's educational level, and grade-point average. Comparisons will also be made regarding the number of same-gender-dominated occupations, opposite-gender-dominated occupations, and balanced-gender occupations selected by adolescent males and females.

CHAPTER TWO

Review of the Literature

Educational and occupational decisions are both important decisions to be considered when an adolescent approaches graduation from Grade 12. In this chapter, literature and research relevant to the present study are discussed and compared. The chapter is organized into three main sections - gender stereotypes and socialization, comparison of educational and occupational aspirations of males and females, and finally the factors associated with the prediction of educational and occupational aspirations.

The first section discusses socialization and stereotypes that exist in the environment when adolescents make career decisions. Currently held gender-based stereotypes are discussed as well as how they may influence decision making through modelling and encouragement from others.

There is a considerable body of research available that discusses the career development of males, as well as a growing body of research about the career development of females. There is, however, limited research available that compares the career development of males and females. Available comparisons of adolescent males' and females' career aspirations will be discussed in the second section of this chapter. A discussion about the gender composition of occupations will also be included in this section.

Studies investigating the career aspirations of adolescents include a range of variables. Recent studies have reported conflicting results about the factors that

are expected to predict occupational and educational aspirations. The third section of this chapter discusses the following factors: commitment to the roles of work, home and family, studying, leisure, and community service; family SES; academic achievement; and parents' educational level. Comparisons of the different ways these factors affect adolescent males and females is discussed.

Socialization and Stereotypes

An individual's behaviour is influenced by the environment and the people he or she is associated with (Bandura, 1978). Career development theories have not recognized the process through which societal beliefs and expectations affect vocational development, especially for women (Brooks, 1990).

Stereotypes (commonly held beliefs) are not necessarily negative, they are social categories that operate in similar ways as cognitive categories (Six & Eckes, 1991). Bergen and Williams (1991) compared gender-based stereotypes held in 1972 with those held in 1988 and found that little change had taken place over the decade and a half. Men are stereotypically seen as the breadwinners and family providers (Bergen & Williams, 1991; Betz & Fitzgerald, 1987; Herzog, 1982; Janman, 1989; O'Leary, 1974). They are seen to value status and making money (Herzog, 1982; Lemkau, 1984; McCandles, Lueptow & McClendon, 1989). Women, however, are stereotypically seen as nurturant wives and mothers who stay at home to raise children (Bergen & Williams, 1991; Betz & Fitzgerald, 1987; O'Leary, 1974). Occupational considerations are secondary to family considerations (Janman, 1989). Women are not designated as breadwinners

(Kriger, 1972), and they value marriage and making a contribution to society (McCandles, Lueptow & McClendon, 1989).

In a study involving English "A" Level adolescents who were approximately 17 years of age, Janman (1989) found that women's success was seen as negative by both the adolescent males and females involved in the study. If a woman was successful, she was seen as less happy with her success than a man, less attractive, and less likely to be successful in a long-term relationship (Janman, 1989). The subjects felt that the woman should give up her job to look after children, and that if the man were offered a promotion, he should take it and she should follow (Janman, 1989).

Socialization works from early childhood and occupational stereotypes are learned early (Betz & Fitzgerald, 1987). Two ways that individuals may learn behaviours are from vicarious experiences or modelling, and from judgements voiced by others (Bandura 1977, 1978, 1982). Modelling is a powerful source of learning, since observing others can be a guide to developing new behaviour patterns (Bandura, 1977, 1978, 1982). Few young women have the opportunity of observing intelligent, attractive, respected women in their careers and this lack of role models hinders young women (O'Leary, 1974). There is a lack of successful role models combining work and family roles, and in non-traditional occupations (O'Leary, 1974). The lack of women in some jobs deters women from considering entry into those occupations (Heilman, 1979). A lack of professional women role models and mentors is a barrier to women in higher education (Douvan, 1976).

There is also more encouragement given to males for career pursuits (Hackett & Betz, 1981).

All individual decisions are made in the context of the societal environment. It is important to consider this environment when examining differences in the aspirations of adolescents.

Gender Comparisons of Aspirations

Educational Aspirations

An individual's decision regarding his or her educational aspiration is one of the most important career decisions he or she will make (Betz & Fitzgerald, 1987) since education is viewed as one of the keys to success in occupations, earnings, and social advancement in Canadian society (Statistics Canada, 1990). Achieving the appropriate education opens the gate for occupational entrance. Therefore, the nature and level of educational attainment is therefore an important element in subsequent adult career achievement (Betz & Fitzgerald, 1987). Higher education attainment is associated with a greater chance of being in the labour force, higher earnings, and a lower of chance of being unemployed (Statistics Canada, 1990). Between the years 1975 and 1988, the largest increases in labour force participation rates occurred for women with post-secondary education (Statistics Canada, 1990). Marini (1978) concluded that the most obvious route to higher status is through higher education.

In the 19th Century, higher education was considered inappropriate for women (Betz & Fitzgerald, 1987). Recently, however, the number of women in

universities and community colleges has been steadily increasing, but the number has been increasing slowly in Trade and Vocational programs (Statistics Canada, 1990). Women earned 53% of the awarded Bachelor degrees in 1987, up from 38% in 1971 (Statistics Canada, 1990). There is an inverse relationship between the level of the degree and the percentage of women earning that degree (Betz & Fitzgerald, 1987) - "the higher the fewer" (Betz & Fitzgerald, 1987, p. 63). However, the percentage of women earning degrees at all levels is increasing. Women earned 45% of the awarded Graduate degrees in 1987, up from 22% in 1971 and 29% of the awarded Doctoral degrees in 1987, up from 9% in 1971 (Statistics Canada, 1990).

Women are still concentrated in traditional fields such as education, fine and applied arts, humanities, nursing, and social sciences. However, they are increasing their enrolment in male-dominated fields (Statistics Canada, 1990). In Biological Sciences, women increased from 39% of the graduates at the Bachelor's level in 1971 to 57% in 1987; in Commerce, from 6% in 1971 to 44% in 1987; in law, from 9% in 1971 to 47% in 1987; and in Medicine, from 13% in 1971 to 42% in 1987 (Statistics Canada, 1990). Women have increased at a slower rate in Engineering, from 1.2% in 1971 to 12% in 1987 and in Mathematics and Physical Sciences, from 19% in 1971 to 29% in 1987 (Statistics Canada, 1990). The distribution of fields of study for men has changed only slightly between the years 1971 and 1987 with decreases in entrance into fields such as education and humanities and increases in fields such as social sciences, commerce, engineering and applied sciences, and computers (Statistics Canada, 1990).

The majority (53%) of full time students at Community Colleges are now women (Statistics Canada, 1990). The number of women attending is growing at a faster rate than the number of men (Statistics Canada, 1990). In 1971, 11% of the men between the ages of 18 and 21 attended college and 10% of the women attended, but by 1987 19% of the men attended college and 22% of the women attended (Statistics Canada, 1990). The majority of women are still enrolled in traditional fields such as health sciences, social sciences and services, secretarial sciences, and nursing; however, more women are starting to enrol in traditionally male fields such as business and commerce, technologies, and natural sciences and primary industries (Statistics Canada, 1990). There is not a similar movement of men into traditionally female fields (Statistics Canada, 1990).

Men still dominate the enrollment in Trade and Vocational programs (Statistics Canada, 1990). Between the years 1983 and 1987, women increased from 30% of the students to 37% (Statistics Canada, 1990). Both men and women remain enrolled in mainly same gender-dominated fields (Statistics Canada, 1990).

Research showed limited contradictory evidence about gender-based differences in the level of educational aspirations of adolescent males and females. After reviewing available research literature, Marini (1978) concluded that adolescent males aspired to higher levels of education than adolescent females. In the spring of 1980, Farmer et al. (1981) collected data on career aspirations of adolescents in grades 9 and 12. The sample was collected in Illinois and included 482 9th grade females, 482 9th grade males, 447 12th grade females, and 452 12th grade males. In the analysis, educational and occupational aspirations were

combined as one item and no gender-based differences in the level of aspirations was found (Farmer et al., 1981). Farmer (1983) collected other data in Illinois using a sample of 579 males and 655 males. In this study, educational and occupational aspirations were studied separately and no gender-based differences were found in the educational aspirations of adolescents (Farmer, 1983). Danziger (1983) also found no gender-based differences in the level of educational aspirations. These data were collected in 1974 in a midwestern United States town and consisted a sample of 145 adolescents, 70 males and 75 females, from grades 9 to 12 (Danziger, 1983).

Although few studies have compared the educational aspirations of adolescent males and females, the above research studies all agree that gender-based differences do not exist in educational aspirations of adolescents. Based on these findings and the current enrollment patterns of Canadian Universities and Colleges, gender-based differences in the level of educational aspirations of the adolescent subjects in this study are not expected.

Occupational Aspirations

The extent of labour force participation of women is reaching that of men, however, the nature of participation is not (Betz & Fitzgerald, 1987). In 1975, 44.4% of the women and 78.4% of the men between the ages of 15 and 65 participated in the labour force, but by 1988 these figures had changed to 57.4% of the women and 76.6% of the men (Statistics Canada, 1990). Many women are still economically disadvantaged in lower status occupations (Betz & Fitzgerald, 1987).

In 1988, 57.8% of employed women worked in clerical, services, and sales occupations, whereas, only 25.3% of men worked in these positions (Statistics Canada, 1990). Women held 79.8% of the clerical positions, 36.2% of the managerial and administration positions, and only 2.1% of the jobs in construction, forestry, and mining (Statistics Canada, 1990). In 1986, the five top occupations for women were secretaries and stenographers, sales clerks, bookkeepers, cashiers and tellers, and nurses (Statistics Canada, 1990). Also, when comparing earnings of full-time employees, women still earn only 66% of the earnings of men (Statistics Canada, 1990).

According to Betz and Fitzgerald (1987), women fail to use their abilities and education in occupational pursuits. This situation results in a loss to themselves and society. Marini (1978) concluded that males' level of education is related to their occupational attainment, but that females overprepare themselves for their occupational attainment. Danziger (1983) felt that early socialization convinces women that high occupational aspirations are unrealistic, but Gerstein, Lichtman, and Barokas (1988) expected society would see changes in the occupational aspirations expressed by women in the 1980's. Betz and Fitzgerald (1987) also felt that women's career aspirations would start to change as women, like men, assumed that work would be a major part of their lives.

Marini (1978) reported that previous research showed that males' occupational aspirations were higher than females, and that females' occupations were in the average prestige range, not high and not low. Based on 1974 data, Danziger (1983) found similar mean levels of occupational aspirations, however,

males' occupational aspirations were at a higher level and more variable than females' aspirations. Male and female aspirations were also found to be similar by Farmer et al. (1981) based on the combined educational and occupational aspiration scale. Based on a separate occupational aspiration scale, Farmer (1983) found that female adolescents held higher occupational aspirations than males. Corder and Stephan (1984) concluded that women hold lower occupational goals than men based on sex-role socialization.

The reviewed studies show conflicting evidence about the existence of gender-based differences in occupational aspirations of adolescent males and females, therefore, more research is needed. In the present study, the researcher will attempt to determine more fully any gender-based differences in the level of occupational aspirations.

Gender Composition of Occupations

Men and women are both restricted to a limited range of occupations since they both avoid opposite-gender dominated activities (Astin, 1984). This is more limiting for females (Gottfredson, 1981), since women are concentrated in a small number of traditionally female jobs that are lower in status and pay than traditionally male jobs (Betz & Fitzgerald, 1987). Broadening career options, however, should apply equally to men and women since the male is also limited to behaviours and options following the male gender role (Fitzgerald, 1980). Most research involving gender stereotyping and bias concerns women, and the existence and effects of bias towards men have been ignored (Fitzgerald, 1980).

Gerstein, Lichtman, and Barokas (1988) reported that, although there have been some shifts in occupational plans, most occupations continue to be dominated by a single gender. According to Herzog (1982), gender differences in aspirations parallel existing gender segregation in the labour force. Both genders select occupations in the professional and managerial area, but not in other categories (Herzog, 1982).

Gender-based-stereotyping of occupations follows Gottfredson's (1981) theory that young children learn early in life to rule out occupations that are inappropriate for their gender and then they rule out occupations that are unacceptably low in social class level. She believes that adolescents will first compromise on interests, then prestige level, and finally gendertype as a last resort (Gottfredson, 1981). In her analysis of data collected in Illinois from 1,234 subjects, Farmer (1983) concluded that male adolescents followed this theory, whereas more female adolescents (35%) chose non-traditional occupations. Only 3% of the adolescent males in the study chose non-traditional occupations (Farmer, 1983). Farmer (1983) also found that males and females choose a similar proportion of gender-balanced careers.

Hannah and Kahn (1989) studied 173 female and 166 male grade 12 students in two Vancouver, B.C. schools, one from a high SES area and one from a low SES area. They found that males selected mainly same-gender occupations but that females, especially high SES females were choosing more male-dominated occupations.

The above research seems to indicate that the gender composition of occupations is starting to change, at least for females. This present study will add to this growing body of research regarding the gender composition of adolescents' occupational aspirations.

Discussion of Factors

Commitment to Roles

Social tradition and individual differences are important determinants of an individual's commitment to a particular role or to a variety of roles (Super, 1990). Adolescent males have been shown to have a higher commitment to work than to home and family, and adolescent females have been shown to have a higher commitment to home and family than to work (Super & Nevill, 1984). Needs of the individual cannot always be met in the workplace (Brown, 1990), therefore, more attention is being paid to the non-work areas such as home and family, leisure, studying, and community service (Fitzimmons, Macnab & Casserly, 1985). Self-realization was never, and is not likely to be, achieved only through the work role (Super, 1990). In order to understand career decisions, a comparison of the relative importance of the five roles of student, worker, homemaker, citizen, and leisurite is needed (Macnab, Fitzsimmons, & Casserly, 1985). If the work role is not important to an individual, attention should be paid to the choice of, and preparation for, the other roles (Super, 1990).

Commitment to Work. Commitment to work involves the degree to which an individual sees an occupation as central to his or her adult life and thus involves long-range planning (Farmer et al., 1981). It involves a future orientation about the priority of the work role in relation to other roles (Farmer et al., 1981). Although career motivation may be set early in life, it varies with the changing importance of the other roles and may change as commitment to other roles changes (Farmer, 1985b).

Only three studies have compared the levels of commitment to work of adolescent males and females. Cochran (1983) compared the degree to which adolescents felt oriented or directed to an occupation. His results, based on 177 male and 192 female grade 12 students in Burnaby, B.C., showed that adolescent males held a stronger orientation to work than adolescent females (Cochran, 1983). Farmer (1983) and Farmer et al. (1981) reported opposite results based on their studies in Illinois. They reported a higher commitment to work for the female subjects than for the males (Farmer, 1983; Farmer et al., 1981). According to Farmer et al. (1981), the views on the role of work were coming closer together for the sexes in the 1980s.

A few studies have discussed the commitment to work of adolescents females. Women whose adult lives do not include work are now the exception, not the rule (Betz & Fitzgerald, 1987). One of the most important predictors of women's commitment to work is their plans for marriage and family (Betz & Fitzgerald, 1987). According to Corder and Stephen (1984) women are less likely to select occupations requiring a high work commitment because they do not want

this commitment to interfere with marriage and family. High prestige, competitive occupations are seen to jeopardize a women's chances to marry and to interfere with family life (Aneshensel & Rosen, 1980).

There is only a limited amount of research that compares the level of commitment to work of adolescent males and females, and the available research reports conflicting results. This study, therefore, will attempt to clarify this issue as well as investigate the influence that the level of commitment to work has on adolescents' educational and occupational aspirations.

Commitment to Home and Family. Commitment to life roles has been based on gender, and the female role has been family directed (Betz & Fitzgerald, 1987). According to traditional socialization, domestic responsibilies should take precedence over an occupation for women (Aneshensel & Rosen, 1980). Even though other roles have been increasing in importance, women have not necessarily lost the desire for the marriage/family role (Aneshensel & Rosen, 1980).

Aneshensel and Rosen (1980), Farmer (1985), Holms and Esses (1988), and Super and Nevill (1984) discussed the importance of considering both family and work roles when researching career aspirations of both males and females. Aneshensel and Rosen (1980) completed research in New York in 1974 using 507 female subjects and 534 male subjects in grades 11 and 12. They found that domestic expectations were significantly correlated with the occupational aspirations of the females but not with the males' aspirations (Aneshensel &

Rosen, 1980). Male adolescents could formulate their occupational aspirations without considering anticipated domestic roles (Aneshensel & Rosen, 1980).

According to Betz and Fitzgerald (1987), plans for marriage and children is not a consistent predictor of commitment to work for women. Holms and Esses (1989) studied the career motivation of 317 students in grades 8, 10, and 12 in six urban Manitoba schools. No direct connection was found between commitment to marriage and family and commitment to work, and they concluded that the two measurements should be looked at independently (Holms & Esses, 1989). Farmer (1985a, 1985b) and Farmer et al. (1981), however, found that homemaking commitment had a significantly negative influence on career commitment for females, but had no significant influence for males.

A limited amount of research has compared the commitment to home and family with commitment to work of adolescent males and females, and has measured the influence that commitment to home and family has on adolescents' aspirations. Because of the limited number of studies, more research is needed. The present study will add to this body of research about the degree of influence that commitment to home and family has on adolescents' educational and occupational aspirations, as well as compare the level of commitment to home and family of adolescent males and females.

Commitment to Other Roles. Commitment to roles other than work and family has begun to command more attention since self-realization can be achieved in a constellation of life-career roles (Nevill & Super, 1986). Fitzsimmons, Macnab, and Casserly (1985), Nevill and Super (1988), and Super

(1980) emphasize the importance of considering all roles - working, studying, home and family, leisure, and community service - even though other studies (Farmer, 1983; Farmer, 1985a; Farmer, 1985b; Farmer, et al., 1981; Holms & Esses, 1988; Super & Nevill, 1984) only considered commitment to work and commitment to home and family. Fitzsimmons, et al. (1985) also emphasize that the concept that work as a central role may no longer be valid and that all roles should be considered.

This present study will investigate whether a high commitment to a role other than work might influence educational and occupational aspirations of adolescent males and females.

Socioeconomic Status

Socioeconomic status has been found to influence educational and occupational aspirations of both adolescent males and females (Farmer, et al., 1981; Holms & Esses, 1988; Lee, 1984; Sewell, Haller, & Straus, 1957; Sewell & Hauser, 1975, 1976; Sewell & Shah, 1967). Sewell and Hauser (1976) reported that the higher a students' socioeconomic class, the greater their chance was of continuing their education beyond high school, and that this educational attainment led to occupational attainment and the students' future place on the social hierarchy. Influences on educational aspirations will be discussed first, followed by a discussion on the influences on occupational aspirations.

The relationship between SES and educational aspirations holds for both genders. However, at the lower SES levels males are more likely than females to aspire to higher educational levels (Danziger, 1983; Marini, 1978; Sewell & Hauser,

1976). Higher SES families have more resources they can invest in prolonged schooling (Danziger, 1983; Spaeth, 1976). Males from lower SES backgrounds are less discouraged than females by their family's inability to pay for schooling when they have high ability (Danziger, 1983).

Cochran (1983) refers to an individual's occupational aspirations as a promissory adoption of a social position. Hannah and Kahn (1989) found that students choose occupations in prestige levels similiar to their SES background. Their study, conducted in two Vancouver, B.C. schools, included 173 female and 166 male subjects from a high SES area and a low SES area (Hannah & Kahn, 1989). Very poor and very wealthy individuals will generally find the occupations at the other end of the SES scale virtually closed to them (Super, 1990).

SES is one of the most consistent variables associated with adolescent males' occupational aspirations (Betz & Fitzgerald, 1987). Social origin is an important factor for adolescent males (Danziger, 1983).

Adolescent females' perception of occupational aspirations are principally a function of their social origin (Danziger, 1983). Females from higher SES families have occupational values and aspirations that resemble males' values (Danziger, 1983) and hold expectations of continuous labour force participation (Aneshensel & Rosen, 1980). According to Hannah and Kahn (1989), they also select more male dominated occupations since these occupations offer greater status and income than high status female occupations. Burlin (1976) found that adolescents from higher SES families had a stronger career orientation than adolescents from lower SES families, however, Bielby (1978) found that college students from lower SES

families had a higher career orientation than students from higher SES families. This study, however, involved a restricted range since it involved only individuals who attended college.

Hannah and Kahn (1989) found that adolescents tend to choose occupations in prestige levels comparable to family socioeconomic status. Gottfredson (1981) suggested that children and adolescents select occupations in an appropriate social class based on family background before considering the actual occupation and their interest in it. In a study involving 500 subjects in grades 8 to 12 in the Vancouver School District, McNulty and Borgen (1988) showed that when students considered shifting from an ideal to a real occupation, they shifted their interest field more often than giving up the prestige level of the occupation.

The findings of these studies were consistent in that family SES level is related to the educational and occupational aspirations of both adolescent males and females. This suggests that SES is a factor that has a powerful influence on educational and occupational aspirations of all adolescents.

Academic Achievement

Academic ability has be measured by intelligence level (IQ) (Danziger, 1983; Sewell, Haller, & Straus, 1957; Sewell & Hauser, 1975) or by school achievement (grade-point average) (Danziger, 1983; Farmer, 1985a, 1985b; Farmer et al., 1981; Sewell & Hauser, 1975). Sewell, Haller, and Straus (1957) and Sewell and Hauser (1975) found level of intelligence was related to both educational and occupational aspirations. However, Sewell and Hauser (1975) found that actual school grade-point average (GPA) was a better predictor than intelligence level. According to

Spaeth (1976), when students do well in school they form higher expectations and continue to do well, whereas students who do not achieve success lower their expectations and possibly drop out.

All reviewed literature agreed that academic achievement and/or perceptions of academic abilities influences male adolescents' occupational and educational aspirations, however, the results vary when looking at female adolescents' occupational and educational aspirations. In a review of the literature, Marini (1978) found school achievement was positively related to college plans and occupational aspirations of adolescent males and females but that there was a stronger effect on the plans of males than females.

Danziger (1983) collected data in 1974 in a white, midwestern United States town from 70 male and 75 female subjects in grades 9 to 12. School achievement was reported to be one of the main sources of influence for the level of the males' educational aspirations, however, it was found to be a weak predictor of the females' educational aspirations (Danziger, 1983). When looking at occupational aspirations, though, Danziger (1983) found school achievement to have a direct influence on the aspirations of males and females.

Farmer, et al. (1981) collected data from 929 females and 934 males in grades 9 and 12 in Illinois during the spring of 1980. They reported that increased ability led to higher educational and occupational aspirations for all subjects. In the study involving 317 females in grades 8, 10, and 12 in six urban Manitoba schools, Holms and Esses (1988) found that higher marks led to higher educational and occupational aspirations.

The research indicates that academic achievement influences both educational and occupational aspirations of both adolescent males and females. There is some disagreement regarding the degree it influences adolescent females' aspirations, therefore, more research is needed. In the present study, the researcher will attempt to determine more fully the association between school achievement, and educational and occupational aspirations of adolescents.

Parents' Educational Level

A variety of research has investigated the relationship between the educational achievements of parents and the educational and occupational aspirations of their adolescent offspring. This section will first discuss research relating to the educational aspirations of adolescents, and secondly, research relating to the occupational aspirations of adolescents.

Sewell and Hauser (1976) analyzed data collected in Winconsin in 1959 and follow-up data collected in 1964 and determined that higher educational levels achieved by both fathers and mothers were associated with a higher level of attainment of post high school education for their sons and daughters. In another study involving male adolescent subjects only, Featherman and Carter (1976) reported that both fathers' and mothers' educational achievements made a separate and positive contribution to their sons' educational aspirations. Analysis of data collected in 1966 and 1968 from 38 white females from rural, southern states showed that fathers' educational level and mothers' educational level both had a significant influence on their daughters' educational aspirations (Falk & Salter, 1978).

Goodale and Hall (1976) studied 437 high school sophomores from a northeastern United States city whose parents represented a wide range of occupational and educational levels. They divided the subjects into three groups representing students definitely planning on attending college, definitely not planning on attending college, and not sure at this point (Goodale & Hall, 1976). They found that students planning on attending college came from families whose parents had achieved the highest level of education and students not planning on attending college came from families where both parents had lower levels of educational achievement (Goodale & Hall, 1976). In both these groups, the mothers and fathers had similar levels of education (Goodale & Hall, 1976). The group of subjects who were not sure about attending college had parents with middle levels of education, however, there was a low correlation between the educational level achieved by both parents (Goodale & Hall, 1976).

The findings of these studies were consistent in that the achieved educational level of both parents had a positive correlation with the educational aspirations of both adolescent males and females. This suggests that educational achievements of parents is a positive influence on the educational aspirations of their adolescent offspring.

There has been limited research into the relationship between the educational achievements of parents and the occupational aspirations of adolescents. The research has included the level of aspiration and the degree of commitment to an occupation of adolescent females.

Falk and Salter (1978) reported that all measures of social origin that were included in the data collection in 1966 and 1968 (fathers' educational level, mothers' educational level, and breadwinners' occupation) had a statistically significant effect on the adolescent females' level of occupational aspiration, however, they did report that the mothers' level of education was the most important factor. Burlin (1976) and Bielby (1978) investigated the relationship between parental educational levels and daughter's career salience and choice of non-traditional occupations. Analysis of data collected by the National Opinion Research Centre in 1961, with five follow-up collections ending in 1968, showed that there was a positive relationship between the mothers' educational level and the atypicality of the daughters' occupational choice (Bielby, 1978). A negative relationship was also found between fathers' educational level and the level of the daughters' career salience (Bielby, 1978). Burlin (1978), however, found a positive relationship between the father's educational level and the choice of non-traditional occupations by their daughters.

Research into the association between the educational level of parents and the occupations aspirations of adolescents is limited and dated. In this study, the researcher will expand upon and update this information.

Research results have reported limited comparisons of the educational and occupational aspirations and level of commitment to work and commitment to home and family of adolescent males and females.

Socialization and gender stereotypes are still evident in the environment in which adolescents make educational and occupational decisions. Research has indicated some of the factors associated with the occupational and educational aspirations of adolescent males and females. Commitment to the roles of working, home and family, studying, leisure, and community service are emerging out of the research as factors that are associated with the level of adolescents' aspirations. They are also important considerations in interpreting career decisions. The other factors of SES, grade-point average, and mothers' and fathers' educational levels have also been shown to influence adolescents' educational and occupational aspirations. Based on this review of the literature, the following hypotheses were generated.

Hypotheses

Problem Statement

Are there differences in the level of career aspirations (educational and occupational) and the commitment to work and commitment to home and family of adolescent males and females? Do the factors of commitment to working, commitment to home and family, commitment to studying, commitment to community services, commitment to leisure activities, SES, educational level of father and mother, and grade-point average affect the level and differences in educational and occupational aspirations? Are the numbers of gender-dominated occupations, opposite-gender-dominated occupations, and balanced-gender occupations selected by adolescent males and females similar?

Hypothesis One

H_0: The level of occupational aspirations of adolescent females will not be significantly different from the level of occupational aspirations of adolescent males.

$\bar{X}_{\cdot OCCSESF} = \bar{X}_{\cdot OCCSESM}$

H_1: There will be a statistically significant difference between the level of occupational aspirations of adolescent females and the level of occupational aspirations of adolescent males.

$\bar{X}_{\cdot OCCSESF} \neq \bar{X}_{\cdot OCCSESM}$

Hypothesis Two

H_0: The level of educational aspirations of adolescent females will not be significantly different from the level of educational aspirations of adolescent males.

$\bar{X}_{\cdot EDUCPLANF} = \bar{X}_{\cdot EDUCPLANM}$

H_1: There will be a statistically significant difference between the level of educational aspirations of adolescent females and the level of educational aspirations of adolescent males.

$\bar{X}_{\cdot EDUCPLANF} \neq \bar{X}_{\cdot EDUCPLANM}$

Hypothesis Three

H_0: The degree of commitment to working of adolescent females will not be significantly different from the degree of commitment to working of adolescent males.

$\bar{X}_{\cdot WORKF} = \bar{X}_{\cdot WORKM}$

H_1: There will be a statistically significant difference between the degree of commitment to working of adolescent females and the degree of commitment to working of adolescent males.

$\bar{X}_{\cdot WORKF} \neq \bar{X}_{\cdot WORKM}$

Hypothesis Four

H_0: The degree of commitment to home and family of adolescent females will not be significantly different from the degree of commitment to home and family of adolescent males.

$\bar{X}_{\cdot HOMEFAMF} = \bar{X}_{\cdot HOMEFAMM}$

H_1: There will be a statistically significant difference between the degree of commitment to home and family of adolescent females and the degree of commitment to home and family of adolescent males.

$\bar{X}_{\cdot HOMEFAMF} \neq \bar{X}_{\cdot HOMEFAMM}$

Hypothesis Five

H_0: Socioeconomic status, grade-point average, educational level of mother and father, commitment to working, commitment to home and family, commitment to studying, commitment to leisure activities, and commitment

to community activities will not be significantly related to career and educational aspirations of adolescent males and females.

$\beta = 0$

H_1: At least one of socioeconomic status, grade-point average, educational level of mother and father, commitment to working, commitment to home and family, commitment to studying, commitment to leisure activities, and commitment to community activities will be significantly related to career and educational aspirations of adolescent males and females.

$\beta \neq 0$

Hypothesis Six

H_0: A relationship will not be found between the gender of the subjects and the gender dominance of subjects' occupational aspirations (same-gender dominated, opposite-gender dominated, or balanced-gender).

$f_{males} = f_{females}$

H_1: A relationship will be found between the gender of the subjects and the gender dominance of subjects' occupational aspirations (same-gender dominated, opposite-gender dominated, or balanced-gender).

$f_{males} \neq f_{females}$

CHAPTER THREE

Methodology

Sample

This general purpose of this study was to investigate the career intentions of adolescents at a time when they were about to act upon their decisions. Therefore, all subjects were in Grades 11 and 12 and between the ages of 16 and 19. Subjects were selected from senior students in the Vancouver School District. In order to ensure a range of socioeconomic backgrounds, students were selected from four schools - two Eastside and two Westside schools. Generally, the Eastside schools are from the lower socioeconomic areas of Vancouver, whereas the Westside schools are from the higher socioeconomic areas of Vancouver. The schools were selected by the Student Assessment and Research Department of the Vancouver School Board. Two Consumer Education 12 classes were selected by the teacher from each school. Since Consumer Education is a required course for graduation, this allowed for a good balance of male and female students. Data collection was conducted in the fall of 1991.

The subjects for the present study consisted of 208 adolescents, 93 males and 115 females. Table 3.1 on the following pages shows the number of male and female students in each class from each of the schools, as well as the participation rate of the selected class in the study. A total of 16 students were absent from

Table 3.1

Sample Description and Participation Rates

School & Class	Males in class	Females in class	Total in class	Males absent	Females absent	Total absent	% of class completing study
Westside School 1 Class 1	17	8	25	0	3	3	89
Westside School 1 Class 2	10	18	28	2	0	2	93
Westside School 2 Class 3	4	17	21	4	0	4	84
Westside School 2 Class 4	14	15	29	0	0	0	100
Eastside School 3 Class 5	13	14	27	1	1	2	93
Eastside School 3 Class 6	13	12	25	0	2	2	93
Eastside School 4 Class 7	11	14	25	2	0	2	93
Eastside School 4 Class 8	11	17	28	1	0	1	97
Total Sample	93	115	208	10	6	16	93

classes the day of testing, therefore, close to 93% of the students in the selected classes completed the study.

Instrumentation

Questionnaire

The subjects completed a questionnaire designed by the researcher that included: personal information (sex, age, grade, and grade-point average); family background (education of parents/guardians, and employment information of parents/guardians); adolescent's future plans (educational aspirations and occupational aspiration). (See Appendix A). This questionnaire was piloted with selected adolescents before being completed by the subjects to ensure that all questions were clear.

Each subject was asked to estimate their grade-point average on their last report card. Valiga (1987) reported that there is a high degree of accuracy in self-reported grades. A correlation of .941 was found when students' reported average letter grades were compared with average letter grades from transcripts (Valiga, 1987). The second section of the questionnaire dealt with family background. Students provided educational and occupational background regarding both father/male guardian and mother/female guardian. The third section of the questionnaire dealt with the subjects' future plans. The questions regarding the level of education were adapted from Farmer, et al. (1981) and Holms and Esses (1988). Holms and Esses (1988) included two separate items for one and two years of Community College, or Vocational/Technical/Trade School, however, in

this study, these were combined as one item. This item was designed to include subjects whose only education or aspired to education was Community College or Vocational/Technical/Trade school. The levels for University used by Holms and Esses (1988) were differentiated by number of years, whereas this study divided University education by degree - Bachelor's degree or Graduate/Professional Degree. It was felt that the degree that was earned by parents or the degree aspired to would be known by the students more than the number of years leading to that degree. Farmer, et al. (1981) included the degree in the education scale, however, they included separate items for Graduate and Professional degrees. This specific detail was not desired for this study. Occupational information will give more specific details. For expected occupation, subjects were first asked to indicate three occupations they have considered, and then to select the one they viewed as most likely for themselves from those three. The question was designed to hopefully limit the number of subjects that could not decide on one preferred occupation.

Salience Inventory

The subjects then completed the Commitment section of the Salience Inventory which is a part of the Life Roles Inventory (Fitzsimmons, et al., 1986) (see Appendix B). Several studies (Farmer, 1983; Farmer, 1985; Farmer, et al., 1981; Holms & Esses, 1988; and Super & Nevill, 1984) measured career commitment and homemaking commitment of adolescents using Super and Culha's Work Salience Inventory and Super and Nevill's (1986) Salience Inventory. The Salience Inventory (Nevill & Super, 1986), is the published version of the Work

Salience Inventory, and it was developed by the Work Importance Study Team, an international group of European, American, and Asian vocational psychologists led by Donald Super. The inventory used in this study, the Salience Inventory (Fitzsimmons, et al., 1985), was developed through the Canadian Work Importance Study Team. It is the Canadian version of the same inventory and is normed on a Canadian population of high school students, post-secondary students, and adults - both English and French (Fitzsimmons, et al., 1985).

The Salience Inventory measures participation, commitment and value expectations in five life roles: studying, working, community service, home and family, and leisure (Macnab, Fitzsimmons, & Casserly, 1986). It is based on the theory of Super's (1980) Life-Career Rainbow which considers six roles: son/daughter, student, leisurite, citizen, worker, and homemaker. The role of son/daughter is combined in the home and family role in the International inventories produced by the Work Importance Study Team (Nevill & Super, 1986).

The Commitment Scale of the Salience Inventory is an affective scale that measures how the subject feels about the importance of each of five roles. The roles include: Studying (learning new things), Working (making money or profits), Community Service (volunteering in the community), Home & Family (taking care of the home, the family, and other responsibilities), and Leisure Activities (having fun and relaxing) (Macnab, et al., 1986).

The Commitment Scale of the Salience Inventory consists of 10 stems and 50 items. For each stem, subjects indicate on a 4-point scale how important the stem is for each of the five roles. A rating of 1 indicates "Little or none", 2

indicates "Some", 3 indicates "Quite a lot", and 4 indicates "A great deal". To score the test, items for each role are summed giving a minimum score of 10 and a maximum score of 40 (Fitzsimmons, et al., 1985). If less than half the responses are missing for any one role, the average score for that role is used and the total score is calculated (Macnab, et al., 1986).

The inventory was developed as part of the work done by the International Work Importance Study which included representatives from Australia, Canada, Czechoslovakia, France, the Federal Republic of Germany, Greece, Italy, the Netherlands, Poland, Portugal, Spain, Switzerland, the United Kingdom, the United States, Yugoslavia, and Zimbabwe (Fitzsimmons, et al., 1985). One of the aims of the study was to develop conceptually adequate models to measure work salience. Sample items were written by each national team and were discussed at conferences so that end products were relevant both nationally and internationally (Fitzsimmons, et al., 1985). The original version of the Commitment scale contained 14 stems which amounted to 70 items. After a revision of the items, 10 stems were kept in the final version which amounted to 50 items (Fitzsimmons, et al., 1985).

Satisfactory internal consistency and repeated administrations measures reliability coefficients are reported for the Salience Inventory. Internal consistency coefficients on the Commitment scale for the English, Grade 12 sample are generally high and show a range of alpha coefficients of .84 to .96 (Fitzsimmons, et al., 1985, p. 61; Borg & Gall, 1989, p. 258). Repeated administrations were completed after a six-week time period. Test-retest correlations of the same

section ranged from a high of .81 for School and Community Service, to a low of .66 for Work, with a median of .78 (Fitzsimmons, et al., 1985, p. 62). Therefore, test-retest reliability was in the median range (Borg & Gall, 1989, p. 258). Based on the above coefficients, Macnab, et al. (1986) concluded that the scales are very reliable.

Content validity, construct validity, and concurrent validity are reported for the Salience Inventory. Content validity evidence was assured by reference to the literature on life roles. Items were developed based on the literature, field testing was completed, and items were selected based on the item-scale intercorrelations, subject reaction, and international consensus on appropriateness and coverage of item content (Fitzsimmons, et al., 1985). Convergent and discriminant evidence for validity are indicated. Correlations among different measures of a role (participation, commitment, and role values) were higher than correlations among the same measures of different roles (Fitzsimmons, et al., 1985). Discriminant evidence for validity was reported by a comparison of the Vocational Preference Inventory with the Salience Inventory; few significant relationships were found (Fitzsimmons, et al., 1985). However, when students were asked to rate academic activities, occupational activities, recreation activities, community activities, and family activities, correlations were significant on all corresponding roles on the commitment scale (Fitzsimmons, et al., 1985, p. 67). Differences in commitment to studying for high and low achievers in Grades 10 and 12, and differences in commitment to work for employed and unemployed people showed concurrent

evidence for validity (Fitzsimmons, et al., 1985). Therefore, validity coefficients were judged to be of an acceptable level (Macnab, et al., 1986).

1981 Socioeconomic Index for Occupations in Canada

Previous studies (Hannah & Kahn, 1989; Holms & Esses, 1988) used the Blishen and McRoberts (1976) revised Socioeconomic Index for males and the Blishen and Carroll (1978) Socioeconomic Index for Women, however, this more recent index is designed to be used with the total Canadian labour force since its purpose is to measure the occupation and not the person. The 1981 Socioeconomic Index for Occupations in Canada was constructed based on information from 1981 census data on 514 occupation classifications according to the Canadian Classifications and Dictionary of Occupations (CCDO) (Blishen, Carroll, & Moore, 1987). The purpose of the index is for use in research when data are limited to occupation titles and for describing inequities in the division of labour (Blishen, Carroll & Moore, 1987).

The index was calculated with equal weightings on income level and education level (Blishen, Carroll, & Moore, 1987). The income level is the pooled median income for all paid labour force participants in each occupation and the education level is based on the net proportion of well-educated individuals in an occupation (Blishen, Carroll, & Moore, 1987). The index is a continuous, interval scale to two decimal places with a minimum of 17.81, a maximum of 101.74, and a mean of 42.74 (Blishen, Carroll, & Moore, 1987). The percent of women in each occupation was also calculated to two decimal places (Blishen, Carroll, & Moore, 1987).

Procedures

Permission to conduct this study was received from the Student Assessment and Research Department of the Vancouver School Board. This department then selected the schools that were then requested to take part in the study. Once schools had agreed to participate, Consumer Education teachers selected two of their classes that would complete the questionnaire and inventory. Teachers were sent a package that contained two copies of a consent form for each student (Appendix C), the personal questionnaire for each student (Appendix A), and a copy of the Salience Inventory and the answer sheet for each student (Appendix B). Students were asked to return one signed consent form. The questionnaire and Salience Inventory were completed during one class hour.

The questionnaires and inventories were coded and scored by hand and the results were prepared to be analyzed by the SPSS-X statistical program. Some respondents chose more than one category when asked to indicate the highest level of education achieved by their parents/guardians or the highest level they expected to complete. When more than one response was indicated, the highest score was used for analysis since the question had asked about the highest level achieved or expected. Occupations listed as retired, homemaker, and unemployed were recorded as missing data since a SES level could not be calculated using the Blishen, Carroll, and Moore (1987) 1981 Socioeconomic Index for Occupations in Canada. Any questions not answered by the subjects were also recorded as missing data.

Statistical Analysis

Personal data were used to ensure that all subjects were at an appropriate grade and age level for the study.

Subjects indicated their intended level of education by choosing from five possibilities ranging from "Less than Grade 12" to "Graduate or Professional degree". This scale will be used as an interval scale in this study. Glass and Hopkins (1984) and Hamilton (1990) discuss the difficulties of categorizing some variables because they do not fall into one of the four levels of measurement. Glass and Hopkins (1984) state that this issue is not as important as previously considered. Any statistical method can be applied to all data if the results are meaningful (Young & Veldman, 1972), and in the behavioral and social sciences, the usual assumption is that data can be treated as interval data (Youngman, 1979; Shavelson, 1981). For example, IQ is not necessarily an interval scale because the differences between scores is not even but it is also not really an ordinal scale because it is not only rank order and the difference between percentile ranks is not equal (Glass & Hopkins, 1984). The IQ scale, therefore, is not either an interval or an ordinal scale, however, it is used as an interval scale in research studies (Glass & Hopkins, 1984). Also, a scale of letter grades (A, B, C+ . . .) is also actually an ordinal scale because the categories have a definite order but the differences between grades is not equal (Hamilton, 1990). The scale is often, however, analyzed as either a categorical or interval scale (Hamilton, 1990). The Education Scale used in this study also does not fit into one level of measurement. It is not a nominal scale because it is on a gradation from more to

less and is, therefore, a continuous variable (Pedhazur, 1982). Although in theory a continuous variable includes all points along a continuum, in practice they are usually whole numbers and include the fractions in theory only (Borg & Gall, 1989). It is also not only an ordinal scale, again because of the graduation. It is also not really an interval scale because, as in the IQ scale, it does not necessarily have equal differences between points, although, since the intervals are roughly equal, it could be considered an interval scale (Youngman, 1979). It is not a ratio scale because it does not have an absolute zero. Like the IQ scale and the letter grade scale, this Educational Aspiration scale will be used as an interval scale.

Occupational aspirations were classified according to the Blishen, Carroll, and Moore's (1987) 1981 Socioeconomic Index for Occupations in Canada. This index is a continuous, interval scale.

Descriptive statistics were used to describe the population sample. A correlational analysis was conducted on the sample to discover correlations between variables. Means and standard deviations were calculated separately for males and females for the educational and occupation aspirations. T-tests were performed to determine if there was a significant sex difference between the educational and occupational aspirations of the male and female subjects (Farmer, 1983; Farmer, et al., 1981).

Stepwise multiple regression analysis, the most commonly used method of regressional analysis in the behavioral sciences (Glass & Hopkins, 1984; Norusis, 1983), was used to determine what factors seem to be associated with the

educational and occupational aspirations of adolescents (Farmer, 1985; Farmer, et al., 1981). According to Pedhazur (1982), most behavioral sciences variables tend to be intercorrelated (See Appendix D). Stepwise multiple regression analysis allows the variable that has the highest correlation with the dependent variable to be entered into the equation. Other variables are entered in the order that they improve the prediction achieved with previous variables (Borg & Gall, 1989). However, stepwise analysis allows for the removal of variables from the equation if they are no longer useful after other predictors have been brought into the equation (Pedhazur, 1982). This is important when variables are intercorrelated. Separate regression analyses were run for adolescent males and females. Independent variables included commitment to working, commitment to studying, commitment to home and family, commitment to leisure, commitment to community service, grade-point average, parents' educational level, and family socioeconomic status. Socioeconomic status was determined using the Blishen, Carroll, and Moore (1987) 1981 Socioeconomic Index for Occupations in Canada. If both parents were employed, the highest socioeconomic status rating was used (Farmer, 1985; Hannah & Kahn, 1989; Super & Nevill, 1984).

Occupational aspirations was categorized using Blishen, Carroll, and Moore's (1987) index as female-dominated (over 65% female employees), male-dominated (less than 35% female employees), and balanced (35 - 65% female employees) (Farmer, 1983; Hannah & Kahn, 1989). Chi-square analysis was used to determine if differences existed in the frequency of non-traditional, sex-balanced,

or same-gender dominated occupations selected by adolescent males and adolescent females (Farmer, 1983).

CHAPTER FOUR

Results

This chapter will present the results of the statistical analysis that were performed on the data. First, sample characteristics will be presented. Second, results of the correlation analysis will be discussed. Third, t-test results comparing the two classes from each school will be presented. Finally, results from the t-tests, chi-square analyses, and regression analysis will be presented in relationship with appropriate hypotheses. Hypotheses were accepted or rejected at the $\underline{p} \leq .05$ level of significance.

Sample Characteristics

The total sample for this study consisted of 208 subjects, 93 males and 115 females. Therefore, 44.7% of the subjects were males and 55.3% of the subjects were females. Of these subjects, 103 subjects or 49.5% of the subjects came from two Westside schools, whereas 105 subjects or 50.5% of the subjects came from two Eastside schools (See Appendix E).

The subjects were asked to report their estimated grade-point average. The mean of the grade-point reported for all subjects was 5.20 on a 7-point scale with a standard deviation of 1.109 which indicated the C+ range (See Appendix F). The average for the male subjects was slightly lower at 4.99 with a standard deviation

of 1.16 (see Appendix G), while the average for the female subjects was slightly above the average at 5.38 with a standard deviation of 1.05 (see Appendix H). This difference was a statistically significance difference ($p = 0.01$). One female student did not indicate her estimated grade point average.

The average family socioeconomic level of all subjects, measured on the 1981 Socioeconomic Index for Occupations in Canada, was 49.27 with a standard deviation of 16.18. The average calculated for the male subjects was slightly higher at 51.28 with a standard deviation of 18.30, while the average calculated for the female subjects was slightly lower at 47.54 with a standard deviation of 13.97. This was not a statistically significant difference ($p = 0.13$). A total of 24 subjects did not indicate an occupation that could be coded on the socioeconomic scale. Of these, 6 subjects did not list an occupation and 18 subjects listed retired, unemployed, homemaker, or student as an occupation. Eight of the missing family socioeconomic codes were for male subjects and 18 of the missing codes were for female subjects.

Family background also included information on both father's and mother's educational level. The mean level for father's educational level for all subjects was 2.93 with a standard deviation of 1.60 - one or two years Community College, or Vocational/Technical/Trade School. The mean level for mother's education level was 2.62 with a standard deviation of 1.50 - Grade 12 Diploma. See Table 4.1 for a detailed breakdown of detailed educational background for both mothers and fathers.

Table 4.1

Education Level of Parents

	Father		Mother	
Level of Education	Number	Percent	Number	Percent
Less than Grade 12	52	25.0	57	27.5
Grade 12	22	10.5	34	16.0
1 - 2 Years Community College, or Vocational/Technical/Trade School	25	12.0	22	10.5
Bachelor's Degree	26	12.5	28	13.5
Graduate or Professional Degree	44	21.0	28	13.5
Do Not Know or No parent or guardian	39	19.0	39	19.0
Total	208	100.0	208	100.0

The educational levels reported for the parents in this study are not representative of the education levels for the general population. In 1988, 10% of the women 15 years of age and older hold University degrees, and 13.6% of the men 15 years of age and older hold University degrees (Statistics Canada, 1990). When only individuals between 25 and 34 years of age are considered, 15.9% of the women and 17.7% of the men hold University degrees (Statistics Canada, 1990). This is much lower than the results for this study which show 33.5% of the fathers and 27% of the mothers holding University degrees. This is, therefore, not a representative sample with respect to parental education level if the general Canadian population is considered. The sample in this study, however, may be representative of the population of parents in Vancouver whose adolescent offspring are students in Grades 11 and 12. The statistics for this restricted population are not available.

The mean education plan for all adolescents was 4.17 with a standard deviation of .93 - Bachelor's Degree. Table 4.2 shows the detailed breakdown of educational aspirations of the subjects in this study. The mean level of educational plans for the male subjects was 4.18 with a standard deviation of .99 and for the female subjects was 4.21 with a standard deviation of .88. This was not a statistically significant difference ($p = 0.48$). The information on level of education for parents is also included in this table to allow for comparisions. This table showed a increase in the amount of education aspired to by the adolescents compared to the amount of education achieved by their parents. Since, however,

Table 4.2

Actual and Aspired to Educational Levels

	Actual Father		Actual Mother		Student Aspiration	
Level of Education	Number	Percent	Number	Percent	Number	Percent
Less than Grade 12	52	25.0	57	27.5	2	1.0
Grade 12	22	10.5	34	16.0	5	2.5
1 - 2 Years Community College, or Vocational/Technical/Trade School	25	12.0	22	10.5	48	23.0
Bachelor's Degree	26	12.5	28	13.5	54	26.0
Graduate or Professional Degree	44	21.0	28	13.5	99	47.5
Do Not Know or No parent or guardian	39	19.0	39	19.0	0	0
Total	208	100.0	208	100.0	208	100.0

the subjects were in Grades 11 or 12, it would expected that only a few students would expect to achieve a level below Grade 12.

Research completed by the Vancouver School Board (Student Assessment and Research, 1992) shows that more Vancouver students who graduated in 1990 (31.9%) are seeking University degrees than has ever been recorded in the 25 years of following graduate activites. This study, however, showed that 73.5% of the subjects aspired to University degrees. Therefore, the subjects are not representative of the general Vancouver student body.

This sample, therefore, cannot be considered a representative sample so generalizations will not be made to the population. Teachers selected the classes that were to participate in the study and this might have contributed to the biasness of the sample. It is possible that "good" classes might have been selected. Also, the information was a self-report from students and it might not have been totally accurate. One final reason is that the aspired to level of education of adolescents might be different from the educational program that they actually enroll in or complete.

The average SES level of choosen occupation for all subjects was 59.92. The average for the male subjects was slightly lower at 58.43 and the average for the female subjects was slightly higher at 61.16. This was not a statistically significant difference ($p = 0.26$). Twelve subjects, 4 males and 8 females, did not supply a desired occupation and were recorded as missing values.

Occupations can be categorized as female-dominated (over 65% female employees), male-dominated (less than 35% female employees), and balanced

(between 35 and 65% female employees) (Farmer, 1983, Hannah & Kahn, 1989). The mean level for percent of women in the aspired to occupations is 33.68, male-dominated. The mean level for the male subjects is 21.78, male dominated, while the mean level for the female subjects is 43.58, balanced. This is a statistically significant difference ($p = 0.00$). A total of 12 subjects, 4 males and 8 females were recorded as missing values since aspired to occupations were not supplied. Table 4.3 shows the breakdown of the number of female-dominated, male-dominated, and balanced occupations selected by all subjects, male subjects only, and female subjects only.

The subjects were asked to complete the Commitment section of the Salience Inventory to indicate their commitment to the roles of studying, working, community service, home and family, and leisure activities. Table 4.4 shows the mean commitment level to each role for all subjects combined, male subjects only, and female subjects only. The final column shows the p value to indicate the level of statistical significance. Scores in the low 20s are in the "Some" range, while scores in the high 20s and low 30s are in the "Quite a lot" range. Commitment to Community Service was the only item that produced a statistically significant difference between the mean score of the male subjects and the mean score of the female subjects.

Table 4.3

Gender Domination of Selected Occupations

	All Subjects		Male Subjects		Female Subjects	
Gender Domination of Occupation	Number	Percent	Number	Percent	Number	Percent
Female-dominated	27	13.0	2	2.0	25	21.5
Male-dominated	111	53.5	69	74.0	42	36.5
Balanced	58	28.0	18	19.5	40	35.0
Missing	12	5.5	4	4.5	8	7.0
Total	208	100.0	93	100.0	115	100.0

Legend

Female-dominated Occupations - Greater than 65% female employees
Male-dominated Occupations - Less than 35% female employees
Balanced Occupations - 35% - 65% female employees

Table 4.4

Commitment to Life Roles

	All Subjects		Male Subjects		Female Subjects		
Commitment to Roles	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Level of Significance
Studying	29.82	7.33	28.84	6.96	30.58	7.54	$p = 0.09$
Work	30.29	5.89	30.25	6.21	30.32	5.66	$p = 0.93$
Community Service	22.86	8.03	20.83	7.34	24.45	8.21	$p = 0.00$
Home and Family	30.49	7.25	29.55	7.92	31.22	6.62	$p = 0.10$
Leisure	30.39	7.47	31.49	7.06	29.52	7.01	$p = 0.07$

Correlation Coefficients

Pearson correlation coefficients were calculated amongst all variables (See Appendix D). A moderate positive correlation (r = .52, p = .000) was found between the level of father's education and the family socioeconomic level. A moderate positive correlation (r = .52, p = .000) was also found between the level of mother's education and the family socioeconomic level. A slightly higher correlation (r = .66, p = .000) was found between the level of mother's education and the level of father's education.

A moderate positive correlation (r = .43, p = .000) was found between the subjects' gender and the percent of women in the desired occupation.

A small positive correlation (r = .21, p = .007) was found between the level of father's education and the subject's expected level of education and a slightly higher correlation (r = .26, p = .001) was found between the level of mother's education and the subject's expected level of education. Slightly higher correlations were found between father's education level and the subject's expected occupation SES level (r = .34, p = .000) and between mother's education level and the subject's expected occupation SES level (r = .29, p = .000).

Comparison of Classes

T-tests were performed on the Expected Level of Education and the Expected Occupation SES Level to check for any significant differences between the two classes surveyed in each school (see Table 4.5). Since no significant

Table 4.5

T-tests for Aspired to Occupation SES Level and Aspired to Level of Education for each of the Four Schools

Variable	Mean	Standard Deviation	T-Value	DF	2-Tail Prob.
Expected Occupation SES					
Class 1	65.94	18.58			
			1.43	50	0.158
Class 2	58.97	16.51			
Expected Level of Educ.					
Class 1	4.56	0.71			
			2.42	51	0.019
Class 2	4.00	0.94			
Expected Occupation SES					
Class 3	61.25	19.95			
			0.24	46	0.811
Class 4	60.04	14.76			
Expected Level of Educ.					
Class 3	4.05	1.02			
			-1.02	48	0.315
Class 4	4.31	0.81			
Expected Occupation SES					
Class 5	60.29	17.34			
			.97	43	0.339
Class 6	54.98	19.36			
Expected Level of Educ.					
Class 5	3.85	1.20			
			-1.48	50	0.146
Class 6	4.28	0.84			
Expected Occupation SES					
Class 7	58.87	14.15			
			-0.10	49	0.920
Class 8	59.27	14.22			
Expected Level of Educ.					
Class 7	4.12	0.93			
			-0.24	51	0.813
Class 8	4.18	0.86			

differences were found between the variances of the two groups, the pooled-variance t-test was used (Norusis, 1983). The two classes from the first school showed no significant difference between the Expected Occupation SES Level of each class, however, a significance level < .05 was used rejecting the idea that the Expected Level of Education of the two classes was equal. No significant differences were found for either Expected Level of Education or the Expected Occupation SES Level in comparisons of the other three schools.

Hypotheses

T-tests were performed comparing adolescent males and females on the level of occupational aspirations, the level of educational aspirations, degree of commitment to working, and commitment to home and family (see Table 3). Since no significant difference was found between the variances of the two groups, the pooled-variance t-test was used (Norusis, 1983).

Hypothesis One

H_0: The level of occupational aspirations of adolescent females will not be significantly different from the level of occupational aspirations of adolescent males.

H_1: There will be a statistically significant difference between the level of occupational aspirations of adolescent females and the level of occupational aspirations of adolescent males.

A significance level > .05 was used for the level of occupational aspirations, therefore, the null hypothesis for Hypothesis 1 was not able to be rejected and no

significance difference was found between the level of occupational aspirations of adolescent males and females (See Table 4.6).

Hypothesis Two

H_0: The level of educational aspirations of adolescent females will not be significantly different from the level of educational aspirations of adolescent males.

H_1: There will be a statistically significant difference between the level of educational aspirations of adolescent females and the level of educational aspirations of adolescent males.

Hypothesis Three

H_0: The degree of commitment to working of adolescent females will not be significantly different from the degree of commitment to working of adolescent males.

H_1: There will be a statistically significant difference between the degree of commitment to working of adolescent females and the degree of commitment to working of adolescent males.

Hypothesis Four

H_0: The degree of commitment to home and family of adolescent females will not be significantly different from the degree of commitment to home and family of adolescent males.

TABLE 4.6

T-tests for Comparison by Gender for Educational Aspirations, Occupational Aspirations, Commitment to Work, and Commitment to Home and Family

Variable	Mean	Standard Deviation	T-Value	DF	2-Tail Prob.
Educational Aspirations					
Males	4.12	1.00	-0.70	206	0.487
Females	4.21	0.88			
Occupational Aspirations					
Males	58.43	16.20	-1.13	194	0.258
Females	61.16	17.22			
Commitment to Working					
Males	30.25	6.21	-0.08	198	0.932
Females	30.32	5.66			
Commitment to Home and Family					
Males	29.55	7.91	-1.63	198	0.104
Females	31.22	6.62			

H_1: There will be a statistically significant difference between the degree of commitment to home and family of adolescent females and the degree of commitment to home and family of adolescent males.

A significance level > .05 was also used for the level of educational aspirations, commitment to work, and commitment to home and family, therefore, the null hypotheses for Hypothesis 2, 3, and 4 were also not able to be rejected and no significance differences were found among the level of educational aspirations, commitment to work, and commitment to home and family of adolescent males and females (See Table 4.6).

Hypothesis Five

H_0: Socioeconomic status, grade-point average, educational level of mother and father, commitment to working, commitment to home and family, commitment to studying, commitment to leisure activities, and commitment to community activities will not be significantly related to career and educational aspirations of adolescent males and females.

H_1: At least one of socioeconomic status, grade-point average, educational level of mother and father, commitment to working, commitment to home and family, commitment to studying, commitment to leisure activities, and commitment to community activities will be significantly related to career and educational aspirations of adolescent males and females.

Males' Educational Aspirations. Stepwise multiple regression analysis indicated that four independent variables were found to be predictive of the level of educational aspirations of adolescent males. Grade-point average appears to be the best predictor followed by commitment to studying, family SES level, and commitment to work (see Table 4.7). The first three variables were positively correlated with aspired to level of education, however, commitment to work had a negative correlation to aspired to level of education for adolescent males (r = -.124, p = .119).

A moderate multiple correlation of .53355 was found between the level of educational aspirations and the four independent variables. The other variables were not included in the regression because they did not have a statistically significant effect on this correlation.

Females' Educational Aspirations. The regression analysis indicated that three independent variables were found to be predictive of the level of educational aspirations of adolescent females. Grade-point average appears to be the best predictor followed by commitment to studying, and father's educational level (see Table 4.8).

A moderate multiple correlation of .50861 was found between the level of educational aspirations and the three independent variables. The other variables were not included in the regression because they did not have a statistically significant effect on this correlation.

TABLE 4.7

Regression Analysis for Males - Dependent Variable = Aspired to Level of Education

Multiple R	.53355			
R Square	.28467		R Square Change	.03987
Adjusted R Square	.25216		F Change	4.90496
Standard Error	.85389		Signif F Change	.0294

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
Grade	.262608	.078742	.307502	3.335	.0013
Study	.042251	.013977	.289589	3.023	.0033
Famses	.012076	.005178	.213799	2.332	.0220
Work	-.034418	.015541	-.210416	-2.215	.0294
(Constant)	2.011405	.659437		3.050	.0030

Legend

Grade - Grade Point Average
Study - Commitment to Studying
Famses - Family Socioeconomic Status
Work - Commitment to Work

TABLE 4.8

Regression Analysis for Females - Dependent Variable = Aspired to Level of Education

Multiple R	.50861			
R Square	.25869		R Square Change	.02935
Adjusted R Square	.23865		F Change	4.39527
Standard Error	.77093		Signif F Change	.0383

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
Grade	.295353	.072857	.346922	4.054	.0001
Study	.030236	.010125	.255844	2.986	.0035
Feduc	.107749	.051395	.171645	2.096	.0383
(Constant)	1.403957	.456756		3.074	.0027

Legend

Grade - Grade Point Average
Study - Commitment to Studying
Feduc - Father's Educational Level

Males' Occupational Aspirations. The multiple regression analysis also indicated that two independent variables were found to be predictive of the level of occupational aspirations of adolescent males. The Family SES Level appears to be the best predictor followed by commitment to studying (see Table 4.9).

A moderate multiple correlation of .45908 was found between the level of educational aspirations and the two independent variables. The other variables were not included in the regression because they did not have a statistically significant effect on this correlation.

Females' Occupational Aspirations. The regression analysis indicated that three independent variables were found to be predictive of the level of occupational aspirations of adolescent females. Grade point-average appears to be the best predictor followed by father's educational level and Commitment to Studying (see Table 4.10).

A moderate multiple correlation of .46295 was found between the level of educational aspirations and the three independent variables. The other variables were not included in the regression because they did not have a statistically significant effect on this correlation.

TABLE 4.9

Regression Analysis for Males - Dependent Variable = Aspired to Occupation SES Level

Multiple R	.45908			
R Square	.21076		R Square Change	.03538
Adjusted R Square	.19322		F Change	4.03497
Standard Error	14.22907		Signif F Change	.0476

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
Famses	.367009	.085090	.404990	4.313	.0000
Study	.441494	.219788	.188611	2.009	.0476
(Constant)	26.881135	7.573123		3.550	.0006

Legend

Famses - Family Socioeconomic Status
Study - Commitment to Studying

TABLE 4.10

Regression Analysis for Females - Dependent Variable = Aspired to Occupation SES Level

Multiple R	.46295			
R Square	.21433		R Square Change	.03002
Adjusted R Square	.19309		F Change	4.24107
Standard Error	14.91343		Signif F Change	.0418

---------- VARIABLES IN THE EQUATION ----------

VARIABLE	B	SE B	BETA	T	SIG T
Grade	4.458785	1.409404	.278717	3.164	.0020
Feduc	3.447145	.994223	.292237	3.467	.0007
Study	.403358	.195863	.181632	2.059	.0418
(Constant)	15.514416	8.835857		1.756	.0819

Legend

Grade - Grade-Point Average
Feduc - Father's Educational Level
Study - Commitment to Studying

Hypothesis 5, therefore, was accepted as some of the independent variables were seen to influence the occupational and educational aspirations of adolescent males and females.

Hypothesis Six

H_0: A relationship will not be found between the gender of the subjects and the gender dominance of subjects' occupational aspirations (same-gender dominated, opposite-gender dominated, or balanced-gender).

H_1: A relationship will be found between the gender of the subjects and the gender dominance of subjects' occupational aspirations (same-gender dominated, opposite-gender dominated, or balanced-gender).

A chi-square analysis of genders by the three categories of Percent of Women in Occupation used a significant level of $p < .05$, indicating a significant relationship between a subjects gender and the Percent of Women in aspired to occupation. Table 4.11 outlines the percent of males and females selecting male-dominated, female-dominated or balanced gender occupations.

Hypothesis 6 was, therefore, rejected and an relationship was found between gender and selection of same-gender, balanced, and opposite-gender dominated occupations.

TABLE 4.11

Crosstabulation of Gender by Percent of Women in Occupation

		Percent of Women in Occupation Category			
	Count Row PCT Col PCT	Male Dominated	Balanced	Female Dominated	Row Total
Gender	Male Row % Column %	69 77.5 62.2	18 20.2 31.0	2 2.2 7.4	89 45.4
	Female Row % Column %	42 39.3 37.8	40 37.4 69.0	25 23.4 92.6	107 54.6
	Column Total	111 56.6	58 29.6	27 13.8	196 100.0

CHI-SQUARE	D.F.	SIGNIFICANCE	MIN. EXPECTED FREQ.
33.13134	2	0.0000	12.260

Legend

Male-dominated Occupations - Less than 35% female employees
Balanced Occupations - 35 - 65% female employees
Female-dominated Occupations - Over 65% female employees

Conclusion

In conclusion, the statistical analyses indicate no differences in the level of occupational aspirations, educational aspirations, commitment to work, and commitment to home and family of adolescent males and females. The regression analysis indicated that four variables of grade-point average, commitment to studying, family SES level, and commitment to work were found to be predictive of the level of educational aspirations of adolescent males, whereas grade-point average, commitment to studying, and father's educational level were found to be predictive of the level of educational aspirations of adolescent females. The regression analysis indicated that Family SES Level and commitment to studying were predictive of the level of occupational aspirations of adolescent males and grade-point average, father's educational level, and commitment to studying were found to be predictive of the level of occupational aspirations of adolescent females (See Table 4.12). An association was seen to exist between the subject's gender and aspiration to a same-gender, opposite-gender, or balanced occupation.

Table 4.12

Predictor Variables in Regressional Analysis

		Predictors								
	R^2	SES	GPA	FED	MED	Work	Home	Study	Comm Serv	Leisure
Male Educ Asp	.29	X	X			X		X		
Female Educ Asp	.26		X	X				X		
Male Occ Asp	.21	X						X		
Female Occ Asp	.21		X	X				X		

Legend

SES - Family Socioeconomic Status
GPA - Grade-point Average
Fed - Father's Educational Level
Med - Mother's Educational Level
Work - Commitment to Work
Home - Commitment to Home and Family
Study - Commitment to Studying
Leisure - Commitment to Leisure
Comm Serv - Commitment to Community Service

CHAPTER FIVE

Discussion

This chapter includes the following five sections: a restatement of the purpose of this research; a discussion of the results of this study as related to previous research; the implications of the findings of this research to counselling; limitations of the study; and, implications for future research.

Restatement of the Purpose

When adolescent males and females graduate from grade 12 they are at a major career decision point in their lives (Osipow, 1990). The education choices made following high school are important since education is viewed as one of the keys to success in occupations, earnings and social advancement in Canadian society (Statistics Canada, 1990). The first occupation entered has also been shown to be a determinant of later possible occupations (Super, 1980).

Originally, research on career development focused on male career development only, however, as more women entered the work force, researchers began to focus on the career development of women (Betz & Fitzgerald, 1987). By 1988, women made up 44% of the labour force, even though full-time working women still earn only 66% of the earnings of full-time working men (Statistics Canada, 1990). Changing roles are beginning to show more women working

outside the home while more men are raising children (Farmer et al., 1981). Therefore, career development of both men and women needs to be studied.

Little research has actually compared men's and women's career development (Osipow, 1986). Comparisons are needed in order to determine what and how large the differences in men's and women's career development actually are (Osipow, 1986). Different factors have been found to influence the level of career aspirations of adolescent males and females, however, previous research showed contradictions on what these factors are.

Occupational stereotypes learned early in life have led to the selection of mainly gender-stereotypical occupations by both males and females (Betz & Fitzgerald, 1987). There has been some increase in the number of women aspiring to non-traditional occupations (Betz & Fitzgerald, 1987); however, men seem to be less likely to enter opposite-gender dominated occupations (Farmer, 1983; Harmon, 1990). For occupational gender-segregation to be overcome, both men and women must cross occupation boundaries traditionally defined for their gender (Lemkau, 1984).

This present study measured and compared the educational and occupational aspirations and commitment to work and home and family of adolescent males and females. The factors that seemed to be associated with the observed levels and differences of educational and occupational aspirations were also investigated. Finally, comparisons were made regarding the number of same-gender-dominated occupations, opposite-gender-dominated occupations, and balanced-gender occupations selected by adolescent males and females.

Discussion of Results

Sample

The sample used in this study may or may not be a representative sample of the total population of Grade 11 and 12 adolescents. The educational background of the parents and the educational aspirations of the adolescents are much higher than the general population. It is not possible, however, to know if the sample is representative of the population of Grade 11 and 12 students in Vancouver.

Gender Comparisons

Hypothesis One - Occupational Aspirations. Hypothesis one proposed that the level of occupational aspirations of adolescent females would not be significantly different from the level of occupational aspirations of adolescent males and it was accepted. No significant difference was found between the mean level of occupational aspirations of adolescent males and the mean level of occupational aspirations of adolescent females. This finding substantiated the similar findings of Danziger (1983) and Farmer, et al., (1981) who also reported similar levels of occupational aspirations. This finding, however, contrasted the findings of other researchers. Marini (1978) and Corder and Stephan (1984) found that males occupational aspirations were higher than females occupational aspirations, whereas, Farmer (1983) found that females adolescents held higher occupational aspirations than adolescent males.

Betz and Fitzgerald (1987) felt that women's career aspirations would start to change as women, like men, assumed that work would be a major part of their

lives. The findings of this present study support that this is starting to happen. As more research comparing adolescent males' and females' occupational aspirations is completed, a more definite trend is expected. If the occupational aspirations of adolescents are of similar levels, as shown in the study, and if these adolescents start to achieve these aspirations, then eventually gender-based economic differences in society should start to diminish.

Hypothesis Two - Educational Aspirations. Hypothesis two proposed that the level of educational aspirations of adolescent females would not be significantly different from the level of educational aspirations of adolescent males and it was accepted. No significant difference was found between the mean level of educational aspirations of adolescent males and the mean level of educational aspirations of adolescent females. This finding supported the findings of Farmer, et al. (1981), Farmer (1983), and Danziger (1983) who all found no significant differences in the level of educational aspirations of adolescent males and females. Marini (1978) reported higher educational aspirations for adolescent males than adolescent females; however, since this was the only reviewed literature that reported a difference and since it is based on the most dated information, it would seem that differences in mean levels of educational aspirations of adolescents reported earlier are now beginning to shrink or disappear. Since education is seen to be an important factor in occupational achievement (Statistics Canada, 1990; Super, 1980), these similar educational aspiration levels, if achieved, could be a significant step for achievement of occupational aspirations.

Hypothesis Three - Commitment to Work. Hypothesis three proposed that the degree of commitment to work of adolescent females would not be significantly different from the degree of commitment to work of adolescent males and it was also accepted. No significant difference was found between the mean degree of commitment to work of adolescent males and the mean degree of commitment to work of adolescent females. This finding contradicted the findings of Cochran (1983) who found that males held a stronger orientation to work than females and of Farmer (1983) and Farmer, et al. (1981) who reported a higher commitment to work for females than for males.

According to Farmer, et al. (1981) the views on the role of work were coming closer together for the sexes. This present research supports this opinion as no difference was found between the degree of commitment to work of the male and female subjects. Although there was not a significant difference in the commitment to work of adolescent males and females at this age, it would be interesting to see if there were any changes in this as the adolescents started to enter into permanent relationships and/or consider starting a family. According to Super (1980), commitment to one role may start to change as commitment to another role begins to become more important. As the issues of marriage and family start to become more significant for the individuals, differences in the level of commitment to work may become more evident, and gender-based differences may begin to appear.

Hypthesis Four - Commitment to Home and Family. Hypothesis four proposed that the degree of commitment to home and family of adolescent females would not be significantly different from the degree of commitment to home and family of adolescent males and it was also accepted. No significant difference was found between the mean degree of commitment to home and family of adolescent males and the mean degree of commitment to home and family of adolescent females. No reviewed literature directly compared the commitment to home and family of males and females, although several studies (Aneshensel & Rosen, 1980; Farmer, 1985; Holms & Esses, 1988; and Super & Nevill, 1984) discussed the importance of considering both family and work roles when researching career aspirations of both males and females.

As discussed above, changes in the level of commitment to home and family may become more evident as individuals consider entering these roles. At this age, adolescents did not show any difference in the level of commitment to home and family, however, remeasuring this when the role may be more significant to them may indicate different results.

In this present study no gender-based differences were found for occupational aspirations, educational aspirations, commitment to work, or commitment to home and family. Although these findings supported the conclusions from some previous research and contradicted the conclusions from other research, it indicates that for this present sample, gender is not a significant factor when adolescents are considering these aspects post-secondary school plans.

Predictor Factors - Hypothesis Five

Hypothesis Five proposed that socioeconomic status, grade-point average, mother's and father's educational level, commitment to working, commitment to home and family, commitment to studying, commitment to leisure activities, and commitment to community activities will not be significantly related to occupational and educational aspirations of adolescent males and females and it was able to be rejected as some of these variables were seen to be related to the level occupational and educational aspirations of both adolescent males and females (See Table 4.12).

Males' Educational Aspirations. Multiple regression analysis indicated that the four variables of grade-point average, commitment to studying, family SES, and commitment to work were predictive of the level of educational aspirations of adolescent males. All the reviewed literatuare reported that academic achievement, measured by either IQ (Danziger, 1983; Sewell, Haller, & Straus, 1957; Sewell & Hauser, 1975) or grade-point average (Danziger, 1983; Farmer, 1985a, 1985b; Farmer, et al., 1981; Sewell & Hauser, 1975) influenced male adolescent's educational aspirations. Commitment to studying has not been considered as an independent variable influencing educational aspirations, however, it was the second strongest predictor in this equation. Family SES has been found to influence adolescent males' educational aspirations in a number of previous studies (Farmer, et al., 1981; Lee, 1984; Sewell, Haller, & Straus, 1957; Sewell & Hauser, 1975, 1976; Sewell & Shah, 1967). Commitment to work has not been considered as an independent variable influencing educational aspirations in

previous research, however, it was a significant factor in this present research. Although commitment to work was a significant factor in the regression equation for males educational aspirations, it was a negative correlation. This indicated that a lower commitment to work was related to an aspiration to a higher level of education. This could indicate either that this commmitment to work scale was not an appropriate measure or that continued schooling could be seen as a way to delay or avoid work.

Mothers' and fathers' educational level was not a significant predictor of male adolescents' educational aspirations in this study. This contradicts previous research (Sewell & Hauser, 1976; Featherman & Carter, 1976; Goodale & Hall, 1976) in that these other studies reported that both parents' educational levels were associated with their son's educational aspirations. In the present study, the high correlation between family SES and both mothers' and fathers' educational level, (r = .52, p =.000), could explain why parents' educational level was not a significant predictor of male adolescent's educational aspirations. Since family SES level loaded into the regression equation before parents' educational level, there was not a significant amount of additional variance explained by parents' educational level.

The four predictor variables account for approximately 28.5% of the variance in male adolescents' educational aspirations. Therefore, other variables not included in this study are important predictors for males' educational aspirations.

Females' Educational Aspirations. The stepwise multiple regression analysis in this present study indicated that the three variables of grade-point average,

commitment to studying, and father's educational level were predictive of the level of educational aspirations of adolescent females. Although grade-point average was found to be the strongest predictor of females' educational aspirations in this study, this contradicts the results of Danziger (1983), who found academic achievement to be a weak predictor of female adolescents' educational aspirations. Farmer, et al. (1981) and Holms and Esses (1988), however, reported similar results as found in this present study in that both studies found that higher ability and higher marks led to higher educational aspirations of adolescent females. Similar to the above discussion about educational aspiration of adolescent males, commitment to studying was also found to be the second strongest predictor of the educational aspirations of adolescent females, but this factor has not been included in previous research. Father's educational level was found to be the third variable that influenced females' educational aspirations. This partially agrees with the studies by Falk and Salter (1978), Goodale and Hall (1976), and Sewell and Hauser (1976) who reported that both parents' educational level was associated with the educational aspirations of their daughters.

This present study found that only father's educational level, not mother's educational level was predictive of adolescent female's educational aspirations. This contracdicts the findings by Falk and Salter (1978), Goodale and Hall (1976), and Sewell and Hauser (1976) who all found both mother's and father's educational level were significant predictors for females adolescent's educational aspirations. This could have been the result of the high correlation ($\underline{r}$ = .66, $\underline{p}$ = .000) between father's educational level and mother's educational level. Once

father's educational level was in the regression equation, there was not a significant amount of additional variance explained by mother's educational level. Family SES was not found to be a significant predictor in this study which contrasts the previous research (Farmer, et al., 1981; Holms & Esses, 1988; Lee, 1984; and Sewell, Haller, & Straus, 1957). As mentioned previously, this could have been as a result of the high correlation between father's educational level and family SES level.

The three significant predictor variables in this study accounted for only 26% of the variance in female adolescent's educational aspirations. Obviously, other important predictor variables should be considered.

Males' Occupational Aspirations. The stepwise multiple regression analysis indicated that the two independent variables family SES and commitment to studying were predictive of the level of occupational aspirations of adolescent males. The finding that family SES is the strongest predictor for adolescent males' occupational aspirations agrees with previous research. Betz and Fitzgerald (1987) found that family SES was one of the most consistent variables associated with adolescent males' occupational aspirations. Danziger (1983) and Hannah and Kahn (1989) agreed that family SES was an important factor when discussing males' occupational aspirations since students choose occupations in prestige levels similar to their family SES background (Hannah & Kahn, 1989). As discussed above, commitment to studying was not considered as an independent variable in previous research, however, it was the second strongest predictor of adolescent males' occupational aspirations.

The fact that commitment to home and family is not a significant predictor of adolescent males' occupational aspirations concurs with previous research (Anneshensel & Rosen, 1980), who reported that male adolescents could formulate their occupational aspirations without considering anticipated domestic roles. Previous research has found academic achievement to be associated with the level of occupational aspiration of adolescent males (Danziger, 1983; Farmer et al., 1981; Marini, 1978), however, this was not a significant factor in this study. Parent's educational level was also not found to be a significant predictor of the level of male adolescent's occupational aspirations, however, no other reviewed research reported parent's educational level to be a significant factor.

The two predictor variables account for only 21% of the variance in male adolescent's occupational aspirations. This indicates that other significant variables should be considered in this predictor equation.

Females' Occupational Aspirations. The multiple regressional analysis indicated that the three independent variables of grade-point average, father's educational level, and commitment to studying were predictive of the level of occupational aspirations of adolescent females. Danziger (1983), Farmer, et al. (1981), and Holms and Esses (1988) also found grade-point average to have a direct influence on the occupational aspirations of adolescent females. As in this study, father's educational level was found to have a statistically significantly effect on adolescent female's occupational aspiration (Falk & Salter, 1978), however, they found that mother's educational level was the most important factor. Mother's educational level was not a statistically significant factor in predicting adolescent

females' occupational aspirations in this present study. As mentioned previously, this could have been a result of the high correlation between father's and mother's educational level. The degree of commitment to studying was the third significant variable in this analysis, and again, it was not considered in the reviewed literature.

Aneshensel and Rosen (1980) reported that adolescent females' domestic expectations were significantly correlated with occupational aspirations. In this present study, however, commitment to home and family was not a significant factor. Perhaps the role of home and family was too removed from the present life of the adolescents to be significant to them. Family SES was also not a significant factor in predicting adolescent females' occupational aspirations in this study. This did not support the findings by Danziger (1983), Gottfredson (1989), and Hannah and Kahn (1989) who reported that family SES was an important predictor of adolescent female's occupational aspirations. As mentioned previously, the high correlation between fathers' educational level and family SES level could have prevented family SES from loading into the regression equation.

The three predictor variables accounted for 21% of the variance in adolescent female's occupational aspirations which indicates that other variables should be considered.

The level of commitment to studying was a significant predictor in all four regression analyses. Although this variable was not used as a predictor in previous studies, this indicates that for this sample, it is an important factor. It is possible that this variable was significant for the adolescents at this point since it is the one factor that they are most familiar with. A large portion of their life is related

to school and the other factors might be considered minor to them. Grade-point average was a significant factor in male's educational aspirations and female's educational and occupational aspirations which also indicates it is an important factor at this decision point in an adolescent's life. Family SES was a significant factor for male's educational and occupational aspirations, however, it was not a significant factor for female adolescents. Parent's educational level was not a significant factor for male adolescents and only father's educational level was significant for female adolescent's educational and occupational aspirations. Commitment to work was a significant factor for male's occupational aspirations, but was not significant in the other regressional equations. Commitment to home and family, community service, and leisure were not significant factors in any of the equations.

The predictor variables for the educational and occupational aspirations for females were the same. Commitment to studying, fathers' educational level and grade-point average were the three significant variables in both equations. Family SES level and commitment to studying were both predictors in the equations for the educational and occupational aspirations of adolescent males. Grade-point average and commitment to work, however, were also predictors for males' education aspirations. The relationship between commitment to work and educational aspirations of males', however, was a negative relationship. Therefore, the same variables were associated with the educational and occupational aspirations of adolescent females and more variables were associated with the educational aspirations than the occupational aspirations of adolescent males.

Commitment to studying and grade-point average were predictors in the equations for both males' and females' educational aspirations. There were differences, however, in the other predictor variables. Fathers' educational level was a significant predictor variable for females, whereas family SES level and commitment to work were significant predictor variables for females. Commitment to studying was the only common predictor variable in the equations for females' and males' occupational aspirations. Family SES level was also a significant variable in the equation for males' occupational level and grade-point average and fathers' educational level were significant predictor variables for females' occupational aspirations. Therefore, although there are some similarities in the variables that are significant predictors in the equations for males and females, some different factors seem to be associated with the levels of educational and occupational aspirations of adolescent males and females.

Gender Composition of Occupations - Hypothesis Six

The chi-analysis revealed that there was a relationship between an adolescent's gender and the selection of same-gender, balanced-gender, and opposite-gender dominated occupations.

Farmer (1983) reported that more female adolescents (35%) chose non-traditional occupations than male adolescents (3%). The findings of the present study are similar in that 39% of the female adolescents aspire to male-dominated occupations, whereas only 2% of the male adolescents aspire to female-dominated occupations. This finding supports Farmer's (1983) conclusions that males more than females follow Gottfredson's (1981) theory that occupations that are

inappropriate for an individual's gender are ruled out first. This could also, however, be related to SES since most female-dominated occupations are lower paying than male-dominated occupations (Statistics Canada, 1990). Hannah and Kahn (1989) also concluded that females, not males, were starting to aspire to opposite-gender-dominated occupations.

The results of this present study support the idea that gender domination of occupations is starting to chance for females and not for males - at least with respect to aspirations. Little emphasis has been placed on males entering female-dominated occupations and until the issue of pay equity is satisfactorily dealt with, this will probably not occur.

Limitations of the Study

The sample for the present study was selected from the Vancouver School District. Because of the procedures followed in the District, individual teachers were able to select the classes to be involved in the study after the school had agreed to participate. This may or may not have led to the selection of better classes for the study which may have had an effect on whether the sample represented the population. It is not possible to compare the sample to the population it was drawn from because statistics are not available regarding families who have students in grades 11 or 12 in Vancouver.

The sampling method used in this study resulted in a somewhat bimodal distribution. This, however, was not a factor in the statistical analysis used in this study.

The high correlation between Family SES level and mother's and father's educational level (r = .52, p =.000) may have prevented both factors from loading in the equations even though these three factors were seen to be significant in previous studies. Similarily, the high correlation between father's educational level and mother's educational level (r = .66, p = .000) may also have prevented both these factors from entering into the equations even though they were both seen as significant in some of the previous research.

Implications for Counselling

This study, as well as previous studies, has indicated that gender-based differences in the level of educational and occupational aspirations of adolescents and beginning to shrink or disappear. Three issues of importance to counsellors are that aspirations are not being realized, aspirations still partially follow a gender-dominated occupational structure, and different predictors were shown to be significant for adolescent males and females.

Although there were not gender-based differences in the levels of aspirations shown in this study or most previous studies, there is still a societal difference in the earnings of women and men. Women are still in a disadvantaged economic position (Statistics Canada, 1990). In order for this to change, adolescents need assistance with strategies to help them achieve their aspiration levels. Once adolescents have formulated their career goals, plans should be considered to help them achieve these goals. For example, counsellors could discuss the obstacles that adolescents may encounter so that the adolescent and

counsellor can start to plan strategies for avoiding or handling obstacles. If counsellors can help to prepare adolescents to succeed in the adult world, then perhaps equality of the economic positions of men and women could be eventually achieved.

Male-dominated occupations were aspired to by 77.5% of the male subjects in the present study. Only 2% of the male subjects aspired to female-dominated subjects, with the remaining 20% aspiring to balanced occupations. Male-dominated occupations, however, were aspired to by 39% of the female subjects. Only 23.5% of the females aspired to female-dominated occupations leaving 37.5% aspiring to balanced occupations. This indicates that women are moving away from same-gender-dominated occupations, whereas men are not.

Counsellors should start to deal with the issue of males considering more balanced or female-dominated occupations. As more women move away from female-dominated occupations, these occupations are then available for men. Gender-domination of occupations indicates that some individuals may not be selecting the occupations most appropriate for their interests and talents. If counsellors can help adolescents formulate occupational aspirations based on their interests and talents, then perhaps these individuals could achieve more satisfaction from their occupation. The absence of gender-domination of occupations involves both males and females being encouraged to consider opposite-gender occupations.

There were gender-based differences in the variables that were significant in the prediction of the level of educational and occupational aspirations. In order for

counsellors to understand the aspirations of their clients, they should understand the different predictor factors that are associated with different aspiration levels. Both grade-point average and commitment to studying were significant predictors in males' and females' educational aspirations, but the other predictors were different. It is important for the counsellor to realize that while family SES level is a significant predictor for the level of males' educational aspirations, it is not for female adolescents. Likewise, fathers' educational level is a significant predictor for females' educational aspirations, but not for males. Also, family SES level is a significant predictor for males' occupational aspiration level, but again is not significant for females. Grade-point average and fathers' educational level, instead, are significant predictors for females' occupational aspiration level.

Career counselling for adolescents is often done in the group setting of a high school class. Because these groups are generally mixed gender, counsellors should be aware of these different predictor factors that are significant for adolescent males and females. Counsellors should not assume, for example, that because adolescents are from either high or low SES level backgrounds that the students would hold aspirations levels relating to this background.

Career counselling could be used for the two purposes of ensuring that adolescents are aspiring to personally attainable education and occupations and helping adolescents develop strategies for their reaching goals.

Before adolescents decide on future aspirations they should consider their personal strengths and abilities that pertain to the fields they are considering. They should also consider the importance of the five life roles discussed in this

study - worker, homemaker, student, leisurite, and citizen. With the combined information of the importance of the roles as well as the individual's personal strengths and abilities, counsellors could help adolescents investigate educational programs and occupations that suit the individual.

Nevill and Super (1984) suggested that an appropriate order for career testing might be: career salience, values, career maturity, abilities, and finally interests. Considering career salience first allows the counsellor and adolescent to understand the importance of the various roles to the individual. Results from an interest inventory may not be valid if the work role is not important to the individual (Nevill & Super, 1984). Career counselling, at this point, could be more valuable if it was designed to help students develop an interest in the work role as well the other roles of student, homemaker, leisurite, and citizen.

Implications for Future Research

Sample

The results of this study showed that, for this sample, gender-based differences in the level of educational and occupational aspirations were not found. The study also indicated that some similar and some different factors were significant in helping to predict the level of educational and occupational aspirations than were found in previous studies. A larger and more representative sample could supply more generalizable information that could add to the knowledge in this area. To select a more representative sample, classes should not be selected by the schools and teachers involved; instead, they should be selected randomly by

the researcher. Although it is not known if the sample selected by the teachers is a biased sample, random selection by the researcher could ensure that this biasness is avoided.

This sample consisted of adolescents in grades 11 and 12. In order to obtain a more varied range of educational aspirations that would include adolescents not intending to complete Grade 12, a sample of grades 10, 11, and 12 could be used in future studies. The present study examined the aspirations of adolescents who had decided to stay in school to at least their grade 11 or 12 year. Although this information is useful, other information could be discovered by including younger adolescents.

Other Factors

A large portion of the variance in educational and occupational aspirations of adolescent males and females has not been explained by the factors used in this study and the factors used in many previous studies. Interviews with individual adolescents could help to outline some other factors that might be significant in their career decisions and could highlight factors that might not have been considered previously.

Parent's education and socioeconomic status have been considered, however, the parent's expectations for the adolescents could be a significant factor. Another factor that might be worthy of investigation is the importance of peer influence on the adolescent's future plans. Also, adolescent's values were not considered in this study. The inclusion of a measure of values could help to explain some of variance not explained in this study. Bandura (1977, 1978, 1982)

discussed the importance of role models. An adolescents' significant role models could be another interesting factor to consider in future research.

Longitudinal Study

This study, as well as previous studies, indicate that gender-based differences in educational and occupational aspirations are no longer apparent. However, women still occupy inferior economical positions to males in society since women working full time still earn 66% of the earnings of men (Statistics Canada, 1990). If the aspirations of the current adolescents are achieved, then more equal economic positions should be attained by women. It would, therefore, be worthwhile to complete a longitudinal study that would follow a group of adolescents to determine if they achieve their aspirations, or at least how close they come to achieving their aspirations.

Longitudinal studies can help to highlight the factors that are preventing individuals from reaching their career goals. This information, combined with expanded information about the influences that help adolescents form their career aspirations, can be used to help adolescent form attainable aspirations along with strategies for reaching their goals.

REFERENCES

Aneshensel, C. S. & Rosen, B. C. (1980). Domestic roles and sex differences in occupational expectations. Journal of Marriage and the Family, 42, 121-131.

Astin, H. S. (1984). The meaning of work in women's lives: A sociopsychological model of career choice and work behavior. The Counseling Psychologist, 12, 117-128.

Atkinson, J. W., Lens, W., & O'Malley, P. M. (1976). Motivation and ability: Interactive psychological determinants of intellective performance, educational achievement, and each other. In W. H. Sewell, R. M. Hauser, & D. C. Featherman (Eds.). Schooling and achievement in American Society. New York, NY: Academic Press.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84, 191-215.

Bandura, A. (1978). The self system in reciprocal determinism. American Psychologist, 33, 344-358.

Bandura, A. (1982). Self-efficacy mechanism in human agency. American Psychologist, 37, 122-147.

Bergen, D. J., & Williams, J. E. (1991). Sex stereotypes in the United States revisited: 1972-1988. Sex Roles, 24, 413-423.

Betz, N. E. and Fitzgerald, L. F. (1987). The career psychology of women. Orlando, FL: Academic Press, Inc.

Bielby, D. D. (1978). Maternal employment and socioeconomic status as factors in daughters' career salience: Some substantive refinements. Sex Roles, 4, 249-265.

Blishen, B. R., & Carroll, W. K. (1978). Sex differences in a socioeconomic index for occupations in Canada. Canadian Review of Sociology and Anthropology, 15, 352-371.

Blishen, B. R., Carroll, W. K., & Moore, C. (1987). The 1981 socioeconomic index for occupations in Canada. Canadian Review of Sociology and Anthropology, 24, 465-488.

Blishen, B. R., & McRoberts, H. A. (1976). A revised socioeconomic index for occupations in Canada. Canadian Review of Sociology and Anthropology, 13, 71-79.

Borg, W. R., & Gall, M. D. (1989). Educational Research: An Introduction, 5th ed. White Plains, NY: Longman Inc.

Brooks, L. (1990). Recent developments in theory building. In Brown, D, Brooks, L., and Associates (Eds.), Career choice and development, (2nd ed., pp 364-394). San Francisco, CA: Jossey-Bass.

Brown, D. (1990). Issues and trends in career development: Theory and practice. In Brown, D, Brooks, L., and Associates (Eds.), Career choice and development, (2nd ed., pp 506-517). San Francisco, CA: Jossey-Bass.

Brown, D. & Brooks, L. (1990). Introduction to career development: Origins, evolution, and current approaches. In Brown, D, Brooks, L., and Associates (Eds.), Career choice and development, (2nd ed., pp 1-12). San Francisco, CA: Jossey-Bass.

Burlin, F. (1976). The relationship of parental education and maternal work and occupational status to occupational aspiration in adolescent females. Journal of Vocational Behavior, 9, 99-104.

Cochran, L. R. (1983). Level of career aspiration and strength of career orientation. Journal of Vocational Behavior, 23, 1-10.

Corder, J., & Stephan, C. W. (1984). Females combination of work and family roles: Adolescents' aspirations. Journal of Marriage and the Family, ??, 391-402.

Danziger, N. (1983). Sex-related differences in the aspirations of high school students. Sex Roles, 6, 683-695.

Douvan, E. (1976). The role of models in women's professional development. Psychology of Women's Quarterly, 1, 5-20.

Falk, W. W., & Salter, N. J. (1978). The stability of status orientations among young, white, rural women from three southern states. Journal of Vocational Behavior, 12, 20-32.

Farmer, H. S. (1983). Career and homemaking plans for high school youth. Journal of Counseling Psychology, 30, 40-45.

Farmer, H. S. (1985a). The role of typical female characteristics in career and achievement motivation. Youth & Society, 16, 315-334.

Farmer, H. S. (1985b). Model of career and achievement motivation for women and men. Journal of Counseling Psychology, 32, 363-390.

Farmer, H., Keane, J., Rooney, G., Vispoel, W., Harmon, L., Lerner, B., Linn, R., & Maehr, M. (1981). Career Motivation Achievement Planning (C-Map). National Institute of Education (NIE).

Featherman, D. L., & Carter, T. M. (1976). Discontinuities in schooling and the socioeconomic life cycle. In W. H. Sewell, R. M. Hauser, & D. C. Featherman (Eds.). Schooling and achievement in American Society. New York, NY: Academic Press.

Fitzgerald, L. F. (1980). Nontraditional occupations: Not for women only. Journal of Counseling Psychology, 27, 252-259.

Fitzgerald, L. F., & Crites, J. O. (1980). Toward a career psychology of women: What do we know? What do we need to know? Journal of Counseling Psychology, 27, 44-62.

Fitzpatrick, J. L., & Silverman, T. (1989). Women's section of careers in engineering: Do traditional-nontraditional differences still exist? Journal of Vocational Behavior, 34, 266-278.

Fitzsimmons, G. W., Macnab, D. & Casserly, C. (1985). Technical manual for the life roles inventory: Values scale and salience inventory. Edmonton, AB: PsiCan Consulting Ltd.

Gerstein, M., Lichtman, M., & Barokas, J. U. (1988). Occupational plans of adolescent women compared to men: A cross-sectional examination. Career Development Quarterly, 36, 222-230.

Glass, G. V. & Hopkins, K. D. (1984). Statistical methods in education and psychology. Englewood Cliffs, NJ: Prentice-Hall Inc.

Goodale, J. G., & Hall, D. T. (1976). Inheriting a career: The influence of sex, values and parents. Journal of Vocational Behavior, 8, 19-30.

Gottfredson, L. S. (1981). Circumscription and compromise: A developmental theory of occupational aspirations. Journal of Counseling Psychology, 28, 545-579.

Greenhaus, J. H. & Sklarew, N. D. (1981). Some sources and consequences of career exploration. Journal of Vocational Behavior, 18, 1-12.

Hacket, G., & Betz, N. E. (1981). A self-efficacy approach to the career development of women. Journal of Vocational Behavior, 18, 326-339.

Hacket, G., Lent, R. W. & Greenhaus (1991). Advances in vocational theory and research: A 20-year Retrospective. Journal of Vocational Behavior, 38, 3-38.

Hamilton, L. C. (1990). Modern data analysis: A first course in applied statistics. Belmont, CA: Wadsworth, Inc.

Hannah, J. S. & Kahn, S. E. (1989). The relationship of socioeconomic status and gender to the occupational choices of grade 12 students. Journal of Vocational Behavior, 34, 161-178.

Harmon, L. W. (1981). The life and career plans of young adult college women: A follow-up study. Journal of Counseling Psychology, 28, 416-427.

Heilman, M. E. (1979). High school students' occupational interest as a function of projected sex ratios in male-dominated occupations. Journal of Applied Psychology, 3, 275-279.

Herzog, A. R. (1982). High school seniors' occupational plans and values: Trends in sex differences 1976 through 1980. Sociology of Education, 55, 1-13.

Holms, V. L., & Esses, L. M. (1988). Factors influencing Canadian high school girls' career motivation. Psychology of Women Quarterly, 12, 313-328.

Janman, K. (1989). One step behind: Current stereotypes of women, achievement, and work. Sex Roles, 21, 209-230.

Kriger, S. F. (1972). *n* ach and perceived parental child-rearing attitudes of career women and homemakers. Journal of Vocational Behavior, 2, 429-432.

Lee, C. C. (1984). An investigation of the psychosocial variables in the occupational aspirations of rural black and white adolescents. Journal of Research and Development in Education, 17, 28-34.

Lemkau, J. P. (1984). Men in female-dominated professions: Distinguishing personality and background features. Journal of Vocational Behavior, 24, 110-122.

Lemkau, J. P., & Pottick, K. J. (1984). The declining job satisfaction of white-collar women in sex-segregated and mixed-sex occupations. Journal of Vocational Behavior, 25, 344-358.

Leung, S. A., & Harmon, L. W. (1990). Individual and sex differences in the zone of acceptable alternatives. Journal of Counseling Psychology, 37, 153-159.

London, M. & Greller, M. M. (1991). Demographic trends and vocational behaviors: A twenty year retrospective and agenda for the 1990s. Journal of Vocational Behavior, 38, 125-164.

Lueptow, L. B. (1981). Sex-typing and change in the occupational choices of high school seniors: 1964-1975. Sociology of Education, 54, 16-24.

Macnab, D., Fitzsimmons, G., & Casserly, C. (1985). Administrator's manual for the life roles inventory: Values scale and salience inventory. Edmonton, AB: PsiCan Consulting Ltd.

Marini, M. M. (1978). Sex differences in the determination of adolescent aspirations: A review of Research. Sex Roles, 4, 723-753.

McCandless, N. J., Lueptow, L. B., & McClendon, M. (1989). Family socioeconomic status and adolescent sex-typing. Journal of Marriage and the Family, 51, 627-635.

McNulty, W. B., & Borgen, W. A. (1988). Career expectations and aspirations of adolescents. Journal of Vocational Behavior, 33, 217-224.

Nevill, D. D., & Super, D. E. (1986). The Salience Inventory: Theory, application, and research manual (research edition). Palo Alto, CA: Consulting Psychologists Press.

Nevill, D. N. & Super, D. E. (1988). Career maturity and commitment to work in university students. Journal of Vocational Behavior, 32, 139-151.

Norusis, M. J. (1983). Introductory statistics guide: SPSS:X. Chicago, IL: SPSS Inc.

O'Leary, V. (1974). Some attitudinal barriers to occupational aspirations in women. Psychological Bulletin, 81, 809-826.

Ornstein, S, Cron, W. L., & Slocum, J. W. (1989). Life stage versus career stage: A comparative test of the theories of Levinson and Super. Journal of Organizational Behavior, 10, 117-133.

Osipow, S. H. (1990). Convergence in theories of career choice and development: Review and Prospect. Journal of Vocational Behavior, 36, 122-131.

Osipow, S. H. (1986). Career issues through the life span. in Pallad, M. S. & Perloff, R. O. eds. Psychology and work: Productivity, change and employment, 141-168. Washington, D.C.: American Psychological Association.

Pedhazur, E. J. (1982). Multiple regression in behavioral research, 2nd ed. Fort Worth, TX: Holt, Rinehart and Winston, Inc.

Sewell, W. H., Haller, A. O., & Straus, M. A. (1957). Social status and educational and occupational aspiration. American Sociological Review, 22, 67-73.

Sewell, W. H., & Hauser, R. M. (1976). Causes and consequences of higher education: Models of the status attainment process. In W. H. Sewell, R. M. Hauser, & D. C. Featherman (Eds.). Schooling and achievement in American Society. New York, NY: Academic Press.

Sewell, W. H., & Hauser, R. M. (1975). Education, occupation, and earnings. New York, NY: Academic Press.

Sewell, W. H. & Shah, V. P. (1967). Socioeconomic status, intelligence, and the attainment of higher education. Sociology of Education, 40, 1-23.

Shavelson, R. J. (1981). Statistical reasoning for the behavioral sciences. Boston, MA: Allyn and Bacon, Inc.

Six, B., & Eckes, T. (1991). A closer look at the complex structure of gender stereotypes. Sex Roles, 24, 57-71.

Spaeth, J. L. (1976). Cognitive complexity: A dimension underlying the socioeconomic achievement process. In W. H. Sewell, R. M. Hauser, & D. C. Featherman (Eds.). Schooling and achievement in American Society. New York, NY: Academic Press.

Statistics Canada (1990). Women in Canada: A statistical report (2nd ed.). Ottawa, ON: Ministry of Supply and Services.

Student Assessment and Research (1992). Where do our graduates go? Communiqué, 2(1), 1.

Super, D. E. (1990). A life-span approach to career development. In Brown, D, Brooks, L., and Associates (Eds.), Career choice and development, (2nd ed., pp 197-261). San Francisco, CA: Jossey-Bass.

Super, D. E. (1980). A life-span, life-space approach to career development. Journal of Vocational Behavior, 16. 282-298.

Super, D. E. & Nevill, D. D. (1984). Work role salience as a determinant of career maturity in high school students. Journal of Vocational Behavior, 25, 30-44.

Valiga, M. J. (1987). The accuracy of self-reported high school course and grade information. ACT Research Report Series, 87-1,

Young, R. K. & Veldman, D. J. (1972). Introductory statistics for the behavioral sciences, 2nd ed.. New York, NY: Holt, Rinehart and Winston, Inc.

Youngman, M. B. (1979). Analyzing social and educational research data. England, UK: McGraw-Hill Book Company (UK) Limited.

APPENDIX A

QUESTIONNAIRE

CAREER ASPIRATIONS OF ADOLESCENTS

The purpose of the following questionnaire is to investigate career aspirations of adolescents. The information will be used to complete my Masters of Arts thesis at the University of British Columbia. Please answer the following questions as completely as possible. Your responses will be used to compare career aspirations of adolescent males and females and to determine factors that might influence those aspirations. Do not put your name on this sheet - all your responses are confidential.

This questionnaire and the attached form will be completed over the next 45 minutes. Your completion of this questionnaire represents your consent to be a participant in this study. If you prefer not to participate or if you decide to withdraw during the study, please return the forms to your teacher. This will not affect your standing in this course. Thank you for your assistance.

Wendy Johnston, 736-2661
Dr. Richard Young, 228-5259 (Advisor)
Department of Counselling Psychology

Personal Information

1. Sex Male _____ 2. Age _____

   Female _____ 3. Grade _____

4. What is the closest estimate of your average letter grade from your last report card?

   A _____ B _____ C+ _____ C _____ C- _____

   D _____ E _____

Family Background

5. Does your father or male guardian (circle one) presently live with you?

   Yes _____ No _____

   If you answered no, answer question 6.

6. How many days each month do you usually have contact with him?

   _____ days per month

7. What is the highest Level of Education reached by your Father or Male Guardian?

   _____ Less than Grade 12

   _____ Grade 12 Diploma

   _____ One to two years Community College, or Vocational/Technical/ Trade School

   _____ Bachelor's Degree

   _____ Graduate or Professional Degree

   _____ Do not know

   _____ No father or male guardian

8. What is your father or male guardian's present occupation? (Include retired, unemployed, or homemaker as occupations.)

   _____

9. Does your mother or female guardian (circle one) presently live with you?

   Yes _____ No _____

   If you answered no to question 9, answer question 10.

10. How many days each month do you usually have contact with her?

    _____ days per month

11. What is the highest Level of Education reached by your Mother or Female Guardian?

_____ Less than Grade 12

_____ Grade 12 Diploma

_____ One to two years Community College, or Vocational/Technical/ Trade School

_____ Bachelor's Degree

_____ Graduate or Professional Degree

_____ Do not know

_____ No mother or female guardian

12. What is your mother or female guardian's present occupation? (Include retired, unemployed and homemaker as occupations.)

_____

Your Future Plans

13. What is the highest level of education you expect to complete?

_____ Less than Grade 12

_____ Grade 12 Diploma

_____ One to two years Community College, or Vocational/Technical/ Trade School

_____ Bachelor's Degree

_____ Graduate or Professional Degree

14. List up to three occupations you have considered?

_____

_____

_____

15. Of these occupations, which is the most likely choice for you at this time?

_____

ADDENDIX B

LIFE ROLES INVENTORY

Salience Inventory - Commitment Scale

On the attached answer sheet, answer questions A to J using the following scale:

1 means **Little or none**
2 means **Some**
3 means **Quite a lot**
4 means **A great deal**

A. It is or will be important to me to be good in

1. studying
2. working
3. community service
4. home and family
5. leisure activities

B. I am or expect to be very much involved in

1. studying
2. working
3. community service
4. home and family
5. leisure activities

C. I would like to be remembered for what I did in

1. studying
2. working
3. community service
4. home and family
5. leisure activities

F. I am or will be proud to do well in

1. studying
2. working
3. community service
4. home and family
5. leisure activities

G. I feel personally involved in

1. studying
2. working
3. community service
4. home and family
5. leisure activities

H. I admire people who are good at

1. studying
2. working
3. community service
4. home and family
5. leisure activities

D. I would like to be active for many years in

1. studying
2. working
3. community service
4. home and family
5. leisure activities

E. I am committed to being active in

1. studying
2. working
3. community service
4. home and family
5. leisure activities

I. I find it fulfilling to take part in

1. studying
2. working
3. community service
4. home and family
5. leisure activities

J. I would like to have plenty of time for

1. studying
2. working
3. community service
4. home and family
5. leisure activities

ANSWER SHEET

Read each question on the previous sheet "Life Roles Inventory - Commitment Scale." Beside the letter for each question, fill in the answer in each column using the following scale. Answer each question for studying, working, community service, home and family, and leisure activities. Please do not leave any questions blank.

1 means **Little or none**
2 means **Some**
3 means **Quite a Lot**
4 means **A great deal**

	Studying	Working	Community Service	Home and Family	Leisure
A.	_____	_____	_____	_____	_____
B.	_____	_____	_____	_____	_____
C.	_____	_____	_____	_____	_____
D.	_____	_____	_____	_____	_____
E.	_____	_____	_____	_____	_____
F.	_____	_____	_____	_____	_____
G.	_____	_____	_____	_____	_____
H.	_____	_____	_____	_____	_____
I.	_____	_____	_____	_____	_____
J.	_____	_____	_____	_____	_____

APPENDIX C
CONSENT FORM

Title of Project:

Comparison and Prediction of the Level of Career Aspirations
of Adolescent Males and Females

conducted by
Wendy Johnston
Phone: 736-2661
supervised by
Dr. R. Young, Department of Counselling Psychology, U.B.C.
Phone: 822-6380

The purpose of the following study is to investigate career aspirations of adolescents. The information collected will be used to compare the career aspirations of adolescent males and females and to determine the factors that might influence those aspirations. The information will be used to complete my Masters of Arts thesis at the University of British Columbia.

Students will complete a questionnaire in one class hour of Consumer Education 12. Students who choose not to participate in the study will complete unrelated duties assigned by their classroom teacher. This will not have any effect on their class standing.

All information collected will be kept confidential. Students will not put their names on the questionnaire.

My son/daughter _____ will/will not participate in the above study on _____.

_____

Parent's/Guardian's Signature

Your signature acknowledges that you have received a copy of this consent form. Please sign the two copies and retain one for your records. Thank you for your cooperation.

APPENDIX D

Pearson Correlation Coefficients

	Class	Gender	Grade	Famses	FEduc	MEduc	EducPlan
Class		.04 p=.584	.02 p=.831	-.39 p=.000	-.39 p=.000	-.40 p=.000	-.05 p=.460
Gender	.04 p=.584		.17 p=.012	-.12 p=.118	-.16 p=.040	-.24 p=.002	.05 p=.49
Grade	.02 p=.83	.17 p=.01		.10 p=.173	.06 p=.45	.16 p=.039	.40 p=.000
Famses	-.38 p=.000	-.12 p=.118	.10 p=.173		.52 p=.000	.52 p=.000	.19 p=.010
FEduc	-.39 p=.000	-.16 p=.040	.06 p=.447	.52 p=.000		.66 p=.000	.21 p=.007
MEduc	-.40 p=.000	-.24 p=.002	.16 p=.039	.52 p=.000	.66 p=.000		.26 p=.001
EducPlan	-.05 p=.460	.05 p=.487	.40 p=.000	.19 p=.010	.21 p=.007	.26 p=.001	
Occses	-.10 p=.158	.08 p=.258	.26 p=.000	.30 p=.000	.34 p=.000	.29 p=.000	.39 p=.000
Genocc	-.01 p=.862	.43 p=.000	.01 p=.931	-.16 p=.035	-.15 p=.064	-.22 p=.006	-.15 p=.032
Study	.04 p=.539	.12 p=.094	.23 p=.001	-.02 p=.748	-.01 p=.900	-.01 p=.948	.33 p=.000
Work	-.03 p=.694	.01 p=.932	-.07 p=.303	.00 p=.981	-.13 p=.106	-.09 p=.301	-.13 p=.071
Commserv	.03 p=.686	.22 p=.001	.15 p=.031	.15 p=.054	-.07 p=.397	.02 p=.773	.05 p=.471
Homefam	.00 p=.062	.16 p=.104	.08 p=.260	.05 p=.535	.01 p=.932	.00 p=.963	.06 p=.402
Leisure	-.09 p=.202	-.13 p=.065	-.06 p=.420	.13 p=.094	.28 p=.000	.30 p=.000	.00 p=.953

	Occses	Genocc	Study	Work	Commserv	Homefam	Leisure
Class	-.10 p=.158	-.01 p=.862	.04 p=.539	-.03 p=.694	.03 p=.686	.00 p=.962	-.09 p=.202
Gender	.08 p=.258	.43 p=.ooo	.12 p=.094	.02 p=.932	.23 p=.001	.12 p=.104	-.13 p=.065
Grade	.26 p=.000	.01 p=.931	.23 p=.001	-.07 p=.303	.15 p=.031	.08 p=.260	-.06 p=.420
Famses	.30 p=.000	-.15 p=.035	-.02 p=.748	-.00 p=.981	.15 p=.054	.05 p=.535	.13 p=.094
FEduc	.34 p=.000	-.15 p=.064	-.01 p=.900	-.13 p=.106	-.07 p=.397	.01 p=.932	.28 p=.000
MEduc	.28 p=.000	-.22 p=.006	-.01 p=.948	-.09 p=.301	.02 p=.773	.00 p=.963	.30 p=.000
EducPlan	.39 p=.000	-.15 p=.032	.33 p=.000	-.13 p=.071	.05 p=.471	.06 p=.402	.00 p=.953
Occses		-.37 p=.000	.26 p=.000	-.08 p=.296	.05 p=.478	.01 p=.854	-.06 p=.393
Genocc	-.37 p=.000		-.09 p=.200	-.05 p=.504	.13 p=.073	-.03 .699	-.04 .610
Study	.26 p=.000	-.09 p=.200		.20 p=.005	.08 p=.284	.03 p=.695	-.09 p=.218
Work	-.08 p=.296	-.04 p=.504	.20 p=.005		.18 p=.012	.19 p=.009	.08 p=.323
Commserv	.06 p=.478	.13 p=.073	.08 p=.284	.18 p=.012		.37 p=.000	.04 p=.561
Homefam	.01 p=.854	-.03 p=.699	.03 p=.695	.19 p=.009	.38 p=.000		.09 p=.197
Leisure	-.06 p=.393	-.04 p=.610	-.09 p=.218	.07 p=.323	.04 p=.561	.09 p=.197	

Legend

Class - School and Class Number
Gender - Male or Female
Grade - Grade-point Average
Famses - Family Socioeconomic Level
FEduc - Father's Educational Level
MEduc - Mother's Educational Level
EducPlan - Aspired to Level of Education
Occses - Aspired to Socioeconomic Level of Occupation
Genocc - Percent of Women in Aspired to Occupation
Study - Commitment to Studying
Work - Commitment to Work
Commserv - Commitment to Community Service
Homefam - Commitment to Home and Family
Leisure - Commitment to Leisure

APPENDIX E

Sample Characteristics

Variable		Number	Percent
Gender	Male	93	44.7%
	Female	115	55.3%
Class	Westside	103	49.5%
	Eastside	105	50.5%

APPENDIX F

Sample Characteristics - Both Genders

Variable	Mean Total Sample	Standard Deviation
Grade Point Average	5.20	1.11
Family Socioeconomic Status	49.27	16.18
Father's Education	2.93	1.60
Mother's Education	2.62	1.50
Expected Level of Education	4.17	.93
Expected Occupation SES Level	59.92	16.78
Percent of Women in Expected Occupation	33.68	25.54
Commitment to Studying	29.82	7.33
Commitment to Working	30.29	5.89
Commitment to Community Service	22.86	8.03
Commitment to Home and Family	30.49	7.25
Commitment to Leisure	30.39	7.47

Legend

Grade Point Average:
- 1 - E
- 2 - D
- 3 - C-
- 4 - C
- 5 - C+
- 6 - B
- 7 - A

Educational Level:
- 1 - Less than Grade 12
- 2 - Grade 12
- 3 - 1 - 2 years Community College, or Vocational/Technical/ Trade School
- 4 - Bachelor's Degree
- 5 - Graduate or Professional Degree

SES Scale:
Refer to discussion of scale on Page 45.

Percent of Women in Occupation:
- 0 - 34% females - male dominated
- 35 - 65% females - balanced gender
- 66% - 100% females - female dominated

Commitment Scale:
Refer to discussion of scale on Pages 42 and 43.

APPENDIX G

Sample Characteristics - Males

Variable	Mean Males Only	Standard Deviation
Grade Point Average	4.99	1.16
Family Socioeconomic Status	51.38	18.30
Father's Education	3.22	1.64
Mother's Education	3.03	1.54
Expected Level of Education	4.12	.99
Expected Occupation SES Level	58.43	16.20
Percent of Women in Expected Occupation	21.78	17.76
Commitment to Studying	28.84	6.96
Commitment to Working	30.25	6.21
Commitment to Community Service	20.83	7.34
Commitment to Home and Family	29.55	7.92
Commitment to Leisure	31.49	7.06

Legend

See Page 117.

APPENDIX H

Sample Characteristics - Females

Variable	Mean Females Only	Standard Deviation
Grade Point Average	5.38	1.04
Family Socioeconomic Status	47.54	13.97
Father's Education	2.71	1.54
Mother's Education	2.31	1.40
Expected Level of Education	4.21	.88
Expected Occupation SES Level	61.16	17.22
Percent of Women in Expected Occupation	43.58	26.84
Commitment to Studying	30.58	7.54
Commitment to Working	30.32	5.66
Commitment to Community Service	24.46	8.21
Commitment to Home and Family	31.23	6.62
Commitment to Leisure	29.52	7.70

Legend

See Page 117.