

THE UNIVERSITY OF MANITOBA

THE EDUCATIONAL AND OCCUPATIONAL
ASPIRATIONAL LEVELS OF FRANCO-MANITOBAN
SENIOR HIGH SCHOOL STUDENTS

by

Gilbert A. Legal

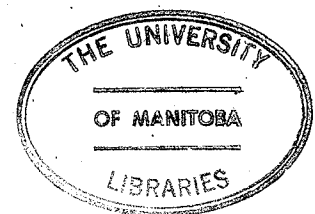
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A dissertation submitted to the Faculty of Graduate Studies of
the University of Manitoba in partial fulfillment of the requirements
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ABSTRACT

To gain insight into the phenomena under study and to focus clearly the research problem, four general hypotheses were derived from stratification and socialization theory: selected social factors are related to the educational and occupational aspirational levels of Franco-Manitoban senior high school students, 1) when no statistical controls are applied; 2) when socio-economic status of family is statistically controlled; 3) when academic achievement of the students is statistically controlled; and 4) when both socio-economic status of the family and the academic achievement of the students are statistically controlled.

A review of existing literature and research revealed that the direction of the relationships stated in the general hypotheses could be predicted. The resultant research hypotheses were tested. In essence, it was hypothesized that the higher the socio-economic status of the family; and the higher the academic achievement of student; and the larger the student's community of residence; and the stronger the parental encouragement for post-high school education; and the greater the student's identification with his/her French-Canadian background; and the higher the prestige-rating of the father's occupation; and the stronger the teacher encouragement for post-high school education, and the greater the number of extra-curricular activities in which the student participates, the greater the educational aspirational level and the greater the occupational aspirational level.

The data were gathered by means of questionnaires administered to all senior high school students in the largest high school in each of the five bilingual school divisions of Manitoba. Questionnaires were completed by 541 Franco-Manitoban students.

Generally, the correlational analysis revealed findings supportive of the specific hypotheses which postulated a positive relationship between each of the selected independent variables and the educational and occupational aspirational levels of the students. More specifically, the results indicate that the socio-economic status of the family, the academic achievement of the student, his/her degree of ethnic identification and the extent to which he/she participates in extra-curricular activities are the best predictors of the students' levels of educational and occupational aspirations. The size of the student's community of residence and the strength of his parents' encouragement for post-secondary education are seen as moderately important predictors, whereas strength of teacher encouragement for post-high school education cannot be used to predict the aspirational levels of students.

The anticipated sex differences in educational and occupational aspirational levels which had been reported in past research were not evident in this study.

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CHAPTER I

INTRODUCTION

Statement of the Problem

In contemporary, relatively open-class societies, ideology and social organization help in the choosing of occupations by individuals. On the other hand, many of the structures of occupations internally tend to negate the individual's opportunity to choose freely. In addition, the sheer multiplicity of occupations tend to make for rather ineffective aspiring and choosing of occupations due to the absence of societal or occupational mechanisms for communicating to the potential aspirants the wide range of occupations that are consistent with the individual interests and abilities.

One of the most definitive and wide-spread characteristics of the occupational nature of contemporary society is the conspicuous absence of appropriate mechanisms for communicating "occupational knowledge" and equating occupations with interests and abilities. Therefore, one does not aspire systematically to 20,000 or more occupations but perhaps to a dozen or less. Lee Taylor (1968, p. 86) puts it in these terms:

"...Freedom to choose in a structure of ignorance is considerably less than real freedom."

Hypothetically, one can aspire to any occupation and theoretically one can choose any occupation for which one has the interest

and ability. But, given the very concrete limitations mentioned above and using the abundant literature available, it becomes clear that a certain number of social, psychological and other factors are highly influential in determining one's aspirational level. (Super et al., 1957).

Ginzberg (1951) suggests that there tends to be great wastage of both individual and social resources in the ways individuals reach decisions regarding occupations. Personal capacities and available educational opportunities, for example, are often misused or not used at all. Until the factors influencing occupational choice and their relative importance are known, one cannot really understand why it occurs or the means by which it can be reduced.

The present study was undertaken to investigate which of a number of different social and psychological factors are most strongly related to the educational and occupational aspirations of high school students.

Past studies concerned with educational and occupational aspirations have concentrated primarily on an examination of those factors thought to be relevant for youth living in urban and rural areas of the United States and Canada. In general, these various investigations reveal that, for both rural and urban respondents, a number of the same factors, such as sex, IQ scores, scholastic ability, parental values, family socio-economic status, size of community of residence and educational attainment of parents, consistently appear to be related to the educational and occupational aspirational levels of youth.

The present study was concerned basically with many of the same factors researched in the past, but differs notably from earlier studies with respect to the type of youth which constitutes the sample. More concretely, this study examined the relationships between certain social, personal and family-related factors and the educational and occupational aspirational levels of Franco-Manitoban senior high school students.

Definition and Significance of the Problem

The basic purpose of the present study was to determine which of a large number of variables researched in past studies and found related to educational and occupational aspirational levels of American and Canadian (especially Manitoban) youth were also related to the aspirational levels of Franco-Manitoban youth.

It will then be possible to determine the relative strength of each relationship by applying certain stringent controls by statistically keeping selected variables constant. A third logical step would be to draw up a list of the most reliable predictors--variables strongly related to the educational and occupational aspirational levels of Franco-Manitoban students even under strict variable control.

Concretely, it is an attempt to establish a hierarchy of importance among the independent variables by discovering as precisely as possible what portion of the total variation is explained by each independent variable.

A number of studies concerned with the aspirations of Manitoba high school students and the factors related to those aspirations have been completed (e.g. Forcese and Siemens, 1965; Krescy, 1970;

Kristjanson, 1967; Peach, 1970; Siemens, 1965 and Smith, 1972). Since the previous studies focused on the Interlake region of Manitoba, a small, selected suburban Winnipeg sample, central and western Manitoba, and selected single enterprise communities of Manitoba and northern Ontario, this study was an attempt to expand the present limited knowledge regarding the educational and occupational aspirations of Manitoba youth by studying more closely selected Franco-Manitoban senior high school students.

The earlier Manitoba studies generally concurred with research completed in the past two decades in the United States and Canada with respect to the relationship of various factors with the aspiration levels of high school students. The present study initially assumed that factors which correlated with students' aspiration levels elsewhere would also be related to French Manitoba's high school students, albeit the relative strengths of the relationships might be different.

As previously noted, past research indicates that certain variables tend to be related to the aspirations of high school students. If the variables related to students' aspirational levels elsewhere are related also in French Manitoba, as this study assumed they might be, then the programmes that would aid in raising the aspirations of youth and of increasing their awareness of available occupations and skills might be implemented and pursued in this Franco-Manitoban segment in the same way as they may be in the population of Manitoba in general. However, if the relationships between various factors and the aspirational level tend to disappear in this selected segment of Manitobans, conventional occupational information programmes and educational facilities may need to be altered and special programmes implemented.

Thus, if certain variables appear to be reasonably strong predictors of aspirational levels, primary consideration should be given such variables when change is contemplated in any area which directly or indirectly affects youth.

The high schools concerned in this study were jointly selected by members of the Department of Sociology and the Department of Curriculum: Humanities and Social Sciences, Faculty of Education for the purpose of examining the relationships of certain independent variables and the aspirational levels of Franco-Manitoban students. One high school was selected from each of the five so-called bilingual school divisions in Manitoba. These five selected bilingual divisions (English and French) thus represent the five French-speaking areas of the province. The population may thus be defined as all registered full-time students in grades ten to twelve inclusively in the five selected high schools.

Earlier studies have examined aspects of the vocational development of youth representative of a number of environmental origins and ethnic background; however, Franco-Manitoban youth have not hitherto been studied in terms of their aspirations. In general, past studies found significant relationships between a number of social and psychological variables and the occupational and educational aspirations of youth. Since the students under study are apparently different in some respects from other students studied, the variables selected for analysis include some variables earlier found significantly related to occupational and educational aspirations, some variables which were not and some others thought particularly relevant for the youth studied.

CHAPTER II

REVIEW OF THE LITERATURE

1. Introduction

In the past, researchers, in examining a host of variables have provided abundant data. For some of these factors, or variables, there is substantial agreement that a strong relationship with aspirational level exists; for certain other variables there is general agreement that no significant relationship exists; and for still others the results are contradictory. The purpose of this chapter is to examine in some detail many of these variables actually selected in this study to determine to which of the above categories they belong and thereby formulate meaningful hypotheses.

Before presenting concretely the review of the literature, a specific point should be made clear. Whether educational or occupational aspirations take chronological precedence is conjectural. Some may aspire occupationally first and then pursue the education requisite for achieving their occupational objective; some may simply aspire educationally and select an occupation later. But, quite apart from the chronological element and indeed much more important is that a number of writers have noted the close relationship between occupational aspirations and educational aspirations. Many researchers, Asbury (1968), Slocum (1958) and Kahl (1953) have suggested that students appear to use education not in pursuit of a specific occupational objective but rather as a means of securing an occupational

level and its concomitants. Then, if educational and occupational aspirations are closely related, it is probable that both may also be related to many of the same personal and family-related factors (e.g., Force and Siemens, 1965; Siemens, 1965).

2. Empirical Research

An examination of the whole question of aspirational levels of youth reveals that an extensive amount of empirical research has been done in the area.

W. H. Sewell's Educational and Occupational Perspectives of Rural Youth (1963) and Career Choices of Youth in a Changing Society by L. C. Burchinal review the larger body of sociological literature relating to educational and occupational aspirations of youth. Both reviews consider the relationships between such variables as size of community of residence, socio-economic status of family, father's occupation and education, mother's education, ethnicity and the educational and occupational aspiration levels of adolescents.

In the United States, the study undertaken by Sewell (1957) investigated the relationship between a great number of variables and the educational and occupational aspirations of a statewide (Wisconsin) sample of high school youth. He found positive relationships between both the educational and occupational aspirational levels of youth and family SES, father's occupation and education, mother's education, and size of community of residence.

On the other hand, researchers such as Schwarzweller (1960), Shah (1968) and Kohn (1969) report no relationship between size of community of residence and aspirational level of youth.

A vast amount of empirical work has been done relating parental and peer influences on educational and occupational aspirational levels of youth by Kandel and Lesser (1969), Regberg and Westby (1967), Duncan, Haller and Portes (1968) and others.

In sharp contrast with the research from the United States, Canadian studies related to the educational and occupational aspirations of youth are few in number and limited in scope.

Nevertheless, a few Canadian studies deal with influence of family and personal factors upon the educational and occupational experiences or plans of youth and warrant mention. Perhaps the most comprehensive work in this area has been one by Porter, Blishen and Porter (1973). These three well-known Canadian sociologists sampled 9,000 Ontario high school students and 3,000 of their parents. The students examined were in Grades 8, 10 and 12; these being considered critical stages in the decision-making process encountered by all students. Overall, the results are fairly consistent with both American and other Canadian research in the same general theoretical area.

In this Ontario high school study the proportions of students who expected to go to university were 36 percent in Grade 8, 29 percent in Grade 10 and 34 percent in Grade 12. Of the students with high mental ability, almost half expected to go (45 percent in Grade 8, 42 percent in Grade 10 and 45 percent in Grade 12). Of the high mental ability students who were in the five-year program and thus eligible to go to university, 54 percent in Grade 10 and 58 percent in Grade 12 had these expectations. The proportions of those students in the five-year program who reported that their grades

were over 75 percent who expected to go to university was still higher (67 percent in Grade 10 and 71 percent in Grade 12). The authors State:

"These are the students who would be most likely to be motivated to go to university; they are prepared to work hard and they have a high self-concept of ability".

(Porter, Blishen and Porter, 1973, p. 197).

In a follow-up study, conducted by the same authors in the Spring of 1973, of the Grade 12 students in the 1971 sample it was found that many students had not been realistic in their expectations when they answered the questionnaire in 1971. Specifically, at that time, only 19 percent wanted to go directly to work after leaving high school and 23 percent expected to. In fact, 48 percent actually did. Thirty-seven percent wanted to go to university and 34 percent expected to, but only 27 percent did. In short, almost half the students went to work immediately after high school, and of those students, more than half had aspired to continue to university.

Finally, with respect to social class and student educational aspirations, the proportion of students in Grade 12 who expected to go to university ranged from 60 percent of the highest class to only 24 percent of the lowest. Extremely revealing is the fact that when controlling for IQ scores the number of high social class students actually doubled the number of low social class students who expected to go to university even with the greater absolute number of students ranked as low social class. Among the students who would be eligible and would be most likely to benefit from university--the high achieving students in the five-year program--the proportions who expected to go on to university ranged from 79 percent of the higher classes to only 57 percent of the lower classes.

Another important study in Ontario was conducted by W. C. Fleming of the Ontario Department of Educational Research, author of the "Atkinson Study Reports" on Grade 13 students enrolled in public and private schools in Ontario in 1955-56. Report I (1957) stated that of the Grade 13 students enrolled in universities the following year, a disproportionately high number were found to represent smaller-sized families, families with both parents alive, where the father occupied a high status job, where parents were more highly educated and families that lived in a medium- to large-sized city.

Another significant study was conducted by Hall and MacFarlane (1962). They noted a close relationship between educational behavior, as measured by incidence of high school dropout and the occupational status levels of father. Their findings also suggest that girls adapt considerably better to the school system and had a much greater likelihood of climbing above their parents than was found to be the case for boys.

Finally, it is interesting to note that in Manitoba, during the last five to ten years a rather impressive number of research projects pertaining to the area of youth aspirations and plans have been completed: Forcese and Seimens (1965); Krescy (1970); Kristjanson (1967); Peach (1970); Prystupa (1969); Seimens (1965); Smith (1972). These studies focused on the Interlake Region of Manitoba, a small, selected suburban Winnipeg sample, central and western Manitoba and five geographically relatively isolated single enterprise communities.

In summary, it appears that certain characteristics of the family are related to the total development of the child. It has been seen that the child may inherit the father's occupation or otherwise be the recipient of the projected ambitions or interests of the parents. Parents, in their individual and collective roles, may mould the attitudes, motivations and goals of the children. Parental interest in and expectations of the child's ability and development provides impetus to the child's aspirations and his desire to achieve.

In general, empirical research suggests that the variable found to be most influential on educational and occupational aspirations of youth in the United States are also the most important in Canada.

With the general relationships in past studies noted, the literature may be reviewed according to specific variables found to be most conspicuous in other studies.

3. The Specific Variables

Sex

While most researchers have centered their attention on aspirational levels and vocational choices of males, a number have examined both sexes and found important aspirational differences between the sexes. Edlefsen and Crowe (1960) suggested that as they grow older and pass from one school grade level to the next, girls increasingly prefer the occupation of housewife and fewer prefer high and middle class jobs. Boys, meanwhile, appeared to prefer higher status jobs with an increase in grade. Also Dipboye and Anderson (1959) concluded that the aspirational levels of boys and

girls were different because of differential values held by each sex. Similarly, Slocum and Bowles (1968) found that a considerably higher percentage of boys than girls aspired to professional and technical occupations. In his study of selected family variables and their relationship with the level of occupational aspirations of males and females, Siemens (1965) found that some variables significantly related to the level of occupational aspirations of males but were not so related to that of females.

Herriott (1963) suggested that boys do not aspire higher than girls simply because they are boys. Rather, social forces, the individual's self-assessment and the expectations others have for the person's behavior function as "intervening variables" resulting in differential aspirations between the sexes. On the other hand, in their Canadian study, Hall and MacFarlane (1962) suggest from their findings that girls adapt considerably better to the school system and had a much greater likelihood of climbing above their parents than was found to be the case for boys.

Father's Occupational Level

A number of studies have found strong positive relationships between youth's occupational aspirations and their fathers' occupational prestige level. In separate studies, Krippner (1963) and Mowlesian and his associates (1966) found that the children's occupational aspiration levels or preferences were a direct reflection of the occupational prestige level of the fathers' occupations. Similarly, Edlefson and Crowe (1960), in their sample of nearly three thousand Washington state junior and senior high school students, found that those from middle and high occupational status families

wanted at least the same occupational levels as their fathers.

Youmans (1956) hypothesized that position in the social structure as determined by the father's occupational status was more important in predicting the aspirational level of youth than any other home, school or personal work experiences. The parental occupations of the sample of 6,789 males were trichotomized into: white collar workers, manual workers and farmers. Nearly 31 percent of the sons of white collar workers actually expected to be professionals while only 21 percent and 12 percent respectively of the sons from the latter two strata expected to be professionals.

Stephanson (1955) studied the question differently, making a distinction between student plans or expectations and aspirations. He studied a sample of 443 junior high students and concluded that all students tended to aspire high regardless of their fathers' occupational level. However, large differences were noted between aspirations and actual expectations. With this distinction in mind, and grouping the students according to the fathers' occupational levels, plans or expectations were more closely related to fathers' occupational levels than aspirations.

Seimens (1965) and Peach (1970) examined, respectively, 1,844 and 3,378 high school students from selected areas of Manitoba. Seimens found that students' derived levels of occupational aspirations (LOA) and fathers' occupational levels were statistically significant at the .01 level. Similarly, using ordered means, Peach found that students' occupational aspirational levels were reflected by family social status as expressed by the father's occupational

level. Both Seimens and Peach utilized a modified version of Haller and Miller's Occupational Aspiration Scale (OAS).

However, it is important to note that the relationship between student aspirations and social status, particularly as measured by father's occupational level, may be spurious since both social status and aspirations are linked to intelligence (e.g. Sewell, Haller and Strauss, 1957). Thus, the social status effects upon individual aspirations may be partly attributed to the relation of intelligence with both social status and aspirations.

Cognizent of the strong relationship of IQ scores and socio-economic status with occupational aspirations revealed in earlier studies, and noting different aspirational patterns between the sexes, Kristjanson (1967), using the same raw data available to Seimens (1965), examined the relationship between fathers' occupational prestige levels and student aspirations. When controlling for sex and intelligence levels, a chi-square relationship between the two variables was significant at the .01 level. But when holding constant sex and socio-economic status no significant relationship between fathers' occupational level and aspirations appeared, thereby suggesting a close relationship between socio-economic status and the prestige level of fathers' occupations. However, when all three variables (sex, intelligence and socio-economic status) were held constant simultaneously a significant relationship at the .02 level was found. As a result, Kristjanson suggested that occupational aspiration levels appeared more closely related to socio-economic status than to IQ scores.

Opinion of Father's Occupation

Results of past research generally support the hypothesis that the higher the socially-ascribed occupational status of the father the higher the student's level of aspiration. But again, if methodological precautions are not met, it may well be that the apparent relationship is affected by the child's opinion of his father's occupation since a child may ascribe a status to his father's job which is different from the social ascription.

Indeed, Kristjanson (1967), analyzing his data by chi-square and applying controls of sex and intelligence level, sex and socio-economic level and the three combined, noted no statistically significant difference at the .05 level between students' subjective evaluations of their fathers' occupations and the aspirational levels of those students. A disproportionate number of the students who were classified as high aspirers in the study rated their fathers' occupations low.

Socio-economic Status SES

Family social status is largely ascribed on the basis of the prestige level of the father's occupation and his annual income. Most studies have concurred in their results that a strong positive relationship exists between SES and student aspirations.

Seimens (1965), for example, found significant chi-square relationships between occupational aspirations of his Manitoba high school sample and the SES of their parents. Sewell and his associates (1957) found a similar significant relationship in their United States study even with intelligence controlled. This statewide Wisconsin study found that 56 percent of the students whose family's socio-

economic status ranks in the top one-third of the sample plan on college while only 21 percent of those whose family's socio-economic status is in the bottom two-thirds have such plans. Two other statewide samples, Schwarzschild (1960) in Kentucky and Slocum (1956) in Washington have reported similar results.

In Canada, Bligh and associates (1960) state that in almost any aspect of education the children of high social class parents enjoy superiority over those from the lower class even when intellectual capacity is equal. More specifically, the students from high social class background stay in school longer, achieve higher academic standing, attain higher levels of education, participate more in extra-curricular activities and occupy the prestige positions in such activities. Also, Porter's discussions (1961 and 1965) convey the impression that stratification of educational opportunity is still a dominant feature of the Canadian system and that the effects of social origins on academic achievement remain exceedingly difficult to eradicate. The results of the 1971 Ontario study conducted by himself and associates statistically substantiate these conclusions.

Fleming (1957) shows that a family's position in the class structure is capable of exerting considerable direct and indirect influence on a child's chances of completing high school and continuing on to higher levels of education. Directly, family socio-economic status dictates the availability of financial support; and indirectly it determines whether the child's contribution to the family's welfare is required immediately or could be postponed indefinitely. Besides influencing the amount of education attained, class position also influences the quality of the education available.

In addition, familial socio-economic status tends to determine whether the children will have access to the educational and occupational information deemed mandatory for mobility opportunities. Lipset and his associates (1955) suggest that one of the advantages possessed by students (especially boys) in the higher social classes is the access to superior advice about the labor market. Their analysis showed that children of families in the higher status occupations were more likely to receive realistic advice from many sources.

Henderson's examination (1966) of SES relative to real and ideal aspirations revealed that 82 percent of the middle class students and 78 percent of the lower class aspired to professional and managerial positions. However, of the middle class students aspiring to such positions, 88 percent actually believed they would reach their goal, but only 12 percent of the lower class students realistically believed they could attain such lofty positions. This shows the existence of a large discrepancy between the hopes and actual expectations of the lower SES group. The presence of such differences may be explained by different values or different membership behavior among the social classes.

Therefore, the family, being the main socialization agent, shapes the orientation of its members toward an existing opportunity structure (Perrucci, 1967). It is possible that the pre-conceived attitudes and stereotyped responses of some people prevent them from taking advantage of opportunities that are really available. Several authors have suggested that socio-economic status conditions perception of opportunity (Hyman, 1953; Mizruchi, 1964; Rosen, 1969). For example, from analyzing data from national surveys, Hyman indicates

that the lower classes believe that economic opportunities are limited for them in comparison to opportunities for higher classes. Mizruchi endeavored to examine the extent to which members of the various classes believe that opportunities for getting ahead are available and found that class differential indeed existed in the respondents' perceptions of their own chances of getting ahead. In general, lower class respondents were much more apt than middle or upper class respondents to perceive the opportunity structure as being closed to them.

More succinctly, the literature suggests that students' subjective impressions of their life situations vary with their socioeconomic status. Indeed, anxieties are more prevalent among members of the lower class. Therefore, if a student's aspirations are a reflection of his perception of mobility and the opportunity structure, then almost invariably this level of aspiration will also be reflected by his (or his family's) social class position.

A number of relatively recent empirical investigations have discovered class differentials in levels of educational and occupational aspirations. Rosen (1956), for example, noted that the social strata differed decidedly with respect to educational aspiration level, which was found to be considerably higher for adolescents in the upper and middle strata than for those in the lower strata. The author attributed the observed variation to the propensity of middle class parents to focus their demands and expectations, as well as rewards and punishment, on their child's academic performance. Rosen states that "from the beginning of his school career the middle-class child is more likely than his lower class counterpart to have standards of excellence in scholastic behavior set for him by his parents". (Rosen, 1956, p. 211). Various studies cited by

Bronfenbrenner (1958 and 1963) also show that middle class parents make greater demands for school achievement and length of attendance.

In a study conducted in rural Wisconsin, Sewell and his associates (1957) found a positive association between socio-economic status and attitude toward high school education; each of the successively higher socio-economic status groups was significantly more favorable to high school education than the ones below them in status.

Information obtained by Youmans (1959) revealed that one-quarter of the youth in 480 Kentucky families planned on college. When the families involved were divided according to SES level, three SES groups of approximately equal size resulted. The division revealed that one-half of the youth who planned on college came from the high SES group.

Krauss's (1964) data on 387 working class and 267 middle class high school seniors in four San Francisco Bay area high schools indicate that students having a father in a high status occupation and having family members or friends of the family with college experience are more likely to have college aspirations. Studies conducted by Bordua (1960) and Sewell (1964) show that students from higher socio-economic backgrounds are more likely to plan on attending college than those from lower socio-economic levels. In addition, Bordua reported that middle class parents place more emphasis on their children entering college than their lower class counterparts. Similarly, Slocum's (1967) analysis of data obtained from a random sample of Washington public high schools revealed that educational aspirations and expectations of students were positively related to the economic and social status of their parents. Bowles and Slocum (1968) found

that the sons of blue-collar workers and farmers were more likely to plan for vocational training than the sons of white-collar workers. Almost identically, the daughters of blue-collar and clerical workers were more likely than the daughters of men in higher status occupations to plan vocational or business training. Generally, these business and vocational oriented students (male and female) were less likely than those planning on college to perceive their family's income as above average.

In their study of 10,318 Wisconsin high school seniors, Sewell and Shaw (1968) found that students' college plans are substantially positively related to the socio-economic status of the family, the intelligence level of the student and their parents' encouragement. Their analyses show, also, that social class differences in college plans were not completely accounted for either by the student's level of intelligence or by his perceived parental encouragement, or even both taken together. Therefore, it is seen that social class background plays an independent role in determining a student's aspirational level.

Pavalko and Bishop (1966) point out that there appears to be little systematic research published of the relationship of socio-economic status to the educational and occupational aspirations of Canadian youth. However, a few investigations have endeavored to remedy this situation. Porter (1965), for example, summarized Canadian census data and concluded that there is a considerable amount of evidence indicating that a student's desire to stay in school and continue to university is related largely to his family's

position in the social structure. Fleming's (1957) findings from a study of the post high school plans of 9,404 Ontario Grade 13 students, which suggest that education at the university level is to a considerable extent the privilege of a numerically small occupational class, concur with Porter's subsequent conclusion. More recently, Porter, Blishen and Porter (1973), using a sample of 9,000 Ontario high school students, and Breton (1970) examining a large national (Canadian) sample reported very similar results, especially the strong positive relationships between the aspirational level (educational and occupational) of students and their families' social class position.

Another study conducted in the Province of Ontario in the cities of Port Arthur and Fort William (now Thunder Bay) by Pavalko and Bishop (1966) also examined the effect of socio-economic status on the college plans of 889 twelfth grade students. The research report points to a direct relationship between the students' college plans and the socio-economic status of their families even when sex and intelligence were controlled simultaneously.

Considerable evidence also indicates that parental socio-economic status, however measured, is closely related to the occupational aspirations and plans of their children. Hollingshead (1949), for example, found that the occupational patterns of each class in the adult world were almost identically reflected by the pattern of vocational choices among high-school-aged adolescents. Ginzberg (1951) found that generally all boys progressed through essentially the same stages of vocational development but differences in occupational choices were detected. Boys, in the high income group, even at an early age, tended to assume that they would go to college and later

"realistic stage" enter the professions. On the other hand, boys from low income families restricted their selection to the skilled work category and generally were satisfied with a job in which a salary just exceeded that of their fathers'. On the basis of his data, Ginzberg contends that the lower income group's modest level of occupational aspiration is probably their major limiting factor.

Sewell, Haller and Strauss (1957) suggest from their findings that values specific to the social class milieu in which a student is socialized constitute important influences on his subsequent aspirational level. The analysis reveals that, even with intelligence controlled, the aspirational level of adolescents of both sexes were determined by the social status of their families. Their results, again, show the independent contribution of the social class variable as a predictor of an adolescent's occupational aspirational level.

Data obtained from 1,844 students attending high schools in selected areas of Manitoba support Siemens' (1965) hypothesis that the educational and occupational aspiration levels of high school boys and girls increase with increasing socio-economic status of "family of orientation". Similar results have been found with reference to Manitoba high school students by Siemens and Driedger (1965); Kristjanson (1967); Prystupa (1969); Krecsy (1970) and Smith (1972).

Others, however, have argued that there is little difference between classes as to aspiration level. Bronfenbrenner (1958, for example, assumes that the levels of aspiration are identical for working class and middle class students. Scanzoni's (1967) data and Bender et al. (1967) show in their studies that the aspirations of boys in a low-income area compare favorably with those of boys in

higher-income areas.

In general, however, the literature reviewed overwhelmingly shows that the initial position of an adolescent in the stratification system is not dependent upon his personal achievements, but is ascribed on the basis of his parents' status. By definition, students from lower socio-economic families are faced with social and financial disadvantages which could affect the amount and quality of education available to them and thereby restrict their occupational alternatives. It has become clear also, that the family provides a framework for the formulation of values and assessment of the opportunity structure and thus its socio-economic level could influence a youth's orientation toward society, in particular. Again, in the broad areas of stratification and socialization, it can be argued--and indeed the literature is supportive of such--that a family's position in the social structure could affect its ability to provide vocationally relevant experience and information for its adolescent members.

Educational Levels of Parents

Porter (1961, p. 113) states, "the level of education of those who are or will become parents is an important factor in the transmission of values about education". Bertrand (1962) agrees, declaring that it is logical to assume that, in the family, educational values are transmitted to children in proportion to the education of the parents. Indeed, there appear to be fairly consistent findings to the effect that parents' level of educational attainment are positively related to the educational and occupational aspirations and expectations of their children.

Data from Slocum's (1956) Washington State sample of 2,000 students showed that 70 percent of those with college graduate fathers also planned on college. On the other hand, students planning on seeking direct employment rather than additional education after high school had fathers of less educational achievement. Also, Youmans' (1956) study revealed that the occupational expectations of twelfth grade Michigan boys increased as the educational levels of their fathers increased. Bowles and Slocum (1968) had similar results. They found that parents' education is associated with the educational plans of their children in that those planning vocational or business education had parents with less education than those who planned to attend college. They concluded that the intellectual tradition (operationally defined as level of parental educational attainment) of a family has a substantial influence on the level of aspirations of its members.

Christiansen et al. (1962), in a study of Utah high school seniors noted significant relationships between plans to attend college and parents' education, parents' attitude toward college education and parents' attitudes toward prospective occupations for their children.

Sewell (1963) empirically substantiated his statement that the variables related to the socio-economic and educational level of student's family are among the most powerful determinants of educational perspectives. His Wisconsin study of high school seniors showed that 51 percent of students whose parents ranked high in education achievement had college plans as compared with 22 percent whose parents ranked low. Similarly, 56 percent of students whose

parents ranked high had high occupational aspirations as compared with 28 percent of students with parents ranking low in educational attainment. Sewell and Shah (1968) reported almost identical results in their study of a randomly selected sample of Wisconsin seniors who were followed for a seven-year period (1957-1964) after graduation from high school.

In the Canadian setting, Belanger (1961), in an extensive study of dropouts in Quebec, reports that the educational level of parents influences greatly the child's staying in school. From his data on school dropouts and the relationship revealed, he points to a rather alarming case of inter-generational continuity of educational level.

An Alberta study of a similar nature conducted by Larsen (1958) showed that 55 percent of students coming from homes where one or both parents had some college education successfully completed high school, in comparison to 35 percent of students coming from homes where neither parent attained any level of college education.

Porter (1961) has reported that Dominion Bureau of Statistics Survey on a sample of 11,858 Canadian university students revealed that for Arts and Science students 29.6 percent had university graduates as fathers as compared to 4.6 percent of all family heads between thirty-five and sixty-five.

Essentially similar findings have been reported in Manitoba studies. Siemens (1965), for example, noted that the educational and occupational aspiration levels of high school boys and girls increased along with level of fathers' educational achievement. Similarly, the educational and occupational aspirations of boys and

the educational aspirations of girls increased with the level of mothers' educational achievement.

In regards to educational aspirations, Siemens and Driedger (1965) reported that their tests indicated that the higher the educational aspirations of the students, the higher the level of the father's and mother's education.

Sharp and Kristjanson (1966) also found significant relationships between both educational and occupational aspirations of males and females and father's educational attainment. The general pattern was that the proportion of students with high aspirational levels increased with each higher education achievement category of the father. The relationship reported was similar between mother's education and the aspirational levels of students. Such positive correlations between parents' educational levels and students' occupational aspirations have also been found by Krecsy (1970) and Smith (1972).

However, on the contrary, Kristjanson (1967), whose investigations controlled for sex and measured intelligence, sex and socioeconomic status and these three variables simultaneously, found no significant relationship between student occupational aspirations and either parent's level of educational achievement. On this basis, it was suggested that the relationship normally found between educational achievement of parents and the students' level of occupational aspirations reflects something beyond education per se.

Thus, with very few exceptions, it seems that the empirical studies reviewed concur with respect to the suggestion of Herriott (1963) that children of well educated parents have higher aspirations than children of poorly educated parents. It may be that the

educational example set by the parents affects the educational aspiration and plan of their children. Parental education also probably reflects both the student's knowledge of occupations alternatives and the manner in which he evaluates them.

Parental Encouragement for Education

Several research investigations have found relationship between perceived parental encouragement and the students' levels of aspiration.

From 3,971 respondents to questionnaires distributed to male sophomore and junior high school students from the Boston area, Kahl (1953) selected twenty-four boys from middle class families for interview. These boys were chosen because of their similar IQ scores and social backgrounds. Although all the boys were sufficiently intelligent to undertake college level work, only twelve aspired to attend college. In investigating the possible social determinants of the differential aspirations, Kahl noted that nine of the twelve college aspirants were strongly encouraged by one or both parents to continue on to college. Also, these parents who believed in the value of "getting ahead" rewarded good school performance and punished poor performance and stressed that higher education was necessary for occupational success.

Burchinal (1961) found that youth in urban areas generally aspired higher than youth in small towns and farming areas. He hypothesized, however, that an intervening variable probably partly contributed to this apparent situation. His methodological manipulations indeed, showed that parents from rural areas generally were neither as frequently involved in their occupational planning nor

gave as much encouragement for continued education.

In their study of a randomly selected sample of 10,318 Wisconsin high school seniors, Sewell and Shah (1968) found that parental encouragement was a powerful intervening variable between socio-economic class background and intelligence of the child and his educational aspirations.

In their separate analyses of the same raw data, Siemens (1965), Sharp and Kristjanson (1966) and Kristjanson (1967) all found support for their hypotheses that the educational and occupational aspirational levels of Manitoba high school students are positively related to the amount of perceived parental encouragement for higher education.

The studies reviewed in this section reveal not only the considerable attention by researchers to the question of parental encouragement or even pressure, but, also, show the positive relationship between such perceived pressure or encouragement and the students' level of educational and occupational aspiration. Furthermore, most researchers have suggested that student perception of parental interest has provided the necessary spark for the development of a child's motivation to achieve.

Rural-Urban Residence

Differences in the occupational aspirations of rural and urban youth have also been extensively documented. A good deal of support (Lipset, 1955) has developed for the notion that rural and urban environments represents different opportunity structures in that urban youth have a greater opportunity to become acquainted with a broader

range of occupational possibilities than do those reared in small towns and rural environments. Presumably, this greater awareness stimulates urban youth to aspire to higher status occupations. While it is possible that the intrusion of the mass media into previously isolated and remote rural areas will diminish the importance of these differences in the future, there is substantial evidence that the size of the community in which one is reared has operated as a major influence on one's occupational aspirations.

Sewell's and Orenstein's (1965) survey of Wisconsin high school seniors provides extensive documentation of the impact of community size on occupational aspirations. The occupational choices of the seniors were dichotomized into "high" and "low" with "high" defined as aspiration to professional and managerial occupations. All other choices were characterized as "low". With students who selected farming as their occupational choice excluded from their analysis, Sewell and Orenstein report that the proportion with high occupational aspirations increases as community size increases. For example, 29.8 percent of the students residing on farms have "high" occupational aspirations, but this increases to 33.3 percent for those from villages under 2,500 to 41.7 percent for those from small cities (2,500-25,000), to 48.6 percent for those from large cities (over 100,000).

This pattern also emerges when the occupational aspirations of males and females are examined separately. While 32.9 percent of the males residing on farms have high occupational aspirations, the percentage for males residing in large cities is 57.2 percent.

Similarly, 27.6 percent of the females residing on farms have high occupational aspirations compared to 41.7 percent of those residing in large cities.

Sewell and Haller (1965) present data on the relationship of rural-urban residence and occupational aspiration by occupational categories including farming. The proportion of boys aspiring to professional and executive occupations increases consistently as the size of the community in which they reside increases. At the other end of the occupation aspiration variable, the proportion of boys aspiring to semi-skilled and unskilled manual occupations increases as community size decreases, except for the last community size category, "farm". These data also illustrate the strong tendency for boys residing on farms to select farming as their occupational choice.

Similar findings on the relationship of rural-urban residence to occupational aspirations have been reported in a number of other studies. A study of Iowa high school senior boys by Burchinal (1961) indicated that occupational aspirations were lowest for farm boys. Similar findings were reported by Grigg and Middleton (1960) in their study of ninth grade boys in Florida. The community size categories used in this study ranged from under 2,500 to over 250,000. The percentage of boys aspiring to professional occupations increased consistently as community size increased. For example, while only 37.4 percent of the boys from the most rural communities aspired to professional occupations, 65.2 percent of those from the most urban communities did so. A study of Michigan boys by Haller (1957) indicated that differences in the occupational aspirations of farm and non-farm boys were due to the previously noted tendency of farm-reared boys to enter farming.

Lipset sums it up by stating that youth from larger urban areas:

"... are more likely to be acquainted with the occupational possibilities which exist in such communities than will those who are raised in the occupationally less heterogeneous smaller communities"

and hence have higher occupational aspirations (Lipset, 1955, p. 226).

Similar relationships have been found in the majority of the studies conducted in Manitoba. Siemens and Driedger, employing a three-way classification (farm, rural non-farm and urban), reported that:

"Two-thirds of the suburban youth held high educational aspirations hoping to go to university. Very few did not plan to continue their education beyond high school. About one-third, or half as many farm youth aspired to university education, but more aspired to enter vocational training such as teachers' college or nurses' training.... The same trend was evident in occupational aspirations, although the relationship was not as strong".

(Siemens and Driedger, 1965, p. 30).

Sharp and Kristjanson's (1966) analysis also showed that students in the suburban areas indicated the highest levels of educational and occupational aspirations for both males and females with farm-residing students indicating the lowest level. Forcese and Siemens (1965), when examining the same data and applying various controls reported that the urban students tended to have higher educational aspiration than rural students.

In contrast, Kristjanson (1967), cognizant of the fact that earlier studies frequently failed to control certain apparently important factors associated with place of residence, included in

his analysis controls for sex, intelligence and socio-economic status, and sex, intelligence and socio-economic status simultaneously. With these various combinations of constants, a statistically significant relationship between size of place of residence and level of occupational aspiration was not found. On the basis of this counter-trend finding, he suggested that this variable be included in future studies.

Intelligence Level

On the basis of available research it has become an accepted generalization that the student's intelligence level is related to aspects of child development, including vocational aspirations and attainment. Super and Overstreet (1960), for example, suggested that intelligence was an important factor in vocational maturity, in selecting an occupation and in eventual occupational success.

In general, it appears that the level of the child's intelligence is positively related to aspirations and expectations. In their Boston study, Gribbons and Lohnes (1965) reported from their findings that the predicted positive relationship between student intelligence and aspirational level may be truly revealed only after the students reach high school. They noted that it was the students below an IQ score of 114 who changed their aspirations most noticeably between grades eight and twelve. These students had originally aspired unrealistically in terms of their IQ scores.

Haller (1960) found that farm boys planning to farm had lower intelligence scores than farm boys planning not to farm. Sewell (1963, p. 58) says:

"... numerous studies have shown that measured intelligence is highly related to aspirations and is an excellent predictor of future success in educational and occupational endeavor".

This generalization is supported by Sharp and Kristjanson (1966) in their Manitoba study which found a significant relationship between general intelligence and both levels of occupational and educational aspirations. The relationship was true for both sexes.

Similarly, in the New York City study of eighty-five males Crowley (1959) found that high and low intelligence groups differed considerably in their goals, in the perceived obstacles and aids to goal fulfillment. In his Ohio study of male students in grades nine and twelve, Riccio (1965) attempted to determine whether students recently migrated from the Appalachian south and long-time residents had differential occupational aspirations. Using Haller's Occupational Aspiration Scale (OAS), Riccio noted a positive correlation between intelligence and performance on the OAS. His two groups of students did not differ significantly in intelligence nor was there a significant difference in their occupational aspirations, regardless of their differential backgrounds.

Academic Achievement

Another measure of general ability of high school youth is academic achievement measured in various forms. Sewell (1957) showed that those students who ranked in the top half of their class are much more likely to plan to attend college than those in the lower half. Attending college is widely viewed as a necessary means to obtaining a high prestige occupation. Sharp and Kristjanson (1966) also showed a significant relationship between mean high school

examination scores and both educational and occupational aspirations for both boys and girls. Seimens and Force (1965) analysed the same data and obtained the same results even with SES controlled.

However, all studies have not supported such relationships. Strauss (1956) found no difference between high school boys who planned on farming and those who did not with respect to school grades, participation in school activities or the proportion who considered themselves as leaders. Also Haller (1960) in his study of farm boys in Michigan reported no relationship between scholastic achievement and plans to farm or not to farm. To the extent that farming represents a low occupational level these studies fail to support Sewell's generalization quoted on the previous page.

Number of School Grades Failed

According to Ginzberg, Super and others, during adolescence the child generally begins to think seriously about a future occupation. It is at this particular period in life that the concept of self may become particularly occupationally relevant. Many different experiences contribute to this self concept, one of which may be the number of school grades failed, (which can also be another measure of scholastic achievement).

Crowley (1959) noted that generally students considered their lack of ability as demonstrated by grade failures or poor marks as real obstacles in the attainment of their limited goals. Slocum's (1958) Washington state study of two thousand boys and girls revealed that generally students with failures or bad grades would not plan on college. Herriott (1963) points out that knowledge of the achievement of others whose ability can be assessed relative to one's own helps

to determine a student's aspirational level.

Self-Assessed Leadership Ability

Social-psychological literature suggests generally that the individual can assess his leadership ability by his perceived impact on his peers. An individual can also assess his group responsibility and influence. Self-confidence usually characterizes individuals endowed with a strong measure of responsibility and influence. In the realm of occupations, occupational prestige is partially assessed by the associated responsibility and power. Prestigious occupations connote responsibility for and influence with others. It is logical to assume, therefore, that students ranking themselves high in leadership ability will seek occupations permitting them to use such leadership qualities. Since such occupations are generally ranked high in the occupational status hierarchy, such students will likely aspire high occupationally.

Slocum (1958) found that students rating themselves high on leadership ability generally aspired to college. Force and Seimens (1965) found in their Manitoba sample of self-assessed leadership ability of high school youth was positively related to both their educational and occupational aspirations. Also, Kristjanson (1967), controlling for sex, IQ and SES in different combinations found statistically significant relationships between the level of occupational aspirations and the self-rated leadership ability of Manitoba high school students.

Participation in Extra-Curricular Activities

Extra-curricular activities have been found to be important in many areas of vocational development. Participation in such school-related activities correlated with vocational maturity in Super and Overstreet's study (1960). Slocum (1968) concludes on this matter that regardless of the type of activity, the most active students in extra-curricular activities tend to plan on college. Kristjanson (1967) reported a strong positive correlation between the level of occupational aspiration and the amount of participation in extra-curricular activities even with sex, IQ and SES controlled in various combinations.

The foregoing review of literature attempted not only to present the main foci of recent research interest in areas relevant to the present study but also to give some indication of the type of generally accepted results of such research. It is evident that a considerable amount of research has been done in the area of adolescent aspirations and expectations especially in the United States, and a number of Canadian projects are certainly very worthy. In these studies a large number of variables have been examined in relation to the educational and occupational aspirations and plans of high school students. Of special interest for purposes of comparison are the studies concerned with the factors related to the aspirations of high school students from Manitoba--central and western Manitoba, the Interlake, various single enterprise communities of northern and eastern Manitoba and suburban Winnipeg.

Throughout the review of literature an attempt was made to

note any discrepancies or apparent contradictions in the results or even any methodological flaws in previous research projects. On the whole, the findings and conclusions of past studies were sufficiently consistent to permit the organization of all this specific empirical material into a broad conceptual and theoretical framework.

Theoretical Framework

(a) Stratification Model

A number of theoretical models could have been used to gain insight into the phenomena under study. For example, the theory of occupational choice posited by Ginzberg and his associates (1951, pp. 185-198); (1952, pp. 491-494), the theory of vocational development advanced by Super (1953, pp. 185-190) and the conceptualization of occupational choice provided by Blau and his associates (1956, pp. 531-543) appeared to be of some value for this purpose. However, an in-depth study of the specific propositions comprising these theories, coupled with cognizance of a number of cogent criticisms recently levelled at these particular perspectives, especially by Taylor (1968, pp. 190-193), made clear very basic limitations of these orientations. Although these theories recognize limiting effects that social and occupational structures have on the choice process, they tend to be individual oriented and, as such, constitute somewhat inadequate bases from which to formulate specific hypotheses pertaining to the educational and occupational aspirations and expectations of a particular cohort of high school students.

Instead, it is thought that a close look at the theories of stratification and socialization and their intricate relationship with education and occupations is more conducive to the construction of a more complete and pertinent theoretical orientation from which specific hypotheses may be drawn.

The Canadian stratification system is governed by an open class ideology. Individuals are expected and encouraged to aspire beyond their original position in life. Group differences in power,

prestige and wealth are not denied by the ideology, but are viewed as rewards to be earned by using opportunities for social mobility which are alleged available to all. There are, however, some contradictions between the ideal of equal opportunity and the existence of established differences in power, prestige and wealth. The existence of such differences can limit the chances for those with ability, but not advantage, to attain socially valued goals. These are important concerns for a society such as ours that places its faith in the openness of the opportunity structure. There is a history of economic expansion and limitless opportunities in Canada that serves to reinforce such faith and to maintain high expectations concerning the availability of opportunity for those with talent and inclination to use their talent. When such expectations are met the stability and vitality of a society is reinforced; when they are not met, collective dissatisfaction and political instability are possible.

A fundamental issue or very central point when applying the theory of social stratification to the area of values and aspirations is to delineate whether society is based primarily on a "common value-system" or a "class-differentiated value-system".

Three prominent researchers in the area of class-value linkages, Empey, Rodman and Stephanson, have all concluded that there is evidence in society of both the "common-value system" and the class-differentiated system". For example, Empey has identified two important schools of thought on the occupational aspirations of lower class youth:

- 1) "that lower-class youth have limited their occupational aspirations to the class horizon, or
- 2) that lower-class youth have the same lofty occupational aspirations as those from upper strata".

(Empey, 1956, p. 709)

Later, Rodman restated, essentially, the same central issue in more general terms:

"There are sharp disagreements about the nature of values held by members of the lower class, and correspondingly, about whether a society is based on a common value system, or a class-differentiated value system. Some writers assert that the basic values of society are common to all social classes within that society while others assert that the values differ from class to class".

(Rodman, 1963, p. 205).

Similarly, two alternative interpretations of mobility orientations in society have been noted by Stephanson:

"... one assumes that mobility orientation roughly follows class lines, so that the middle and upper classes are the strivers while the lower classes set a level of aspiration that is largely satisfied within the limits of their own stratum.... The other assumes that there is a somewhat similar mobility throughout the stratification system, and that regardless of one's position in it, the orientation is toward commonly perceived and desired goals...". (Stephanson, 1957, p. 204)

All three (Empey, Rodman and Stephanson) exemplify the contrasting position taken on the question of class-value linkages by using Merton and the "common values" school of thought and Hyman as the supporter of the position suggesting that a "class-differentiated" value system underlies a stratified society.

Given only these two broad and, indeed, contrasting classifications with regard to the relationship between social stratification and values and aspirations, it is impossible to formulate specific hypotheses regarding the problem at hand. It is, therefore, mandatory to study directly the works of Merton, Hyman, Sewell, Haller and others to either accept or reject the general categorizations presented by Empey, Rodman and Stephanson regarding these works. In turn, it will be possible to formulate specific hypotheses for the data at

hand and thereby build on either of the above general theories of social stratification. It seems, to the writer, that it is only when the circle is completed (starting from theories, formulating hypotheses, testing of these, analysis of results, adding on or constructing of theory) that a true contribution has been made to the field!

The following is a brief review of the literature on social stratification with particular emphasis on its relationship (if any) to aspirations and values. In short, by analyzing closely the theories and empirical data in the area, hopefully, it will be possible to take a definite stand regarding the contrasting positions discussed above (common value system vs. class-differentiated value system).

Social mobility can be viewed as a result of a complex pattern of relationships between the objective opportunity structure of a society, individual values, beliefs and aspirations concerning elements of the opportunity structure, and the structural settings within which his/her personal views are reinforced, modified or challenged.

The importance of studying the values systems of social classes was underscored in an influential paper by Hyman in 1953:

"His efforts in the area of class values, aspirations and mobility can be taken as a crucial point in the development of a large body of systematic theoretical and empirical work".

(Perrucci, 1967, p. 119)

Hyman examined data collected in nationwide surveys concerning class differences in educational values, in motivations for economic advancement, and in perceptions of the opportunity structure. Using a variety of measures of stratification, Hyman finds that the lower socio-economic groups place less emphasis upon college education as

necessary for advancement, and are less likely to desire a college education for their children. He also finds that when adult and young respondents are asked to indicate the most important thing to be considered when choosing a life's work, the lower class emphasized direct economic considerations such as security and wages, whereas the upper classes stressed the congeniality of the career pattern to the individual's personality interests and qualifications. Concerning these differences, Hyman (1953) states:

"It is our belief that this difference in what would be sought in a career would lead the lower class individuals into occupations that would be less likely to enhance their position".

(Perrucci, 1967, p. 121)

Pursuing this line of analysis further, Hyman finds that lower class individuals are more likely to prefer a low income but secure job and to have lower aspirations.

Hyman's results concerning class differences in values and aspirations have also been found in a number of other studies conducted in such varied settings as an industrial plant, rural communities, small cities and urban areas.

In a study of high-school-aged adolescents in the mid-west in 1941, Hollingshead (1949) found a pattern of vocational choices that roughly correspond with the job patterns of each class in the adult work world. Sewell, Haller and Strauss (1957) studied the educational and occupational aspirations of a large random sample of public and private non-farm high school seniors in Wisconsin in 1947. They found a significant association between level of educational and occupational aspirations and social status, with measured intelligence controlled. Chinoy's (1955) findings indicate that the

auto workers tend to confine their aims to those limited alternatives which seem possible for men with their skills and resources.

Thus, on the basis of these findings Hyman and others concluded that society is based on a class-differentiated value system.

As noted above, it is important to remember that Empey, Rodman and Stephanson used Merton's work in support of what they referred to as the "common value" school of thought. A close analysis of Merton's "Social Structure and Anomie" will reveal if indeed Merton viewed the different social classes as having common values and aspirations.

The above-mentioned paper by Merton, Written in 1938, revised in 1949 and further extended in 1957, is regarded by some as "his greatest single contribution to contemporary sociological theory" (Mizruchi, 1964, p. 10). In this particular work, when referring to an individual's social environment, Merton suggests an important dichotomy: the cultural structure ("that organized set of normative values governing behavior which is common to members of a designated society or group") and the social structure ("that organized set of social relationships in which members of a society or group are variously implicated") (Merton, 1968, p. 216). The state of "anomie" in society consists then of the malintegration of the cultural and social structures--one preventing what the other encourages. In fact, one of Merton's major points is that differential access to legitimate means for attaining success goals results in greater propensity for anomie among those persons with the least opportunity to achieve success, the lower class.

A number of researchers have suggested that Merton assumes that success values and aspirations are held in "common" by all classes and equally appreciated in all segments of society. Empey concluded that Merton suggested, either explicitly or implicitly, that the lower classes have internalized the tradition of wanting to get ahead (Empey, 1956, p. 703). Hyman also stated: "it is clear that Merton's analysis assumes that the cultural goal of success is actually internalized by lower class individuals" (Hyman, 1953, p. 426). However, Mizruchi, with respect to Merton's views on aspirations, writes: "... the assumption of uniform aspirations as a factor has yet to be established..." (Mizruchi, 1964, p. 50).

Nevertheless, in looking more deeply in Merton's work the writer tends to agree with Smith (1972) when she writes:

"... one must approach the many interpretations (of Merton) with caution.... Those authors confining their criticism to Merton's so-called "common" values assumption have neglected to note Merton's shift in perspective from the plane of patterns of cultural values to the plane of types of adaptation to these values among those occupying different positions in the social structure". (Smith, 1972, p. 22).

Merton purports that success is a proper aspiration for everyone "irrespective of his initial lot or station in life" (Merton, 1957, p. 167). However, more specifically, Merton postulated that there are culturally defined goals which comprise "a frame of aspirational reference" (Merton, 1968, p. 186). Smith (1972) goes on:

"Merton did assume that culturally defined success goals are legitimate objectives for all to strive for, but he has also asserted that the acceptance of these culturally acclaimed ends involves various degrees of sentiment and significance" (Smith, 1972, p. 23).

It seems, therefore, quite evident that despite the inferences that may be drawn, Merton did not state that members of the lower class internalize the general values of the society. Culturally defined goals constitute idealized goals and thereby the same proportion of persons in all social classes does not internalize them.

Merton has acknowledged that all persons do not assimilate the central values of a culture to the same degree. Turner reiterates this very point in his value-relevancy hypothesis which states that social classes differ not so much in the values which they endorse in general as in the context to which they regard these values as applicable to themselves as goals for their own striving (Turner, 1964, p. 80). More specifically, it logically follows that, if two or more strata adopt the same values but assign different degrees of significance to them (i.e. have different aspirational levels), their value systems are, in effect, differentiated.

Finally, Merton, when discussing the issue as to whether or not all members of society share the same system of values and have similar aspirations, writes: "... it does not follow that all Americans in all groups, regions, and class strata have uniformly assimilated this set of values". (Merton, 1968, p. 224).

In summary, from the review of the literature of the relationship between values and aspirations and social class, it seems that both the class-differentiated approach (as represented in Hyman's statements) and the culture-variation approach (as discussed by Merton) can be used, in this study, to predict differentials in the distribution of educational and occupational aspirations among selected high school students.

(b) Socialization Model

A short presentation of the theory of socialization will not only make clearer the relationship between social class position and aspirational level but may also be used generally to show the importance of the family and the school, and specifically to predict relationships between the aspirational levels of high school students and such factors as parental and teacher encouragement and home situation.

In general terms, "socialization" refers to "the process by which the individual is originally inducted into the social organization". (Gottlieb and Ramsay, 1964, p. 155).

More specifically, Merton designates socialization as:

"the processes by which people selectively acquire the values and attitudes, the interests, skills and knowledge--in short, the culture--current in the groups of which they are, or seek to become a member".

(Merton, 1957, p. 287).

Elkin (1960) emphasizes that a child is born in an ongoing society that has symbols, recognized positions and established patterns of behavior and that it is through others that a child learns what is necessary to become a functioning member of society. He states, further, that it is through interaction with other people that "he learns to recognize status positions, to know and internalize their expectations and accompanying values". (Elkin, 1960, p. 20).

It is very conceivable and readily acknowledged in the literature that the family forms the matrix of social experiences in which the basic socialization of the child takes place. Ginzberg writes:

"The family continues to exercise an important influence on the occupational choices of the younger generation. For it is as a member of a family that the child first learns about the jobs that exist in the adult world... even if only indirectly through his absorption of familial attitudes and values".

(Ginzberg, 1951, p. 234)

In short, socialization is considered to be the process by which culture is transmitted from generation to generation. More specifically, it is the process whereby a child learns values, attitudes, aspirations and appropriate role behavior in interaction with significant others.

The two main purposes of the foregoing brief and very selective discussion of the theories of stratification and socialization were to show, firstly, the very intricate connection between these two perspectives, especially with regard to high school students' aspirations and, secondly, the broad and general framework provided by these two sets of propositions which can be used as fairly reliable models to formulate specific hypotheses and even predict the possible direction of the outcomes.

CHAPTER III

METHODOLOGY

One of the goals of this study was to obtain quantifiable data on the respondents' educational and occupational aspirations and to relate these to a number of selected personal and family factors. This chapter presents information on the construction and administration of the research instrument, the respondents, the operationalization and measurement of the independent and dependent variables involved, the hypotheses and a comment on the method of analysis used.

I. The Questionnaire

The data necessary for this study were obtained by means of questionnaires. This method of inquiry was used in previous studies of similar nature and proved both satisfactory and expeditious. It made it possible to collect the desired information from a classroom of students within forty minutes.

The questionnaire employed is a modification of that used by Siemens (1965) in his study of the educational and occupational aspirations of high school youth in three Manitoba areas. It is also very similar to that used by other Manitoba studies in the same general area such as Prystupa (1969), Krescy (1970) and Smith (1972). Because essentially the same questionnaire had been used in earlier studies no problems were evident during the administration and coding of the questionnaire and no pre-testing was deemed necessary.

II. Questionnaire Administration

Prior to the actual administration of the questionnaire during May, 1972, the school division superintendents and school principals co-operated by preparing a time-table for the administration of the questionnaire to each class in the senior grades of his/her school.

The questionnaires were administered during regular class periods of forty minutes. A brief time was generally taken to achieve some rapport with the students, outline the purpose of the questionnaire and to give necessary directions. Students were asked to work quickly and independently. Emphasis was placed on the importance of answering every question as accurately as possible.

III. The Respondents

There are five so-called Franco-Manitoban school divisions of which four are rural and one is urban. They are:

St. Boniface School Division #4
Red River School Division #17
White Horse School Division #20
Mountain School Division #28

The largest high school of each division was selected and the questionnaire was administered to all senior high school students (grades 10, 11 and 12) who had "Français" included in their course of study. (It is to be noted that "Français" is the French course taught to students whose mother tongue is French). The population may thus be defined as all registered full-time students in grades ten to twelve inclusively, in the five selected high schools who were taking "Français" as one of their courses and who were in attendance at school on the day the questionnaire was administered in early May, 1972.

The five high schools selected and the number of students from each respectively is as follows:

Collège de St. Boniface	145	students
Ste. Anne	95	"
St. Pierre	171	"
Elie	36	"
Notre-Dame de Lourdes	94	"

Thus a total of 541 students completed the questionnaire. In the academic year 1971-72 a total of 1,759 students were taking "Français" in the high schools of Manitoba and 1,577 of those students were registered in one of the above-mentioned five bilingual school divisions. Therefore, only 182 students were taking "Français" in a high school outside of these five school divisions in Manitoba.

It is to be noted that the Collège de St. Boniface is an urban school whereas the other four are in rural centres. The four rural schools, however, are all within commuting distance of Winnipeg.

Another point of importance is that students attending these high schools come not necessarily from one particular town or village but from anywhere within a geographical circle around a particular town or village. The diameter of any of these circles can be as great as fifty miles. Thus, it can be seen that students attending:

- a) Collège de St. Boniface come mainly from St. Boniface but also from all over Winnipeg and even rural Manitoba;
- b) Ste. Anne come also from Richer, Ste. Genevieve, Ross or Dufresne;
- c) St. Pierre may live also in Otterburne, St. Malo and Dufrost;
- d) Elie may come from St. Eustache or Fannystelle;
- e) Notre-Dame de Lourdes may be living in Cardinal or Bruxelles.

Students attending the Collège de St. Boniface take all of their courses in French except English, of course, whereas students attending the other four high schools generally take only "Francais" and one or two other courses in French.

The following two tables further describe the respondents by giving the number and percentage by age and sex and by grade and sex.

TABLE 1

NUMBER AND PERCENTAGE OF RESPONDENTS BY AGE AND SEX

Age	Sex			
	Male	%	Female	%
14	3	1.2	10	3.5
15	51	20.2	49	17.0
16	88	34.9	96	33.2
17	71	28.2	103	35.6
18	30	11.9	29	10.0
19	8	3.2	2	0.7
20	1	0.4	0	0.0
Total	252	100.0	289	100.0

TABLE 2

NUMBER AND PERCENTAGE OF RESPONDENTS BY GRADE AND SEX

Grade	Sex			
	Male	%	Female	%
10	94	37.3	97	33.6
11	98	38.9	113	39.1
12	60	23.8	79	27.3
Total	252	100.0	289	100.0

IV. Operational Definitions of Key Variables

(a) Dependent Variables

1. Level of Occupational Aspirations: The occupational aspirational level is defined as the area (a point or limited range of points) of the occupational prestige hierarchy which an individual views as a goal (Miller and Haller, 1964).

The occupational aspiration scale is an eight-item forced-choice instrument. It is comprised of items eliciting responses at two expression levels, realistic (R) and idealistic (I), each at two goal-periods, referred to as career periods in this context, short-range (S- end of schooling) and long range (L- at age 30). These yield four combinations: RS, IS, RL, and IL, which are incorporated into four wordings for questions. Each of these four questions is presented twice, thus giving a total of eight items. These question wordings are presented in Figure 1.

Each of the eight stimulus questions of the scale is followed by a set of ten occupational titles, which constitute its response alternatives. The occupational titles were selected from among the ninety occupations ranked by the National Opinion Research Center's study of the prestige of occupations (NORC, 1947). In all, eighty occupations are used (eight stimulus questions by ten alternatives by question). Each occupation is presented

FIGURE 1

OAS FORMAT: COMBINATION OF EXPRESSION LEVELS AND GOAL-PERIODS

FOR EACH OF THE FOUR QUESTION-WORDINGS*

Expression levels	Goal-Periods	
	Short-range (S)	Long-range (L)
Idealistic (I)	Of the jobs listed in this question, which ONE would you choose if you were FREE TO CHOOSE ANY of them you wished when your SCHOOLING IS OVER? (2 and 4)	Of the jobs listed in this question, which ONE would you choose to have when you are 30 YEARS OLD, if you were FREE TO HAVE ANY of them you wished? (6 and 8)
Realistic (R)	Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN GET when your SCHOOLING IS OVER? (1 and 3)	Of the jobs listed in this question, which is the BEST ONE you are REALLY SURE YOU CAN HAVE by the time you are 30 YEARS OLD? (5 and 7)

* Haller and Miller, 1967, p. 45.

FIGURE 2

DISTRIBUTION OF PRESTIGE SCORES OF OCCUPATIONAL TITLES FOR EACH

OAS ITEM*

Order of Presentation	Score
1	7
2	4
3	8
4	2
5	9
6	0
7	6
8	3
9	5
10	1

*Haller and Miller, 1967, p. 47.

as a possible response only once among the eight items. It was necessary to make minor adjustments in the occupations used in the scale because all of the original are not applicable in Canada. In four cases comparable Canadian positions were substituted; for example, "Provincial Premier" was used in place of "State Governor".

Each of the eight items is scored in the same way. There are ten alternatives for each question, and only one alternative may be checked. On the OAS form, Haller and Miller placed the prestige ranks for each set of ten alternatives in a non-hierarchical distribution to insure that the order of presentation would not correspond to the order of prestige. The same order of presentation is used for each set of response alternatives. Figure 2 shows the re-arrangement of prestige scores and the corresponding scores for each of the ten response alternatives. Each set of ten occupational alternatives spans the entire range of occupational prestige and is scored from zero to nine. Operationally, an item score of nine means that the respondent has chosen the highest prestige occupation in the item, while an item score of zero indicates that he has chosen the lowest prestige occupation. The sum of all eight item scores is taken as the individual's level of occupational aspiration as measured by the OAS. The total score, which may range from zero to seventy-two, may be interpreted simply as a relative indicator of the

prestige level on the occupational hierarchy which an individual views as a goal (Miller and Haller, 1964).

It is necessary to note that the OAS has been validated only for males. The relatively extensive results of previous research endeavors conducted in the United States suggest that the scale may be classified as one of the most thoroughly validated instruments for measuring the levels of occupational aspiration of American male adolescents. Haller and Miller concluded that

the OAS appear to be a practical, reliable, and evidently valid instrument for measuring differential levels of occupational aspiration. It is probably the best available single combination of practicability, reliability and validity (Haller and Miller, 1967).

Siemens (1965), Kristjanson (1967), and Krescy (1970) each selected the OAS as the best available measure of level of occupational aspiration. Siemens (1965) and Kristjanson (1967) both point out that a detailed analysis has not been made to determine the validity of the scale for a Manitoba population. Preliminary results, according to Siemens, indicate that the scale is an appropriate instrument (Siemens, 1965). Haller and Miller offer the following opinion in reference to the scale's suitability for females:

It is the belief of the writers that it may work well with females as well as with males, at this or younger age, but this belief has yet to be demonstrated (Haller and Miller, 1967).

However, Siemens (1965) noted a high degree of frustration amongst the females in his sample who responded to the scale. Peach (1970) indicated that certain occupational alternatives in OAS, if only because of wording, were closed to females. Other occupations may also be closed to females because many females traditionally reject certain occupations identified with males.

Because of the apparent inadequacies of OAS with regard to female respondents, a modified form was constructed and used to obtain the occupational aspirational level of female students. The scale consists of the same format described earlier, but the occupational choices differ. The choices which were deemed all-male or predominantly male were substituted by an equal index-score female occupation (e.g. agricultural representative in the boys' scale was substituted by home economist in the girls' scale).

2. Level of Educational Aspirations: The educational aspirations of students were classified as high, medium or low according to their response to the following question: "Suppose you were free to choose, your plans for education after high school would be..."? A university aspiration was classified as "high" whereas any other type of education such as technical-vocational or nurses' training was classified as "medium". A "no further education" response was equated to a "low" aspiration.

(b) Independent Variables

1. Socio-economic status: The SES of families was measured by a scale modified from Sewell's "Short Form of the Farm Family Socioeconomic Status Scale" (1943). (A detailed description of Sewell's scale is presented in the Appendix). Sewell's short scale used fourteen of the most readily obtainable and discriminatory items included in an earlier, more comprehensive scale. Use of the scale with Kansas, Oklahoma, and Louisiana samples indicated the items suitably differentiated the three samples. The scale appeared to be valid for varying populations. A correlation between the original scale ratings and the short form was over .90. The split-half reliability was over .80. Because of the diversity of the different samples used by Sewell, it is not unreasonable to employ a similar scale with a Manitoba population.

Sewell's short form was originally intended for farm families. Siemens (1965) and Kracsy (1970) both altered the scale to include items thought to be appropriate for their combined rural-urban samples and to exclude items rendered non-discriminatory by changing social conditions. On the basis of changing social conditions the present scale is a further modification of the two above-mentioned adaptations. Furthermore, the educational attainment of the parents is included in the scale because of its empirically demonstrated strength as a social class predictor. The items included in the assessment of SES and the scor-

ing is presented in Table 4.

For the most part the items included in the present scale would indicate the position of each respondent's family relative to other families according to material consumption and such cultural involvement which appears to be based on material possessions. With the improving standard of living, many material possessions which earlier may have differentiated between the socio-economic status of families have disappeared. Dependent upon the population or sample studied, the possession of so-called luxury items, the ability to purchase services, cultural possessions and involvement, and the educational attainment of parents presently may serve to discriminate better between the socio-economic status of families.

The validity and reliability of the present scale was not established. However, the assumption that it would tend to discriminate between social classes was generally supported by the results. For example, there exists a strong positive correlation ($r = .43$) between SES as measured by the scale used in the present study and father's occupation which is often used as a measure of socio-economic level.

Some of the items appeared in similar scales. Refined weighting procedures as suggested by Sewell for his scale were not employed. There is precedence, however, for the simplified scoring procedures employed in this

TABLE 3

THE SCORING OF THE MODIFIED VERSION OF SEWELL'S SOCIO-ECONOMIC SCALE

Item	Scoring (range 2 - 35)			
	0	1	2	3
1. Parents' home	Rented	Owned		
2. Home construction	(Shingles, (Trailer, (Unpainted Frame	(Stucco, Brick, (Painted Frame		
3. Room-person ratio	Below 1.3	1.3 or above		
4. Indoor bathroom facilities	No	Yes		
5. Electric range	No	Yes		
6. Refrigerator	No	Yes		
7. Freezer	No	Yes		
8. Record player	No	Yes		
9. Washer	No	Yes		
10. Dryer	No	Yes		
11. Color Television	No	Yes		
12. Snowmobile	No	Yes		
13. Daily newspaper	No	Yes		
14. Number of cars	None	One	Two	
15. Number of trucks	None	One	Two	
16. Year of family car	1966 or older	1966-68	1969-70	1971-72
17. Garage or carport	No	Yes		
18. Writing desk at home	No	Yes		
19. Encyclopedia	No	Yes		
20. One hundred hard-cover books	No	Yes		
21. Library books borrowed by parents	No	Yes		
22. Father's education	{ 1-5 corresponding to alternatives on questionnaire (#23-24)			
23. Mother's education				

study (e.g. Siemens, 1965; Krescy, 1970). As evident in Table 4, the possible range of the scale is 2 to 35.

2. Ethnic Identification: It is to be noted that "ethnic identification" is the respondent's valuation of his/her Franco-Manitoban background, especially with regard to his/her occupational opportunity.

The scale consists of sixteen statements, half of which are favorable or tend to value highly one's ethnicity (e.g. "French radio or television programming should be expanded"). The other half are worded so as to place little or no value on one's Franco-Manitoban ethnic background (e.g. "Everything else being equal, my French-Canadian background will reduce my chances of obtaining a viable occupation").

The sixteen items are presented in an arbitrary order and a Lickert-type system of scoring is used. The respondents indicate whether they strongly agree, agree, are undecided, disagree, or strongly disagree with each statement of the scale. A score ranging from 1 to 5 is used to code each statement. A strong agreement to a pro statement would score 5 whereas a strong agreement to a con statement would score 1. The score of the scale, therefore, ranged from 16 to 80.

3. Level of Father's Occupation: The rating of fathers' occupations was based upon Blishen's Occupational Class Scale (Blishen et al, 1961). Basing the development of his scale on the 1951 Canadian census, Blishen ranked 343 occupations by combining the standard scores for years of schooling and income. The occupations were then grouped into seven classifications

ranging from one with the highest combined score to seven with the lowest. Blishen's ratings of occupational prestige and those of the National Opinion Research Center in the United States had a rank order correlation of .94. This latter correlation is significant in that the Haller OAS, also utilized in this study, was based upon the National Opinion Research Center ratings.

In this study, fathers' occupations were classified as high, medium or low. The "high" category included occupations found in Blishen's two highest classifications, the "medium" category corresponding to the next three classifications and the "low" corresponding to Blishen's two lowest occupational groups.

4. Size of community of residence: The student respondents were presented on the questionnaire with the following alternatives with regard to the population of their community of residence: "farm", "under 100", "100-1,500", "1,500-10,000", or "over 10,000". The alternatives were coded from 1 for "farm" to 5 for "over 10,000 population."

V. Other Key Variables

For this study certain other coding procedures are noteworthy. For example, the extra-curricular activities in which each student participated represented the score on the variable. The variable 'academic achievement' consists of the student's average final grade for the previous school year.

A single question was used in the questionnaire to elicit

data for each of the remaining variables used in the analysis. Each question was structured such that each student could be assigned a score identical to the number beside the alternative selected.

VI. The Hypotheses

The following is a presentation of the hypotheses that are formulated in accordance with the review of literature and the theoretical framework presented in the previous chapter. These hypothetical statements predict not only a relationship between an independent and a dependent variable but also the direction (positive or negative) of this relationship. The selection of the independent variables was based upon the literature in general but particularly the Manitoba studies in the same general area. After having statistically tested the specific hypotheses, it will be possible to compare the results of this study with the reported findings of previous similar studies.

Thus, the focus of this study is the testing of the following general hypotheses:

- (a) a number of independent variables are positively related to the educational and occupational aspirational levels of students;
- (b) a number of independent variables are positively related to the educational and occupational aspirational levels of students even when SES of family is controlled;
- (c) a number of independent variables are positively related to the educational and occupational aspirational levels of students even when academic achievement of students is controlled;

- (d) a number of independent variables are positively related to the educational and occupational aspirational levels of students even when both SES of family and academic achievement of students are controlled.

The nine selected independent variables are:

1. SES of family
2. academic achievement of student
3. size of community of residence
4. perceived father encouragement
5. perceived mother encouragement
6. identification with ethnic background
7. prestige of father's occupation
8. perceived teacher encouragement
9. number of extra-curricular activities

VII. Statistical Procedure

i. Introduction: After allotting the necessary identification numbers to the students' questionnaires and assigning the appropriate code scores for the various scales and categories, the respondents' answers were transferred to IBM cards. The computer in the University of Manitoba Computer Center was utilized for the correlational analysis. (The data were processed through a correlation program described in SPSS, Statistical Package for the Social Sciences).

Essentially, a correlation coefficient describes the degree (or strength) and direction of relationship between two variables (Blalock, 1960; Freeman, 1965). It is denoted by the letter r , ranges from 0 to ± 1.0 and can be interpreted in a number of ways.

Some statisticians (Anastasi, 1968; Mueller et al., 197) advance that r can be expressed and interpreted as a kind of mean. It can also be used to express a rate of change and a probability (Freeman, 1965). An interpretation frequently advanced is based upon r^2 rather than r (Blalock, 1960; Freeman, 1965). The square of the correlation coefficient can be interpreted as the proportion of the total variation "accounted for" or "explained by" its relation to the other. Furthermore, percent variation explained can be calculated by considering $r^2 \times 100$. For example, if $r = .5$ then $r^2 = .25$ and indicates that 25 percent of the variation in either variable is accounted for by the other. However, most studies simply present r , the magnitude of which gives the strength of the relationship between the two variables involved. A perfect relationship exists between two variables when $r = \pm 1.0$. If r is close to zero the relationship between the variables is considered to be weak. The sign indicates whether the variables are related directly (plus sign) or inversely (minus sign).

ii. Description and Uses of Partial Correlation: Partial correlation provides the researcher with a single measure of association describing the relationship between two variables while adjusting for the effects of one or more additional variables. In essence, partial correlation enables the researcher to remove the effect of the control variable from the relationship between the independent and dependent variables without physically manipulating the data because the control is statistical. That is, in partial correlation the effect of the control variable(s) is assumed to be linear throughout the range of the control variable.

Once the linear relationships are known among the independent, dependent and control variables, the partial correlation coefficient can be calculated by statistically constructing new independent and dependent variables with the effect of the control variable removed. This is done by making a prediction based on the simple correlation coefficients of both the independent and dependent variables from the knowledge of the effect that the control variable has on them. Thus, the basic formula for the computation of partial-correlation coefficient is:

$$r_{12.3} = \frac{r_{12} - (r_{13} r_{23})}{\sqrt{1-r_{13}^2} \sqrt{1-r_{23}^2}}$$

where 1 and 2 are the independent and dependent variables and 3 is the control variable.

To distinguish between partials with differing numbers of control variables, we refer to the number of controls as the order of the correlation. Thus, a first-order partial will have one control, a second-order two controls, and so on. A correlation with no controls is often referred to as a zero-order correlation or a total correlation (Blalock, 1960). Therefore, the above basic computational formula will yield a partial r of the first-order (one variable is controlled) based upon three zero-order r 's (variables 1 and 2, 1 and 3, and 2 and 3).

The extension of the above formula to more than one control variable (that is $n + 1$) is made by replacing the simple correlation coefficients (or zero-order partials) on the right-hand side of the equation with the n^{th} order partial coefficients.

Partial correlation can be used in a wide variety of ways to aid the researcher in understanding and clarifying variables.

When properly employed, partial correlation becomes an excellent technique for uncovering spurious relationships, locating intervening variables and can even be used to help the researcher make certain types of causal inferences (Blalock, 1964).

Firstly, a spurious correlation is defined as a relationship between two variables (A and B, for example) in which A's correlation with B is solely the result of the fact that A varies along with some other variable (C, for example) which is indeed the true predictor of B. In such a case, when the effects of C are controlled or held constant B no longer varies with A. As an illustration, it may be that in the present study the correlation between the occupational aspirational levels of the students and their father's occupation disappears when SES of family and/or academic achievement of the student are controlled. If this were the case there would be considerable evidence that the relationship is a spurious one.

Another important feature of partial correlation lies in its ability to aid the researcher in a search for intervening linking variables. There is no statistical difference between the computation of partials employed to locate spurious relationships and those to determine intervening variables. One sometimes encounters situations where theory or intuitive judgment leads one to believe that there should be a relationship between two variables, but the data simply do not indicate any relationship. When this is the case, there is the possibility that some other variable or variables are acting to hide or suppress the relationship. As an illustration, it might be that variable A and variable B are not related

because variable A is negatively related to variable C which, in turn, is positively related to variable B. Partial correlation is a useful statistical technique which helps to uncover such intervening variables (Blalock, 1964).

More succinctly, in the present study partial correlational analysis is used to determine firstly the strength (if any) and direction of the relationship between each of the nine independent variables and each of the two dependent variables. Secondly, by applying certain statistical controls the zero-order relationships will be tested for possible spuriousness. Specifically, each relationship between an independent variable and a dependent variable will be tested for spuriousness by controlling simultaneously for SES of family and academic achievement of the student. Then both SES of family and academic achievement of student will be controlled for each relationship. This second-order partial should reveal the existence of spuriousness, if any. Thirdly, partial correlation is used to analyse the data in this study because of its ability to help uncover a relationship where none appeared to exist and thereby determine the importance of a particular intervening variable.

iii. Separate Analysis by Sex: Research has consistently revealed sex differences in educational and occupational aspirations (Haller and Sewell, 1957; Sewell, Hall and Strauss, 1957; Herriott, 1963; Siemens, 1965; Smith, 1972). In general, it has been observed that boys tend to stress the extrinsic rewards derived from work, whereas girls consider the chance to help people and serve society to be of prime importance; that boys tend to

be more optimistic in their outlook on the opportunity structure than girls; and that, in both the educational and occupational spheres, boys aspire to and expect to attain higher levels of achievement than girls.

Because of these differences in educational and occupational aspirational levels between boys and girls reported in previous studies, it was considered mandatory to analyse the boys' and girls' data separately. The separate analysis made for males and females provides an opportunity to observe whether or not similar relationships hold for both sexes.

CHAPTER IV

PRESENTATION OF THE RESULTS

I. General

This chapter presents findings pertinent to the relationships between the nine selected social factors (independent variables) and the two dependent variables for 541 Franco-Manitoban senior high school students in this study. Before the presentation of the results of the statistical testing of the specific hypotheses, a general overview of relationships between all variables is presented. Table 4 presents a zero-order correlation matrix of all independent and dependent variables for the boys' data.

As indicated in the matrix there is a strong positive relationship between the two dependent variables, educational aspirational level and the occupational aspirational level of the students ($r = .62$). This is consistent with past research and suggests strongly that a student with a high level of occupational aspiration recognizes the need for continuing his education beyond high school. This is further confirmed by the relationship between the educational attainment of the fathers and the prestige ranking of their occupation ($r = .53$). It appears that high school students have internalized this intimate relationship between education and occupation in the stratification system of Canadian society.

Table 4 also shows that father's and mother's educational attainment are strongly related to the socio-economic status of the

TABLE 4

CORRELATION MATRIX OF ALL VARIABLES (MALES)

	Age	Grade	Home	Size	Academic	Extra	Fatheroc	Education	Teacher	Fatheren	Motheren	SES	Ethnic	Occupat.	Fathered	Mothered
Age		* .65	.01	-.04	-.06	-.02	** -.16	*** -.11	.05	-.03	-.004	* -.20	.03	.02	* -.22	** -.15
Grade			.02	.01	-.01	.08	.01	.04	.07	-.08	-.03	-.08	*** .13	*** .11	** -.14	-.09
Home				.02	* .22	.07	.07	.17	-.003	.02	.05	.03	* .18	.09	-.03	*** .12
Size					** .15	* .25	*** .11	* .23	** -.13	** .10	-.05	* .26	* .20	* .37	* .37	* .26
Academic						* .28	* .23	* .46	* .09	** .06	.08	* .20	* .30	* .30	** .12	* .22
Extra							* .28	* .42	** .15	** .12	.09	* .21	* .28	* .50	* .17	* .27
Fatheroc								* .43	* .05	** .10	** -.02	* .49	* .21	* .39	* .53	* .24
Education									** .11	** .15	** .12	* .36	* .38	* .62	* .28	* .38
Teacher										.08	.17	-.02	*** .10	.07	* .04	-.11
Fatheren											* .57	* .16	* .20	* .19	** .15	.04
Motheren												.06	.09	.14	-.01	-.04
SES													* .19	* .33	* .57	* .62
Ethnic														* .36	* .08	*** .11
Occupat.															* .29	* .32
Fathered																* .35

The levels of statistical significance are indicated as follows:

* = .001

** = .01

*** = .05

family ($r = .49$). These three relationships and their magnitude confirms past research that has consistently used occupation and education as indicators of the socio-economic status of the family.

The magnitudes of the zero-order correlations in the above correlation matrix indicate that the strongest predictors of educational aspirational levels of boys are their occupational aspirational levels, their academic achievement, the number of extra-curricular activities in which they take part, the prestige ranking of their father's occupation, the socio-economic status of their family, the size of their community of residence and the degree of identification with their French-Canadian ethnicity.

The most reliable predictors of the boys' occupational aspirational levels are their educational aspirational level, the number of extra-curricular activities they engage in, the size of their community of residence, the socio-economic status of their family, their academic achievement, their degree of identification with their own ethnic background, and the prestige ranking of their father's occupation.

Table 5 presents a zero-order correlation matrix of all independent and dependent variables for the girls' data. As was the case for the boys, there is a strong positive correlation ($r = .52$) between the girls' educational aspirational level and their occupational aspirational level. This seems to point out that the girls also are aware of the necessity of higher education for the acquisition of a prestigious occupation. The magnitude of r (.51) for the correlation between father's educational attainment and the prestige ranking of his occupation substantiates the int-

ricate relationship between education and occupation.

The correlation matrix presented in Table 5 also shows that the educational attainment of the girls' fathers and mothers are highly correlated with the socio-economic status of the family ($r = .65$ and $r = .66$ respectively). The socio-economic status of the girls' families is also strongly related ($r = .43$) to the prestige ranking of their father's occupations. The magnitude of these three correlation coefficients again confirm past research that has consistently used education and occupation as measures of socio-economic status.

The size of the girls' community of residence is rather strongly positively related ($r = .31$) to the socio-economic status of the family, again confirming the usual rural-urban differences in life-styles. Also, the academic achievement of the girls is strongly related ($r = .44$) to the number of extra-curricular activities in which they take part, showing that time spent in such school-related activities as sports, school newspapers and drama clubs is indeed beneficial to the girls' academic performance.

In general, the magnitudes of the zero-order correlations as presented in Table indicate that the best predictors of the girls' educational aspirational levels are their occupational aspirational level, their academic achievement, their father's occupation, the socio-economic status of their family, their degree of identification with their French-Canadian background and the perceived strength of their mother's encouragement.

Similarly, the strongest correlates of the girls' occupational aspirational levels as indicated by the magnitudes of the

TABLE 5

CORRELATION MATRIX OF ALL VARIABLES (FEMALES)

	Age	Grade	Home	Size	Academic	Extra	Fatheroc	Educat.	Teacher	Fatheren	Motheren	SES	Ethnic	Occupat	Fathered	Mothered
Age		*	***	***	***	.07	-.09	-.06	.06	-.04	-.14	-.18	-.06	.06	-.14	.11
Grade			***	***	***	*	-.04	-.01	.06	.03	-.04	-.08	-.11	.17	-.11	-.01
Home				**	***	-.01	.01	.01	.06	-.06	-.03	***	.02	-.03	.03	-.05
Size						**	*	*	-.06	.09	.09	*	*	*	*	*
Academic						*	*	*	.04	.18	.15	*	*	*	*	*
Extra							**	*	**	.15	.33	.14	.05	.01	.11	.17
Fatheroc								*	**	**	***	*	*	*	*	*
Education									**	*	*	*	*	*	*	*
Teacher									.08	.16	.19	.31	.33	.52	.30	.23
Fatheren											**	**	**	***	.01	.03
Motheren											*	*	*	*	*	**
SES											.43	.22	.17	.26	.26	.12
Ethnic												***	**	*	**	*
Occupat.												.10	.12	.18	.14	.16
Fathered													*	*	*	*
Mothered													.20	.36	.65	.66
														*	*	**
														.35	.25	.13
															*	*
															.28	.31
																*
																.40

The levels of statistical significance are indicated as follows:

* = .001

** = .01

*** = .05

zero-order partials of Table 5 are their educational aspirational level, the socio-economic status of their family, their academic achievement, the number of extra-curricular activities in which they participate, their degree of identification with their own ethnic background, the perceived encouragement of their parents and the size of their community of residence.

II. Testing of the Specific Hypotheses

Throughout this chapter the same format will be used for the presentation of the findings. Findings relating to the hypotheses being examined are presented in the order in which the independent variables were stated in Chapter III. Also, a brief discussion comprised of speculations on, and possible explanations of, specific findings will be presented after the testing of each hypothesis. Whenever possible and/or appropriate the findings of this study will be compared to those of previous research in the same general area and any consistency with, or divergence from these will be noted.

Each of the hypotheses will be tested separately for boys and girls. As indicated in the previous chapter, since research has consistently revealed sex differences in educational and occupational aspirations, it was considered mandatory to analyse the boys' and girls' data separately. Furthermore, this separate analysis provides an opportunity to observe whether the same social factors are related to the educational and occupational aspirational levels of both sexes.

Specifically, each table will present:

1. the zero-order partial (relationship between one independent variable and one dependent variable with no statistical controls.
2. a first-order partial (relationship between the same independent variable and the same dependent variable with one variable controlled--SES of family).
3. a first-order partial (relationship between the same independent variable and the same dependent variable with one variable controlled--academic achievement of student).
4. a second-order partial (relationship between the same independent variable and the same dependent variable with two variables controlled--SES of family and academic achievement of student).

The variables, SES and academic achievement, are used as controls because past research has consistently reported these two variables among the best independent predictors of (or being most strongly associated with) student aspirational levels (Kristjanson, 1967; Siemens, 1965; Sewell, 1957).

Socio-economic Status

The first independent variable considered is the socio-economic status of the student's family. The relationship between familial socio-economic status and the educational aspirational level of the students is presented in Table 6.

Hypothesis 1: The higher the socio-economic status of the family the higher the educational aspirational levels of the students.

TABLE 6
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN SOCIO-
ECONOMIC STATUS OF FAMILY AND THE EDUCATIONAL
ASPIRATIONAL LEVEL OF THE STUDENTS

Socio-economic status of family with...	Controlling for...	Boys	Girls
		r	r
Educl. aspirl. level		.36*	.31*
Educl. aspirl. level	Academic achievement	.30*	.24*

*denotes the significance level at .001.

As indicated in Table 6, a strong positive relationship between socio-economic status of family and the educational aspirational level of the students was found for both boys (.36) and girls (.31). This relationship holds true even when statistically controlling for academic achievement (boys, .30; girls, .24). These four correlations are statistically significant at the .001 level. As anticipated, these findings suggest that the higher their family's socio-economic status, the higher the students' educational aspirational levels. These findings are in agreement with the overwhelming majority of research reporting a strong positive relationship between socio-economic status of family and the educational aspirations of students. However, Smith (1972) in her Manitoba and north-western Ontario sample did not find any relationship between the boys' educational aspirations and their family's socio-economic status.

Thus, on the basis of the results presented in Table 6, hypothesis 1 is accepted.

The second hypothesis states the expected relationship between socio-economic status of family and the student's occupational aspirational level. Both the zero-order partials and the first-order partials (academic achievement is controlled) are presented for both boys and girls in Table 7.

Hypothesis 2: The higher the socio-economic status of the family the higher the occupational aspirational level of the student.

TABLE 7

CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN SOCIO-ECONOMIC STATUS OF FAMILY AND THE OCCUPATIONAL ASPIRATIONAL LEVEL OF THE STUDENTS

Socio-economic status of family with...	Controlling for...	Boys	Girls
		r	r
Occupl. aspirl. level		.33*	.36*
Occupl. aspirl. level	Academic achievement	.29*	.30*

*denotes the significance level at .001.

The occupational aspirational levels of both boys and girls are also strongly related to the socio-economic status of their family (boys, .33; girls, .36). Both these zero-order partials are statistically significant at the .001 level. These results compare well with that of Smith (1972) who reported an r value of .19 and .22 for boys and girls respectively. The results also suggest that socio-economic status of the family is related to the occupational aspirations of the students even when their academic achievement is kept constant. These first-order partial correlations are still

statistically significant at .001.

These results are in accordance with past Manitoba research which has consistently reported strong positive relationships between both the educational and occupational aspirations of the students and their family's socio-economic status (Krescy, 1970; Kristjanson, 1967; Siemens, 1965; Smith, 1972). On the basis of these findings the second hypothesis is accepted as stated.

Academic Achievement

Let us now look at the relationships between academic achievement of students and their level of educational aspirations. The findings are reported in Table 8.

Hypothesis 3: The higher the academic achievement of the student the higher his/her educational aspirational level.

As indicated in Table 8, there exists a strong positive relationship between the academic achievement of the students and their level of educational aspirations. The correlation coefficient for the boys is remarkably high ($r = .46$) and hardly reduced by statistically controlling for SES ($r = .43$). The correlation coefficient for the data on girls is similarly high ($r = .38$) and again remains significant even when keeping their SES level constant ($r = .33$).

It is also important to note that both zero-order partials and both first-order partials are statistically significant at the .001 level.

These positive relationships between boys' and girls' academic achievement and educational aspirations are in agreement with the results of the majority of other studies that have tested similar hypotheses on different samples.

TABLE 8
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN ACADEMIC
ACHIEVEMENT OF THE STUDENT AND HIS/HER
EDUCATIONAL ASPIRATIONAL LEVEL

Academic achievement with ...		Boys	Girls
Controlling for...		r	r
Educ. Aspir. level		.46*	.38*
Educ. Aspir. level	SES	.43*	.33*

*denotes the significance level at .001.

Hypothesis 3 is, therefore, accepted as stated for both sexes. It can be concluded that for the students of the present sample, their academic achievement level certainly seems to play an independent role (independent of their SES level) in determining their educational aspirational levels.

The following hypothesis states the expected relationship between student's academic achievement and their level of occupational aspirations. The results of the statistical testing of this hypothesis is presented in Table 9.

Hypothesis 4: The higher the academic achievement of the student the higher his/her occupational aspirational level.

Table 9 presents the correlation coefficients for the relationships between the boys' academic achievement level and their occupational aspirations ($r = .30$, and the girls' academic achievement and their occupational aspirations ($r = .35$). These strong positive relationships are not greatly reduced by having SES statistically controlled. For the boys the r value is reduced by .05 and

TABLE 9
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN ACADEMIC
ACHIEVEMENT OF THE STUDENT AND HIS/HER
OCCUPATIONAL ASPIRATIONAL LEVEL

Academic achievement with...		Boys	Girls
Controlling for...		r	r
Occup. aspir. level		.30*	.35*
Occup. aspir. level	SES	.26*	.28*

*denotes the significance level at .001

and the girls' r value is reduced by .07. Indeed, the magnitude of the first-order partials ($r = .26$ for boys and $r = .28$ for girls), coupled with the fact that both these coefficients are significant at the .001 level suggest that the academic achievement level of both Franco-Manitoban boys and girls in the sample appears to be a strong predictor of their level of occupational aspiration. This prediction potential becomes even more useful because of its demonstrated independent contributions (that is, independent of the SES contribution and, therefore, hypothesis 4 is accepted as worded).

Size of Community of Residence

The following is a presentation of the partial correlation coefficients between size of community of residence of the student and his/her educational aspirational level.

Hypothesis 5: The larger the community of residence the higher the educational aspirational level of the student.

TABLE 10
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN THE SIZE
OF THE COMMUNITY OF RESIDENCE AND THE EDUCATIONAL
ASPIRATIONAL LEVEL OF THE STUDENT

Size of community of residence with...		Boys r	Girls r
Controlling for...			
Educ. aspirl. level		.23*	.16
Educ. aspirl. level	SES	.15*	.06
Educ. aspirl. level	Academic achievement	.19**	.14***
Educ. aspirl. level	SES and acad. achieve.	.12***	.07

*denotes the significance level of .001

**denotes the significance level of .01

***denotes the significance level of .05

As demonstrated in Table 10, the size of the community of residence and the educational aspirational level of the students (both boys and girls) are positively correlated. However, the magnitude of the correlation is greater for boys than for girls, (the two values of r being .23 for boys and .16 for girls). Even more significant, however, is the fact that when controlling for SES the first-order partial correlation coefficient for the girls is reduced to .06, and the second-order partial to .07 when statistically controlling for both SES and academic achievement. The correlation coefficient for the boys is reduced when controlling for SES but still remains significantly high ($r = .15$). The r value for boys is only reduced by .04 when academic achievement is kept constant.

These findings confirm the hypothesis that there exists a positive relationship between the size of the community of residence and the educational aspirational levels of Franco-Manitoban boys but tend to suggest that an apparent similar relationship for the girls might be spurious. Indeed, the results show no relationship ($r = .06$) between the size of the community and girls' educational aspirations when SES or SES and academic achievement are controlled.

Siemens (1965) reported that 72% of the students with "high educational aspirations" came from large communities (over 2,500). Sewell (1957) reported a similar positive relationship for his Wisconsin sample. Smith (1972) found only very minute relationship ($r = .02$) between size of community and the educational aspirations for boys and no relationship at all for girls ($r = .00$).

Let us now look at the relationship between size of community of residence and occupational aspirational levels of students. Again, a positive correlation is hypothesized based on past research.

Hypothesis 6: The larger the community of residence the greater the occupational aspirational level of the student.

Table 11 shows that the size of community of residence and occupational aspirational levels are strongly positively related for boys ($r = .36$) and moderately positively related for girls ($r = .19$).

Both these zero-order partials are statistically significant at the .001 level.

However, the most significant aspect of the following table is the fact that the correlation coefficient for the boys remains relatively strong even when SES, academic achievement and SES and

academic achievement are controlled simultaneously. The second-order partial correlation coefficient is .29 and still statistically significant at the .001 level (SES and academic achievement are held constant). On the other hand, the girls' correlation coefficient is drastically reduced from .19 to .09 when the above controls are applied, again indicating the possibility of spuriousness.

Siemens (1965) reported larger percentage of both boys and girls from larger communities as having higher occupational aspiration than from farms or small communities. Smith (1972) found very small negative relationships between these variables ($r = -.03$ for boys and $r = -.01$ for girls).

TABLE 11
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN THE SIZE
OF THE COMMUNITY OF RESIDENCE AND THE OCCUPATIONAL
ASPIRATIONAL LEVEL OF THE STUDENT

Size of community of residence with...		Boys r	Girls r
Controlling for...			
Occup. aspir. level		.36*	.19*
Occup. aspir. level	SES	.31*	.17*
Occup. aspir. level	Academic achievement	.34*	.17*
Occup. aspir. level	SES and acad. achieve.	.29*	.09*

*denotes the significance level at .001

Therefore, on the basis of the results of Table 11, hypothesis 6 is readily accepted for boys, but only cautiously accepted for girls. The application of controls (SES and academic achievement) tend to weaken drastically the correlation.

Father's Encouragement

Past research has shown that father's encouragement for post-secondary education is not always positively correlated with students' educational aspirational level. The results of the present study are presented in Table 12.

Hypothesis 7: The stronger the father's encouragement for post-secondary education the higher the educational aspirational level of the student.

Table 12 reveals a positive correlation between father's encouragement for post high school education and the educational aspirational levels of the students ($r = .15$ for boys and $r = .16$ for girls). On the basis of these results one would tend to accept hypothesis 7 as stated.

However, further statistical manipulations show that these positive relationships are significantly reduced. Indeed, for the boys the second-order partial (SES and academic achievement are statistically controlled) is only .09 and the girls' second-order partial becomes .07. This indicates some degree of spuriousness and certainly calls for further research in this particular area.

Smith (1972) reported r values of .15 for males and .03 for females for the relationship between strength of father's encouragement for continuing education and the educational

TABLE 12
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN
FATHER'S ENCOURAGEMENT AND THE EDUCATIONAL
ASPIRATIONAL LEVEL OF THE STUDENTS

Strength of father's encouragement with...		Boys r	Girls r
Controlling for...			
Educ. aspir1. level		.15***	.16**
Educ. aspir1. level	SES	.10	.10
Educ. aspir1. level	Academic achievement	.14***	.11
Educ. aspir1. level	SES and academic achieve.	.09	.07

**denotes the significance level at .01

***denotes the significance level at .05

aspirations of the students. Siemens (1965) found the strength of father's encouragement as a "strong influence" on the student's further educational plans.

The results of the present study confirm the majority of other studies which have reported positive relationships between the students' perceived strength of father's encouragement and their own educational aspirations. However, for the Franco-Manitobans in this sample this relationship is reduced when SES and academic achievement are controlled statistically.

The following hypothesis positing a positive correlation between perceived father encouragement for post-secondary education and the occupational aspirational levels of the students when statistically tested yields somewhat different results from the previous one between father's encouragement and the educational aspirational levels of the students.

Hypothesis 8: The stronger the father's encouragement for post-high school education, the higher the occupational aspirational level of the students.

TABLE 13
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN
FATHER'S ENCOURAGEMENT AND THE OCCUPATIONAL
ASPIRATIONAL LEVEL OF THE STUDENTS

Strength of father's encouragement with...		Boys	Girls
Controlling for...		r	r
Occup. aspir. level		.19**	.26*
Occup. aspir. level	SES	.14***	.21*
Occup. aspir. level	Academic achievement	.18**	.22*
Occup. aspir. level	SES and academic achieve.	.14***	.18**

*denotes the significance level at .001

**denotes the significance level at .01

***denotes the significance level at .05

The above results indicate a positive relationship between the students' perception of their father's encouragement and their occupation aspirations. The zero-order partials are .19 for boys and .26 for girls. These results are in agreement with most recent research in the same general area. Siemens (1965) similarly reported a positive relationship between the same variables and Smith (1972) found r values of .28 and .17 for boys and girls respectively.

Perhaps even more meaningful is the fact that the second-order partial correlation coefficients remain fairly important for both boys (.14) and girls (.18) when both SES and academic achievement are statistically controlled. It seems, therefore, that the perceived strength

of father's encouragement for post-high school education plays an independent role (independent of both SES and academic achievement) in determining a student's occupational aspirational level. On that basis, hypothesis 8 is accepted for both sexes.

Mother's Encouragement

Next is presented the correlation between the perceived strength of mother's encouragement and the educational aspirational levels of the students.

Hypothesis 9: The stronger the mother's encouragement for post-high school education, the higher the educational aspirational level of the student.

Table 14 indicates that both boys' and girls' educational aspirations are positively related to their mother's encouragement for post-secondary education. Another relevant result is that the zero-order partial correlation coefficient for the girls' data is significantly higher than that for the boys' ($r = .20$ for the girls and $r = .12$ for the boys). It would appear that in terms of their educational aspirations the girls are more influenced by their mothers than the boys. Smith (1972) reported the opposite showing r values of .19 for the boys and .12 for the girls.

It is to be noted that most studies in the area of student aspirations have reported similar positive relationships between mother's encouragement for post-high school education and their children's educational aspirations. Also important is the fact that the second-order partial correlation coefficient for both sexes is not drastically reduced (.04 for boys and .07 for girls) when the statis-

TABLE 14
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN
MOTHER'S ENCOURAGEMENT AND THE OCCUPATIONAL
ASPIRATIONAL LEVEL OF THE STUDENTS

Strength of mother's encouragement with...		Boys r	Girls r
Controlling for...			
Educ. aspirl. level		.12***	.20*
Educ. aspirl. level	SES	.11	.17**
Educ. aspirl. level	Academic achievement	.09	.15**
Educ. aspirl. level	SES and academic achieve.	.08	.13***

*denotes the significance level at .001

**denotes the significance level at .01

***denotes the significance level at .05

tical controls are applied. Therefore, hypothesis 9 is accepted as stated.

The relationship between the students' perception of the strength of their mothers' encouragement for post-high school education and their level of occupational aspiration is presented in Table 15 which follows.

Hypothesis 10: The stronger the mother's encouragement for post-high school education, the higher the student's occupational aspirational level.

The following results show that perceived mothers' encouragement for post-high school education is positively related to the occupational aspirations of both Franco-Manitoban boys ($r = .14$) and girls ($r = .18$). Again, the girls' aspirational level appears to be more influenced by their mothers' encouragement than were the boys'

TABLE 15
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN
MOTHER'S ENCOURAGEMENT AND THE OCCUPATIONAL
ASPIRATIONAL LEVEL OF THE STUDENTS

Strength of mother's encouragement with...		Boys	Girls
Controlling for...		r	r
Occup. aspirl. level		.14***	.18**
Occup. aspirl. level	SES	.13***	.15**
Occup. aspirl. level	Academic achievement	.12	.14***
Occup. aspirl. level	SES and academic achieve.	.11	.12***

**denotes the significance level at .01

***denotes the significance level at .05

levels. However, both Siemens (1965) and Smith (1972) reported that the encouragement of the mothers for continuing education seemed to influence the boys to a greater extent than the girls. Smith's (1972) r values were .20 for boys and .16 for girls.

As was the case for the relationship between mothers' encouragement and the educational aspirations of the students, again Table 15 shows no drastic reduction in the magnitude of the correlation coefficient when the statistical controls are applied (SES, academic achievement and both SES and academic achievement).

Hypothesis 10 is accepted for both boys and girls and this is in agreement with past research testing similar relationships.

Identification with French-Canadian Background

Siemens (1965), in his report of his study of a Manitoba sample of students, states that there were not enough Franco-Manitobans in his

sample to warrant a sub-class of their own. The following hypothesis states that a Franco-Manitoba student's degree of identification with his/her background is expected to be positively correlated with his/her educational aspirational level. The partial correlation coefficients are presented in Table 16.

Hypothesis 11: The greater the degree of identification with one's own French-Canadian background, the higher one's educational aspirational level.

The results reveal a strong positive correlation between the degree of identification with one's French-Canadian background and the student's level of educational aspiration. The strength of the correlation is remarkable for both males ($r = .38$) and for females ($r = .33$) and both zero-order partials are statistically significant at the .001 level.

TABLE 16
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN DEGREE OF
IDENTIFICATION WITH ONE'S OWN FRENCH-CANADIAN BACKGROUND
AND ONE'S EDUCATIONAL ASPIRATIONAL LEVEL

Ethnic background		Boys	Girls
identification with...	Controlling for...	r	r
Educ. aspir. level		.38*	.33*
Educ. aspir. level	SES	.34*	.29*
Educ. aspir. level	Academic Achievement	.28*	.24*
Educ. aspir. level	SES and academic achievement	.25*	.22*

*denotes the significance level at .001

When the usual three sets of controls are applied the correlation coefficients are still important both in terms of magnitude ($r = .25$ for boys and $r = .22$ for girls) and in terms of statistical significance (.001 level). It appears that the degree of identification among Franco-Manitoban high school students is an important factor in determining their level of educational aspirations.

Siemens (1965, p. 73) rejected his hypothesis that the educational and occupational aspiration levels of high school boys and girls vary with ethnic background of family but added that "it was particularly unfortunate that our sample contained an insufficient number of French-Canadian respondents to enable a distinct category of this group". It is to be noted that the present study does not compare students of different ethnic backgrounds. Hypothesis 11 tested whether the varying degree of identification within the Franco-Canadian group would be an independent factor in determining the students' educational aspirational level. The statistical results indicate that it is an important factor and hypothesis 11 is accepted.

In the next section the student's degree of identification with his/her French-Canadian background is statistically tested to see its relationship to the level of occupational aspiration.

Hypothesis 12: The greater the degree of identification with one's own French-Canadian background, the higher one's occupational aspirational level.

Table 17 indicates that there is a strong positive correlation between the degree of identification with one's French-Canadian background and his/her occupational aspirations. The zero-order partials indicate a rather strong correlation for both boys ($r = .36$) and

girls ($r = .35$).

Another important aspect of the results presented in the following table is the fact that both sets of first-order partials are significant at .001 (that is, when SES and academic achievement are controlled simultaneously) and that the second-order partials (SES and academic achievement are both controlled at the same time) indicate a strong positive correlation both by their magnitude ($r = .27$ for boys and $r = .25$ for girls) and by their statistical significance at the .001 level. On the basis of these results it would appear that the positive relationship as stated in hypothesis 12 is true and, therefore, is accepted.

TABLE 17

CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN DEGREE OF
IDENTIFICATION WITH ONE'S OWN FRENCH-CANADIAN BACKGROUND
AND ONE'S OCCUPATIONAL ASPIRATIONAL LEVEL

Ethnic background		Boys	Girls
identification with...	Controlled for...	r	r
Occup. aspir. level		.36*	.35*
Occup. aspir. level	SES	.32*	.30*
Occup. aspir. level	Academic achievement	.29*	.27*
Occup. aspir. level	SES and academic achieve.	.27*	.25*

*denotes the significance level at .001

Father's Occupational Prestige

The overwhelming majority of research in the area of aspirations has reported a positive relationship between father's occupational prestige and the student's aspirational level. The following section presents the results of the statistical testing of this statement.

Hypothesis 13: The higher the father's occupational prestige,
the higher the educational aspirational level
of the student.

TABLE 18
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN FATHER'S
OCCUPATIONAL PRESTIGE AND THE EDUCATIONAL
ASPIRATIONAL LEVEL OF THE STUDENT

Father's occupational prestige with...		Boys r	Girls r
Controlling for...			
Educ. aspir. level		.43*	.43*
Educ. aspir. level	SES	.31*	.34*
Educ. aspir. level	Academic achievement	.38*	.38*
Educ. aspir. level	SES and academic achievement	.27*	.32*

*denotes the significance level at .001

The results presented in Table 18 indicate clearly that there exists a strong positive correlation between the prestige of the father's occupation and the child's educational aspirations. Indeed, the zero-order partials (.43 for both boys and girls) are higher than Smith's (1972) results of .05 for boys and .26 for girls.

It is to be noted, however, that the correlation coefficient is reduced in magnitude when SES and academic achievement are systematically controlled. The boys' second-order partial (.27) and the girls' (.32) are both statistically significant at the .001 level when both SES and academic achievement are kept constant. Siemens (1965); Sewell (1957); Krescy (1970) and many others have reported similar strong positive relationships between these variables.

On the basis of the results presented, the hypothesis that the educational aspirational level of Franco-Manitoban students is positively related to the prestige ranking of their father's occupation is readily accepted.

Let us turn now to the relationship between prestige-ranking of father's occupation and the occupational aspirational level of the students.

Hypothesis 14: The higher the father's occupational prestige, the higher the occupational aspirational level of the student.

TABLE 19
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN FATHER'S
OCCUPATIONAL PRESTIGE AND THE OCCUPATIONAL
ASPIRATIONAL LEVEL OF THE STUDENT

Father's occupational		Boys	Girls
prestige with...	Controlling for...	r	r
Occup. aspirl. level		.39*	.25*
Occup. aspirl. level	SES	.27*	.12***
Occup. aspirl. level	Academic Achievement	.34*	.19*
Occup. aspirl. level	SES and Acad. Achieve.	.24*	.09

*denotes the significance level at .001

***denotes the significance level at .05

Table 19 reveals again a positive relationship between the prestige of the father's occupation and the occupational aspirations of the students. The zero-order partial for the boys' data ($r = .39$) is significantly higher than that of the girls' ($r = .25$). Smith (1972) reported a slightly greater coefficient for girls than for

boys (.22 and .19 respectively). Sewell (1957) Haller and Miller (1963) and Siemens (1965) also found positive relationships when statistically testing similar hypotheses.

The statistical controls of SES, academic achievement and both SES and academic achievement significantly reduce the correlation coefficient for the girls' data but only moderately reduce that for the boys' data. When SES and academic achievement are both controlled in the same procedure the second-order partial for the girls' data becomes only .09 while the boys' remains fairly high, .24.

Hypothesis 14, positing a direct relationship between the occupational aspirations of the student and their fathers' occupations prestige is accepted for boys but cautiously accepted for girls because of the possible presence of spuriousness as indicated by the wide difference between the zero-order partial and the second-order partial.

Teacher's Encouragement

The student's perception of his teacher's encouragement for post-secondary education is also hypothesized to be positively related to his/her educational aspirational level.

Hypothesis 15: The stronger the teacher's encouragement for post-high school education, the higher the educational aspirational level of the students.

The findings presented in Table 20 show a weak positive relationship between the perceived strength of teacher's encouragement and the educational aspirations of the students. The correlation coefficients are rather small for boys ($r = .11$) and girls ($r = .08$).

TABLE 20

CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN TEACHER'S
ENCOURAGEMENT FOR POST SECONDARY EDUCATION AND THE
EDUCATIONAL ASPIRATIONAL LEVEL OF THE STUDENTS

Teacher's		Boys	Girls
encouragement with...	Controlling for...	r	r
Educ. aspirl. level		.11	.08
Educ. aspirl. level	SES	.12***	.07
Educ. aspirl. level	Academic Achievement	.07	.06
Educ. aspirl. level	SES and Acad. Achieve.	.09	.06

***denotes the significance level at .05

The most interesting finding in this table is perhaps the fact that the coefficient of correlation increases when SES is controlled for the boys' data ($r = .12$).

In general, however, it appears that the high school teacher does not play a major role in determining the educational aspirational levels of his/her students. The students do not see their teachers as having a great influence on their aspirational level regardless of the socio-economic status of the family or their academic achievement.

Therefore, on the basis of the results, hypothesis 15 is accepted but teacher encouragement is seen as a very weak indicator of students' educational aspirational level.

The following table presents the results of the statistical testing of the the student's occupational aspirational level and his/her perception of the strength of teacher encouragement for post high school education.

Hypothesis 16: The stronger the teacher's encouragement for post-high school education, the higher the occupational aspirational levels of the students.

TABLE 21
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN TEACHER'S
ENCOURAGEMENT FOR POST SECONDARY EDUCATION AND THE
OCCUPATIONAL ASPIRATIONAL LEVEL OF THE STUDENTS

Teacher's		Boys	Girls
encouragement with...	Controlling for...	r	r
Occup. aspir. level		.07	.11
Occup. aspir. level	SES	.08	.10
Occup. aspir. level	Academic achievement	.04	.10
Occup. aspir. level	SES and academic achieve.	.05	.10

As was the case for the levels of educational aspirations, Table 21 indicates a weak positive relationship between teacher encouragement as perceived by the student and his/her occupational aspirational level. The findings point out that the girls are probably more influenced by their teacher's encouragement than are boys ($r = .11$ and $r = .07$ respectively).

Furthermore, the application of the usual statistical controls does not appreciably reduce the correlation coefficient. It seems, therefore, that hypothesis 16 should be accepted as stated but the findings reveal that perceived teacher encouragement plays a minor role in determining the level of occupational aspirations of the students. Teacher encouragement is not considered a strong predictor of the high school student's aspirational level.

Extra-Curricular Activities

The number of extra-curricular activities in which a senior high school student participates is expected, because of past research results, to be positively correlated with the educational aspirational level of that student.

Hypothesis 17: The greater the number of extra-curricular activities of the students, the higher his/her educational aspirational level.

TABLE 22

CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN THE NUMBER OF EXTRA-CURRICULAR ACTIVITIES OF THE STUDENT AND HIS/HER EDUCATIONAL ASPIRATIONAL LEVEL

Number of extra-curr. activities with...		Boys r	Girls r
Controlling for...			
Educ. aspir1. level		.42*	.33*
Educ. aspir1. level	SES	.38*	.31*
Educ. aspir1. level	Academic achievement	.34*	.19*
Educ. aspir1. level	SES and academic achieve.	.31*	.20*

*denotes the significance level at .001

As seen in Table 22, there is a strong positive relationship between the number of extra-curricular activities that a high school student engages in and his/her educational aspirational level. The zero-order partials ($r = .42$ for boys and $r = .33$ for girls) indicate that the number of extra-curricular activities is a stronger predictor of boys' educational aspirations than of girls' aspirations. Both these coefficients are statistically significant at .001.

A further point of interest is the fact that the second-order partial correlation coefficients are still important, in terms of magnitude, $r = .31$ for boys and $r = .20$ for girls and statistically significant at the .001 level, even when both the socio-economic status of the family and the student's academic achievement are controlled statistically. Therefore, on the basis of the above findings, hypothesis 17, stating a positive relationship between the number of extra-curricular activities of the student and his/her level of educational aspiration is accepted without question.

Finally, Table 23 presents the relationships between the number of extra-curricular activities in which a student engages in and his/her level of occupational aspiration.

Hypothesis 18: The greater the number of extra-curricular activities of the student, the higher his/her occupational aspirational level.

TABLE 23
CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN THE NUMBER
OF EXTRA-CURRICULAR ACTIVITIES OF THE STUDENT AND
HIS/HER OCCUPATIONAL ASPIRATIONAL LEVEL

Number of extra-curr. activities with...		Boys	Girls
Controlling for...		r	r
Occup. aspirl. level		.50*	.37*
Occup. aspirl. level	SES	.47*	.35*
Occup. aspirl. level	Academic achievement	.45*	.25*
Occup. aspirl. level	SES and academic achieve.	.43*	.27*

*denotes the significance level at .001

The results presented in Table 23 indicate a very strong positive relationship between the number of extra-curricular activities of the high school student and his/her level of occupational aspirations. As was the case in the relationship between the number of extra-curricular activities and the students' educational aspirational level, these findings reveal again that the number of extra-curricular activities is a stronger predictor of boys' occupational aspirations ($r = .50$) than of girls' occupational aspirational level ($r = .31$).

Equally important is the fact that the statistical controls of SES, academic achievement and both SES and academic achievement do not drastically reduce the correlation coefficient ($r = .43$ for boys and $r = .27$ for girls).

These results confirm the hypothesis of a positive correlation between the number of extra-curricular activities of the student and his/her level of occupational aspiration. The number of extra-curricular activities which a Franco-Manitoban high school student engages in appears to be a reliable predictor of that student's occupational aspirations.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter attempts to place the study in perspective. In the first section the major objectives and overall design of the study are reviewed. The second section presents a summarization of the main findings. Concluding comments, indicating possible implications the results of the present study have for future research and relevant action programs, are advanced in the final section.

I. The Research Problem Re-Stated

Firstly, this study endeavoured to determine whether relationships existed between selected social and personal factors and the educational and occupational aspirational levels of Franco-Manitoban senior high school students. To gain insight into the phenomena under study and to focus clearly the problem being investigated, four general hypotheses were derived from relevant stratification and socialization theory. These general hypotheses were:

- a) a number of independent variables are positively related to the educational and occupational aspirational levels of Franco-Manitoban senior high school students.
- b) these same independent variables are positively related to the educational and occupational aspirational levels of Franco-Manitoban senior high school students even when socio-economic status of family is statistically controlled.

- c) these same independent variables are positively related to the educational and occupational aspirational levels of Franco-Manitoban senior high school students even when academic achievement of students is statistically controlled.
- d) these same independent variables are positively related to the educational and occupational aspirational levels of Franco-Manitoban senior high school students even when socio-economic status of family and academic achievement of students are statistically controlled.

A review of existing literature and research revealed that further specification and directional refinement of the general hypotheses was possible. Thus, eighteen specific research hypotheses were formulated and consequently statistically tested.

The data required to test the hypotheses were gathered in April and May of 1972 by means of questionnaires. These questionnaires were administered to 541 Franco-Manitoban senior high school students in the public school system of Manitoba. The largest high school in each of the five bilingual school divisions of Manitoba was selected and all the students in grades 10, 11 and 12 (having Francais in their study program) became the sample studied.

Data were obtained that provided measures of family background factors (socio-economic status, parental educational attainment, parental encouragement and prestige rating of father's occupation), situational variables (size of community of residence, and type of home), personal factors (age, grade, academic achievement, degree of identification with one's French-Canadian background, number of extra-curricular activities, educational aspirational

level and occupational aspirational level).

The statistical technique employed in testing the hypothesized relationships was partial correlational analysis. In view of the number of previous studies documenting sex differences in the pursuit of higher education and higher status occupations (and hence the possibility of different levels of educational and occupational aspirations between boys and girls) separate analyses were made for males and females.

The relationships found between the selected social and personal factors (independent variables) and the educational and occupational aspirational levels of students (dependent variables) have been presented and discussed, whenever possible, with reference to the results of past studies (especially the Manitoba studies, Siemens, 1965; Kristjanson, 1967; Prystupa, 1969; Krecsy, 1970; Smith, 1972).

II. Summary of the Findings

The various associations revealed in the correlational analyses and the specific coefficients are summarized in Tables 24 and 25 of this chapter.

As indicated in these two tables, the first general hypothesis stating a positive correlation between all nine selected independent variables and the two dependent variables (educational and occupational aspirational levels) was supported. More specifically, the zero-order partials (no statistical controls) for each relationship for both boys and girls were sufficiently high in magnitude and in level of statistical significance to accept the hypothesis of positive correlation between the independent variables and the two dependent variables when no statistical controls are applied. The

only exception being the perceived teacher encouragement variable which is only very weakly related to the educational aspirational level ($r = .11$ for boys and $r = .08$ for girls) and to the occupational aspirational level ($r = .07$ for boys and $r = .11$ for girls).

The second general hypothesis tested stated a positive correlation between the nine independent variables and the two dependent variables even when socio-economic status of family was statistically controlled. This set of first-order partials indicates, in some cases, the possibility of a spurious relationship. For example, the positive relationships between size of girls' community of residence and both their levels of educational and occupational aspirations are drastically reduced in magnitude (from .16 to .07 and from .19 to .09 respectively). The same is true for the relationship between prestige rating of father's occupation and the girls' level of occupational aspiration. In general, however, the magnitudes of the first-order partials (SES controlled) tend to support the hypotheses of a positive correlation between the nine independent variables and the two dependent variables even when socio-economic status of family is statistically controlled.

The third general hypothesis stated a positive correlation between the nine selected social, situational and personal factors and the educational and occupational aspirational levels of Franco-Manitoban senior high school students. A close analysis of the first-order partials (statistical control of academic achievement) reveals that this particular statistical manipulation has reduced the magnitude of the coefficients but not sufficiently to reject

TABLE 24

SUMMARY OF THE RELATIONSHIPS BETWEEN THE INDEPENDENT VARIABLES AND
THE STUDENTS' EDUCATIONAL ASPIRATIONAL LEVELS

DEP. VAR.	IND. VAR.	CONTROLLING FOR...	BOYS	GIRLS
			r	r
EAL with...	SES		.36*	.31*
	SES	Academic achievement	.30*	.24*
	Academic achieve.		.46*	.38*
	Academic achieve. SES		.43*	.33*
	Size		.23*	.16
	Size	SES	.15**	.07
	Size	Academic achievement	.19**	.14***
	Size	SES and academic achieve.	.12***	.07
	Fatheren		.15***	.16**
	Fatheren	SES	.10	.10
	Fatheren	Academic achievement	.14***	.11
	Fatheren	SES and academic achieve.	.09	.07
	Motheren		.12***	.20*
	Motheren	SES	.11	.17**
	Motheren	Academic achievement	.09	.15**
	Motheren	SES and academic achieve.	.08	.13***
	Ethnic		.38*	.33*
	Ethnic	SES	.34*	.29*
	Ethnic	Academic achievement	.28*	.24*
	Ethnic	SES and academic achieve.	.25*	.22*
	Fatheroc		.43*	.43*
	Fatheroc	SES	.31*	.34*
	Fatheroc	Academic achievement	.38*	.38*
	Fatheroc	SES and academic achieve.	.27*	.32*
	Teacher		.11	.08
	Teacher	SES	.12***	.07
	Teacher	Academic achievement	.07	.08
	Teacher	SES and academic achieve.	.09	.06
	Extra		.42*	.33*
	Extra	SES	.38*	.31*
	Extra	Academic achievement	.34*	.19*
	Extra	SES and academic achieve.	.31*	.20*

*denotes statistical significance at .001

**denotes statistical significance at .01

***denotes statistical significance at .05

TABLE 25

SUMMARY OF THE RELATIONSHIPS BETWEEN THE INDEPENDENT VARIABLES AND
THE STUDENTS' OCCUPATIONAL ASPIRATIONAL LEVELS

DEP. VAR.	IND. VAR.	CONTROLLING FOR...	BOYS r	GIRLS r
OAL with	SES		.33*	.36*
	SES	Academic achievement	.29*	.30*
	Academic achieve.	SES	.30*	.35*
	Academic achieve.	SES	.26*	.28*
	Size		.36*	.19*
	Size	SES	.31*	.09
	Size	Academic achievement	.34*	.17***
	Size	SES and academic achvt.	.29*	.09
	Fatheren		.19**	.26*
	Fatheren	SES	.14***	.21*
	Fatheren	Academic achievement	.18**	.22*
	Fatheren	SES and academic achvt.	.14***	.18**
	Motheren		.14***	.18**
	Motheren	SES	.13***	.15**
	Motheren	Academic achievement	.12	.14***
	Motheren	SES and academic achvt.	.11	.12***
	Ethnic		.36*	.35*
	Ethnic	SES	.32*	.30*
	Ethnic	Academic achievement	.29*	.27*
	Ethnic	SES and academic achvt.	.27*	.25*
	Fatheroc		.39*	.25*
	Fatheroc	SES	.27*	.12***
	Fatheroc	Academic achievement	.34*	.19*
	Fatheroc	SES and academic achvt.	.24*	.09
	Teacher		.07	.11
	Teacher	SES	.08	.10
	Teacher	Academic achievement	.04	.10
	Teacher	SES and academic achvt.	.06	.10
	Extra		.50*	.37*
	Extra	SES	.47*	.35*
	Extra	Academic achievement	.45*	.25*
	Extra	SES and academic achvt.	.43*	.27*

*denotes statistical significance at .001

**denotes statistical significance at .01

***denotes statistical significance at .05

the general hypothesis, which was formulated according to relevant literature and research.

Finally, the results (second-order partials, whereby SES and academic achievement were controlled) of the statistical testing of the fourth general hypothesis also generally indicate a positive relationship between the independent variables and the educational aspirational level of students in this study. The most notable exception being the "teacher encouragement as perceived by the student" variable which was only weakly related to the aspirational levels of students ($r = .09$ and $r = .06$ for boys' educational and occupational aspirational levels respectively and $r = .06$ and $r = .10$ for girls' educational and occupational aspirational levels respectively). Also, the application of SES and academic achievement as variable controls resulted in a very small second-order partial coefficient ($r = .07$) for the relationship between girls' perception of the strength of their father's encouragement and their level of educational aspirations.

In general, however, Tables 24 and 25 of this chapter indicate that of the nine selected independent variables, only teacher encouragement cannot be considered a reliable predictor of level of educational and occupational aspirations of Franco-Manitoban senior high school students.

Specifically, the eight other independent variables can be arranged in a hierarchy of importance in terms of their prediction potential of educational and occupational aspirational levels of students in this study. The independent variables are trichotomized in importance by the magnitude of the second-order partials and by

the level of statistical significance:

a) most important predictors:

socio-economic status of family, academic achievement of student, degree of identification with his/her French-Canadian ethnicity and the number of extra-curricular activities in which he/she participates.

b) moderately important predictors:

prestige ranking of father's occupation (except for girls' occupational aspirational level) and size of community of residence (for boys' aspirational levels only).

c) least important predictors:

students' perception of father's and mother's encouragement for post secondary education.

III. Conclusions and Recommendations

The following conclusions are based upon the findings of the present study and because of the situation specific nature of the sample (Franco-Manitoban) care should be taken in making broad generalizations about these. Nevertheless, certain general remarks are noteworthy.

One conclusion is that it appears that strength of teacher encouragement as perceived by Franco-Manitoban senior high school students is not an important factor in determining these students' levels of educational and occupational aspirations. This is in direct opposition to the majority of past research in the same general area.

A second major finding is that the socio-economic status of the family and the academic achievement of the student are the two

most important predictors of the aspirational levels of Franco-Manitoban senior high school students, confirming the results of past research.

Thirdly, there are other factors (other than SES and academic achievement) which help to determine the educational and occupational aspirational levels of the students. Indeed, even when socioeconomic status of family and academic achievement of students are statistically controlled, the number of extra-curricular activities and the degree of identification with one's French-Canadian ethnicity are highly and statistically significantly related to the aspirational levels of the students.

Fourthly, the student's perception of his parents' encouragement for post-secondary education seems to play only a relatively minor role in determining the level of educational and occupational aspirations of Franco-Manitoban senior high school students. Most other studies in this area had reported parental encouragement for post-high school education as a strong predictor of students' levels of aspirations. Also, it is to be noted that the high positive correlation between the students' degree of identification with their French-Canadian background and their level of educational and occupational aspirations is proof that these young Franco-Manitobans perceive bilingualism as a real value culturally and occupationally.

Finally, perhaps the theoretically most important conclusion, again deviating from past research results, is the very close similarity of the boys' and girls' data. This phenomenon can probably be explained by the use of a specially constructed scale for determining the girls' level of occupational aspirations. In general, there is no major difference between the sexes in the relationships

between and social and personal factors and the educational and occupational aspirational levels for the Franco-Manitoban students in this study.

Having stated the six major conclusions above, a few recommendations are in order. Since it is statistically evident from the data of this study that there exists a high positive correlation between educational aspirational levels and occupational aspirational levels and assuming the existence of a high level of occupational aspiration as desirable among high school students, all possible means should be employed to motivate high school youth to the highest possible educational attainment. Concretely, this high degree of motivation to achieve academically can probably only be accomplished by having a lower student-to-teacher ratio.

It is also recommended that the senior high school teacher provide maximum personal attention to his students as he/she is probably in the best position of all to guide the students and eventually help them equate their personal capacities with the various occupational opportunities available.

It is finally recommended that due to the evidently important role of the family in determining a student's aspirational level, future research attempt to determine alternate types of educational facilities that would, in some way, compensate for the low socio-economic status family.

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APPENDIX A
THE QUESTIONNAIRE

This questionnaire is to be answered by Franco-Manitoban senior high school students.

PART I

Directions

1. Please read each item carefully and answer to the best of your knowledge.
2. Please be sure to answer EACH question unless other directions are provided.
3. Reply to each question by marking the appropriate space with a check or by circling the appropriate word. Select only ONE response to each question unless the directions with the question specify otherwise.
4. If you do not understand any item, please have the person giving you this form explain it to you.

1. What high school are you attending?

2. What was your age on your last birthday?

3. What is your sex?

_____ male _____ female

4. You are presently in grade _____ 10, _____ 11, _____ 12.

5. You are registered in the:

_____ University Entrance course

_____ General course

_____ Commercial course

_____ Other (specify) _____

6. Do you make your regular home with:

_____ your own parents?

_____ one parent only?

_____ one parent and one step-parent?

_____ step-parents?

_____ other relatives?

_____ independently?

other (specify) _____

7. Do you live

_____ on a farm?

_____ in a village (under 100 population)?

_____ in a village (100-1000 population)?

_____ in a town (1000-10,000 population)?

_____ in a city (over 10,000 population)?

8. Have you ever repeated a complete grade?

___ never

___ in elementary school (grades 1-6)

___ in junior high (grades 7-9)

___ in senior high (grades 10-12)

9. Have you repeated any subject(s) without repeating a grade?

___ never

___ in junior high ___ 1, ___ 2, ___ 3 or more

___ in senior high ___ 1, ___ 2, ___ 3 or more

10. What average level did you attain in your last set of final examinations or final evaluation in June, 1971?

___ A

___ C

___ B+

___ D

___ B

___ F

___ C+

11. Compared with most others in your class, you would rate your own leadership ability as:

___ greater than average

___ average

___ less than average

12. In which of the following extra-curricular activities do you regularly take part?

___ student government

___ drama club

___ school paper

___ other (specify) _____

___ sports

___ none

13. What are most of your friends doing this year?

- ☐ completing high school
- ☐ attending university
- ☐ taking some other form of education (business training,
nurses' training, vocational training)
- ☐ graduated from high school and
- ☐ working full-time
- ☐ working part-time
- ☐ out of work
- ☐ quit high school before graduating and
- ☐ working full-time
- ☐ working part-time
- ☐ out of work

14. Regarding your choice of occupation, you have given it:

- ☐ much thought?
- ☐ some thought?
- ☐ little thought?
- ☐ no thought?

15. When your formal education is over you expect your occupation to be:

(Be very specific) _____

16. What is your father's occupation? (If deceased or retired, what
was his occupation before he died or retired?) (Be very specific).

17. After high school your plans for education are:

- ☐ university?
- ☐ campus?
- ☐ St. Boniface?
- ☐ technical-vocational training?
- ☐ business training?
- ☐ nurses' training?
- ☐ other (specify) _____

18. Now suppose you free to choose, your plan for education after high school would be:

- ☐ university?
- ☐ campus?
- ☐ St. Boniface?
- ☐ teacher-training?
- ☐ campus?
- ☐ St. Boniface?
- ☐ technical-vocational training?
- ☐ business training
- ☐ nurses' training
- ☐ other (specify) _____
- ☐ no further plans

19. Concerning your education, your favorite teacher(s) at school generally has(have):

- ☐ strongly encouraged you to continue?
- ☐ given you some encouragement to continue?
- ☐ encouraged you to work after graduating from high school?
- ☐ encouraged you to quit high school and work?
- ☐ never said much about it?

20. Concerning your education, your father has:

- ☐ strongly encouraged you to continue?
- ☐ given you some encouragement to continue?
- ☐ encouraged you to work after graduating from high school?
- ☐ encouraged you to quit high school and work?
- ☐ never said much about it?

21. Concerning your education, your mother has:

- ☐ strongly encouraged you to continue?
- ☐ given you some encouragement to continue?
- ☐ encouraged you to work after graduating from high school?
- ☐ encouraged you to quit high school and work?
- ☐ never said much about it?

22. Regarding the guidance or counseling program at your school (including private counseling, career days, field trips to universities, etc.), would you say that:

- ☐ it has very much helped you decide what to do after high school?
- ☐ it has helped you little decide what to do after high school?
- ☐ it has not helped you at all decide what to do after high school?

23. The highest level of education attained by your father is:

☐ grade 8 or less?

☐ some high school?

☐ graduate of high school?

☐ some training at the post high school level?

☐ graduate of university?

24. The highest level of education attained by your mother is:

☐ grade 8 or less?

☐ some high school?

☐ graduate of high school?

☐ some training at the post high school level?

☐ graduate of university?

25. Your parents' (or guardians') home is:

☐ owned by them?

☐ rented by them?

26. Not including bathrooms, hallways and basement, how many rooms
are there in your parents' home?

27. How many persons live in your parents' home? (include your
parents and yourself).

28. What is the construction of your parents' home?

☐ brick

☐ unpainted frame

☐ stucco

☐ other (specify) _____

☐ painted frame

29. At home, do you have: (check as many as apply)

<input type="checkbox"/> indoor bathroom facilities?	<input type="checkbox"/> dryer?
<input type="checkbox"/> refrigerator?	<input type="checkbox"/> color television?
<input type="checkbox"/> freezer?	<input type="checkbox"/> snowmobile?
<input type="checkbox"/> record player?	<input type="checkbox"/> daily newspaper?
<input type="checkbox"/> washer?	<input type="checkbox"/> electric range?

30. How many automobiles does your family own?

a) car(s) ☐ 0, ☐ 1, ☐ 2 or more

b) truck(s) ☐ 0, ☐ 1, ☐ 2 or more

31. What is the year of the newest family car? _____

32. Does your family have a garage or carport? Yes No

33. Is there a writing desk in your home? Yes No

34. Is there an encyclopedia in your home? Yes No

35. Does your family have more than 100 hard-cover books?

Yes No

36. Did your parents borrow any books from the library last year?

Yes No

For statements 37 to 52 indicate your response by checking only one of the five alternatives.

SA - Strongly agree

A - Agree

UN - Undecided

D - Disagree

SD - Strongly disagree

SA A UN D SD

48. In Manitoba, knowing French is detrimental to occupational success.
49. The French-Canadian cause in Manitoba is not dead.
50. I am a better person because I have access to the French culture as well as the English one.
51. Realistically speaking I see that knowing the French language leads nowhere.
52. French books and records should be more readily accessible.

PART II**Instructions**

1. This set of eight questions concerns jobs.
2. Read EACH QUESTION carefully.
3. YOU ARE TO CHECK ONE JOB IN EACH QUESTION.

Boys are to check one from each of questions 1 (a) to 8 (a).

(Top question on each page).

Girls are to check one from each of questions 1 (b) to 8 (b).

(Bottom question on each page).

4. Answer every question. Do not omit any.
5. If you do not know what one job is, just ignore it.

Your co-operation is deeply appreciated!

To be answered by boys only

1(a). Of the jobs listed in this question, which is the best one you are really sure you can get when your formal education is over?

1. ____ Welfare worker for a city government
2. ____ Member of Parliament
3. ____ Supreme Court Judge
4. ____ Sociologist
5. ____ Filling station attendant
6. ____ Night watchman
7. ____ Policeman
8. ____ Corporal in the Army
9. ____ Agricultural representative
10. ____ Lawyer

To be answered by girls only

1(b). Of the jobs listed in this question, which is the best one you are really sure you can get when your formal education is over?

1. ____ Welfare worker for a city government
2. ____ Member of Parliament
3. ____ Supreme Court Judge
4. ____ Sociologist
5. ____ Meat cutter, curer, packer
6. ____ Clerk in a small store
7. ____ Secretary
8. ____ Corporal in the Army
9. ____ Home economist
10. ____ Lawyer

To be answered by boys only

2.(a). Of the jobs listed in this question, which one would you choose if you were free to choose any of them you wished when your formal education is over?

1. ☐ Singer in a night club
2. ☐ Member of the board of directors of a large corporation
3. ☐ Railroad conductor
4. ☐ Railroad engineer
5. ☐ Undertaker
6. ☐ Physician (doctor)
7. ☐ Clothes presser in a laundry
8. ☐ Banker
9. ☐ Accountant for a large business
10. ☐ Machine operator in a factory

To be answered by girls only

2.(b). Of the jobs listed in this question, which one would you choose if you were free to choose any of them you wished when your formal education is over?

1. ☐ Singer in a night club
2. ☐ Member of the board of directors of a large corporation
3. ☐ Interior decorator
4. ☐ Registered nurse
5. ☐ High school teacher
6. ☐ Physician (doctor)
7. ☐ Clothes presser in a laundry
8. ☐ Banker
9. ☐ Accountant for a large business
10. ☐ Machine operator in a factory

To be answered by boys only

3.(a). Of the jobs listed in this question which is the best one you are really sure you can get when your formal education is over?

1. ☐ Dock worker
2. ☐ Owner-operator of a lunch stand
3. ☐ Grade school teacher
4. ☐ Trained machinist
5. ☐ Scientist
6. ☐ Lumberjack
7. ☐ Playground director
8. ☐ Shoeshiner
9. ☐ Owner of a factory that employs about 100 people
10. ☐ Dentist

To be answered by girls only

3.(b). Of the jobs listed in this question which is the best one you are really sure you can get when your formal education is over?

1. ☐ Dressmaker of seamstress
2. ☐ Owner-operator of a lunch stand
3. ☐ Grade school teacher
4. ☐ Medical or dental technician
5. ☐ Scientist
6. ☐ Spinner, twister or weaver
7. ☐ Playground director
8. ☐ Shoeshiner
9. ☐ Owner of a factory that employs about 100 people
10. ☐ Dentist

To be answered by boys only

4.(a). Of the jobs listed in this question, which one would you choose if you were free to choose any of them you wished when your formal education is over?

1. ☐ Restaurant waiter
2. ☐ Electrician
3. ☐ Truck driver
4. ☐ Chemist
5. ☐ Street sweeper
6. ☐ College professor
7. ☐ Local official of a labor union
8. ☐ Building contractor
9. ☐ Travelling salesman for a wholesale concern
10. ☐ Artist who paints pictures that are exhibited in galleries

To be answered by girls only

4.(b). Of the jobs listed in this question, which one would you choose if you were free to choose any of them you wished when your formal education is over?

1. ☐ Restaurant waitress
2. ☐ Stewardess
3. ☐ Launderer and Dry Cleaner
4. ☐ Chemist
5. ☐ Street sweeper
6. ☐ College professor
7. ☐ Local official of a labor union
8. ☐ Stenographer
9. ☐ Sales representative
10. ☐ Artist who paints pictures that are exhibited in galleries

To be answered by boys only

5.(a). Of the jobs listed in this question which is the best one you are really sure you can have by the time you are 30 years old?

1. ____ Farm hand
2. ____ Mail carrier
3. ____ County Court Judge
4. ____ Biologist
5. ____ Barber
6. ____ Official of an international labor union
7. ____ Soda fountain clerk
8. ____ Reporter for a daily newspaper
9. ____ Provincial Premier
10. ____ Nuclear physicist

To be answered by girls only

5.(b). Of the jobs listed in this question which is the best one you are really sure you can have by the time you are 30 years old?

1. ____ Sewing machine operator
2. ____ Cashier in a department store
3. ____ County Court Judge
4. ____ Biologist
5. ____ Hair dresser or stylist
6. ____ Official of an international labor union
7. ____ Soda fountain clerk
8. ____ Reporter for a daily newspaper
9. ____ Provincial Premier
10. ____ Nuclear physicist

To be answered by boys only

6.(a). Of the jobs listed in this question which one would you choose to have when you are 30 years old, if you were free to have any of them you wished?

1. ☐ Janitor
2. ☐ Head of a department in provincial government
3. ☐ Cabinet member in the federal government
4. ☐ Musician in a symphony orchestra
5. ☐ Carpenter
6. ☐ Clerk in a store
7. ☐ Coal miner
8. ☐ Psychologist
9. ☐ Manager of a small store in a city
10. ☐ Radio announcer

To be answered by girls only

6.(b). Of the jobs listed in this question which one would you choose to have when you are 30 years old, if you were free to have any of them you wished?

1. ☐ Cleaning lady
2. ☐ Head of a department in provincial government
3. ☐ Cabinet member in the federal government
4. ☐ Musician in a symphony orchestra
5. ☐ Cook
6. ☐ Clerk in a store
7. ☐ Practical nurse
8. ☐ Psychologist
9. ☐ Manager of a small store in a city
10. ☐ Radio announcer

To be answered by boys only

7.(a). Of the jobs listed in this question which is the best one you are really sure you can have by the time you are 30 years old?

1. ☐ Mayor of a large city
2. ☐ Milk route man
3. ☐ Captain in the Navy
4. ☐ Garbage collector
5. ☐ Garage mechanic
6. ☐ Insurance agent
7. ☐ Architect
8. ☐ Owner-operator of a printing shop
9. ☐ Airline pilot
10. ☐ Railroad section hand

To be answered by girls only

7.(b). Of the jobs listed in this question which is the best one you are really sure you can have by the time you are 30 years old?

1. ☐ Mayor of a large city
2. ☐ Attendant - recreation and amusement
3. ☐ Captain in the Navy
4. ☐ Knitter
5. ☐ Receptionist or switch-board operator
6. ☐ Insurance agent
7. ☐ Architect
8. ☐ Owner-operator of a printing shop
9. ☐ Librarian
10. ☐ Shoemaker or repairer in a factory

To be answered by boys only

8.(a). Of the jobs listed in this question which one would you choose to have when you are 30 years old, if you were free to have any of them you wished?

1. ____ Civil engineer
2. ____ Author of novels
3. ____ Diplomat in the Canadian Foreign Service
4. ____ Taxi driver
5. ____ Newspaper columnist
6. ____ Share cropper (one who owns no livestock or farm machinery, and does not manage the farm)
7. ____ Plumber
8. ____ Bookkeeper
9. ____ Streetcar motorman or city bus driver
10. ____ Minister of priest

To be answered by girls only

8.(b). Of the jobs listed in this question which one would you choose to have when you are 30 years old, if you were free to have any of them you wished?

1. ____ Civil engineer
2. ____ Author of novels
3. ____ Diplomat in the Canadian Foreign Service
4. ____ Taxi driver
5. ____ Newspaper columnist
6. ____ Laborer in textile industry
7. ____ Furrier
8. ____ Bookkeeper
9. ____ Filing clerk
10. ____ Nun

APPENDIX B

DISCUSSION OF SEWELL'S SES SCALE

a) Selection of items: From the long original scale, 14 items were selected through item analysis and then constitute the short form. These items deal mainly with household equipment, housing and education.

b) Validity: The validity of the shortened form was established in that it produced scores in very close agreement with the original scale. Using samples from three states, the new score (short form) was correlated with the original score (long form) for each of the families in each of the separate samples. The results were as follows:

Oklahoma	-	.94
Kansas	-	.95
Louisiana	-	.95

c) Reliability: The only test made of the ability of the short form to produce a consistent measurement was the split-half reliability test. This was done by correlating the scores obtained by dividing the scale into two equal halves, one consisting of the odd-numbered items and the other of the even-numbered items. The resulting corrected coefficients for the three sample groups were as follows:

Oklahoma	-	.81
Kansas	-	.87
Louisiana	-	.81

This compares with the reliability of the original scale which was .80.

The adaptation used in this study ignored family income because it was thought that it might elicit suspicion and hence false results.