

The Transition to Higher Education or Work  
in the Year Beyond High School: An Analysis  
of High School Graduate Perceptions.

by

ERIC S. DOWSETT

A thesis  
presented to the University of Manitoba  
in fulfillment of the  
thesis requirement for the degree of  
Master of Education  
in  
Educational Administration and Foundations

Winnipeg, Manitoba

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ISBN 0-315-71870-6

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AN ANALYSIS OF HIGH SCHOOL GRADUATE  
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ERIC S. DOWSETT

A thesis submitted to the Faculty of Graduate Studies of  
the University of Manitoba in partial fulfillment of the requirements  
of the degree of

MASTER OF EDUCATION

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### ACKNOWLEDGEMENTS

The completion of this thesis is a result of the stewardship and guidance of my committee members: Dr. Yee-Lay Jack Lam, Dr. Anthony Riffel and Dr. Clifford Carbno. Their support throughout the research of this thesis is gratefully appreciated. Special thanks are extended to Dr. Yee-Lay Jack Lam for his diligence and critical advice throughout the various stages of the research process.

Certain individuals involved in the production of this thesis need be acknowledged. Thanks to Gwen Howe, Valerie Giesbrecht and Lisa Anderson for their expertise and their time in the initial drafts and on getting the questionnaire into a usable format. The assistance of Barbara Linton cannot be overstated. Her perseverance and effort directed to the word processing of this thesis is sincerely and deeply appreciated. In addition, I am indebted to Ken Bessant who carried out the computations using the facilities at Brandon University and the University of Manitoba. Finally, to the graduates of 1987 who provided the data for this research along with my colleagues and friends, thank you for your contributions and support.

A very special thank you to Larissa, Nathalie, Selene and Marita for their continued love, support and understanding during those long periods of absence.

### ABSTRACT

The purpose of this study was to investigate the influences of certain factors that either facilitate or frustrate the transition to higher education or work by high school graduates. An analysis of the literature on status aspiration and attainment research led to the development of a theoretical model of attainment and to the determination of some factors peculiar to the transition beyond high school which were applied to a group of high school graduates. In this way, a research model of attainment was generated linking three categories of variables: remote external variables (socio-cultural background factors), immediate external (school and non-school factors) and intrapersonal variables (student attitudes and perceptions) to academic attainment. Variables chosen from two broad aspects of the socio-cultural category were father's occupation, mother's occupation, father's education and mother's education and the demographic data were sex, age, family size, marital status of parents, location and birth order. Four aspects of the immediate external category were selected through factor analysis: formal and informal school activities, non school activities and significant others. The intrapersonal category included self concept, control over one's destiny, role orientation, attitude to school/school work, attitude to the world of work and perceived satisfaction with school



learning context. The dependant variable consisted of one's academic attainment in the year beyond high school.

A questionnaire, incorporating measures of the variables was developed and distributed by mail to the 412 high school graduates of 1987 from Brandon School Division #40. The response rate was 58% or 237 returned questionnaires of which 52% (123) comprised responses from females and the remaining 48% (114) comprised of male respondents. Data from the questionnaire provided for a descriptive analysis of the sample and an empirical analysis. For the descriptive analysis, frequencies of selected items were provided along with a content analysis of four open-ended questions that sought graduate perceptions of the general transition processes beyond high school. The empirical analysis consisted of two parts. Stepwise multiple regression was utilized to determine the direct effects of the factors contained in the variable categories. The Beta Coefficients obtained were then utilized in the formulation of two path models: one for females, the other for males.

It was found that the conceptual model developed was only partially supported. As well, the process was different for boys and girls. What emerged was that access to higher education was conditioned by birth order, father's occupation and learning contexts for

females while access for males was conditioned by father's occupation, the perceived function that a high school performs, family orientation and attitude to the world of work.

It is concluded that, while the analysis provided empirical support for crucial elements of the attainment model, our understanding of the transition processes, attitude developments and periods of "critical formation" in youth is rather incomplete.

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Overview of the chapter

In Chapter 1 the context in which young people find themselves as they complete their high school life is presented. Closely associated with this situation are two broad areas of research and discussion in educational literature: the purpose of schools and the transition process in which one is involved as one moves beyond the high school years. The purpose of developing this area of research and its significance are outlined in the final sections of the chapter.

#### 1.2 Context of the problem

##### 1.21 BACKGROUND

Data presented in the Manitoba Education, Planning and Research Branch's report (1985) "Intentions for Grade Twelve Students", showed that on average, during the 1980-1985 period, 30% or three out of ten Grade 12 students from Manitoba's public and private schools have sequentially enrolled in post secondary institutions in Manitoba. Of the three in ten students immediately continuing into post-secondary education, two have enrolled at university and one at college.

Possibly what is even of greater significance is that seven out of ten students do not immediately go into post-secondary education. What these students do

in their first year beyond high school and the consequences of this action may have long term social, economic and political consequences not only for themselves but for the country as a whole.

The sequential student population at universities and colleges has been in steady decline both in terms of numbers and as a percentage of the total fulltime post-secondary student population in the late 1970's. Further, in recent years, the portion of grade 12 students who actually enroll at universities and colleges after high school is about one third lower than the portion who, while in grade 12, stated a definite intention to continue their education (Manitoba Education, Planning and Research Branch, 1984). A similar pattern has occurred in Australia (Carpenter, 1984) and in several other western countries (Cerych and Colton, 1980).

Recent Australian researchers (Carpenter and Fleishman, 1987) indicate that from 1983 onwards there have been signs of a revived demand for higher education. However, as a result of financial cutbacks in higher education, an increasing number of formally qualified students in Australia are now unable to secure a place in higher education (Burke, 1984). Manitoba research conducted by Lam (1982) which assessed the determinants of student educational plans found socio-psychological as well as structural barriers deterred

both males and females from pursuing further studies:

extreme pragmatic outlooks, new life styles characteristic of a youth subculture, inaccurate educational assessments required for the desired professional career and economic constraints (Lam and Hoffman, 1979).

Coupled with these enrollment patterns and constraints that hamper access to further education is the growth nationally and internationally in youth unemployment. In Canada, the economy has improved (Special Senate Committee on Youth, 1986) and demographic forecasts show a decline in the proportionate share of young people in the labor force, the problem of youth unemployment will not go away. The Report of the MacDonald Commission (1985) points out the unemployment rate will remain high through the year 2010, unless structural changes occur. This opinion is confirmed by research conducted for the Special Senate Committee on Youth by Robinson (Special Senate committee on Youth, 1986). Two factors that could sustain youth unemployment are that industrialized countries seem to have reached permanently higher plateaus of unemployment and even though a greater percentage of youth are employed and engaged in the labor force than ever before, an unprecedented number still want to work (Ross, 1984). The situation for women is further exacerbated for even if women are employed, they tend to earn less than men (Ross, 1984). Similar situations are reported for other members of the Organization for



Economic Co-operation and Development which indicate a deterioration of youth employment prospects and of segmentation in the labor force, marked by distinct differences between the experience of males and females, and between teenagers and young adults (OECD, 1985).

In short, the present economic climate in which young people have to make decisions about post-school options is marked by reduced opportunities in the work force and uncertainty about the benefits of further education.

#### 1.22 FOR WHAT ARE SCHOOLS?

A recurring theme in educational literature for twenty or more years is the concern about the appropriateness of school systems. The overall (academic, vocational and implied social) goals of education and the relevance of future employment and life goals have been called into question by employers, parents, educational theorists, post-secondary and government institutions. Interestingly, extensive research completed by Goodlad (1984) found that students, parents and teachers want balanced attention to intellectual, social, vocational and personal emphasis in the school's curriculum. The school is also to be seen, in the eyes of students and parents, as a nurturing, caring place.

Increased concern about the appropriateness of

school systems has intensified public debate along different ideological viewpoints. Some stress equality of condition, the extent of material inequalities within the society or equality of opportunity. Using an ideological framework, (Figure 1) Gilbert (1977) proposed a typology of four types of motivational systems based on how material and social rewards and opportunity are distributed (Figure 1).

Three of Gilbert's categories have application to Canadian society: Egalitarian, Meritocracy and Stratified. Egalitarian societies with a very high degree of equality of opportunity and substantial equality of condition require a system of occupational attainment based upon ability and the inducement to achieve is duty to the collectivity. Communal societies with few material inequalities and low equality of opportunity function with an ascriptive basis of occupational role incumbency. Meritocracies where there are widespread material inequalities and a high degree of equality of opportunity maintain a motivational system where inequalities are inducements to achieve and acquisition is based upon an individual's genetic ability rather than membership in certain social groups. Stratified societies, with substantial material inequalities and low equality of opportunity, maintain a motivational system similar to meritocracies where inequalities are inducements to achieve but acquisition

Figure 1

**THE IDEOLOGICAL SUPPLY OF MOTIVATION**

Inequality of condition	Equality of Opportunity	
	HIGH	LOW
Minimal	Egalitarian	Communal
Maximal	Meritocracy	Stratified
		USA    Canada

Sid Gilbert. "The Selection of Educational Aspirations." p. 283 in Education, Change and Society: A Sociology of Canadian Education, edited by R. Carlton, L. Calley and N. MacKinnon. Toronto: Gage Educational Publishing Limited, 1977, p. 283.

on universalistic grounds is prevented through a system that adheres to particularistic-ascriptive system of attainment.

Comparisons between Canadian and American systems of educational stratification led Gilbert to place both countries in the stratified cell of the typology but places the United States closer to the meritocratic ideal. A similar position was put forward by Porter (1967) some ten years earlier. Echoing Porter's position, Gilbert based his conclusion on four factors: 1) Canada is revealed to be more elitist, ascriptively oriented and particularistic than the United States; 2) content of Canadian high school curricula tended to be intellectual as opposed to American vocationalism; 3) the mosaic vs the melting pot approach to ethnic assimilation asserts a particularly significant social category in Canada with regard to occupational mobility, whereas in the United States many accept a new "American" identity. This point is supported by the fact that Canadian census reports ethnic origin of every citizen and it records religious data gathered from every individual. 4) gender appears to make a greater difference in regards to labor force participation in Canada than in the United States.

Recent research conducted by Wanner (1986) provides further corroboration of the Canadian system of stratification as having maintained a greater degree of

educational inequality than the United States in this century. More specifically, Forcese (1980) and McRoberts and Selbee (1981) show a lower degree of participation in post-secondary education.

Research on youth education is found to be inextricably intertwined with youth unemployment. Previously, research has treated educational outcomes - educational or occupational attainment - as separate entities determined by program track. In a time of differing education and admission requirements of post-secondary institutions and the diversity offered by school system credits the link between program and future endeavors is reduced. Also both "worlds" - in education and work - place differing expectations on schools that are faced with already diverse student abilities, ambitions, experiences and socio-economic contexts. Ultimately however, pressure is brought on school systems that question the conception of education as a resource for youth: Are we to think that an education gives the student marketable skills or provides them with an academic education regardless of employment prospects? Debate on this issue continues in North America as elsewhere.

The general theme from work in the youth education area denotes a need for rethinking and restructuring of the school system in light of reduced educational and employment opportunities. In work conducted by Thomas

(1986), he suggested that greater recognition and understanding of the processes underlying societal demands is necessary to promote the benefits derived from new technology. This task will be difficult as Mcadoo (1981) argues that schools have not kept pace with changes in technology and unemployment opportunities at a time when youth, schools and families are in a state of transition precipitated by social and economic forces. Karmel (1984) states that due to the weak position of teenagers in the labor market, higher participation in post-compulsory schooling is required. Further, youth need greater input into decision making structures and processes (Canada Employment and Immigration, 1986). Howe (1981) calls for an impetus from "grassroot" groups whose focus is on the task of improving secondary schools with the aim of building linkages with communities, industries and the bureaucracy. More specifically, Proctor (1987) argues for a vocational curriculum framework that comprises of five languages or forms of communication - literacy, oracy, numeracy, graphicacy, and physiognomy - to provide the necessary breadth and balance. Istance (1985) stresses however that while education must be responsive to changing social and economic conditions, the long-term mission of the school must be safeguarded.

### 1.23 TRANSITION

Concerns relating to the preparation and readiness of high school graduates have been identified in educational and governmental research with regard to the transition of graduates into post-secondary - occupational system (National Academy of Education, 1979; Hogan, 1980; Bates, Clark, Cohen, Finn, Moore and Willis, 1984). More specifically, the transition from high school to higher education has been the subject of several large-scale investigations within Australia (e.g. Meade, 1978; Anderson, Boven, Fensham and Powell, 1980 cited in Carpenter and Western, 1982), the United States (e.g. Sewell and Hauser, 1975; Griffin and Alexander, 1978; Thomas, Alexander and Eckland, 1979; Stafford, Lundstedt and Lynn, 1984) and in Canada (e.g. Breton, 1972) with specific work in Ontario (Williams, 1972; Anisef, 1974; Porter, Porter and Blishen, 1982; Davis, C., 1985) and Manitoba (Lam and Hoffman, 1979; Lam, 1982).

The transition from high school to work as well has been the subject of large-scale investigations in Australia, Scotland (Raffe, 1984), Great Britain (Kerckhoff, Campbell and Trott, 1982; Bloomer, 1985) within the United States (National Academy of Education, (1979) and in Canada (Breton, 1972).

The "transition phase" is significant in four vital ways according to the Commission of European Communities

(1984). "Firstly, it marks the point at which youth (young people between the ages 14 and 18) cross over from dependence to independence. Secondly, as a result of societal and economic structures many of the choices young people make at this time are almost irreversible. Thirdly, the increasing premium being placed upon skill as opposed to purely manual skills accentuates the importance of the acquisition of a broad base of knowledge, skills and experience upon or shortly after entering the "real world". Finally, the transition phase is important because it is at this time that the vulnerability of the disadvantaged groups in our society becomes more visible" (p. 2).

Research on transition processes indicate that there are ongoing concerns in which students' needs are for stability and continuous progress (Cheng and Ziegler, 1986). These needs along with the rather familiar school environment come to a dramatic end with graduation from high school. Marini (1978) argues that educational attainment is the most important variable mediating the transition to adulthood. The "transition", however cannot be viewed as an ordered progression through school and ultimately work since students perceive the processes differently (Saha, 1985). These decision points can be conceived as branching points, as has Boudon (1974), as outcomes with respect to choice of or allocation to the next stage



where later branching points and outcomes take place.

Transition is both a time and place phenomenon during which one is trying to function effectively in a different socio-cultural environment. At the same time, one is trying to learn new rules. Many of the anticipated worries are exaggerated and transitory and are no longer concerns a few months later. But other concerns may persist, either because they are more significant on a continuing, long-term basis or because they have been unsatisfactorily addressed during the period of preparation/orientation.

Any transition has the potential to be hazardous: it involves decisions that are difficult, important, and perhaps irrevocable. The scheduling of events (timing, spacing and sequencing) during the transition from adolescence to adulthood has lasting consequences for career attainments in the later life course (Hogan, 1980). This viewpoint stresses the need to understand how particular social structures or processes facilitate or frustrate the realization of career plans (Carpenter and Fleishman, 1987).

### **1.3 Statement of purpose**

The aim of this paper is to examine the very nature of the high school experience from the perspective of a holistic framework and to assess the impact of selected structural and social-psychological variables upon the

transition of a group of high school graduates to higher education and/or work.

The general research questions posed in the design of this study are defined by four areas of concern:

1. To what extent does such transition depend upon socio-economic backgrounds, school and non-school factors, resources, opportunities and intrapersonal factors?
2. Do particular social psychological processes facilitate or frustrate the movement of high school graduates to higher education and/or work?
3. Are there major sex differences in any of these processes?

#### **1.4 Significance of research**

The present investigation occurs at a time of reduced opportunities for youth in pursuit of work directly after high school graduation along with an uncertainty about the benefits of further education and increased interest by researchers, educators and government institutions. This interest is generated out of social, economic and political concerns for this group during a specific transition phase in the life cycle and for the nation as a whole since their collective decisions and actions ultimately will have long term consequences.

The investigation addresses practical and theoretical questions in the attempt to better understand how particular social structures and/or processes facilitate or frustrate the realization of

further education or work entrance.

The nature and timing of this research then is significant as factors that facilitate or frustrate the transition process are placed within a holistic framework that seeks to establish relationships between the high school experience as they relate to the year beyond high school. Interestingly, few researchers have addressed the dynamic nature of educational and occupational entrance that traces an individual's movement through this crucial decision point.

Temple and Polk (1986:79) state: "Most studies collapse the attainment process into a single attainment variable thereby disguising factors that may influence behavior at one point but not others". Even less research has probed the movement of adolescents immediately beyond high school graduation. Temple and Polk's (1986) research as other works on attainment initially treat educational attainment as a separate entity from occupational attainment. Ultimately the link between educational and occupational attainments is made as individuals complete their education and move into occupational roles. This understanding has greatly been improved through the use of longitudinal studies.

These approaches as well relate to the high school system according to their primary research concern: further education or work entrance. The present investigation attempts to show that distinct factors

influence movement at high school graduation and that within the high school context, students tend to have similar experiences within program tracks.

### **1.5 Chapter summary**

In light of changing social and economic conditions the long term mission of high schools is being reviewed at a time when high school graduates are at a crucial decision making point in their lives. The decision to proceed through the transition beyond high school with further education or work is shaped by reduced opportunities in the work force and uncertainty about the benefits of further education. At the same time the actual numbers of graduates in Manitoba who pursue higher education immediately beyond the high school years has increased concern over the conception of education as a resource for youth. These concerns are further magnified in the national political scene with Prime Minister Mulroney's (Campbell, 1989) comments about Canadian capabilities in international competitiveness and that 17% of high school graduates were functionally illiterate.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### 2.1 Overview of the Chapter

This review of the available literature on the problems presented in Chapter I has proceeded along two courses. The first part of Chapter II reviews the development of theoretical models from which to investigate the problem cited in Chapter I. These models pertain to social-psychological, attitudinal-behavioral and socialization versus allocational aspects of status aspiration or attainment research. In the second part of this review, factors that pertain to three major sets of variable categories as determined through the synthesis of the theoretical models are identified and explored.

#### 2.2 Development of Theoretical Models

Writings in the status attainment and social psychological tradition have provided a framework and research technology that has helped to organize previous research and has served as a stimulus for this current work. The development of a model to facilitate an analysis of the transition from high school to post secondary education or to work has also been tempered by a synthesis of the socialization and allocation perspectives.

##### 2.21 THE WISCONSIN MODEL

The "Wisconsin Social Psychological Model of Status

Attainment" or simply the "Wisconsin Model" (Haller and Portes, 1973; Alexander and Eckland, 1975; Alexander, Eckland and Griffin, 1975) is probably the most influential life cycle model of the factors affecting educational attainment, occupational status and earnings of young men. The model has sustained critical scrutiny and numerous elaborations. Several replications not only in North America but internationally (Sewell and Hauser, 1980) as well, have yielded results that support the substantive conclusions initially established by Sewell and Hauser (1975).

Applications of the Wisconsin Model have been modelled after the original social psychological model (Sewell, Haller and Portess, 1969; Sewell, Haller and Ohlendorf, 1970), rather than the disaggregated model (Sewell and Hauser, 1972, 1975).

A substantial replication of the Sewell-Hauser version of the model conducted by Alexander, Eckland and Griffin (1975) concluded that interpersonal and subjective variables (social-psychological variables) mediated most of the effects of socio-economic background and ability on later status attainments. The work of Alexander et al. (1978) confirmed that complex processes similar to those determined in the original analysis were present.

Replications of the earlier version were conducted as well with educational and occupational aspirations as

the ultimate dependent variables. Sewell and Hauser (1980) in their review discussed a particularly interesting replication, by Gilbert (1977) of twelfth grade male students in Ontario. The relevance of his work is noted by them:

When the Wisconsin model is estimated for the Canadian sample, it explains the same amount of variance in educational aspirations as in the Wisconsin sample, but it explains considerably less of the variance in occupational aspirations in the Ontario sample. Also, the effects of significant others on educational aspirations are greater in the Canadian sample; the direct and indirect effects of socio-economic status on educational aspirations are greater in the Canadian sample; and the direct and indirect effects of ability are less in the Canadian sample. From these findings, Gilbert argues that ascriptive influences working through the family make Canadian society less meritocratic than American society. He then expands the model to include self-concept of ability and program of study as intervening variables; these additional variables significantly increase the explained variance in the aspirations of Ontario youth. He interprets the causal paths in the extended model as further evidence that the Canadian family serves as a prime mechanism of status transmission through its strong direct influence on educational and occupational aspirations and its powerful effect on program selection. He suggests that the differentiated program in Ontario schools merely serves to perpetuate the social inequalities found throughout Canadian society. (1980:83-84).

Elaborations of the Wisconsin model have included contextual, gender and racial differences. Other studies have estimated the effects, on aspirations and achievements, of some variable not included in the original model (eg. McDill and Rigsby (1973) research

on the impact of educational climates; Heyn's (1974) research on social selection and placement within schools; and Alwin and Otto's (1977) work on the effects of athletic participation on educational aspirations and socio-economic attainments).

In any case, in the forms in which the model has been tested, the model, on the whole, has undergone little change.

## 2.22 FISHBEIN/AJZEN MODEL

Many concepts in the Wisconsin model parallel those of the Fishbein/ Ajzen model of attitude behavior relations (1975): the most significant integrated and synthesized general model of behavior. In the attitude behavioral model it is assumed that background variables such as social status exert their influence on behavior through mediating structures (attitudes, subjective norms and behavioral intentions). In their own words:

The attitude is viewed as one major determinant of the person's intention to perform the behavior in question. Other beliefs relevant for a behavioral intention are beliefs of a normative nature, i.e., beliefs that certain referents think the person should or should not perform the behavior in question. The person may or may not be motivated to comply with any given referent. The normative beliefs and motivation to comply lead to normative pressures. The totality of these normative pressures may be termed 'subjective norm.' Like his attitude toward the behavior, a person's subjective norm is viewed as a major determinant of his intention to perform the behavior. Thus a person's behavioral intention is viewed as a function of two factors: his attitude toward the behavior and his subjective norm. (1975:16).



Under the Fishbein/Ajzen model, social status is treated as a background variable whose influence on behavior is totally mediated by attitudes, subjective norms and finally, behavioral intentions (Davis, 1985). But others contend that this is only a partial picture. Liska (1984) presents the argument that social status also affects the above relationship through its influence on the availability of resources and prevalence of opportunities. Further, Davis (1985) suggests that opportunities, resources and subjective norms will influence behavior both directly and indirectly via the mediation of intentions. These developments provide support for Kerckhoff's (1976) call for a combination of the socialization perspective eluded by the Wisconsin model and indices of the allocation process.

### 2.23. RECENT DEVELOPMENTS

In the most recent application of the Fishbein/Ajzen model, Carpenter and Fleishman (1987) obtained results that provide considerable support for the attitude behavior theory. They state: "consistent with the model, attitudes and social norms do affect intention, and intentions do have a strong effect on behavior. Contrary to the model, however, resources had direct effects on behavioral intentions and behavior." (1987: 100).

The incorporation of Liska's revision (1984) in the

Carpenter and Fleishman model yielded results that: "Show that gender interacts with parental encouragement to affect intentions, but not behavior. The results also show that academic performance interacts with perceived academic ability to affect behavioral intentions. Students with lower perceived ability were less influenced by their academic achievement" (1987, p.100).

Such results, Carpenter and Fleishman conclude, suggest a more complex process is at work than that suggested by a simple additive model and that future research could examine whether other interactions exist between variables in the reformulated Fishbein/Ajzen model.

Two other studies merit discussion because of their systematic organization of variables with respect to educational aspirations (Porter, Porter and Blishen, 1982) and determinants of educational plans (Lam, 1982). These studies provide a synthesis of the socialization and allocation perspectives as called for by Kerchhoff (1976).

Porter et al. (1982) grouped variables into seven major categories which they have designated as socio-cultural climate, demographic, significant other, attitudinal, school and occupational variables and variables of life chance perceptions. The most important of these variables - social class, mental

ability, school program, school performance, the influence of significant others and self concept of ability - in determining level of educational aspirations have been treated by path analytic techniques. The findings are presented as follows:

The most influential path through the model . . . is from mental ability to program, to significant others' influence, to level of educational aspirations. Thus the slightly greater influence of mental ability than father's occupation on aspirations shown in the correlation matrix is reflected in the greater indirect influence of mental ability through program, which in turn has a strong effect on aspirations directly, but also indirectly through significant other's influence on self-concept of ability. Another interesting observation to be made is the relatively insignificant effect of school performance on educational aspirations. It has a slight direct effect, no indirect effect through significant others, and much less through self-concept of ability than does program. Program has an effect on school performance, confirming our observation about the greater success five-year program students had than four-year program students in mastering their more difficult subject matter. (1982:298).

In his research, Lam (1982) conceptualized the theoretical framework for determinants of post-secondary plans through three categories of variables: remote external (socio-economic status variables), immediate external (school activities, academic achievement and significant others' influence), and interpersonal ("attitudes, perceptions, motivation, value systems and other personal dispositions;" p. 214). He states the conceptual premise of the model as follows:

...the value system, motivation, attitudes and

self-image that students possess are in many instances the results of beneficial or detrimental influences exerted upon them by various personal and situational factors in the process of socialization. While remote external factors tend to exert an underlying persistent influence (allocation factors) upon students' ultimate decisions, many such influences are tempered and modified by the immediate external factors most visible in the school environment. (Lam, 1982:215).

## 2.24 SYNOPSIS OF THEORETICAL DEVELOPMENT

These research studies have enhanced our understanding of the nature in which individuals pursue their respective 'stations and callings' in life. Further, the review of these models has allowed for the identification of similar and parallel influences identified through differing investigative perspectives and research models that provide an increasingly comprehensive but illusive conceptual approach.

## **2.3 Specification of variables**

### 2.31 SOCIO-CULTURAL ENVIRONMENT: REMOTE EXTERNAL VARIABLES.

Research, over the last thirty years, on social stratification and education has shown that although some differences (in educational attainment) among children have disappeared (Vroom and Donkers, 1986) other differences have been monotonic. While inequalities in educational attainment due to race, sex (comparatively speaking) and region have decreased (Duncan, 1967, Hauser and Featherman, 1976; Mare, 1981; Simkus and Andorka, 1982; Baker and Stevenson, 1986),

the socio-economic status of the student's parents has remained an amazingly stable determinant of student's academic achievement. This fact holds true across very distinct cultures and countries, including the United States, Great Britain, Germany, Japan, Australia, Hungary, The Netherlands, and Canada (DeGraaf, 1986).

In the United States, for example, research conducted by Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld and York (1966), Jencks, Smith, Acland, Bane, Cohen, Gintis, Heyns and Michelson (1972), Alexander, Eckland and Griffin (1975), Sewell and Hauser (1976), and Coleman, Hoffer and Kilgore (1982) has consistently pointed out the significance of socio-economic measures: educational, occupational and economic backgrounds of parents. These background measures have been identified in European (The Netherlands: DeGraaf, 1986; and Hungary: Sinkus and Andorka, 1982) as well as in Australian research conducted by Carpenter and Western (1982, 1983, 1986). Carpenter and Fleishman (1987) specifically have shown that where educational aspirations are constant, social background is more important for men than women. Comparative research findings indicate that in Canada parental socio-economic status is a more potent determinant of the likelihood of extending schooling beyond high school, particularly to university than in the United States (Porter, 1965; Wanner, 1986).

These findings were obtained at a time when greater numbers of students attended post-secondary institutions. The paradox between stable background influences and increased schooling is accounted for by Hauser and Featherman (1976) who have estimated that as much as one third of the increase in average schooling in the first half of the twentieth century in the United States can be attributed to improvement in factors such as parental schooling and occupation levels and smaller sibships.

In response to this position, Mare (1979, 1981) has suggested that equal emphasis to the allocation of schooling, expressed as the probability of continuation from one grade to another be given consideration. Looking at the situation from this view, Mare's studies of American trends have shown the apparent stability of background effects was the outcome of two contradictory processes: decreasing inequality of schooling, reflected in a declining variance, tended to depress the linear effects of background characteristics, while increasing association between background and grade progressions tended to inflate the linear effects.

DeGraaf's study on the impact of financial and cultural resources in the Netherlands reached a similar conclusion: "there has been increasing equality in school continuation chances at the early decision points in education careers, but at the same time, school

careers have become longer" (1986:237). As a result of this and other studies, the overall effect of parental socio-economic characteristics on a child's educational attainment remains a significant influence.

Gender also can be seen as reflecting opportunities provided by the social structure. In the past decade, reports both in Australia (Australia Commonwealth Schools Commission 1975, 1984 cited in Carpenter and Fleishman, 1987) and in the United States (Marini and Greenberger, 1978) have highlighted the problems associated with the way schools influence the education of women and thereby maintain the existing sexual division of labor.

This view has been challenged by Furlong's (1986) work on mechanisms which maintain the position of women within the labor market. He argues that the influence exerted within the educational system is limited, given the strength of parental and particularly maternal role models upon the development of female occupational aspirations.

Consistent with studies in Australia and elsewhere, North American studies have found considerable variations between male and female educational and occupational attainment.

Until 1978, Australian males had higher levels of educational attainment than females; but in 1978, females surpassed males (Karmel, 1981 cited in Saha,

1985). Nevertheless, Australian males, irrespective of school leaving plans, tended to have higher and wider ranging occupational aspirations and expectations than females, who tended to aspire to relatively fewer, sex typed occupations. Furthermore, the career orientations of males were more predicable in terms of known causal factors (Saha, 1982). Finally, males were more successful than females in the attainment of their post-school goals, particularly with respect to entry into college (Carpenter and Western, 1983).

Research in processes of sexual stratification in American labor markets within the last number of years has also shown differing outcomes based on gender. Based on data from an eighteen year follow-up of Wisconsin high school seniors, Sewell, Hauser and Wolf (1980) have shown there are marked sex differences between acquisition and maintenance of occupational status. They conclude the following:

The effect of post-high school education on the status of first jobs is twice as great among men as among women, and the effect of the status of first jobs on that of current jobs is one-third greater among men than among women (1980:551).

In Canada as well, the occupational world, although changing, has been very different for the two sexes. Women have not participated in the labor force to the extent that men have, and when they have, they have concentrated in particular occupational categories



(Synge, 1977). This situation is perpetuated through high school programs that segregate females into poorly paid occupations (Gilbert, 1977).

In addition to parental socio-economic characteristics and gender, the set of background characteristics includes maternal employment, number of siblings, birth order, location and intact family. Family structure and parents' work patterns are particularly interesting in light of recent increases in one parent families and working mothers. In the United States, between 1970 and 1980 the proportion of children living in one-parent families increased from 11.9 to 19.7 percent (Milne, Myers, Rosenthal and Ginsburg, 1986). At the same time, mothers from both two- and one-parent families have been entering the labor force in increasing numbers both in the United States and Canada (United States Department of Labor, 1976 and Statistics Canada, 1981).

Hoffman and Nye (Sewell, Hauser and Wolf, 1980) have suggested that maternal employment affects the socio-economic life chances of children - especially daughters - because it raises the family standard of living, because it competes with other familial activities or because it provides a favorable role model. Sewell, Hauser and Wolf (1980) state that the effect of maternal employment is small; it is less helpful to women than to men which indicates that if

there is an influence, the influence is probably economic and applied to improving the son's life chances more so than the daughter's.

The literature on one-parent families almost exclusively addresses father absence (the most prevalent pattern) and relates it to a number of child outcomes, including cognitive performance. Shinn (1978), in a review of the research, found that a majority of studies indicate a detrimental relationship between father absence and children's intellectual performance. Heatherington, Camara and Featherman (1981) in the most recent review, found consistent differences in favor of children from two parent families in measured aptitude, measured achievement, grade point average and other teacher assigned scores.

While a number of socio-economic status variables may be implicated in gross differences in achievement between students from two-parent families and students from one-parent families, family income remains fundamental. Data from the United States Bureau of the Census (1984) show that the income of female headed families was less than half that of dual headed families: for 1980, the figures of single and dual headed families were \$10,408 and \$23,141 respectively.

However, even the introduction of family income as an exogenous control for the effect of number of parents may not adequately express the appropriate relationship.

Milne, et al. (1986) suggests that it is possible that any effect of living in a one-parent family on achievement operates primarily through the lower income of these families: the number of parents, then, is prior to family income which is considered an intervening or mediating variable.

Other variables may intervene between number of parents, their income and student's achievement and may provide mechanisms through which the number of parents and their income exert an influence. Milne et al. (1986) conclude that what is potentially important here is the amount of time parents devote to their children. Studies have shown that the time spent with children is less in one-parent families - and the uses of this time are related to achievement. However, few studies have adequately explored the relationship between parental time inputs and children's achievement in one- and two-parent families.

Studies of mother's employment primarily conducted in the 1960's or earlier, (before major increases in the number of working mothers occurred) have yielded mixed results. Two major reviews of the literature in this decade conducted by Hoffman (1980) and Heyns (1982) yield conflicting interpretations.

Hoffman concluded that the effects of mother's employment on achievement were generally positive for children in lower-class families but potentially

negative for boys in middle-class families. Heyns, however, citing a number of reviews of the effects of mother's employment on children, including Hoffman's, concluded that "with very few exceptions, ..., the children of working mothers differs very little from the children of nonworking mothers" (1982, p. 238).

Milne et al. (1986) contend that later studies reflecting a higher participation rate in the work force by women, have taken account of interaction or intervening variables (Gold and Andres, 1978a; 1978b; Mercy and Steelman, 1982). For example, Mercy and Steelman (1982) demonstrate that mother's employment has negative direct effects on the I. Q. of children in white intact families but positive indirect effects working through the mechanism of smaller family size.

A careful review of the literature, according to Milne et al. (1986) demonstrates that absent fathers and working mothers have important effects on achievement; but most likely, these variables work in conjunction with or are mediated by other family background variable.

Based on the concept of financial resources, persons with a greater number of brothers and sisters face a handicap relative to persons from small sibships. Featherman and Hauser (1978), for example, state that in twentieth century America, each additional sibling reduces a man's average educational attainment by one

fifth of a grade, holding constant other socio-demographic determinants of achievement. As is well understood, the negative effect of the number of siblings on educational attainment, combined with intercohort declines in average number of siblings, is one factor that has raised average levels of formal schooling during the twentieth century (Hauser and Featherman, 1976; Mare, 1979).

Blake (1985) reconsiders the effects of family socio-economic background and number of siblings on formal school attainment for American men and argues that the effects of parent's socio-economic status on school attainment of their offspring do indeed vary with family size. Mare and Chen (1986) do not support Blake's position and argue:

Thus, the conjecture that family size trends explain increased educational mobility is unsound. First, there is little increase to explain. Second, sibship size groups do not differ much in the association between father's and son's schooling. And, finally, most cross sectional and intercohort variation is attributable to differences in average levels of schooling combined with differences in family background effects at different stages of the schooling process (1986:411-412.)

Mobility analysts typically assume a major problem, namely the simultaneity between numbers and schooling of progeny. Porter, Porter and Blishen (1982), for the case of family size regardless of social class position, state that the more children there are in the family,

the greater the costs of keeping them out of the labor force and in school or university. As for birth order, particularly if families are large, the research of Porter et al. indicated that educational resources were expended on the older children. Parents may jointly decide their number of children and the quality of life that they should experience (Blake, 1981).

In a society's early stages of education growth, parents may also respond to the high cost of educating their first children by limiting later births (Caldwell, Heddy and Caldwell, 1985). If these effects are large, then neither additive nor interactive models of school attainment, which assume that sibship size is determined prior to schooling are correct. When fertility fluctuates widely and schooling grows rapidly, stratification and demographic processes may indeed be linked in complex ways.

The relationship between geographic location or community of residence and higher education has received less investigative work. It can be assumed that community of residence plays a particularly strong role in countries such as Canada where geography is sizable. Breton (1972) established a positive relationship between the likelihood of high educational intentions and community of residence.

This relationship was found to be stronger among boys than girls, and it maintained itself when mental

ability rank, socio-economic origin and language are successfully controlled. Carpenter and Western (1984) also have determined that access to higher education was conditioned not only by class and sex but also by geographic location in their study of Australian youth.

## 2.32 IMMEDIATE EXTERNAL VARIABLES: SCHOOL AND NON-SCHOOL FACTORS

### 2.32a Formal School Factors

The effects of school attributes on either the academic or the later occupational attainment of students has been the subject of considerable research during the past twenty years. These studies have viewed schooling as a production process: certain combinations of inputs produce certain outputs.

One of the earliest input-output studies, "Equality of Educational Opportunity" (Coleman et al., 1966), examined the relationship of over 400 input variables with achievement measures, in an attempt to assess the availability of equal opportunities for pupils from different racial origins and backgrounds. The authors concluded that neither unit nor aggregate attributes had much influence on what students achieve either in school or after they have entered the labor force. These conclusions along with Jencks et al's (1972) finding that equalizing the quality of American high schools would not substantially reduce cognitive inequality, confirmed the pessimistic conclusion that schools did

not make a difference. Hauser, Sewell and Alwin (1976) determined that net school effects and contextual effects of student body composition accounted for no more than 1 or 2% of the variance in the population above and beyond the effects of individual social, psychological and academic factors. They concluded that future research on the educational achievement process could profitably turn to issues other than school to school variations in educational aspirations and achievements.

Recent reviewers (Clark, Lotto and McCarthy, 1980; Murnane, 1981; Rutter, 1983) of these works and countless other studies that have utilized different statistical methodologies conclude that schools do make a difference and that some important lessons have been learned about how to study school effectiveness; studies of school effects must make a clear conceptual distinction between school and schooling.

Utilizing an alternative framework that distinguished schooling from school, Bidwell and Kasarda (1980) claimed that school effects literature was conceptually flawed. These authors state:

This failure is a confusion of school, an organization, with schooling, a process that individual students experience. Schools are organizations that conduct instruction. Schooling is the process through which instruction occurs. Schooling, which is comprised of acts by students and teachers, is conditioned by the social organization of class-rooms, curricular tracks and other instructional units within schools (1980:402).



As a result of critical studies on the methodological issues and conceptual framework, a new literature emerged that emphasized within school processes which linked participants to schooling outcomes.

Studies on academic attainment have yielded positive results where the work of schooling occurs -the high school curricular track (Breton, 1972; Alexander and McDill, 1976; Alexander, Pallas and Cook, 1981); the classroom (Murnane, 1975; Bidwell and Kasarda, 1980); learning environments (Rutter, 1979; Marjoribanks, 1981); homework (Coleman, et al., 1982; Keith, 1982; Natriello and McDill, 1986) and type of school attended (Kerckhoff, Campbell and Trott, 1982; Power, 1984; Carpenter and Western, 1984).

#### 2.32b Informal School

The role of out of class activities (informal school) has only recently been considered potentially as important as academic achievement for adult status attainment. Research on occupational and educational attainments as a function of program or curricular tracks has focused exclusively on achievement outcomes (Rosenbaum, 1980). Students not only master academic skills in school but also have a range of social experiences with peers and adults that prepare them for future work roles. These experiences provide a context

for the development of interpersonal relationships that parallel academic achievement for later success (Jencks et al., 1972). Frith and Clark (1984) support this contention in their work on extracurricular activities:

Individuals tend to gravitate towards activities in which they can experience success. Students with limited academic success naturally pursue other ventures ... sports and other extracurricular activities are as vital to the growth and development of academically limited students as they are to others. In fact, the activities may be even more valuable, particularly where they are one of the few ways in which students can experience success (1984:326).

Further to these positions, Baker (1985) provided this viewpoint:

From the point of view of learning experiences, what adolescents do at school outside of the classroom may be as important for them as their academic subjects. They may be gaining skills in teamwork and perseverance in organized sports. They could be acquiring experience in public speaking or managerial skills in committees, clubs or special events (1985:22).

King (1986) notes that research on out of class activities provides insight on how these activities reinforce student efforts in school and allows for the observation of patterns that may act as disincentives to their achievement in school. Further, it may be that participation in many aspects of the life of the school is evidence of an overall acceptance of the school's goals and contributes to the motivation to work in school and ultimately their high school achievement.

Kelly and associates (1979) suggested that there

may be a great deal of variability from school to school in the kinds of experience students have while they are outside of class but still in the building.

Csikszentmihaly and Larson (1984) describe the importance of these out of class experiences that play both a negative and positive role in affecting student attention as that of a 'randomizer'. Repeated contact with friends during a school day provides variability: friends disrupt the pattern of consciousness from the previous class and more importantly revitalize a student and increase his or her capacity to concentrate on class work. They conclude that "after being with friends, an adolescent will be in a different (psychological) state, possibly one more receptive to learning, possibly one less receptive. On the average there seems to be a slight relative gain. But the really significant impact of friends is probably not this slight gain but the variability that is introduced into the school day" (1984, p. 214).

Often the social status composition of a high school independently affects the post-secondary intentions of its students. Meyer (1970) concluded that:

Whether the presence of many higher status students acts primarily by creating an informal peer climate favoring going to college, or by building an orientation toward college into the formal expectations and standards of the school is not clear. The small observed effect of school status upon college intentions masks two contrasting

forces. There is a larger supportive effect of school status than has usually been reported. But there is a negative effect also; since higher status schools have more able students, negative [or 'frog pond' effects (Davis, 1985)] comparisons for any given student tend to lower aspirations (1970:68).

Extracurricular activities within the school provide settings in which adolescents can meet one another, participate in activities of common interest, learn and practice skills other than strictly academic ones. Although these activities are controlled and sanctioned by the school, they differ in important ways from curricular settings for student interaction.

First, participation in extracurricular activities in contrast to curricular ones, is voluntary: students select activities that suit their purposes. Second, these activities make a wider range of student aptitudes, skills and interests visible than is possible or desirable in the classroom setting. Finally, because extracurricular activities may be more closely aligned with the interests of adolescents than are the strictly academic pursuits of classrooms, the recognition gained in these activities are important for social standing among adolescents (Spady, 1970).

Membership in clubs and activities may increase student status and lessen such typical status distinctions as those associated with family background or curricular track. Extracurricular participation, then, is an important avenue for the social integration

of the school.

### 2.32c Non School Factors.

Among the most important findings of research on leisure in adolescence has been the results of two long-term longitudinal studies revealing association between free time activity in later childhood and adolescence and adjustment in adulthood (Brooks and Elliot, 1971; Glancy, Willits and Farrell, 1983).

Kleiber, Larson and Csikszentmihaly's (1986) research into adolescent leisure indicated two distinct categories of leisure experience: relaxed leisure (activities that are high on affect and intrinsic motivation and low on concentration and challenge, e.g. socializing, eating, watching television, listening to music, reading and resting) and other pursuits that Csikszentmihaly and Larson (1984) referred to as transitional activities (within these activities freedom and intrinsic motivation occur simultaneously with high challenge and concentration). The special significance of this latter category of leisure activities would appear to provide a bridge or "an important developmental link in the acquisition of a capacity for enjoyment in serious and demanding adult activities" (Kleiber et al. 1986:175).

Another non-school activity that is increasingly an important adolescent endeavor but has received little

research is that of part-time work. With respect to work generally, almost all the research that has been performed has concerned itself with youth unemployment. The position taken in this investigation was that it is worthwhile to direct research to the nature and role of youth employment in the context of their development.

An aspect of an adolescent's social situation is the set of persons with whom he or she is associated and the influence that the judgement of others, i.e., teachers, counselors, principals, parents, relatives and friends, have on decision-making processes. The importance of interpersonal factors for aspirations is underscored by Spenner and Featherman:

The encouragement of one's parents and the plans of one's peers appear to shape ambitions more directly and with greater impact than any other source. Their effects are stronger than the direct influence of one's scholastic aptitude or previous academic achievement, and much stronger than any direct influence from one's social origins per se (1978:392).

Breton (1972) and Porter et al. (1982) have separately reported that parents are overwhelmingly the chief source of help. Sewell and Shah (1968) also found that parental encouragement and expectations play a key role in college plans of males and females.

Epstein and Karweit (1983) along with other researchers (Alexander and Campbell, 1964; Alwin and Otto, 1977; Cohen, 1983) that have studied the influence of friends on student aspirations provide evidence that

confirms that the time between Grade 11 and 12 is an important decision making period and peer influence on college plans can be especially important during this period. Other patterns denoted in the Epstein and Karweit (1983) study were that those students that had some or all of their friends with post secondary plans made a dramatic difference in the change toward college plans for students in Grades 6, 9, and 12 and for students in Grades 7, 9, and 12 of those initially who had plans to go on in post-secondary education were more likely to maintain their plans. These patterns corroborate other research (Anisef, 1975) that suggested that at all grade levels the structure of friends can have important consequences for students' later attitudes, behavior and decisions. These developmental patterns indicate that friends influence on outcomes change over time and importance. Porter et al. (1982) had similar findings in that by Grade 12 a significant number of students had become independent of the influence of school personnel, parents and peers, at least in thinking about their future education. School personnel were more influential for short-term plans than for long term aspirations.

Davis and Kandel (1981) concluded that parents were stronger influences than best friends in determining educational aspirations of adolescents while the importance of peers as socializers of educational

plans was overestimated. This over estimation was caused by the effects of assortive pairing in which similarities prior to selection, patterned friendship groups (Cohen, 1977; Kandel, 1978). This is a fundamental problem of models of educational aspirations, as stressed by Duncan, Haller and Portes (1968).

Research conducted by Anisef (1974) of Ontario Graduates concluded that while many adolescents would insist that their educational and vocational decisions were a function of independent and autonomous choice, this was not the case. It seemed then that the educational and vocational decisions made by adolescents are a part of an ongoing dynamic process that commences early in the adolescent's life of which parental support along with socio-economic origin and family structure are crucial elements.

### 2.33 INTRAPERSONAL VARIABLES: STUDENT ATTITUDES AND PERCEPTIONS

Self concept has been the subject of a great deal of research on ability being used as a variable in models of aspiration formation, educational or occupational attainment. In an extensive search of the literature conducted by Porter et al. (1982), very few studies in which the self-concept variable was used in a causal model of aspiration formation were found. An example of this type of research is Gordon's 'Looking



Ahead: Self Conception, Race and Family as Determinants of Adolescent Orientation', in which the major hypothesis was that the more favorable the student's self conception, the higher the aspirations. Another example is in a study by Wilson and Portes (1975), who use self-concept as a variable in a causal model of educational aspirations. Porter et al. (1982) argue that a consideration of the theories of self-concept makes it eminently qualified as a variable. The justification for using self-concept of ability in a model is succinctly stated by Wilson and Portes:

A person develops and adjusts his aspirations in accordance with both the evaluations he receives from his social environment (significant others) and his own self-assessment of abilities on the basis of objective information provided by his academic performance (1975:348).

The changing role of women led Porter et al. (1982) to assess orientations to the adult feminine role and the results of that work form this part of the review. Porter and associates created a set of indicators that determined the degree to which a woman held a "traditional" or "modern" view of her adult role which was applied to educational and occupational expectations to test any hypothetical relationships. They determined that there was a significant relationship between educational aspirations and the adult female role while there was a discernable relationship between occupational expectations and attitudes to the adult

female role. This relationship between aspirations and role was supported by earlier work conducted by Westervelt et al. (1975) which concluded that attitudes of women towards themselves was as important as institutional or situational barriers.

During high school (more and more) young people spend a substantial amount of time in work places which provide an experience that has received little attention by researchers. Almost all the research that has been performed has concerned itself with youth unemployment. While unemployment remains an important aspect to study for a variety of psychological, social, economical and political reasons, it may be worthwhile to direct more research toward the nature and role of youth employment.

For American high school seniors in 1980, the range of labor force participation rates for all income categories was from 73% to 80% (Barton, 1986). In Canada, Bibby and Posterski (1985) set the percentage at some 40% of Canadian teenagers. These levels of employment activity exist despite the fact that schools do very little - and often nothing at all - to help students obtain part-time work (except for the small minority of students in cooperative education and work experience programs). The levels of labor force participation would indicate that youth have ample motivation to work and that this motivation occurs rather early in one's life. Barton (1986) argues that

"the relevance of these facts is that they address the question of what students learn during their schooling years that is relevant to the work world. ... we should be looking as well into what students learn from the workplace before they graduate from school. What is the nature of the work they do? What kinds of perceptions are formed about the work world? Are their perceptions of the "adult" work world accurate? ... is the opportunity to experience work before high school graduation good preparation for the full-time work which is to follow?" (1986:140).

It must be pointed out that high school graduation, contrary to belief, does not typically mark the point of a youth's transition to the adult economy. Barton (1986) argues that most youth enter a separate youth market until about the age of 20 or 21, when they enter into "adult type" jobs.

Research on transition between segments of the labor market may provide partial answers to some of Barton's questions and confirm the suspicion about the age of hiring for "adult" jobs. Osterman (1980) noted that aging gives the youth an opportunity to move into another segment of the labor force as they accumulate work experience and, perhaps, more maturity. Moreover, Stevenson (1978a) suggested that, while entry level jobs often provide limited opportunities for advancement and permanence, they do not reduce their value as developers

and demonstrators of work habits which are important labour market characteristics. Freeman and Wise (1982) found that unemployment immediately after the completion of school had almost no effect on employment three or four years later. However they noted that while youth unemployment in general did not appear to have major long term consequences for later employment, it did appear to have a negative effect on subsequent wages, since increase in wages were related to work experience. Some of these findings have been questioned Stevenson (1978b) and Andrisoni (1979).

There is some evidence that working while in school is associated with employment success after leaving school and may therefore have a bearing on subsequent wages. Harrell and Wirtz (1980) determined that students who worked longer hours had lower unemployment rates 4 1/2 years after high school.

Returning to Barton's earlier questions, it is evident that understanding what happens during the high school years and immediately beyond graduation is very important to understanding how "employability" is developed in youth and in a country.

A student's attitude toward school and achievement may further influence that individual's ability to orient oneself toward the occupational environment. Based on Ginzberg's (1952) theory of occupational choice, Breton (1972) established the hypothesis that

orientation towards the world of work would be difficult for students who did not make a meaningful connection between what they learned in school, or the effort required by school work and their future careers. High aspirations when measured in specific goals (amount of education, grades or marks) were found to be associated with a lower probability of career indecision.

Using data from the High School and Beyond Study of 1980 in the United States, Wagenaar (1981) presented three major trends that emerged between experiences and attitudes of seniors in 1972 and 1980, i) increased emphasis of the importance of academics; ii) heightened awareness of economic problems; iii) expectations for education and employment of men and women were more similar in 1980 than in 1972. In other research conducted by Clark (1987), it was found that for the most part, seniors liked school, held reasonably high ratings of their own schools and viewed their teachers as knowledgeable and competent. Such studies portray student attitudes toward schools that are supportive of an orientation to the occupational environment and yield a rather positive picture of American schools unlike recent studies that echo a message of declining standards that undermine America's economic recovery and international economic position (Rock, 1986). Both the Wagenaar (1981) and Clark (1987) studies while supportive of education and work-role salience, each

have a shortcoming that tempers the findings. In the Wagenaar study, responses were taken from high school seniors - students of whom the system has worked-and in Clark's study respondents themselves were voluntary. Both studies then may not be representative of high school students. Nevertheless, attitudes related to secondary school need to be examined to develop a more complete understanding of the relationships between school related attitudes and adolescent aspiration who have different abilities and come from different social contexts (Marjoribanks, 1985).

Similarly patterned with school and work attitudes is an individual's sense of control over one's destiny. With regard to vocational indecision, Breton (1972) concluded that a sense of powerlessness about the future -"feeling that reflect a low sense of control over the course of events and that an individual's present activities are not relevant to what lies ahead" (p. 51) - is associated with indecision.

Recently, environmental attitude measures have received attention by Marjoribanks (1981). His work on subjective school outcomes, that attempted to refine measures of the environment, drew from the work of Bronfenbrenner (1977) and his general conceptual model of human development. An ecological approach is significant as it relates human development with the surrounding environments.

In developing an ecological theory of human development, Bronfenbrenner (1979:3) proposed that environment interacts with the developing person and that this interaction evolves through time. The ecological environment is viewed as a three leveled "nested structure". He proposed that "at the innermost level is the immediate settings that could "be as decisive for development as events taking place with a given setting. A child's ability to learn to read in the primary grades may depend no less on how he is taught than on the existence and nature of ties between the school and the home." The final level extends beyond the personal setting to settings where the person is not even present: for example, Bronfenbrenner would argue that one of the most powerful influences affecting the development of young children in modernized societies is likely to be the condition of parental employment.

Marjoribank's research has drawn attention to the extent educational and occupational aspirations of adolescence are related to their perceptions of different learning contexts. Findings indicate the significance of an ecological construct defined by the adolescent's perceptions of the support and encouragement for learning from their fathers, mothers and teachers.

## 2.4 Chapter Summary

Through expansion of the Wisconsin and Fishbein/Ajzen models, recent researchers have identified other variables that relate to major sets of variables as categories that are conceptualized as significant forces of influence or modifiers that shape the outcome of student decisions and ultimately attainment. These major categories were synthesized by Lam (1982) into a theoretical model where the variable categories are remote external, immediate external, and intrapersonal. The specification of variables within each of these categories was developed through a review of the related literature that addressed the stated purposes of this research in Chapter 1. Through this process the following variables according to the three major variable categories were developed. Factors significant to the Remote External Environment were divided between socio-economic and demographic components. Further decomposition of these components indicate parental occupation and levels of education as significant determinants of socio-economic measures and influence while sex, age, family size, marital status of parents, location and birth order comprise demographic measures. The Immediate External Category comprised of four variable sets: formal school activities, informal school activities, non-school related activities and significant others. Research in this area provided



substantive corroborative support for such formal school factors as program, achievement, homework, services, size of school and physical plant and significant others. Less exhaustive in general were studies on informal school variables (Climate, extracurricular, social life and school status) and non school variables (leisure, work and organized activity) as they relate to transition beyond grade twelve and attainment. In the final category, six intrapersonal variables were identified as significant measures of student attitudes/perceptions: self concept; the sense of control over one's destiny; the orientation to the adult feminine role; school and schoolwork; the world of work and learning contexts.

The review of the literature then has provided the development of a synthesized theoretical model that can be directly applied to the transition process in the year beyond high school and the generation of twelve major variable sets comprised of twenty-eight sub items that measure significant factors that influence attainment. The identification of these factors form the basis of an expanded and integrated model set forth in Chapter Three.

## CHAPTER III

### RESEARCH METHODOLOGY

#### 3.1 Overview of the Chapter

In Chapter III the conceptual framework and the methodology of the current empirical research is presented. Specifically, a theoretical model which establishes the linear linkage between three broad categories or dimensions of variables is described. Variable factors within each dimension as developed through the review of the literature are presented to form the six constituent parts of the research instrument. In the methods section the sample selection and the procedure established for the gathering of data by means of the research instrument is described. Finally, the data analysis through the selection and utilization of content and path analytic techniques are outlined.

#### 3.2 Conceptual Framework

For this investigation, a structural and social psychological model of attainment has been developed as an integrating framework. This model is based on the work conducted by Porter, Porter and Blishen (1982) on educational aspirations, by Sewell, Haller and Ohlendorf's (1970) work on status attainment, by Fishbein and Ajzen's (1975) research on attitudes and behavior, by Lam's (1982) synthesis of determinants of participation in further education and by Carpenter and

Fleishman's (1987) most recent work on intentions and behavior.

The conceptual premises underlying the linkages in the empirical model developed for this research are derived from the categories labelled by Lam (1982). The classification of three broad categories of variables, termed intrapersonal variables, (personal dispositions) immediate external (school & non school factors) and remote external (socio-economic background), are conceptualized in a linear relationship. This linear relationship is perceived such that intrapersonal factors which determine ultimately one's decision to proceed with further education or enter the world of work are the "end products of the interactive effects of immediate and remote external factors" (Lam, 1982:215). The linkages then, are where an individual at a certain point in time represent a cumulation of life experiences of a personal and situational nature that are shaped by underlying persistent forces from the remote external category through which are further shaped by immediate external factors seen in the school environment. A simplified model of effects of sets of variables on the entrance to higher education or work for high school graduates can be diagrammatically shown as Figure 2.

Figure 2

**Theoretical Linear Relationships of Three  
Categories of Variables.**

1. Remote External	2. Immediate External	3. Intrapersonal Variables	4. Attainment
Socio- Economic Backgrounds	School and non school Factors	Students' attitude value perception, etc.	Entrance to higher education or work

Lam, Yee-Lay Jack. "Determinants of Educational Plans of the Indeterminant High School Graduates." The Journal of Educational Administration. Summer, 1982, 22(2): 213-229.

The selection of three broad categories has been justified on the grounds of their continued identification in the relevant literatures as either constraints or facilitators of both educational aspirations and attainments (Sewell et al., 1970; Sewell and Hauser, 1980; Porter et al., 1982; Lam, 1982; Carpenter and Western, 1982, 1983, 1984; Davis, 1985; and Carpenter and Fleishman, 1987).

For example, the socio-economic backgrounds or remote external factors of individuals have often been highlighted as having major effects upon post school achievements (Coleman et al., 1966; Sewell et al., 1970; Spady, 1970; Williams, 1972; Breton, 1972; Alwin and Otto, 1977; Porter et al., 1982; Coleman and Kilgore, 1982; Lam, 1982; Carpenter and Western, 1984; Marjoribanks, 1984; Saha, 1985; Natriello and McDill, 1986; and Carpenter and Fleishman, 1987).

Immediate external factors such as school (Boyle, 1966), schooling (Bidwell and Kasarda, 1980), school activities (Coleman et al., 1966; Spady, 1970; Coleman and Kilgore, 1982), influence youth's aspiration and attainment through perceived influence, academic self assessment and attitude toward homework (Porter et al., 1982; Carpenter and Western, 1982; Csikszentimihaly and Larson, 1984). Intrapersonal influences either in the form of the models of friends, or the encouragement of parents and teachers have also emerged in several

studies in Australia, Canada and the United States, not only as important determinants of education and career ambition but also of actual attainments in both spheres (Breton, 1972; Porter et al., 1982; Natriello and McDill, 1986; Carpenter and Fleishman, 1987). Less understood and researched areas of influence are the informal aspects of school such as climate and extracurricular activities along with non school factors that youth experience as they move through the high school years. The model hypothesizes that these factors as well act as mediating variables on intrapersonal factors and ultimately on entrance to higher education or work.

Intrapersonal influences such as school and work attitudes, sense of control over one's destiny (Porter et al., 1982) and learning contexts (Marjoribanks, 1985) are significant correlates of adolescent aspiration and attainment. One's self concept has likewise been shown to affect a young person's aspirations and achievements (Carpenter and Western, 1983), while exploratory work conducted by Porter et al. (1982) has sought to determine orientations to the adult female role by women. In this study, the orientation of both sexes is assessed to determine its significance as an intrapersonal variable.

Figure 3 depicts the random placement of ordered variables according to the three major categories

thought to affect the entrance to higher education or work. As in the Carpenter and Western study (1984), the dependent variable is a person's destination after high school graduation while his socio-economic status would be regarded as independent variables.

The direction of influence is therefore, from social origins towards educational destination and not the reverse. As a person's social origins exist prior to his school, and are clearly unalterable in a sense that educational destination is not, the latter variable is seen as dependent on the former. In short, underlying the hypothesized causal links indicated by the movement from left to right across the figure is the passage of time (Carpenter and Western, 1984:250).

### **3.3 Method**

#### **3.31. SAMPLE**

The analysis presented in this paper used data gathered from a population of 412 graduates of Brandon School Division in June, 1987 within one year of their high school graduation. The sample included graduates from the three high schools with the following graduation class sizes: Crocus Plains Regional Secondary School, 212; Vincent Massey High School, 124; and Neelin High School, 76.

By means of a self-administered questionnaire, data were gathered concerning the eleven structural and social-psychological variables identified in the conceptual model (Figure 3). A total of 237 usable questionnaires were obtained from the sample, a response

FIGURE 3 The Influence of Structural and Social-Psychological Variables on Post High School Attainment.

REMOTE EXTERNAL	IMMEDIATE EXTERNAL	INTRA-PERSONAL VARIABLES	ATTAINMENT
(SOCIAL-CULTURAL ENVIRONMENT)	(SCHOOL-NON SCHOOL VARIABLES)	(STUDENT ATTITUDES -PERCEPTIONS)	
<u>Social Economic Status</u>	<u>Formal School</u>	<u>Self Concept</u>	
Father's Occupation	Program		HIGHER
Mother's Occupation	Achievement		EDUCATION
Father's Education	Homework		OR
Mother's Education	Services	<u>Control Over</u>	WORLD OF
	Size of School Plant	<u>One's Destiny</u>	WORK
<u>Demographic</u>	<u>Informal School</u>	<u>Adult Feminine Role</u>	
Sex	Climate		
Age	Extra Curricular		
Family Size	Social Life	<u>School/School Work</u>	
Marital Status of Parents	School Status		
Location			
Birth Order			
	<u>Non School</u>		
	Leisure		
	Work	<u>World of Work</u>	
	Organized Activity		
	<u>Significant Others</u>		
	Mother		
	Father		
	Peers	<u>Learning Contexts</u>	
	Teachers		
	Others		



rate of 58 per cent. In the sample of 237 respondents, 114 (48.1 per cent) were male while 123 (51.9 per cent) were female.

### 3.32. PROCEDURE

#### 3.32a Questionnaire Components.

Through a review of the literature and attention to survey techniques, a questionnaire was developed utilizing existing questions wherever possible. The initial development of the questionnaire generated in excess of 150 possible questions. These questions through a series of cross references with the literature and the proposed model were then sorted and synthesized into six sections: You and Your Background; You and Your High School; You and Your Out of School Activities; Your Attitudes; You and Your Family; The Year Beyond High School.

These six sections contained some 25 items and 82 sub-items that comprised the structural and social psychological measures for the specific factors within each of the variable categories established by Lam (1982). Chart 1 displays these factors and their variables as measured by the questionnaire items.

## Chart 1.

Chart of the Structural and Social Psychological Measures by  
Category.

---

1. Remote External Category

Factors: i) Socio-economic ii) Demographic

Variables: father's occupation; mother's occupation; father's  
education; mother's education; birth order; marital status;  
family size; location; age; and sex.

2. Immediate External Category

Factors: i) Formal School ii) Informal School  
iii) Non School iv) Significant Others

Variables: program; achievement; homework; services;  
plant; school size; climate; extracurricular; social life;  
school status; leisure; work; organized activities; mother,  
father, friends, teacher and others.

3. Intrapersonal Category

Factors/Variables: i) Self concept ii) Control Over One's Destiny  
iii) School/School Work iv) World of Work  
v) Learning Contexts

---

### 3.32b Instrumentation

A draft questionnaire was developed and discussed with students in their current Grade 12 year, students in the prospective sample and high school teachers. After some of the questions and format were revised, the questionnaire was field tested in June of 1988 (survey was completed by ten students: five in the research sample and five in their final year of high school). The criteria established for this field test was relatively straight forward: clarity of questions, instructions and general impressions were solicited as to format, length and nature of the questions. Each respondents's questionnaire was reviewed individually with the person and certain adjustments (mainly typographical) were made.

Questions were then key-coded (after Lam, 1982) and reviewed so as to avoid potential problems in the data analysis phase of this research. To facilitate coding procedures, the questionnaire format was altered to include an area in the right margin by each question for the coding of responses.

Graduates were mailed a letter (in early November of 1988) informing them of the nature of the study and requesting their participation (Appendix A) along with a questionnaire (Appendix B) and a stamped self-addressed return envelop. After approximately a 3 week period, a follow-up letter (Appendix C) was sent on December 1, to

graduates who had not responded to the initial request for participation.

Completed questionnaires continued to arrive until February 7, 1989, at which time acceptance of further surveys was terminated.

The instrument developed for this investigation was a questionnaire that contained two types of questions: Likert scaled items and open-ended questions. Table 1 displays the variables in the theoretical model, their labels and description of their measurements.

Respondents were asked to check the activity that best described what they did between September 1987 and May 1988. The data coding phrase was carried out in three steps: 1) individual questionnaires coded; 2) questionnaire codes transferred to master data sheets; 3) data from master sheets entered into computer data file. Once completed, data from the questionnaire were checked for consistency with the master sheets and in turn with data stored in the computer file.

### 3.32c Instrument Reliability

To determine the consistency of responses to the factors contained in the instrument developed for this study the approach of calculating reliability adopted the Alpha described in SPSS-X (1988). In general, the computations were performed to assess the reliability of "a sum or weighted sum across variables as an estimate of a case's true score" (SPSS-X, 1988).

## Chart 2

Chart of Reliability Alpha Coefficients for Each  
Sub-Scale in the Survey Instrument.

-----  
1. Remote External Category

Formal School

F <sub>1</sub> - School Climate	.82 (alpha coefficient)
F <sub>2</sub> - Instruction	.68
F <sub>3</sub> - Counselling	.84

Informal School

F <sub>1</sub> - Student Body Activities	.93
F <sub>2</sub> - Special Interest Groups (non-athletic)	.51

Non School Activities

F <sub>1</sub> - Leisure	.83
F <sub>2</sub> - Productive	.76
F <sub>3</sub> - Entertainment	.73

Significant Others

F <sub>1</sub> - Non family	.60
F <sub>2</sub> - Parents and Adult Relatives	.64

Intrapersonal Category

F <sub>1</sub> - Learning Environment	.76
F <sub>2</sub> - Attitude to the World of Work	.83
F <sub>3</sub> - Control Over One's Destiny	.63
F <sub>4</sub> - Self Esteem	.73
F <sub>5</sub> - Perceived Purpose of High School	.42

Orientation: Career - family/community life

F <sub>1</sub> - Family/community life	.67
F <sub>2</sub> - Career	.15

3). Reliability coefficients (alpha) for the seventeen factor scales are contained in Chart 2.

#### 3.32d Statistical Analysis

The treatment of the data followed two separate approaches: a content analysis and a path analysis. A content analysis of the open ended questions contained in the questionnaire provided a quantified descriptive analysis of the sample under study. Responses to open ended questions were individually read and noted according to key words/descriptors. As one could not anticipate all responses, the approach selected was a developmental one: responses first noted were recorded with attention being paid to key words or descriptors selected in the passage; as succeeding responses were read new categories were developed or placed in existing response categories through a tally record that developed into frequencies of responses. This procedure was desirable in that no preconceived responses would be actively sought out and the categories developed came from the commonality of responses to a particular question. This procedure was repeated for all open ended questions.

Prior to the use of the path analytic technique, factor analyses were conducted to establish parsimony among the underlying dimensions or factors and to identify latent variables.

TABLE 1  
MEASUREMENT OF VARIABLES IN THE MODEL

VARIABLE LABEL	VARIABLE NAME	SOURCE	MEASUREMENT
X <sub>1</sub>	Father's occupation	Porter et al, 1982. Breton, 1972.	Occupations coded according to Blishen et al (1987) scale which was most applicable to data limited to occupational titles. The use of the socioeconomic index allows for "a unidimensional, contextual indicator that locates individuals in the Canadian occupational hierarchy at a given point in time." (Blishen, et al 1987, p. 473). Entire scale range is from 17 to 101 and this has the properties of an interval scale. The socioeconomic score of each occupation was used directly in the analysis.
X <sub>2</sub>	Mother's occupation	Carpenter and Western, 1984.	As above.
X <sub>3</sub>	Father's education	Porter et al, 1982. Breton, 1972. Carpenter and Western, 1984.	A scale from 1 to 9 on which 1 = no formal schooling 8 = completed graduate studies 9 = other.
X <sub>4</sub>	Mother's education.	Carpenter and Western, 1984.	As above.
X <sub>5</sub>	Marital status		A scale from 5 to 1 on which 5 = living together 1 = neither father or mother living.

VARIABLE LABEL	VARIABLE NAME	SOURCE	MEASUREMENT
X <sub>6</sub>	Family size		Space provided to indicate respondent's number of brothers and sisters.
X <sub>7</sub>	Birth order		Space provided to indicate position in birth order.
X <sub>8</sub>	Gender	Porter et al, 1982. Carpenter and Fleishman, 1987.	1 = male 2 = female.
X <sub>9</sub>	Age		Space provided to indicate respondent's age as of September, 1988.
X <sub>10</sub>	Location	Carpenter and Western, 1984.	1 = within Brandon 2 = outside of Brandon
X <sub>11</sub>	Program type		A scale from 9 to 1 on which 9 = program with 3 - 300 subjects combined with business or vocational certificate. 1 = occupational entrance program.
X <sub>12</sub>	Achievement		Space provided to indicate respondent's number of high school credits.
X <sub>13</sub>	Homework	Natriello and McDill, 1986.	A scale with five grade ranges (eg. 50 - 60; 61 - 70...) was provided to indicate respondent's level of achievement that they felt was satisfactory. A scale from 1 to 5 on which 1 = 0 hours per week 5 = more than 3 hours per week.



VARIABLE LABEL	VARIABLE NAME	SOURCE	MEASUREMENT
X <sub>14</sub>	Services	Jones et al, 1985.	Two statements that sought respondent's satisfaction with counselling for job placement, course selection and personal problems. A scale from 1 to 5 on which 1 = very dissatisfied 5 = very satisfied.
X <sub>15</sub>	Plant	Jones et al, 1985.	As above.
X <sub>16</sub>	School size	Jones et al, 1985.	A scale of 1 to 3 on which 1 = smallest school population 3 = largest school population.
X <sub>17</sub>	Climate	Jones et al, 1985.	Four statements that sought respondent's satisfaction with intellectual growth, intellectual and cultural life of school and school atmosphere. A scale from 1 to 5 on which 1 = very dissatisfied 5 = very satisfied.
X <sub>18</sub>	Extra curricular	Coleman, 1961.	Eleven statements that sought respondent's perception of the influence that extra curricular activities had on his/her plans after high school graduation. A scale of 1 to 5 on which 1 = no influence 5 = very strong influence.
X <sub>19</sub>	Social life	Jones et al, 1985.	A scale of 1 to 5 on which 1 = very dissatisfied 5 = very satisfied.

VARIABLE LABEL	VARIABLE NAME	SOURCE	MEASUREMENT
X <sub>20</sub>	School status	Coleman et al, 1982.	As above.
X <sub>21</sub>	Leisure	Coleman et al, 1982. Csikszentmihaly and Larson, 1984.	Fourteen statements that sought respondent's perception of the influence that leisure activities had on his/her plans after high school. A scale of 1 to 5 on which 1 = no influence 5 = very strong influence.
X <sub>22a</sub>	Work	Coleman, 1961. Coleman et al, 1982. Csikszentmihaly and Larson, 1984.	a) A dichotomous variable that determined those who worked or did not work (earn income) in their last year of high school. 1 = yes 2 = no.
X <sub>22b</sub>			b) Question sought respondent's perception of the influence that work had on plans after high school. A scale of 1 to 5 on which 1 = no influence 5 = very strong influence.
X <sub>23</sub>	Organized activity	Coleman et al, 1982.	A scale of 1 to 5 on which two areas of activities had 1 = no influence 2 = very strong influence...on post high school plans.
X <sub>24</sub>	Significant others	Lam and Hoffman 1979. Coleman, 1982.	Nine statements were asked to determine the extent of each of these people's influence on their post high school plans. A scale of 1 to 5 on which 1 = no influence 5 = very strong influence

VARIABLE LABEL	VARIABLE NAME	SOURCE	MEASUREMENT
X <sub>25</sub>	Self concept	Coleman et al, 1982.	Three statements that sought respondent's perception of self esteem. A scale of 1 to 5 on which 1 = strongly disagree 5 = strongly agree.
X <sub>26</sub>	Control over one's destiny	Coleman, 1982.	Four statements that sought respondent's perception of "sense of control" over one's life. A scale of 1 to 5 on which 1 = strongly disagree 5 = strongly agree.
X <sub>27</sub>	Adult feminine role	Porter et al, 1982.	Six statements that sought respondent's interest and desires in life. Statements were modified so as to obtain responses from both sexes. A scale of 1 to 5 on which 1 = not important at all 5 = very important.
X <sub>28</sub>	School/school work	Otto et al, 1981.	Seven statements that sought respondent's attitude to the purpose of school in terms of the extent of agreement with each statement. A scale of 1 to 5 on which 1 = strongly disagree 5 = strongly agree.
X <sub>29</sub>	World of work	Otto et al, 1981. Otto, Call and Spenner, 1981.	Four statements that sought respondent's attitude to the world of work in terms of the degree of agreement with each statement. A scale of 1 to 5 on which 1 = strongly disagree 5 = strongly agree Scale for one statement is reversed.

VARIABLE LABEL	VARIABLE NAME	SOURCE	MEASUREMENT
X <sub>30</sub>	Learning contexts	Marjoribanks, 1985.	Seven statements that sought respondent's attitude to the learning environment of the school and home. A scale of 1 to 5 on which 1 = strongly disagree 5 = strongly agree.
X <sub>31</sub>	Satisfaction with high school	Jones et al, 1985.	Two questions that sought respondent's extent of agreement on how well their high school program prepared them for further education and the job market. A scale of 1 to 5 on which 1 = strongly disagree 5 = strongly agree.
X <sub>32</sub>	Attainment	High School follow-up study, 1988.	

Generally speaking then, factor analysis is a statistical technique for determining the number and nature of underlying variables among large numbers of measures. Further, factor analysis serves the cause of scientific parsimony by indicating what tests measures can be added and studied together rather than separately. It thus limits the variables and helps to locate and identify fundamental dimensions underlying tests and measures that are not directly observable.

The "factors" generated are constructs that are assumed to underlie tests and test performance that can be used to represent relationships among sets of many interrelated variables. To obtain the factors, each factor analysis was carried out in a four step procedure:

Step 1, correlation matrix for all variables computed; step 2, the number of factors necessary to represent the data through factor extraction was determined. Factors therefore with an eigenvalue (total variance explained by each factor) equal to or greater than 1.0 were included for use in the model since all variables and factors are expressed in standardized form, with a mean of 0 and a standard variance of 1; step 3, the rotation step, transformation of complicated matrices into simpler ones. As the rotation method was orthogonal, the most common algorithm was used - the varimax method. This method attempts to minimize the

number of variables that have high loadings on a factor (Norusis/SPSS Inc., 1988); step 4, factor score coefficients obtained.

Once the factor score coefficients were obtained and alpha reliability coefficients were obtained for each factor, regression analysis was used to quantify relationships among variables.

The procedure selected for computing the regression equations was the stepwise selection of independent variables.

In stepwise selection, the first variable considered for entry into the equation is the one with the largest positive or negative correlation with the dependent variable. The balance of the regression procedure for the selection of independent variables is based on whether the variable fails to meet entry requirements. Should the variable fail, the procedure terminates with no independent variables in the equation. "If it passes the criterion, a second variable is selected based on the highest partial correlation. If it passes entry criteria it also enters the equation." (Norusis/SPSS, 1988:174). The variables are further examined according to the removal criterion where all variables are placed in the equation and examined for removal. Variable selection terminates when no more variables meet entry and removal criteria.

The standardized regression coefficients obtained

through the regressions are labelled Beta coefficients and are incorporated into the conceptual framework of a path model. Using the beta coefficients, model parameters are estimated via path analysis and utilized in the examination of the total, indirect and direct effects of the independent variables as suggested by Alwin and Hauser (1975).

### **3.4 Chapter summary**

Chapter III presented the research methodology employed in the development and operation of this empirical study. The conceptual premises that frame the parameters of the study were established in a theoretical model that established linear relationships of three broad categories of variables with attainment. The categories were labelled remote external, immediate external and intrapersonal variables. Within the conceptual framework variables were temporally and causally ordered as shown in Figure 3 among the above categories and as in the Carpenter & Western study (1984) placed attainment as the dependent variable.

The procedure utilized in the sample selection was straight forward; all graduates of the three Brandon high schools comprised the sample and received a mailed questionnaire that requested their voluntary participation. A response rate of 58 percent was obtained.

The instrument developed for data collection was a six part questionnaire that explored student backgrounds, perceptions and attitudes according to six open ended questions and to the variables in the theoretical model. This allowed for the measurement of variables so that responses could be analyzed according to factor analysis procedures that seek to identify latent variables and establish parsimony amongst the variables. A stepwise regression selection procedure was employed in the next phase that determined Beta coefficients through entry and removal criteria. The Beta coefficients form the basis of the reporting procedures in path analysis as suggested by Alwin and Hauser (1975).



## CHAPTER IV

### ANALYSIS AND INTERPRETATION

#### 4.1 Overview of the Chapter

The analysis and interpretation of the data is divided into three sections. A preliminary analysis was carried out to determine the structure of variables through factor analysis. In the second section an analysis of the data was carried out through a descriptive analysis of the sample and statistical analysis derived from multiple regression analyses that are presented in the formation of two path models: one for females and the other for males. The results of each path model are presented separately and then analyzed through the identification of similarities and differences. The final section presents a discussion of the findings as they relate to the review of the literature.

#### 4.2. Preliminary Analyses: The Structure of the Variables.

In these analyses, the raw data from the questionnaires were reduced to theoretically more meaningful and parsimonious dimensions. The principal technique was factor analysis.

Six factor analyses were undertaken, each respectively dealt with items assessing formal school activities, informal school activities, non-school activities, influence of others, student attitudes and

perceptions and student interests in life.

Student levels of satisfaction with their formal high school education activities were based on fifteen Likert scaled items. Factor analysis showed that fourteen items loaded on three factors with eigenvalues greater than 1 (Table 2). A composite item title was determined by the weight of the item loadings for each factor. In this case, factor 1 was termed school climate; factor 2, instruction and factor 3, counselling services. Item 14, assessing the level of satisfaction with the physical plant did not load on any of the factors and was dropped from further analysis.

The impact on student plans beyond the year of high school of informal high school activities was determined by an analysis of responses to eleven Likert scaled items. All eleven items loaded between two factors with eigenvalues greater than 1 (Table 3). The composite item titles as reflected by the item loadings for each factor were determined: factor 1 was termed student body activities and factor 2, special interest groups that were non-athletic. The factor names, determined by the composite item loadings essentially were divided by the orientation of the activity. The student body activities related to informal global school concerns such as student council, school sports

Table 2.

**Students' Perceived Levels of Satisfaction with Their  
Formal High School Education Activities.**

ACTIVITIES	Factor 1	Factor 2	Factor 3
The ability, knowledge and personal qualities of most teachers.		.786	
The quality of the instruction.		.788	
Development of my work skills.		.701	
Course curriculum.		.507	
The social life.	.600		
Cultural activities, music, art, drama, etc.	.518		
Variety of extracurricular activities.	.659		
My intellectual growth.		.541	
The intellectual life of the school.	.678		
Overall school atmosphere.	.812		
The prestige of the school.	.580		
Job placement counselling.			.837
Counselling for course selection, personal problems.			.772
The buildings, library, equipment, etc.	--	--	--
Understanding the world of work.			.660
Eigenvalue	3.919	1.795	1.601
Percentage of Variance	26%	12%	11%

Table 3.

**Informal High School Activities on Student Plans.**

ACTIVITIES	Factor 1	Factor 2
Student Council	.640	
Interschool athletic team	.832	
Intramural athletic team	.839	
School newspaper, magazine, or yearbook.	.546	
Subject matter clubs, such as science, mathematics, history, language clubs, etc.		.479
Debating, dramatics, or musical clubs.		.723
Band, orchestra, choir		.709
School hobby clubs, such as photography, chess, computer, etc.		.511
Religious organizations		.530
Patriotic or civic associations.		.611
Other school teams, clubs or organizations.	.603	
Eigenvalue	3.823	1.459
Percentage of Variance	35%	13%

teams, newspaper, and other organized activities that related to the entire school population. The special interest groups were debating clubs, subject matter clubs, religious, patriotic and holiday clubs that existed for a specific purpose for a portion of the student population.

The influence of non-school activities on student plans beyond high school was based on a sixteen Likert scaled items. Fifteen of the items loaded and were split over three factors: six items loaded on factor 1, six items on factor 2 and three items on factor 3 (Table 4). Each of the factors had eigenvalues greater than 1.0. The composite items for each factor relate to three sets of activities as established by (Csikszentmihalyi and Larson, 1984): leisure, productive and entertainment.

How other people were seen to influence student plans beyond high school were based on responses to nine (types of people) Likert scaled items. The nine items loaded on two factors (Table 5) : non-family members loaded on factor 1 while parents and adult relatives loaded on factor 2.

Table 4.

## The Influence of Non School Activities on Student Plans.

INFLUENCES	Factor 1	Factor 2	Factor 3
socializing (for example, conversation, partying, goofing around, talking on phone.)	.737		
Sports and Games (formal and unorganized games)	.683		
Watching T.V.	.688		
Listening to music.			.709
Arts and hobbies.			.695
Reading (newspaper, magazines, and books not assigned from school).		.769	
Thinking (daydreaming, mental reflection).		.674	
Work at a job.		.460	
Studying.		.751	
Family (Outings/Events/Trips/Being at home).		.726	
Dating.	.750		
Going out with friends of same sex.	.761		
Going out with friends of opposite sex.	.434		
Chores, Errands, Homework, Cooking, Childcare, Shopping.		.502	
Participation in a nonathletic organization (Dance group, Drama club, Cadets/militia, etc.)			.881
Eigenvalue	4.878	2.430	1.729
Percentage of Variance	31%	15%	10%

Table 5.  
**People's Influence on Student Plans**

PERSONNEL	Factor 1	Factor 2
My parents		.867
Other relatives or adults		.798
A teacher	.445	
A guidance counsellor	.656	
The principal or vice-principal	.570	
Friends	.590	
A college or university student you know	.684	
College or university representative	.638	
Employer(s) you have met.	.514	
Eigenvalue	2.867	1.230
Percentage of Variance	32%	14%

Student perceptions and attitudes were measured by responses to twenty-five Likert scaled items. Twenty-three of the items loaded over five factors with eigenvalues greater than 1.0 (Table 6). The items that loaded on each of the factors relate to those postulated in the model: Factor 1, learning environment; Factor 2, attitude to the world of work; Factor 3; control over one's destiny; Factor 4, self-esteem and Factor 5, perceived purpose of a high school.

Finally, orientation to a career or family/community life (Table 7) was based on responses to six Likert scaled items (Porter, 1982) assessing the level of importance assigned to each. Factor analysis showed that four items loaded on Factor 1 and two items loaded on Factor 2 (Table 7). Factor 1 was termed family/community life while Factor 2 was termed career.

#### **4.3 Analysis of Data**

Two methods of analysis were chosen - content analysis and path analysis. Each technique provides insight into complex processes at work. The content analysis technique was employed for the five open-ended questions that solicited responses to the type of jobs



Table 6.  
Student Attitudes and Perceptions.

ATTITUDES	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	F <sub>4</sub>	F <sub>5</sub>
There were too many rules and regulations in my high school.			.455		
Generally those in charge at my high school were not very patient with students.	.549				
It often seemed that teachers in my high school were not very interested in whether we learned or not.	.672				
Teachers in my high school really pushed students to the limits of their abilities.	.564				
Most of my teachers encouraged us to use a lot of imagination in our school work.	.674				
Teachers were always trying out new and often exciting ways of doing things in my high school.	.658				
My high school was a very caring school--teachers cared greatly about students.	.727				
I feel I do not have much to be proud of.				.586	
I take a positive attitude toward myself.				.861	
On the whole, I am satisfied with myself.				.833	
Good luck is more important than hard work for success.			.538		
Planning only makes a person unhappy, since plans hardly ever work out anyway.			.553		
People who accept their condition in life are happier than those who try to change things.			.453		
What happens to me is my own doing	--	--	--	--	--
Everyone who possibly can should work.		.651			
It is a person's duty to work.		.840			
If I did not work I would feel that I was not leading a "right life".		.835			
If a person can live the way he wants to without working there is no reason for him to work.		.534			
High school should be more concerned with developing social and personal skills; less concerned with developing vocational or academic skills.		.580			
There is too much emphasis on extra-curricular activities in high school, and not enough on developing job-related abilities.					.447
In high school there should be more courses to prepare students for jobs in the outside world and fewer purely "academic" courses such as literature and history.					.516
All students should try to go to college/university. If they can't make it then they can always get an ordinary job.	--	--	--	--	--
High schools should be concerned more with occupational training than with preparation for college/university.					.719
High schools should be more concerned with sponsoring activities that allow students to make friends with other students than with teaching vocational or academic skills.			.665		
High school should do more to provide students with skills useful in jobs and should not worry too much about college/university preparations.					.773
Eigenvalue	3.486	2.610	2.465	1.843	1.516
Percentage of Variance	14%	10%	10%	7%	6%

Table 7.  
Students' Interests In Life

INTERESTS	Factor 1	Factor 2
to have a career, a long-term job that requires me to develop my skills and capacities and that would be rewarding for me personally.		.823
To do community work--to help people in my community through organizations such as hospital auxiliaries, or through informal organizations such as tenants' groups, anti-pollution groups, etc.	.506	
To keep a good household; to be a good cook and have the other skills that go into being a good homemaker.	.699	
To have skills and the possibility of getting jobs that will give me some security and allow me some independence in organizing my life as I wish.		.788
To have a mutually rewarding relationship with a woman/man.	.757	
To have a child, or some children, raise and care for them.	.834	
Eigenvalue	2.171	1.204
Percentage of Variance	36%	20%

the graduates held during their high school years, what the graduates would change if they "had to do it all over again", what advice they would give a student just entering high school, what they have found most difficult in the year beyond high school, and their plans for the following year. To identify general responses, questions with response frequencies less than 5 were not included in the presentation of tables.

Because path analysis provides a causal model, this technique provided the focus for the data analysis. The model pertaining to student perceptions of themselves and their experiences during the high school years is treated as a fully recursive system of equations. Multiple regression analysis were performed in a stepwise manner as indicated in Figure 2. The examination of the total, indirect and direct effects of structural and social-psychological variables were reported using the procedure suggested by Alwin and Hauser (1975).

#### 4.31 DESCRIPTIVE STATISTICS OF SAMPLE

In the first part of the data analysis, a general picture of the respondents is developed through a frequency description of selected variables and then a content analysis of four open ended questions that probed student reactions to the transition process is presented. Response frequencies for each question in the survey are provided in Appendix D.

Females comprised 52% (123) of the sample while males made up the remaining 48% (114). In terms of student background, 74% (176 students) of the respondents graduated from a high school program with at least three 300 level or university entrance courses. The average number of credits obtained by the respondents was twenty-two while 41% (78 students) of the graduates obtained twenty-three or more credits. On average the respondent group spent 18 hours per week working while just over 7 hours per week was devoted to their studies. The majority of students (76% or 179/237) held part-time jobs of which 45% (81 students) of those who worked spent 20 or more hours per week at their job. Fifty-eight (24%) students out of the sample did not work at paid employment in their last year of high school. In terms of school related work, 79% (177 students) of the students who indicated that homework on a regular basis was done, spent between 1 and 10 hours per week at their studies. Fourteen students (5%) of the total respondents indicated that on average no time was spent at their homework on a weekly basis. In this group of respondents, 29% felt that grades of 80% or better were satisfactory.

When asked what activity best described what they did between September 1987 and May 1988, 138 students indicated that they were enrolled full time at a post-secondary institution while 21 students were part time

students. The activities of the other 77 students were varied: 54 employed full time; 14 employed part time; 2 home makers; 1 unemployed; 7 involved in other activities - travel or exchange program.

Upon closer examination of the data through separation according to sex, the results in the female group indicated that 44% (54/123) either disagreed or strongly disagreed with the statement "that your high school courses prepared you for the job market" and that 44% (54/123) held similar views on the statement "that your high school courses prepared you to take further education". Approximately 24% (29/123) of the females in both questions neither agreed or disagreed. The results from data gathered in the male group reflect similar views. Here the percentages were 41% regarding job and school preparation while over 36% neither agreed or disagreed with each statement. In the most general terms, more females (33%) tended to be in greater agreement with the idea that school courses prepared them for either work or further education than in the case of males.

Before leaving this general description of the respondents, one last remark is in order. Of those who worked (Table 8), the majority were involved in service sector jobs that require little or no formal training.

At the end of the questionnaire, students were asked the following four open-ended questions: 1)

Thinking back to your high school days, what is the one thing you would most want to change if you could live them over again? 2) What advice would you give a student just entering high school? 3) What have you found most difficult about your year out of high school? 4) What are your plans for this year (fall of 1988 to summer of 1989)?

Tables for the first three questions contain only responses that occurred in five or more questionnaires as in excess of 190 different responses were obtained. This allowed for a focused view at responses that had some general commonality amongst the respondents.

In terms of what students would change if they could live their high school days over again (Table 9) two very distinct responses are apparent: students would try to put more into their work and play. Obtaining higher grades and increased studying were the two most identified changes with participation in extracurricular activities and social involvement next being identified. Twenty students indicated that they would change nothing while the balance of the responses focused on more

Table 8

**Response and Response Frequencies for the Type of Work Students were  
Employed in During Their Last Year of High School**

Response	Frequency
Food server (waiter/waitress; restaurant worker, banquet steward, fast food)	50
Sales person	38
Cashier	21
Cook	9
Supermarket employee; produce clerk	7
Laborer	6
Lifeguard	6
Referee	4
Cashier/Sales person	4
Receptionist	4
Babysitter	4
Kitchen Staff	3
Desk clerk	3
Music Teacher	3
Janitor	3
Delivery driver	3
Dish washer	2
Gas jockey	2
Bus boy	2
Mechanic	2
Concession worker	2
Dietary aid	2
Laundry cleaner	2
Stock boy	2
Aerobics instructor	1
Caretaker	1
Hospital aide	1
Band member	1
Photographer	1
Militia	1
Farmer	1
Gymnastics coach	1
Bookkeeper	1
Office worker	1
Computer consultant	1
Security guard	1
Engraver	1
Bartender	1
Music man	1

NOTE: Twenty students indicated that they held two separate jobs at once.

Table 9.

Response and Response Frequencies for the question "What one thing would you change if you had to do it all over again?"

Response	Frequency
Achieve higher grades	33
Study more/do homework	32
Participate more in extra-curricular activities/sports	24
Be more active socially	21
Nothing	20
Put more effort in Courses taken	19
How I studied	10
Take school more seriously	8
Change friends	7
Have a girlfriend/boyfriend	5



effort, courses, studying, attitude toward school and relationships.

In terms of "change", they would like to see, their responses were similar: (Table 10) in that advice focused on working hard, having fun, getting involved in extracurricular activities, obtaining good grades, and learning as much as you can. From these responses it seems evident that high school should have a balance between activities that foster achievement and those that require participation in a variety of social activities.

In terms of the difficulties experienced in the year beyond high school (Table 11), adjustment to university life and the workload were most often identified. Deciding on a career, the absence of friends and financial concerns were aspects next identified in frequency of response. These responses are congruent with the type of advice these graduates would give students just starting high school and what they would change themselves if they could relive their high school experience.

The vast majority of respondents (163 students), (Table 12) continued with either a university or college education and 47 pursuing work

Table 10.

**Response and Response Frequencies on the type of advice given by high school graduates to a student just entering high school.**

Response	Frequency
Work/Study hard	44
Have fun	34
Get involved with extracurricular activities	27
Get good marks	21
Learn all you can	20
Set priorities	19
Do as well as you can	14
Develop good study habits	13
Develop a balance between school and social life	13
Don't quit	11
Take a variety of courses	10
Be yourself	9
Make friends	9
Take advantage of what school has to offer	8
Take university entrance courses	7
Attend classes	7
Don't goof around	5

Table 11.

Response and Response Frequencies Generated by the Question "What have you found most difficult about your year out of high school?"

Response	Frequency
Adjusting to university life/expectations	38
Heavy study/work load at university	36
Deciding on a career/what I want to do	25
Miss friends/teachers (2)	21
Finances/money/cost of living	18
Nothing	13
Finding a full time job/a good job (3)/ a job that I enjoy (3)	13
Making new friends	10
More responsibility/making own decisions (3)	8
Being away from home	6
Independence/freedom	6
Pressure on myself to succeed	5
Motivating myself	5

Table 12.

**Response and Response Frequencies of Student Plans for the Next Year.**

Response	Frequency
Attend university full time/part time (2)	134
Work	47
Attend college	26
Undecided	6
Travel abroad	5
Plan wedding	3
Attend a training facility	3
Join RCMP	2
Attend Bible school/college	2
Housewife and mother	1
Become rich	1
Work at a mission	1
Computer electronic apprenticeship in Europe	1
Join air force	1
Farm	1
Work with Crossroads International	1
Train for biathlon team and work part time	1
No response	1

activities while twenty other students pursue their own unique endeavors. Six students at the time of the questionnaire were undecided while one indicated a no response.

#### 4.32 PATH ANALYSIS

The empirical analysis undertaken to answer the research questions presented in the design of this study was guided by two models that emerged from the path analysis. The factors that influence attainment within each of the female and male groups are discussed separately and then a between group comparison is presented.

In Tables 13 and 14, the results of path analysis are presented separately for females and males. Table 15 provides the symbols of variables used in the empirical models in Figures 4 and 5 through which path analytic techniques were adopted to investigate relations among the variables developed in the conceptual model (Figure 3).

The present analyses were performed separately for women and men primarily because gender has been viewed as a mechanism that either facilitates or inhibits aspirations and attainment levels and because path analysis does not deal with nominal data.

Table 13.  
 Effects of Variables in a Model for Female High School Graduates  
 of Attainment in the Year Beyond High School

Dependent Variable	Independent Variable	Correlation	Causal			Error
			Direct	Indirect	Total	
X <sub>10</sub>	X <sub>1</sub>	-.220	-.220	0	-.220	0.0
X <sub>20</sub>	X <sub>8</sub>	.241	.268	0	.268	.027
	X <sub>15</sub>	-.194	-.226	0	-.226	.032
X <sub>22</sub>	X <sub>11</sub>	.428	.428	0	.428	0.0
X <sub>23</sub>	X <sub>5</sub>	-.246	-.236	0	-.236	.010
	X <sub>11</sub>	.225	.215	0	.215	.010
X <sub>24</sub>	X <sub>10</sub>	.330	.244			
	X <sub>12</sub>	.351	.282	0	.282	.069
	X <sub>14</sub>	.201	.236	0	.235	.035
X <sub>25</sub>	X <sub>7</sub>	-.224	-.247	0	-.247	.023
	X <sub>18</sub>	.194	.220	0	.220	.026
X <sub>26</sub>	X <sub>1</sub>	.259	.333	0	.333	.074
	X <sub>7</sub>	-.217	-.265	0	-.265	.048
	X <sub>14</sub>	.228	.272	0	.272	.044
X <sub>27</sub>	X <sub>3</sub>	.273	.227	0	.227	.046
	X <sub>8</sub>	-.307	-.239	0	-.239	.068
	X <sub>23</sub>	.262	.223	0	.223	.038

Table 14.

**Effects of Variables in a Model for Male High School Graduates  
of Attainment in the year beyond High School.**

Dependent Variable	Independent Variable	Correlation	Causal			Error
			Direct	Indirect	Total	
X <sub>10</sub>	X <sub>4</sub>	.320	.337	0	.337	-.017
	X <sub>5</sub>	-.235	-.258	0	-.258	-.023
X <sub>11</sub>	X <sub>4</sub>	.292	.292	0	.292	0
X <sub>18</sub>	X <sub>6</sub>	.293	.381	0	.381	.088
	X <sub>7</sub>	.226	.328	0	.328	.102
X <sub>17</sub>	X <sub>4</sub>	-.175	-.244	0	-.244	.069
	X <sub>6</sub>	.254	.690	0	.690	.436
	X <sub>8</sub>	-.042	-.614	0	-.614	.572
X <sub>21</sub>	X <sub>5</sub>	.332	-.337	0	-.337	.005
	X <sub>12</sub>	.236	.244	0	.244	.008
X <sub>22</sub>	X <sub>6</sub>	.219	.273	0	.273	.054
	X <sub>10</sub>	.513	.558	0	.558	-.045
	X <sub>17</sub>	.155	.208	0	.208	-.093
X <sub>24</sub>	X <sub>7</sub>	-.322	-.354	0	-.354	.032
	X <sub>10</sub>	.253	.292	0	.292	-.039
X <sub>26</sub>	X <sub>13</sub>	.332	.332	0	.332	0
X <sub>27</sub>	X <sub>9</sub>	.363	.292	0	.292	.071
	X <sub>22</sub>	.132	.266	0	.266	-.134
	X <sub>24</sub>	-.303	-.350	0	-.350	-.047
	X <sub>25</sub>	.336	.309	0	.309	.027

Table 15  
**Categories and Symbols of Variables used in Empirical Models.**

CATEGORIES		SYMBOLS	INTERPRETATION	
Remote External		X <sub>1</sub>	Father's education	
		X <sub>2</sub>	Mother's education	
		X <sub>3</sub>	Father's occupation	
		X <sub>4</sub>	Mother's occupation	
		X <sub>5</sub>	Age	
		X <sub>6</sub>	Family size	
		X <sub>7</sub>	Marital status	
		X <sub>8</sub>	Birth order	
		X <sub>9</sub>	Location	
Immediate External	Formal	X <sub>10</sub>	School Life	
		X <sub>11</sub>	Instruction	
		X <sub>12</sub>	Counselling services	
	School	Informal	X <sub>13</sub>	Teams/Clubs
			X <sub>14</sub>	Non-athletic clubs
	Non school		X <sub>15</sub>	Leisure
			X <sub>16</sub>	Work
			X <sub>17</sub>	Organized activity
	Significant others		X <sub>18</sub>	Primary group members
			X <sub>19</sub>	Secondary group members
	Intra-personal	Attitudes	X <sub>20</sub>	Esteem
			X <sub>21</sub>	Control
X <sub>22</sub>			Work	
X <sub>23</sub>			Learning contexts	
X <sub>24</sub>			Function	
Orientation		X <sub>25</sub>	Family	
		X <sub>26</sub>	Career	
Attainment			X <sub>27</sub>	Higher education



Tables 13 and 14 contain the information necessary to calculate the total, direct and indirect effects of selected independent variables upon transition in the year beyond high school. "The total effect of an independent variable can be defined as the portion of its gross effect upon a dependent variable net of all other variables prior to or coincident with it in a hypothesized causal sequence. The direct effect of an independent variable can be defined as its effect on the dependent measure net of all the variables in the model, while the indirect effect may be noted as the portion of the total effect mediated by the intervening variables in the model". (Carpenter and Western, 1984, p. 265).

Significant standardized Beta or path coefficients (figures 4 and 5) ranging between +0.01 and +0.09 were considered as having a 'small' effect, while path coefficients ranging between +0.10 and +0.25 were described as having a 'modest' effect. Path coefficients of +0.26 and above were viewed as having a 'substantial' effect (Thomas, 1980, p. 200).

In comparing coefficients within and between groups, the arbitrary value of +0.04 and above, as used

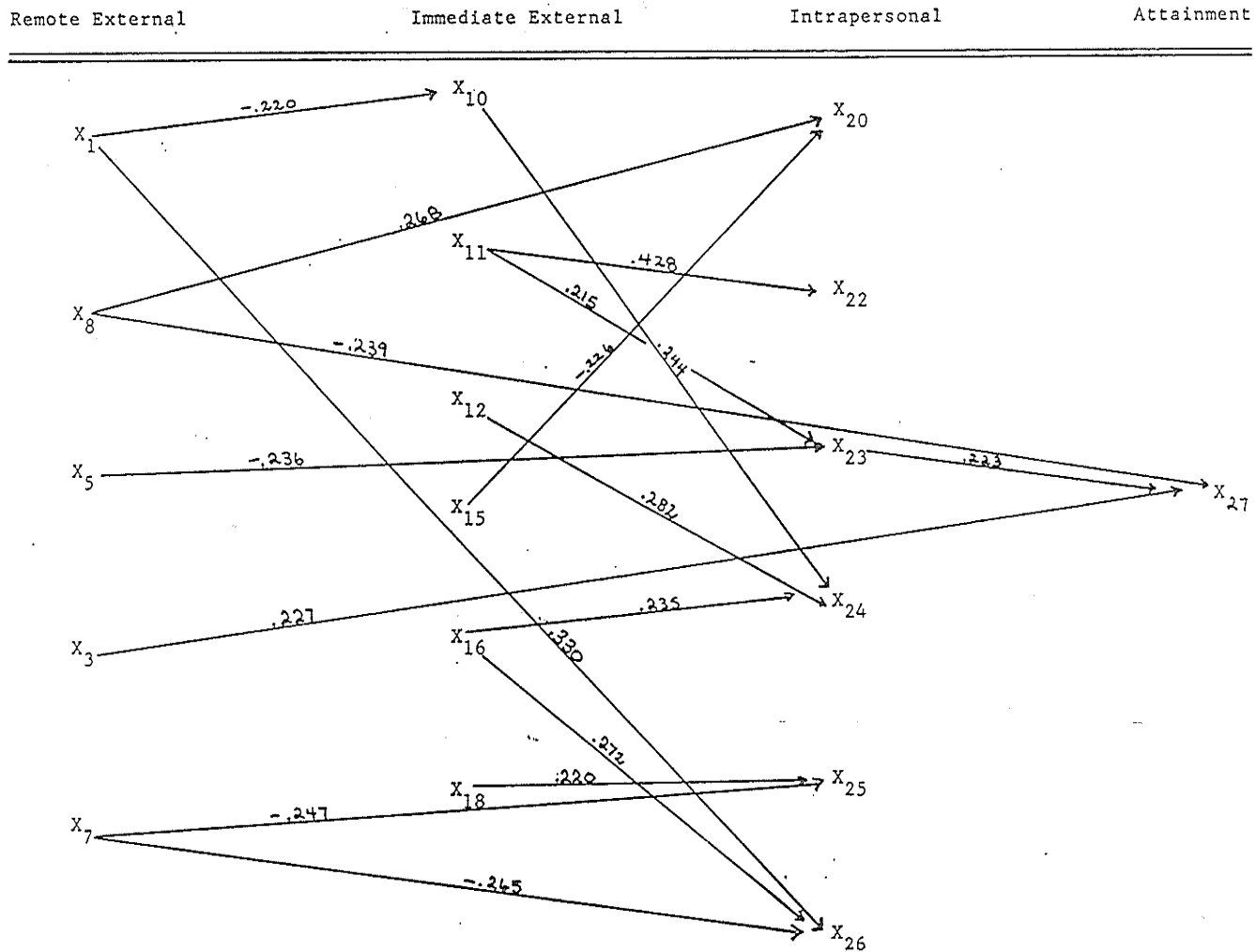


Figure 4. A Recursive Model for Female High School Graduates of Attainment in the Year Beyond High School.

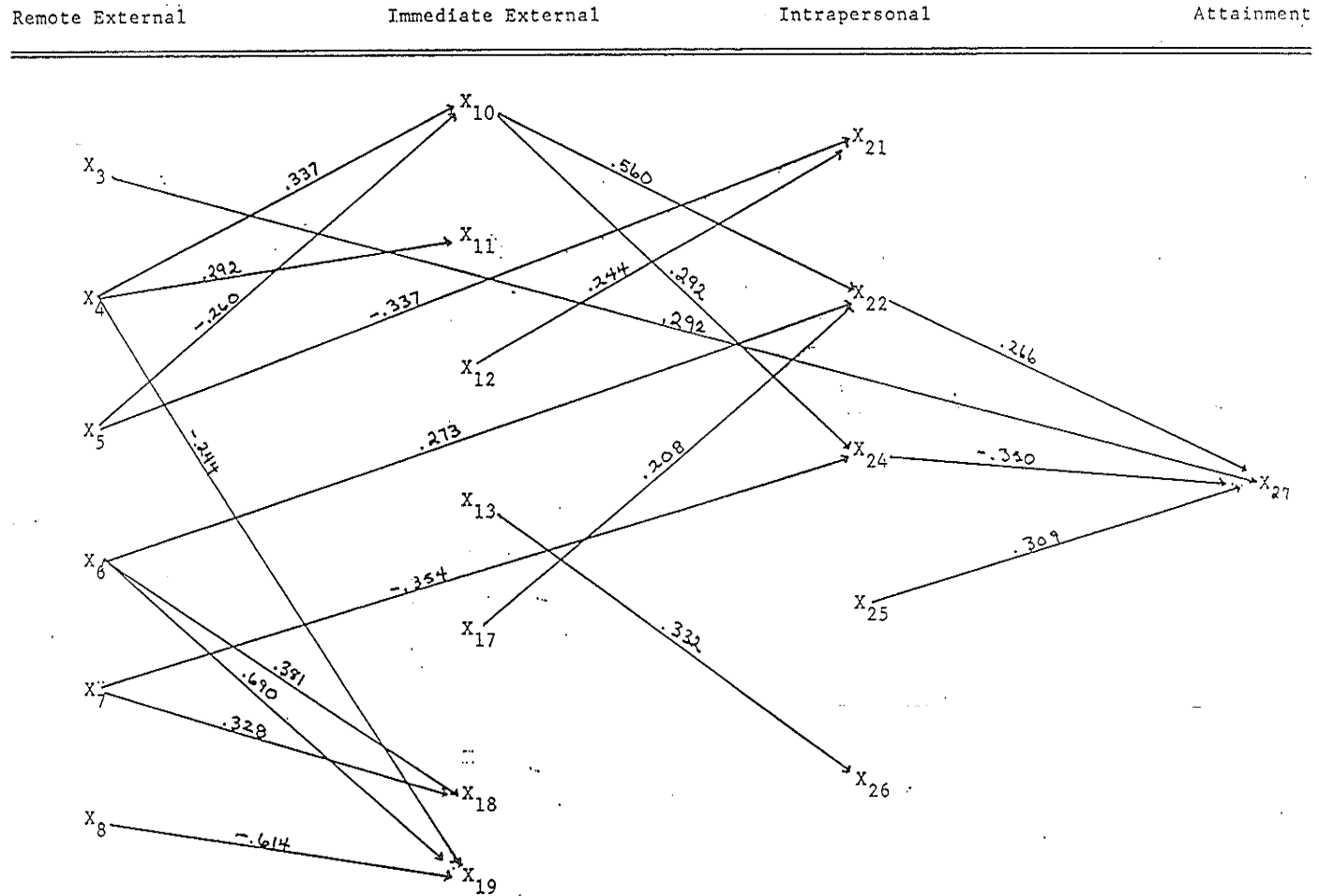


Figure 5. A Recursive Model for Male High School Graduates of Attainments in the Year Beyond High School.

by Carpenter and Western (1982), was considered adequate for suggesting that standardized (Beta) coefficients differ significantly within groups. Following Thomas (1980) such a procedure was used for between-group comparisons, providing the unstandardized values were consistent with the interpretations based on the path coefficients.

4.32a MODEL FOR FEMALE STUDENTS WHO PURSUED POST-SECONDARY EDUCATION IN THEIR FIRST YEAR BEYOND HIGH SCHOOL.

Three main factors had a direct, unmediated effect on a female student's attendance at a post-secondary institution. Two of the factors were in the remote external category: birth order and father's occupation with each having Beta values of  $-.239$  and  $.227$  respectively. Later occurrence in the birth order appeared to exert the strongest influence for females who participated in post-secondary education while a direct moderate effect from the father's occupational prestige is also in evidence. The third factor that exerted a moderate effect (Beta =  $.223$ ) on post-secondary attendance was an intrapersonal factor: student's perception of learning environment. Students who perceived that the school environment was open, patient, and imaginative and that teachers made demands of students as well as showed an interest in student learning were more likely to attend a post-secondary

institution.

A strong career orientation was found to be substantially affected by father's education (Beta = .333), part time work (Beta = .272) and marital status of parents (Beta =  $-.265$ ). The level of a father's education then was the strongest of the three significant variables in terms of the contribution to developing a career orientation. Part time work as well has a significant link with career orientation. Coincident with this link is the negative value of the Beta coefficient which indicated that a career orientation was strongly associated with parents who were apart in terms of the marital status measure.

The family orientation variable as well was significantly affected by marital status (Beta =  $-.247$ ) and the perceived influence of adult family members (Beta = .220). Thus, it would appear that a failed marriage or a separation along with the influence of adult family members were strongly associated with the student's desire to establish a home and family.

The perceived function of a high school education was very strongly linked with satisfaction of counselling services (Beta = .282), perceived school life (Beta = .243) and through paid employment outside of the school (Beta = .235).

The perceived learning environment that was moderately associated with post-secondary attendance was

also moderately associated with student's age (Beta =  $-.236$ ) and satisfaction with instruction (Beta =  $.215$ ) received while at high school. Age initially may be rather surprising as a factor since a perception of high school graduates tends to view the group as fairly homogeneous: it would appear not to be the case, at least in the demographic aspect. Younger students would find school to meet more of their needs for patience, understanding, creativity along with caring teachers who were demanding than older students. Similarly, satisfaction with instruction contributed directly to one's perceived learning environment.

Instruction was further directly associated with the intrapersonal variable of one's attitude to work (Beta =  $.428$ ). The effect of one's positive orientation to the world of work was significantly enhanced by the quality of instruction as perceived by the student.

A student's self esteem was both directly affected by one's birth order (Beta =  $.268$ ) and the influence of non-school time that was recreational-leisure (Beta =  $-.226$ ). As previously discussed, the negative Beta coefficient would indicate that the stronger one's self concept, the less influence leisure activities would exert on self esteem. The father's educational level was found to exert an unfavorable effect (Beta =  $-.220$ ) on a student's satisfaction with school life.

4.32b MODEL FOR MALE STUDENTS WHO PURSUED POST-SECONDARY EDUCATION IN THEIR FIRST YEAR BEYOND HIGH SCHOOL

In the case of males, four factors directly and significantly were found to be associated with post-secondary attainment. Of the four factors, the perceived function of high schools held the greatest influence (Beta =  $-.349$ ) on post-secondary attainment. The three other substantial associations were with one's orientation to establishing a family and community life (Beta =  $.309$ ), father's occupation (Beta =  $.292$ ) and attitude to the world of work (Beta =  $.266$ ).

Of immediate interest is the negative value presented with the linear association between the perceived function of high schools and attainment while contributing to a greater likelihood of post-secondary attainment. The perceived function by males of high schools is oriented toward the less academic, more social personal and job oriented activities in contrast to the opposite orientation that would seem a logical transition to post-secondary attainment. The last factor, attitudes to the world of work, in evidence here is a well established predictor that had a favorable direct effect on post high school attainment.

The career orientation held by the students was substantially affected by participation in informal school teams and athletic clubs (Beta =  $.332$ ).

Student satisfaction with school life (Beta = .292) showed a very strong effect on the perceived function of high school as well as a substantial direct effect on the attitude to the world of work. In addition to the effect of perceived school life (Beta = .560), two other factors contributed favorably to the perceptions of the world of work: family size (Beta = .273) and organized non-school activities (Beta = .208).

Satisfaction with counselling services (Beta = .244) and age (Beta =  $-.337$ ) both contributed to one's sense of control over "one's destiny". The dominant factor, age, indicated a negative Beta coefficient that showed strong linear association between older ages and a sense of not being in control of "one's destiny". Satisfaction with counselling services on the other hand, indicate a moderate effect on one's sense of control.

In terms of significant others who are secondary members (non-family), three factors contributed to their perceived influence: family size (Beta = .690), birth order (Beta =  $-.613$ ) and mother's occupation (Beta =  $-.244$ ).

The strength of the linear association between secondary group members' influence and family is rather substantial given all the other linear associations in this model. Here, secondary group members play a significant influence for males whose family size is



larger than others. Similarly, birth order showed a substantial favorable effect on the influence by this group through the earlier a student's place in the birth order. This secondary member group further played an influence where mother's occupations rated low in occupational status.

Two factors had substantial direct effects on the influence from primary group members: family size (Beta = .381) and marital status (Beta = .328). The larger family size contributed significantly to parental/adult family influence while parents who remained married contributed strongly to the influence felt by males.

The level of satisfaction indicated by males with the instructional program was directly affected by mother's occupation (Beta = .291). Similarly, satisfaction with school life was substantially affected by mother's occupation (Beta = .337). The age factor was found to further contribute through a substantial effect (Beta = -.258) to the level of satisfaction with school life. Here, older students appeared to be more satisfied with school life.

#### 4.32c SIMILARITIES OF THE TWO GROUPS

For each model a limited number of factors were directly linked to students proceeding with post-secondary attainment in the year beyond high school. Factors that were from the intrapersonal category indicated the strongest associations for each group

while father's occupation, the only common remote external factor, indicated strong influences as well. Influences from the school/non-school category were not in direct evidence to the attainment of each group and surprisingly, the absence of direct influence on attainment from family, significant adults or others in both models is noteworthy as well. The Beta coefficients for each of the paths in each model were either moderate or substantial in their measurable associations.

In both models, a cluster of a common factor was found in the intrapersonal category that pertained to student perceptions of the function of high school.

#### 4.32d DIFFERENCES OF THE TWO GROUPS

A cursory examination of both models brings an initial contrast that is quite evident in the negligible linkages between the social-cultural environment variables and school/non-school variables for females. This perception is striking even without a comparative base as only one path is in evidence: that of satisfaction with instruction and father's education.

On examining factors that affect status attainment, different factors with the exception of father's occupation are in evidence. The intrapersonal variables of attitude to the world of work, functional high school and family orientation indicate substantial effects on attainment for males whereas learning contexts as

perceived by females is moderate in its effect while birth order, the only other external factor, exerted a moderate effect as well.

Two distinct clusters were present in each model but the composition of each was unique. In the model for males, attitudes to the world of work were composed of satisfaction with instruction, family size and non-school organized activities. The second cluster portrayed the influence of secondary groups composed of one's birth order, family size and mother's occupation. The two clusters in the model for females were both in the intrapersonal category. Here, the level of satisfaction within the school learning context was composed of level of satisfaction with counselling services, school instruction and paid employment activities. Factors that composed the second cluster in the model for females portrayed that one's career orientation was affected by father's education, attitudes to the work of work and marital status of parents.

Mother's occupation while absent in the model for females was a very significant factor in shaping the types of influence and levels of satisfaction for males. Of importance here, mother's education had a substantial effect in the level of satisfaction with instruction which in turn had substantial effects on one's attitude to the world of work and to the perceived function of a

high school. These two variables then were strongly linked with attainment in the year beyond high school. The linkage between the three variable categories then is rather clear and the importance of one's level of satisfaction with instruction is an integral factor in this causal ordering of variables. No such linkages were found in the female model that only showed associations, with the exception of satisfaction with instruction, entirely with the intrapersonal variables or directly to attainment. By concentrating on the immediate external and intrapersonal variables, it appears that one's attitude to the function of a high school as affected by satisfaction with instruction and age is an integral factor in the causal ordering sequence for females.

A closer examination of the linkages in each model is now in order. In each model, the strongest influence on what one attained in the first year beyond high school present a striking contrast. For males, the perceived function of a high school had the highest measurable effect while for females, birth order exerted the strongest influence. Interestingly, males who perceived the high schools to function as more socially, work, and activity oriented rather than as academic had increased likelihood of attending a post-secondary institution. Directly associated with this perception were the levels of satisfaction with instruction and a

negative association with marital status. It would thus seem that these males whose parents remained together through their children's high school years, were quite satisfied with their high school instruction, which in turn, related strongly to their perceived function of high schools.

The strongest association of attainment in the model for females was birth order. The older female members in a family were found to be more likely to attend a post-secondary institution than younger siblings.

The second main factor for each group showed further differential relations for females and males. For males, a lack of interest/desire to establish strong community and family ties exerted a substantial influence on attainment beyond high school. This intrapersonal variable however stood alone with no associations determined with other variables in the model. For the females, father's occupation was found to have a direct moderate effect on attainment. Thus in the first two instances, findings show that the attainment of females had moderate associations with external factors while males had substantial associations with factors in the intrapersonal category.

The third influence for each presents another finding that illustrates the differential associations present in each model. Father's occupation in this

instance was substantially and directly associated with attainment in the year beyond high school for males. In the model for females, the perceived learning context of the school exerted a moderate association with attainment. Two factors in close direct association with these variables were age and the level of satisfaction with instruction. The factors present in these associations then indicate that younger females and those who were generally satisfied with the level of instruction significantly influence the perceived learning context of the school which acted as a facilitator in post high school attainment.

The last influence evident in the findings derived from the model for males was the attitude to the world of work. As with the other three variable associations with attainment, one's attitude to the world of work was a substantial influence. The positive orientation to the world of work was affected by three direct associations. Of these, the most substantial measure of association was with one's satisfaction with the level of instruction. This variable in turn was substantially associated with mother's occupation and the age of the male. On close examination of the Beta coefficients, it is seen that males whose mothers had a higher occupational status and were younger in age were significant influences in one's perceived level of satisfaction with instruction. The second main

influence associated with the attitude to the world of work was family size. This influence had a direct, positive association between the two variables. The last influence associated with one's attitude to work, was participation in organized non-school activities. In this case, activities that were not school sanctioned or initiated and where no money was earned yield a moderate effect on one's attitude to the world of work.

#### 4.4 Discussion

The sample of respondents through their choice of program, grade level satisfaction and number of credits obtained reflect on orientation to further education. Weighing somewhat counter to this view are the number that held part time jobs and the hours spent at paid employment and at doing homework. Females gave slightly larger support for the idea that school courses prepared them either for work or further education than males. In reflecting what these graduates would change and the type of advise they would give, two messages are clear. Students would put more effort into their school work and social activities. The importance placed with these two activities indicate that students perceive, desire and possibly need to have a balance of social and academic opportunities in school. It must be assumed, that these opportunities would occur without the intrusion into the hours outside of school since there is no indication that working at a part time job was a

concern or that work took one away from one's studies. The responses are supportive rather than critical (in another) of school life and reflect attitudes found in research conducted by Clark (1987).

The recursive models for female and male high school graduates show tentative support for the theoretical model developed through synthesis of various research traditions in the fields of status aspiration and attainment is only partially supportive. The path model derived from the male sample holds stronger than for the females. Such findings are in evidence in a number of other studies, (for example).

The model developed for female high school graduates partially supports the theoretical linear linkages identified in the model (Figure 2). Results from this study support the position of Mare & Chen (1986) who reject the conjecture that attainment varies with family size. Female students in this sample tended to hold a later birth position which held the strongest influence in achieving attainment beyond high school. The significance of this factor may need to be placed in some historical and demographic perspective. Length of schooling in the last half of the twentieth century has increased, its variability has decreased and become more equally distributed. In addition, Hauser and Featherman (1976) viewed distributions of schooling not only to be generated by normative, institutional or economic



arrangements, but also by the changing distribution of populations across social categories which vary in those arrangements. Thus, the educational experiences of the successive birth cohorts in this sample reflect prevailing social conditions of the day. In this instance, pressures for labor market equality between the sexes, universality of high school education and economic conditions has conceivably increased the appeal for further education among females.

Effects of socio-economic measures have been dominant features through time in social stratification, aspiration and attainment research (for example, Coleman et al. 1966; Jencks et al., 1972; Alexander et al., 1975; Sewell and Hauser, 1976; Hauser and Featherman, 1976; Coleman et al., 1982; and Carpenter and Fleishman, 1987). A much smaller number of studies have documented the effect of socio-economic background on female occupational aspirations and attainment, but the effect for girls has been found to be weaker than the effect for males. (Hauser and Featherman, 1976; Marini and Greenberger, 1978; and Sewell et al. 1980). In comparing the two models, evidence for the belief that the effect of father's occupation is less for females than males was provided. This type of result, which has also been obtained in earlier studies (Williams, 1972; Synge, 1977; Marini and Greenberger, 1978; Sewell et al., 1980; Saha, 1982) is to be expected in a social

system that still places a higher value on occupational accomplishment for males than females. The effect of father's occupation on attainment for females when placed with the effect of birth order may narrow the influences of socio-economic background between females and males. It can be expected that these differences will narrow as occupational achievement becomes more highly valued for women. (Mare, 1982).

The final direct effect on attainment indicated by the model for females is learning contexts. Here, girls who perceived their school to have a warm rather than severe authority relationships, a structured and academically oriented instructional context, an imaginative context and a friendly interpersonal environment were more likely to pursue further education. How the learning context was perceived was affected by the quality of instruction and age. The link between instruction and perceived learning context is direct and as Bronfenbrenner (1979) suggested, aspects of the environment (quality of instruction) that have meaning to the person in a given situation are the most influential in shaping psychological growth. The relation between age and learning context may as well relate to Bronfenbrenner's (1979) ecological theory of human development. The interconnections between environment may be as decisive for development as events taking place within a given setting. "A child's ability

to learn to read in the primary grades may depend no less on how he is taught than on the existence and nature of ties between the school and the home" (Marjoribanks, 1981:323). The findings indicate that when a refined measure is used, female perceptions of their school environment have moderate links with a school related outcome attainment.

The model for male high school graduates while stronger than the model for females is, as well, only partially supportive of the conceptual model developed (Figure 2). Four direct paths to attainment were in evidence. The strongest influence on attainment was the perceived function of high schools. While the orientation of males was more toward social, personal and job oriented functions of school of which this view was strongly linked with attainment of higher education. What may be in evidence here is a measure that is a matter of emphasis rather than an all-or-none distinction and reflective on the dominant values of the males at this point in time (Breton, 1972). This can further be supported in that boys are seen to be less positively disposed toward the "place called school" (King, 1986) even though they have aspirations of pursuing further education. One's perception of school is strongly associated with school life and marital status. The further one's orientation away from family or community goals was also significantly linked with

attainment. The measure of one's orientation was adopted from the study by Porter et al (1982) on university accessibility in Ontario and modified to apply to both sexes. In the Ontario study, it was assumed that females with a less traditional attitude towards the adult female role would have both higher educational aspirations and higher educational goals. For the purpose of this study, the questions were reworded so as to apply to both sexes. The results in the male model showed a significant link to attainment with the absence of strong family/community orientations. While the link between this orientation and attainment was clear, less clear were the effects/influences that shaped the attitude as no other associations were detected.

As discussed in the model for females, father's occupational status was a stable and significant determinant of attaining further education. The substantial association typified other research findings (Coleman et al., 1966; Jencks et al., 1975; Carpenter and Western, 1982, 1983, 1984; Carpenter and Fleishman, 1987).

The third intrapersonal factor to exert a direct influence on attainment was one's attitude to the world of work. One's work attitude was affected by school life, organized activities and family size. The substantial association between school life and attitude

to the world of work provided support for Breton's (1972) belief that work orientation would be difficult for students who did not sense school to be of a time benefit. Such linkage is further identified in other research on work-role salience (Super and Nevill, 1984) and generally the world of work. (Stafford et al, 1982; Wamner, 1985; Barton, 1986).

The impact that family size has on attitudes to work can only be surmised. What may be at work is a complex interplay between financial and cultural resources of a family along with other remote external variables that affect opportunities which, in turn affect attitude. Family size though itself has been found as both a facilitator and a barrier to further education (Featherman & Hauser, 1978; Hauser & Featherman, 1976; Mare, 1979; Blake, 1985) has a strong association with attitude to the world of work. Organized activities as well are linked with this intrapersonal variable under discussion. The various roles, co-operative ventures, interactions with others outside of school parallel experiences that students will have in the adult world. Such activities then are seen as necessary links with the adult world that enhance one's transition to adulthood.

#### 4.5 Chapter summary

In the preliminary analysis the structure of the

variables was determined through factor analyses. These variables were subjected to a series of multiple regression analyses to determine associations outlined by the conceptual model separately for females and males. The Beta coefficients obtained established associations between variables that were utilized in the development of two separate path models. Results indicate that the conceptual model developed is only partially supported and that the model is stronger for males than females.

Influences or effects on attainment beyond high school are different for each group. Effects on female attainment were derived from three areas: birth order, father's occupation and learning contexts. Males shared a common factor, father's occupation but derived influences from other areas: function of school, adult "feminine" role orientation and one's attitude to the world of work. The lack of clearly established common paths in each model thus indicated a differentiation of effects for males and females.

## CHAPTER V

### CONCLUSION

#### 5.1 Overview of the Chapter

In Chapter V a summary of the research findings, the theoretical and practical implications along with the limitations imposed on the current study are presented. In the final section of the chapter, recommendations for future research and practice as related to transition processes and the development of theoretical models are made.

#### 5.2 Summary of the Findings

The present results provide partial support for the conceptual model developed for the purpose of this investigation. Significantly, females and males did not differ in their actual entry into higher education. Sixty-eight percent of women and 67% of men were in a post-secondary institution in the first year beyond high school. It is thus important to determine whether different processes are involved in the transition of young women from secondary school to higher education when compared with men.

The most salient feature of the present analyses is that the effects detected are direct or unmediated by the individual level processes specified by the conceptual model and that no indirect associates were present. This was true for both the male and female

models developed through utilization of path analysis. While it was found that there occurred little variation in attainment in the year beyond high school for females and males there were differential associations in the process of educational attainment.

For males, particular intrapersonal attitudes, lack of a family orientation and father's occupation facilitate the transition from high school to further education. Of immediate interest is the exploratory measure used in the Porter et al. (1982) study of Ontario students. In the Ontario study, the measure was to determine the orientation to what was termed the adult feminine role. The measure used in this study was composed of the same questions but made gender neutral so as to include responses from males as well. In this case, the lack of a family orientation was generally strong in effect on attainment.

Of the other three factors, father's occupation continues to be a stable predictor of attainment in higher education. Perceptions of the world of work as well has been established in the literature as being a strong predictor of continued education (Otto et al., 1981; Super and Nevill, 1984) while the measure obtained for the perceived function of school as used in the work of Otto et al. (1981) was strongly associated.

The process of transition from school to higher education for females showed several differences from



that of males. Two indicators of socio-economic background had direct effects on the entrance of females into higher education when the effects of all the other selected variables are considered. These are father's education and birth order. Both variables have been in strong evidence in the literature. The former finding particularly in works by Coleman et al (1966), Jencks et al. (1972), Coleman et al. (1982), Carpenter and Western (1982, 1983, 1986) and Wanner (1986). Birth order effects are well documented in Featherman and Hauser (1978). One further finding of the present study indicates that when a refined measure is adopted, female perceptions of their school environment has a moderate link with attainment. Research conducted by Marjoribanks (1981) on ecological correlates of children's characteristics provides related evidence for this finding. What has emerged is that access to higher education is conditioned through remote external variables to a greater extent for females than for males and that intrapersonal factors for males are stronger predictors of attainment. Further, female remote external variables are generally negligible in effects on immediate external factors, specifically school and non-school activities. Their influence is most visible with the intrapersonal variables. Males on the other hand are conditioned through different processes that show strong links between remote external, immediate

external and intrapersonal variables.

Emerging from the study as well are six other key findings that generate questions about high schools and transition periods. Firstly, the lack of support provided by significant others is noteworthy. Possibly, choices about the year beyond high school reflect independent decisions outside the influence of school personnel, parents and peers about future education. This may further imply that these significant others are important for short term goals or as Goodlad (1984) suggests, that staff (and others) may be a step removed from the personal problems and interests of students. Secondly, one must wonder about the number of hours that these students spend in part time work during the school year and the impact that this has on student learning and attitudes. A number of social, economic and political concerns over how employability is developed in our young people is clearly evoked simply by the numbers who work and their duration. Another finding is that teachers as viewed by females and males are important factors in the quality of instruction and school life. Effecting and promoting staff quality in these two areas may very well be enhanced through a clear school philosophy or through the articulation of a mission statement that promotes a socialization function along with shared ownership of this task.

Next, a socialization perspective has emerged above

and beyond an allocation perspective. The number of associations between the immediate external and intrapersonal variables provides strong support for this view even though the next link in the causal chain (attainment) was not strongly supported by either model for females or males. The function which non school and school structures and processes can play in relation to further education or employment is that of influencing students' attitudes about these life courses, and to their own function within it, through the formal and informal structures and processes within each setting. The process of socialization into the year beyond high school remains a potent feature of adolescent school life - all the stronger because it is often implicit rather than explicit, and hidden even to the teachers who promote it.

A fifth point is evident and noted by Goodlad (1984) in his most recent work. "Clearly, then, 'school work' is not all of school for adolescents" (1984:77). Exactly what school means for adolescents has only been partially addressed in this study, but its function (real or imagined) is strong enough to keep large numbers of students in school until grade 12 at which time they embark into further education or the world of work.

The sixth finding that has emerged is through the review of the research. Researchers, in the particular

areas of status attainment and aspiration have provided little in the way of applying relevant recommendations to enlighten educational policy and practice. Because research does not occur in a vacuum, the conceptions of what we are looking for and how we can find it must be linked to educational practice.

### **5.3 Theoretical and Practical Implications**

This paper began by noting current discussions concerning the transition of young people from the final years of high school to the work force or higher education in both a local and international setting. The present results provide some implications for the above discussion. First, the absolute number of graduates continuing higher education from the school division under study imply there may be regional variations that are significant in terms of retention rates and transition factors in pursuit of higher education or work. This then has a direct implication for provincial and local educational policy decisions. As well a research implication would be to direct future research to develop measures on the contextual characteristics of the area. Second, while expanding on the Wisconsin and the Fishbein/Ajzen models through a synthesis of variables and research the conceptual model presented did provide a sophisticated numerical answer to some questions about the processes that facilitated

the movement to higher education at a particular point in time in society with a particular structure. Third, longitudinal studies of young people in the transition from elementary to junior to high schools to beyond would do a great deal to improve our understanding of the problems faced by these students at given points in time and allow for the development of student profiles that reveal progress and experience. Fourth, the perceived quality level of instruction is a significant factor in influencing student attitudes which in turn enhances the likelihood of post-secondary attendance. Fifth, while father's occupation remains a significant factor, there exists the possibility that remote external factors play less of a direct role which would imply that student outcomes are more meritocratic or that other intervening factors not assessed in this study are at work which point to the existence of other explanations.

#### **5.4 Limitations of the Study**

Certain parameters have been imposed internally and externally on three major aspects of this research, namely the sample, procedure and the theoretical model.

The stability of the present findings is tempered by approximately a 60% response rate and by the relatively small samples of females and males who pursued activities other than further education in the

year beyond high school. To the extent that relatively smaller data were available in this area, no further analysis could be undertaken. It should also be noted that this sample is one that has enjoyed success, i.e. graduation, in the school system and does not take into account school leavers or those that did not graduate with their class. A limitation as well is placed by the type of instrument used to collect data. Investigating these issues by conventional survey methods, particularly questionnaires which focus only on the respondents' perceptions of events and influences can be problematic. To satisfy reliability and validity concerns the steps involved in moving the questionnaire to its final form were adhered to rigidly as described in the methodology section.

The limitations on the measurement of variables in the theoretical model are more complex. In any causally based theoretical model there is the inherent challenge of quantifying human experience into a manageable number of variables that do in fact measure what is intended to be measured. Through the literature review and factor analyses, significant factors were identified but they are in no way exhaustive. A number of issues need to be acknowledged in this regard. Firstly, the present research is only a snap shot of a group of graduates at a particular point in their life cycle that drew on attitudes, recollections, beliefs and knowledge about

their high school experience. What went on before the high school experience, both in and outside of school is not assessed. The study treats the sample as a group that has shared a common experience - graduation.

The "snap shot" of this group as it works through the transition process is nevertheless important as it represents an accumulation of life experiences on which actions are taken. These accumulated life experiences were beyond the scope of this research but nevertheless require notation as they are significant and cannot be ignored. No assessment of childhood opportunities, resources or of genetic traits were carried out. It is therefore impossible to know how these three areas have impacted student attainment. A further decomposition of these three areas would yield even more numerous variables that simply would make the present research thrust unmanageable. Even in the current analysis, such social factors as mental and physical ability, and motivation are not assessed. Other unknown factors that may influence post high school attainment can be provided as well, for example micro and macro economic conditions, federal and provincial policies, inflation, and with localized areas that possess their own unique social, political, and educational contexts. This leads from a broad cultural perspective to a youth culture that is inescapable in adolescent life. Gauging the influence of this encompassing culture has only been

superficially assessed in this study through individual perceptions and attitudes.

### 5.5 Recommendations

It seems self-evident that the theoretical model of attainment appears to be a model of the degree to which factors are associated with attainment. The most nearly complete available models containing plausible, if partial, explanations of the mechanisms of attainment are presented by the various representations of the Wisconsin Model (notably Sewell et al., 1967, 1969; Sewell et al., 1970; Haller and Portes, 1973; Sewell and Hauser, 1975; Alexander et al., 1975; Otto and Haller, 1979), the Fishbein/Ajzen Model (Davis, 1985; Carpenter and Fleishman, 1987) and research such as Lam's (1982) that have synthesized variables into a theoretical linear model. These models must of necessity be at least as comprehensive as any approximation that estimates human experience.

This comprehensiveness fulfills a two fold need. First, the aim of such research is to provide a complete explanation of attainment. Second, these models are intended to provide empirically defensible and theoretically plausible explanations of all attainment variability.

In attempting to explain attainment, these models may thus invoke more hypotheses than provide solutions. The recommendations that follow are related to the



contextual challenge of attainment research within the realms of educational research, practice and policy.

Future research efforts should utilize cross sectional and more importantly longitudinal data as students progress through their life courses at division, provincial and national levels. The picture that we have of the transition processes, attitude developments and periods of "critical formation" in youth is rather incomplete. To develop this field of research, a further refinement of environmental measures need by obtained through independent and then integrative studies which provide a synthesis that allows for a meaningful conceptual construct of the attainment process. Along with this empirical thrust, ethnographic studies would complement these efforts so as to improve our understanding of the complex processes that may elude quantification. The major obstacle here obviously is the potential of a longitudinal study outliving a researcher. In this matter, possibly educational researchers follow a time frame that is too restrictive with the anticipation of resolving a problem within a certain period of immediacy. Truly meaningful findings may then be at best partial in the context of human development.

In essence, the argument is that we cannot understand attainment and transition problems if we fail to undertake a critical, longitudinal analysis of

educational, family and work environments and the intendant individual - environment interactions as individuals move from home, to school, to adult life.

Within the research realm, two other areas, that of action research and indices, need be presented. The place for the revived interest in action research may be well suited to improving our understanding of transition processes and specific time periods, as it requires practitioners and policy makers to become, in part, researchers. To this end, action research can be viewed as "a systematic process of collaborative review and improvement of educational or social policies, programs and practices" (Kemmis, 1983:147).

The development of indices that assess non conventional outcomes of school and contextual characteristics will allow educational practitioners to recognize the complexity of school and move away from simplistic notions of improvement and effectiveness. Particularly, the intensity of non-academic interests as forwarded by Goodlad (1984) and how employability is developed in youth are two areas where our understanding is incomplete.

The development of action studies and indices both have significant implications for educational practice in that each potentially has the power to improve school life. By utilizing non conventional assessments and through the process of action research, educational

practitioners and even policy makers may become more self reflective which as a means can be relevant to concerns of each. A set of issues concern the functions served by schools. It cannot be assumed that a school will serve multiple educational purposes unambiguously. School functions as perceived by female and male students appear different and the direction of the perceived school function, whether academic or social may limit or enhance individual growth. It would be essential from a philosophical standpoint to develop schools that are open and educative. In any case, empirical literature on school cultures is clearly needed as it directly impacts what happens in the classroom and school setting.

Building on the recommendations offered in educational research and practice, an orientation for future policy developments at various government levels is presented.

At the outset, three fundamental questions require a response: What type of data is needed; how should the data be collected and by which agency. In responding to each question, eventually a pattern emerges that relates to policy formation at either the provincial or divisional level. Economic and manpower resource priorities at both levels presently restrict the ability of each (particularly at the divisional level) to effectively collect and analyze data on transition and

attainment processes. While a provincial picture is desirable, it may mask particular regional variations that should directly shape policy at the local level. In order to mediate this situation and to effect policy to improve education in the province, longitudinal analysis of various programs with an action research component should be initiated to assess intellectual, social, psychological, behavioral and environmental orientations of students according to gender, curricular emphasis and geographic region. Such information can then be directed toward policies that influence attainment rates as they affect determinants in order to achieve positive results. The climate created by these policies at both the provincial and divisional level would then allow educational practitioners to bring students to the threshold of further education or work with the greatest possibility for success.

#### **5.6 Final Reflections**

The findings reported are derived from a perspective which identifies social psychological as well as structural factors that affect attainment within one year of graduation. Issues concerning attainment and its related processes have generated a great amount of literature in the research field. While no single study can address all the issues or provide relevant facts, a detailed longitudinal study can make a contribution of empirical findings to studies currently

available, which taken together, increase our knowledge of human development.

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APPENDIX A



37 Regent Crescent  
Brandon, MB  
R7B 2W7  
November, 1988

Dear Graduate:

In the years 1980-85, three out of every ten high school graduates in the province of Manitoba went on to a university or community college directly after high school, while seven out of ten joined the workforce or pursued other interests. I would like to find out what things happened during the high school years that influenced students to enter the world of work or continue their education within the first year of graduation.

I am asking all Brandon School Division graduates of 1987 to fill the attached questionnaire to determine their choices, what factors influenced their decision and how the year beyond high school has been. The questionnaire is part of a study that is a requirement for a Masters of Education Degree and has been approved by the Faculty of Education, and the Brandon School Division. The information you and other students provide will yield answers to scientific questions developed for this University of Manitoba study.

Anything you tell me is confidential. Your name does not appear on this survey or will it be anywhere in the written report.

Please take some time now to complete the questionnaire. It will take about 30 minutes to complete. Be as open and honest in your answers as possible. Your answers will be very helpful in providing information about the high school years.

Thank you for your co-operation. Further information about this research can be obtained from me at 725-1196.

Yours truly,



Eric S. Dowsett

P.S. If you wish to receive a summary of the results of this study, please indicate your name and address on the return envelope provided or enclose the address label from the envelope mailed to you.

**APPENDIX B**

INSTRUCTIONS:

WORK RAPIDLY. DO NOT THINK ABOUT ANY QUESTION FOR TOO LONG. PLACE A CHECK MARK (✓) IN THE BOX OR SPACE THAT REPRESENTS THE BEST RESPONSE FOR QUESTIONS THAT REQUIRE A SHORT ANSWER. PLEASE WRITE IN THE SPACE PROVIDED.

A. YOUR BACKGROUND

1. From what high school program did you graduate? Mark one (✓).
  - a. High school program (minimum 20 credits with 10 core courses and at least 3 - 300 level courses). \_\_\_\_\_
  - b. High school program (minimum 20 credits with 10 core courses and less than 3 - 300 level courses). \_\_\_\_\_
  - c. Business education (minimum 20 credits of which 8 were business). \_\_\_\_\_
  - d. Vocational Industrial (minimum 20 credits of which a minimum of 10 credits were at the 03 level - this also includes "CVE"). \_\_\_\_\_
  - e. Occupational Entrance (minimum 20 credits with a minimum of 6 credits at the 04 level). \_\_\_\_\_
  - f. Other (please specify) \_\_\_\_\_
2. With how many credits did you graduate? (Put in the correct number.) \_\_\_\_\_
3. Your sex Male Female  
 \_\_\_\_\_
4. What is your age as of September, 1988? \_\_\_\_\_

For office use only

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B. YOU AND YOUR HIGH SCHOOL

1. Please rate the influence that each of these activities had on your plans for what you would do immediately after high school graduation (eg. further education, working, etc.).

	No Influence	Little Influence	Moderate Influence	Strong Influence	Very Strong Influence
a. Student Council	_____	_____	_____	_____	_____
b. Interschool athletic team	_____	_____	_____	_____	_____
c. Intramural athletic team	_____	_____	_____	_____	_____
d. School newspaper, magazine, or yearbook	_____	_____	_____	_____	_____
e. Subject matter clubs, such as science, mathematics history, language clubs, etc.	_____	_____	_____	_____	_____
f. Debating, dramatics, or musical clubs.	_____	_____	_____	_____	_____
g. Band, orchestra, choir	_____	_____	_____	_____	_____
h. School hobby clubs, such as photography, chess, computer, etc.	_____	_____	_____	_____	_____
i. Religious organizations	_____	_____	_____	_____	_____
j. Patriotic or civic associations	_____	_____	_____	_____	_____
k. Other school teams, clubs or organizations.	_____	_____	_____	_____	_____

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2. When you were in your last year of high school did you earn any money by working outside the home?

Yes \_\_\_\_\_ No \_\_\_\_\_  
 If yes, on average how many hours a week did you work? \_\_\_\_\_  
 What type of work did you do? \_\_\_\_\_

3. During your last year in high school, how much time, on the average, per week did you spend doing homework outside school? (Please provide an appropriate number of hours.) \_\_\_\_\_

4. How often did you study or work on school subjects with your friends after school? (Place a check (✓) in the appropriate space.)

Several times a week	About once a week	About every second week	About once a month or less	Never
_____	_____	_____	_____	_____

5. What did you consider to be satisfactory grades for you in high school? (Place a check (✓) in the appropriate space.)

50%-60%	61%-70%	71%-80%	81%-90%	91%
_____	_____	_____	_____	_____

6. With regard to your education and training during the last year you were in high school, how satisfied as a whole were you with each of the following?

	Very Dissatisfied	Somewhat Dissatisfied	Neutral	Somewhat Satisfied	Very Satisfied
a. The ability, knowledge and personal qualities of most teachers.	_____	_____	_____	_____	_____
b. The quality of the instruction.	_____	_____	_____	_____	_____
c. Development of my work skills.	_____	_____	_____	_____	_____
d. Course curriculum.	_____	_____	_____	_____	_____
e. The social life.	_____	_____	_____	_____	_____
f. Cultural activities, music, art, drama, etc.	_____	_____	_____	_____	_____
g. Variety of extracurricular activities.	_____	_____	_____	_____	_____
h. My intellectual growth.	_____	_____	_____	_____	_____
i. The intellectual life of the school.	_____	_____	_____	_____	_____
j. Overall school atmosphere.	_____	_____	_____	_____	_____
k. The prestige of the school.	_____	_____	_____	_____	_____
l. Job placement counselling.	_____	_____	_____	_____	_____
m. Counselling for course selection, personal problems.	_____	_____	_____	_____	_____
n. The buildings, library, equipment, etc.	_____	_____	_____	_____	_____
o. Understanding the world of work.	_____	_____	_____	_____	_____

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C YOU AND YOUR OUT OF SCHOOL ACTIVITIES

Please rate with a check (✓) in the appropriate space the influence that each of these activities had on your plans for what you would do immediately after high school graduation. (eg. further education, working, etc.)

	No Influence	Little Influence	Moderate Influence	Strong Influence	Very Strong Influence
a. Socializing (for example, conversation, partying, goofing around, talking on the phone.)	_____	_____	_____	_____	_____
b. Sports and Games (formal and unorganized games)	_____	_____	_____	_____	_____
c. Watching T.V.	_____	_____	_____	_____	_____
d. Listening to music.	_____	_____	_____	_____	_____
e. Arts and hobbies.	_____	_____	_____	_____	_____
f. Reading (newspaper, magazines, and books not assigned from school).	_____	_____	_____	_____	_____
g. Thinking (daydreaming, mental reflection).	_____	_____	_____	_____	_____
h. Work at a job.	_____	_____	_____	_____	_____
i. Studying.	_____	_____	_____	_____	_____
j. Family (Outings/Events/Trips/Being at home).	_____	_____	_____	_____	_____
k. Dating.	_____	_____	_____	_____	_____
l. Going out with friends of same sex.	_____	_____	_____	_____	_____
m. Going out with friends of opposite sex.	_____	_____	_____	_____	_____
n. Chores, Errands, Homework, Cooking, Childcare, Shopping.	_____	_____	_____	_____	_____
o. Participation in a nonathletic organization (Dance group, Drama club, Cadets/militia, etc.).	_____	_____	_____	_____	_____
p. Others - Please specify _____	_____	_____	_____	_____	_____

D YOUR ATTITUDES

Please indicate with a check (✓) in the appropriate space the extent to which the statements below reflect your attitudes or feelings.

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
a. There were too many rules and regulations in my high school.	_____	_____	_____	_____	_____
b. Generally those in charge at my high school were not very patient with students.	_____	_____	_____	_____	_____
c. It often seemed that teachers in my high school were not very interested in whether we learned or not.	_____	_____	_____	_____	_____
d. Teachers in my high school really pushed students to the limits of their abilities.	_____	_____	_____	_____	_____
e. Most of my teachers encouraged us to use a lot of imagination in our school work.	_____	_____	_____	_____	_____

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For office use only

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
f. Teachers were always trying out new and often exciting ways of doing things in my high school.	_____	_____	_____	_____	_____
g. My high school was a very caring school—teachers cared greatly about students.	_____	_____	_____	_____	_____
h. I feel I do not have much to be proud of.	_____	_____	_____	_____	_____
i. I take a positive attitude toward myself.	_____	_____	_____	_____	_____
j. On the whole, I am satisfied with myself.	_____	_____	_____	_____	_____
k. Good luck is more important than hard work for success.	_____	_____	_____	_____	_____
l. Planning only makes a person unhappy, since plans hardly ever work out anyway.	_____	_____	_____	_____	_____
m. People who accept their condition in life are happier than those who try to change things.	_____	_____	_____	_____	_____
n. What happened to me is my own doing.	_____	_____	_____	_____	_____
o. Everyone who possibly can should work.	_____	_____	_____	_____	_____
p. It is a person's duty to work.	_____	_____	_____	_____	_____
q. If I did not work I would feel that I was not leading a "right life".	_____	_____	_____	_____	_____
r. If a person can live the way he wants to without working there is no reason for him to work.	_____	_____	_____	_____	_____
s. High school should be more concerned with developing social and personal skills; less concerned with developing vocational or academic skills.	_____	_____	_____	_____	_____
t. There is too much emphasis on extracurricular activities in high school, and not enough on developing job-related abilities.	_____	_____	_____	_____	_____
u. In high school there should be more courses to prepare students for jobs in the outside world and fewer purely "academic" courses such as literature and history.	_____	_____	_____	_____	_____
v. All students should try to go to college/university. If they can't make it then they can always get an ordinary job.	_____	_____	_____	_____	_____
w. High schools should be concerned more with occupational training than with preparation for college/university.	_____	_____	_____	_____	_____
x. High schools should be more concerned with sponsoring activities that allow students to make friends with other students than with teaching vocational or academic skills.	_____	_____	_____	_____	_____
y. High school should do more to provide students with skills useful in jobs and should not worry too much about college/university preparations.	_____	_____	_____	_____	_____

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2. Please rate the importance that each of the following six interests and desires have in your life.

	Not Important At all	Not very Important	Somewhat Important	Fairly Important	Very Important
a. To have a career, a long-term job that requires me to develop my skills and capacities and that would be rewarding for me personally.	_____	_____	_____	_____	_____
b. To do community work—to help people in my community through organizations such as hospital auxiliaries, or through informal organizations such as tenants' groups, anti-pollution groups, etc.	_____	_____	_____	_____	_____
c. To keep a good household; to be a good cook and have the other skills that go into being a good homemaker.	_____	_____	_____	_____	_____
d. To have skills and the possibility of getting jobs that will give me some security and allow me some independence in organizing my life as I wish.	_____	_____	_____	_____	_____
e. To have a mutually rewarding relationship with a woman/man.	_____	_____	_____	_____	_____
f. To have a child, or some children, raise, and care for them.	_____	_____	_____	_____	_____

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E YOU AND YOUR FAMILY

1. What is the highest level of education completed by your father (or male guardian) and by your mother (or female guardian)? (Check (✓) one only in the appropriate space.)

	Father	Mother
No formal schooling	_____	_____
Elementary School	_____	_____
Some Secondary (high) school	_____	_____
Some college/CEGEP/Institute of Technology	_____	_____
Completed college/CEGEP, etc.	_____	_____
Some university	_____	_____
University degree	_____	_____
Completed Graduate Studies	_____	_____
Other (Specify) _____	_____	_____
Don't know	_____	_____

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- 2. a) How many brothers and sisters are in your family? (Please provide the correct number.) \_\_\_\_\_  
 b) In order of birth rate, give me your rank in the family (only child, 1st child, 2nd child, etc.) \_\_\_\_\_
- 3. While you were in your final year of high school, where did you live?  
 Within the Brandon city limits. \_\_\_\_\_  
 Outside the Brandon city limits. \_\_\_\_\_
- 4. What was the highest level of education your parents (guardians) expected you to complete? \_\_\_\_\_
- 5. What was the marital status of your mother and father during your high school years? (Place a check (✓) in the appropriate space.)  
 Remained married \_\_\_\_\_  
 Separate \_\_\_\_\_  
 Divorced \_\_\_\_\_  
 One predeceased \_\_\_\_\_  
 Both deceased \_\_\_\_\_
- 6. a. What has been your father's or male guardian's main occupation during the last ten years? (Please use at least 2 words to describe his job. eg. restaurant manager, auto mechanic.) \_\_\_\_\_  
 b. What has been your mother's or female guardian's main occupation during the last ten years? (Please use at least 2 words to describe her job. eg. bank manager, home maker.) \_\_\_\_\_

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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45	46	47	48

F. THE YEAR BEYOND HIGH SCHOOL

- |   | Strongly Disagree | Disagree | Neither Agree or Disagree | Agree | Strongly Agree |
|---|-------------------|----------|---------------------------|-------|----------------|
| 1. To what extent do you agree that your high school courses prepared you for the job market? (Check one only in the appropriate space.)                                  | _____             | _____    | _____                     | _____ | _____          |
| 2. To what extent do you agree that your high school program of studies prepared you to take further education if you want to? (Check one only in the appropriate space.) | _____             | _____    | _____                     | _____ | _____          |
| 3. Which of the following activities best describes what you did between September, 1987 and May 1988. (Check (✓) one only in the appropriate space.)                     |                   |          |                           |       |                |
| a. Full-time student at university, community college or other training facility.   |                   |          |                           |       | _____          |
| b. Part-time student at university, community college, or other training facility.  |                   |          |                           |       | _____          |
| i) Please circle the facility that you attended this past year: University, community college or other training facility.   |                   |          |                           |       |                |
| c. Employed full-time.  |                   |          |                           |       | _____          |
| d. Employed part-time.  |                   |          |                           |       | _____          |
| e. Homemaker.   |                   |          |                           |       | _____          |
| f. Unemployed.  |                   |          |                           |       | _____          |
| g. Other (Please specify) _____   |                   |          |                           |       | _____          |

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7 For office use only

4. If you are unemployed, what is the main reason that you are unemployed? (Check no more than three reasons.)
- a. No job opportunities \_\_\_\_\_
  - b. No experience \_\_\_\_\_
  - c. Lack of confidence \_\_\_\_\_
  - d. Not interested in pursuing work at this time \_\_\_\_\_
  - e. Personal reasons \_\_\_\_\_
  - f. Laid off/fired \_\_\_\_\_
  - g. Lack of high school preparation \_\_\_\_\_
  - h. Other (Please specify) \_\_\_\_\_

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52	53	54	55
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56	57	58	59

5. To what extent did the following people influence you in your thinking about the kind of program you might attend or your area of specialization after high school graduation. (Place a check (✓) in the appropriate space.)

	No Influence	Little Influence	Moderate Influence	Strong Influence	Very Strong Influence
a. My Parents	_____	_____	_____	_____	_____
b. Other relatives or adults	_____	_____	_____	_____	_____
c. A teacher	_____	_____	_____	_____	_____
d. A guidance counsellor	_____	_____	_____	_____	_____
e. The principal or vice-principal	_____	_____	_____	_____	_____
f. Friends	_____	_____	_____	_____	_____
g. A college or university student you know	_____	_____	_____	_____	_____
h. College or university representative	_____	_____	_____	_____	_____
i. Employer(s) you have met.	_____	_____	_____	_____	_____

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6. Thinking back to your high school days, what is the one thing you would most want to change if you could live them over again?

7. What advice would you give a student just entering high school?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
69	70	71

8. What have you found most difficult about your year out of high school?

9. What are your plans for this year? (fall of 1988 - summer of 1989)

<input type="checkbox"/>
72

YOU HAVE NOW COMPLETED THE SURVEY. RETURN THE COMPLETED SURVEY IN THE SELF-ADDRESSED ENVELOPE.

THANK YOU FOR YOUR ANSWERS AND HELP.

**APPENDIX C**

December 1, 1988

Dear Graduate:

About three weeks ago you received a questionnaire that requested your participation. Over 150 surveys have since been completed and returned. The response rate has been very encouraging but I would like to have as broad an opinion base as possible. Your participation in the survey is therefore requested again.

On the reverse of this letter is a copy of the covering letter with details on the questionnaire.

Your participation in this survey is greatly appreciated.

If you have already sent the survey to me please disregard this note.

Thank you again for your co-operation.

Yours truly,

A handwritten signature in cursive script that reads "Eric Dowsett".

Eric Dowsett

APPENDIX D

INSTRUCTIONS:

WORK RAPIDLY. DO NOT THINK ABOUT ANY QUESTION FOR TOO LONG. PLACE A CHECK MARK (✓) IN THE BOX OR SPACE THAT REPRESENTS THE BEST RESPONSE FOR QUESTIONS THAT REQUIRE A SHORT ANSWER. PLEASE WRITE IN THE SPACE PROVIDED.

A. YOUR BACKGROUND

- From what high school program did you graduate? Mark one (✓).
- a. High school program (minimum 20 credits with 10 core courses and at least 3 - 300 level courses). 167
  - b. High school program (minimum 20 credits with 10 core courses and less than 3 - 300 level courses). 44
  - c. Business education (minimum 20 credits of which 8 were business). 7
  - d. Vocational Industrial (minimum 20 credits of which a minimum of 10 credits were at the 03 level - this also includes "OVE"). 7
  - e. Occupational Entrance (minimum 20 credits with a minimum of 6 credits at the 04 level). 3
  - f. Other (please specify) \_\_\_\_\_ 9

With how many credits did you graduate? (Put in the correct number.) CREDITS (FREQUENCY)  
 20(69); 21(61); 22(29); 23(29); 24(21); 25(12); 26(8); 27(6); 28(2).

Your sex

Male	Female
<u>114</u>	<u>123</u>

What is your age as of September, 1988? 16(1); 18(48); 19(155); 20(25); 21(7); 22(1).  
 Frequency in parenthesis.

B YOU AND YOUR HIGH SCHOOL

Please rate the influence that each of these activities had on your plans for what you would do immediately after high school graduation (eg. further education, working, etc.).

	No Influence	Little Influence	Moderate Influence	Strong Influence	Very Strong Influence
a. Student Council	<u>177</u>	<u>37</u>	<u>15</u>	<u>5</u>	<u>3</u>
b. Interscholastic athletic team	<u>143</u>	<u>34</u>	<u>31</u>	<u>15</u>	<u>14</u>
c. Intramural athletic team	<u>164</u>	<u>39</u>	<u>23</u>	<u>4</u>	<u>7</u>
d. School newspaper, magazine, or yearbook	<u>169</u>	<u>45</u>	<u>15</u>	<u>5</u>	<u>3</u>
e. Subject matter clubs, such as science, mathematics, history, language clubs, etc.	<u>159</u>	<u>33</u>	<u>26</u>	<u>13</u>	<u>6</u>
f. Debating, dramatics, or musical clubs.	<u>165</u>	<u>33</u>	<u>23</u>	<u>8</u>	<u>8</u>
g. Band, orchestra, choir	<u>184</u>	<u>21</u>	<u>16</u>	<u>6</u>	<u>10</u>
h. School hobby clubs, such as photography, chess, computer, etc.	<u>175</u>	<u>25</u>	<u>21</u>	<u>14</u>	<u>2</u>
i. Religious organizations	<u>199</u>	<u>13</u>	<u>15</u>	<u>4</u>	<u>6</u>
j. Patriotic or civic associations	<u>193</u>	<u>25</u>	<u>12</u>	<u>4</u>	<u>3</u>
k. Other school teams, clubs or organizations.	<u>147</u>	<u>40</u>	<u>26</u>	<u>13</u>	<u>11</u>

2. When you were in your last year of high school did you earn any money by working outside the home?

Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, on average how many hours a week did you work? See Table B2.

What type of work did you do? \_\_\_\_\_

3. During your last year in high school, how much time, on the average, per week did you spend doing homework outside school? (Please provide an appropriate number of hours.)

See Table B3.

4. How often did you study or work on school subjects with your friends after school? (Place a check (✓) in the appropriate space.)

Several times a week	About once a week	About every second week	About once a month or less	Never
<u>13</u>	<u>30</u>	<u>40</u>	<u>95</u>	<u>59</u>

5. What did you consider to be satisfactory grades for you in high school? (Place a check (✓) in the appropriate space.)

50%-60%	61%-70%	71%-80%	81%-90%	91%
<u>18</u>	<u>67</u>	<u>84</u>	<u>59</u>	<u>9</u>

6. With regard to your education and training during the last year you were in high school, how satisfied as a whole were you with each of the following?

	Very Dissatisfied	Somewhat Dissatisfied	Neutral	Somewhat Satisfied	Very Satisfied
a. The ability, knowledge and personal qualities of most teachers.	<u>3</u>	<u>24</u>	<u>30</u>	<u>108</u>	<u>72</u>
b. The quality of the instruction.	<u>4</u>	<u>27</u>	<u>35</u>	<u>118</u>	<u>53</u>
c. Development of my work skills.	<u>8</u>	<u>30</u>	<u>58</u>	<u>108</u>	<u>33</u>
d. Course curriculum.	<u>4</u>	<u>23</u>	<u>57</u>	<u>113</u>	<u>40</u>
e. The social life.	<u>9</u>	<u>13</u>	<u>43</u>	<u>94</u>	<u>78</u>
f. Cultural activities, music, art, drama, etc.	<u>9</u>	<u>14</u>	<u>107</u>	<u>66</u>	<u>41</u>
g. Variety of extracurricular activities.	<u>7</u>	<u>17</u>	<u>72</u>	<u>93</u>	<u>48</u>
h. My intellectual growth.	<u>4</u>	<u>14</u>	<u>39</u>	<u>138</u>	<u>42</u>
i. The intellectual life of the school.	<u>7</u>	<u>33</u>	<u>83</u>	<u>91</u>	<u>23</u>
j. Overall school atmosphere.	<u>11</u>	<u>23</u>	<u>47</u>	<u>93</u>	<u>63</u>
k. The prestige of the school.	<u>8</u>	<u>25</u>	<u>57</u>	<u>87</u>	<u>60</u>
l. Job placement counselling.	<u>31</u>	<u>47</u>	<u>93</u>	<u>48</u>	<u>18</u>
m. Counselling for course selection, personal problems.	<u>23</u>	<u>40</u>	<u>77</u>	<u>59</u>	<u>38</u>
n. The buildings, library, equipment, etc.	<u>5</u>	<u>18</u>	<u>47</u>	<u>106</u>	<u>61</u>
o. Understanding the world of work.	<u>16</u>	<u>39</u>	<u>85</u>	<u>72</u>	<u>25</u>

TABLE B2

Frequency Distribution of the Number of  
Hours Worked Outside the Home per Week.

Hours	Frequency
2	1
3	2
4	2
5	5
6	2
8	11
9	6
10	13
11	2
12	9
13	3
14	7
15	13
16	10
17	3
18	8
19	1
20	31
21	1
23	2
24	5
25	16
26	1
27	4
30	11
33	1
35	2
40	6
42	1
0	58
	<hr/> 237

TABLE B3

Frequency Distribution of Number of  
Hours Spent on Homework per Week

Hours	Frequency
1	24
2	25
3	24
4	16
5	29
6	7
7	12
8	9
9	4
10	27
11	3
12	8
13	2
14	5
15	12
16	1
17	1
18	4
20	2
21	2
22	1
24	1
25	2
28	1
30	1
0	14
	<hr/> 237



C YOU AND YOUR OUT OF SCHOOL ACTIVITIES

Please indicate with a check (✓) in the appropriate space the influence that each of these activities had on your plans for what you would do immediately after high school graduation. (eg. further education, working, etc.)

	No Influence	Little Influence	Moderate Influence	Strong Influence	Very Strong Influence
a. Socializing (for example, conversation, partying, goofing around, talking on the phone.)	<u>55</u>	<u>70</u>	<u>57</u>	<u>30</u>	<u>25</u>
b. Sports and Games (formal and unorganized games)	<u>87</u>	<u>60</u>	<u>51</u>	<u>20</u>	<u>19</u>
c. Watching T.V.	<u>100</u>	<u>68</u>	<u>49</u>	<u>14</u>	<u>6</u>
d. Listening to music.	<u>113</u>	<u>53</u>	<u>38</u>	<u>21</u>	<u>12</u>
e. Arts and hobbies.	<u>79</u>	<u>55</u>	<u>60</u>	<u>25</u>	<u>18</u>
f. Reading (newspaper, magazines, and books not assigned from school).	<u>40</u>	<u>49</u>	<u>67</u>	<u>60</u>	<u>21</u>
g. Thinking (daydreaming, mental reflection).	<u>24</u>	<u>34</u>	<u>76</u>	<u>60</u>	<u>43</u>
h. Work at a job.	<u>47</u>	<u>47</u>	<u>41</u>	<u>58</u>	<u>44</u>
i. Studying.	<u>46</u>	<u>54</u>	<u>75</u>	<u>41</u>	<u>21</u>
j. Family (Outings/Events/Trips/Being at home).	<u>37</u>	<u>44</u>	<u>66</u>	<u>53</u>	<u>37</u>
k. Dating.	<u>92</u>	<u>61</u>	<u>45</u>	<u>27</u>	<u>12</u>
l. Going out with friends of same sex.	<u>50</u>	<u>61</u>	<u>68</u>	<u>45</u>	<u>13</u>
m. Going out with friends of opposite sex.	<u>78</u>	<u>58</u>	<u>55</u>	<u>34</u>	<u>12</u>
n. Chores, Errands, Homework, Cooking, Childcare, Shopping.	<u>70</u>	<u>69</u>	<u>59</u>	<u>26</u>	<u>13</u>
o. Participation in a nonathletic organization (Dance group, Drama club, Cadets/militia, etc.).	<u>125</u>	<u>48</u>	<u>25</u>	<u>20</u>	<u>9</u>
p. Others - Please specify _____	_____	_____	_____	_____	_____

D YOUR ATTITUDES

Please indicate with a check (✓) in the appropriate space the extent to which the statements below reflect your attitudes or feelings.

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
a. There were too many rules and regulations in my high school.	<u>39</u>	<u>102</u>	<u>69</u>	<u>20</u>	<u>7</u>
b. Generally those in charge at my high school were not very patient with students.	<u>41</u>	<u>114</u>	<u>50</u>	<u>29</u>	<u>3</u>
c. It often seemed that teachers in my high school were not very interested in whether we learned or not.	<u>46</u>	<u>104</u>	<u>48</u>	<u>34</u>	<u>5</u>
d. Teachers in my high school really pushed students to the limits of their abilities.	<u>24</u>	<u>80</u>	<u>67</u>	<u>55</u>	<u>11</u>
e. Most of my teachers encouraged us to use a lot of imagination in our school work.	<u>14</u>	<u>47</u>	<u>84</u>	<u>75</u>	<u>17</u>

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
f. Teachers were always trying out new and often exciting ways of doing things in my high school.	<u>16</u>	<u>91</u>	<u>84</u>	<u>40</u>	<u>6</u>
g. My high school was a very caring school--teachers cared greatly about students.	<u>7</u>	<u>40</u>	<u>80</u>	<u>87</u>	<u>23</u>
h. I feel I do not have much to be proud of.	<u>115</u>	<u>79</u>	<u>28</u>	<u>10</u>	<u>5</u>
i. I take a positive attitude toward myself.	<u>2</u>	<u>13</u>	<u>22</u>	<u>125</u>	<u>75</u>
j. On the whole, I am satisfied with myself.	<u>3</u>	<u>15</u>	<u>19</u>	<u>141</u>	<u>59</u>
k. Good luck is more important than hard work for success.	<u>109</u>	<u>82</u>	<u>32</u>	<u>7</u>	<u>7</u>
l. Planning only makes a person unhappy, since plans hardly ever work out anyway.	<u>74</u>	<u>115</u>	<u>35</u>	<u>9</u>	<u>4</u>
m. People who accept their condition in life are happier than those who try to change things.	<u>52</u>	<u>83</u>	<u>53</u>	<u>37</u>	<u>12</u>
n. What happens to me is my own doing.	<u>5</u>	<u>22</u>	<u>46</u>	<u>105</u>	<u>59</u>
o. Everyone who possibly can should work.	<u>2</u>	<u>27</u>	<u>41</u>	<u>91</u>	<u>76</u>
p. It is a person's duty to work.	<u>15</u>	<u>45</u>	<u>82</u>	<u>44</u>	<u>51</u>
q. If I did not work I would feel that I was not leading a "right life".	<u>14</u>	<u>37</u>	<u>46</u>	<u>79</u>	<u>61</u>
r. If a person can live the way he wants to without working there is no reason for him to work.	<u>34</u>	<u>59</u>	<u>63</u>	<u>68</u>	<u>13</u>
s. High school should be more concerned with developing social and personal skills; less concerned with developing vocational or academic skills.	<u>36</u>	<u>108</u>	<u>65</u>	<u>20</u>	<u>8</u>
t. There is too much emphasis on extracurricular activities in high school, and not enough on developing job-related abilities.	<u>14</u>	<u>65</u>	<u>75</u>	<u>63</u>	<u>20</u>
u. In high school there should be more courses to prepare students for jobs in the outside world and fewer purely "academic" courses such as literature and history.	<u>10</u>	<u>54</u>	<u>58</u>	<u>89</u>	<u>26</u>
v. All students should try to go to college/university. If they can't make it then they can always get an ordinary job.	<u>28</u>	<u>83</u>	<u>49</u>	<u>51</u>	<u>26</u>
w. High schools should be concerned more with occupational training than with preparation for college/university.	<u>25</u>	<u>106</u>	<u>80</u>	<u>23</u>	<u>3</u>
x. High schools should be more concerned with sponsoring activities that allow students to make friends with other students than with teaching vocational or academic skills.	<u>35</u>	<u>114</u>	<u>72</u>	<u>9</u>	<u>7</u>
y. High school should do more to provide students with skills useful in jobs and should not worry too much about college/university preparations.	<u>26</u>	<u>125</u>	<u>70</u>	<u>11</u>	<u>5</u>

Please rate the importance that each of the following six interests and desires have in your life.

	Not Important At all	Not very Important	Somewhat Important	Fairly Important	Very Important
a. To have a career, a long-term job that requires me to develop my skills and capacities and that would be rewarding for me personally.	<u>1</u>	<u>2</u>	<u>13</u>	<u>51</u>	<u>170</u>
b. To do community work—to help people in my community through organizations such as hospital auxiliaries, or through informal organizations such as tenants' groups, anti-pollution groups, etc.	<u>15</u>	<u>54</u>	<u>83</u>	<u>62</u>	<u>23</u>
c. To keep a good household; to be a good cook and have the other skills that go into being a good homemaker.	<u>19</u>	<u>28</u>	<u>77</u>	<u>67</u>	<u>46</u>
d. To have skills and the possibility of getting jobs that will give me some security and allow me some independence in organizing my life as I wish.	<u>1</u>	<u>7</u>	<u>11</u>	<u>79</u>	<u>139</u>
e. To have a mutually rewarding relationship with a woman/man.	<u>4</u>	<u>5</u>	<u>20</u>	<u>67</u>	<u>141</u>
f. To have a child, or some children, raise, and care for them.	<u>12</u>	<u>22</u>	<u>48</u>	<u>54</u>	<u>101</u>

E YOU AND YOUR FAMILY

What is the highest level of education completed by your father (or male guardian) and by your mother (or female guardian)? (Check (✓) one only in the appropriate space.)

	Father	Mother
No formal schooling	<u>1</u>	<u>2</u>
Elementary School	<u>23</u>	<u>12</u>
Some Secondary (high) school	<u>93</u>	<u>90</u>
Some college/CEGEP/Institute of Technology	<u>26</u>	<u>30</u>
Completed college/CEGEP, etc.	<u>26</u>	<u>26</u>
Some university	<u>9</u>	<u>22</u>
University degree	<u>21</u>	<u>38</u>
Completed Graduate Studies	<u>26</u>	<u>13</u>
Other (Specify) _____	<u>6</u>	<u>0</u>
Don't know	<u>6</u>	<u>4</u>

- a) How many brothers and sisters are in your family? (Please provide the correct number.) \_\_\_\_\_
- b) In order of birth rate, give me your rank in the family (only child; 1st child, 2nd child, etc.) \_\_\_\_\_

While you were in your final year of high school, where did you live?

Within the Brandon city limits. 209

Outside the Brandon city limits. 28

What was the highest level of education your parents (guardians) expected you to complete? \_\_\_\_\_

What was the marital status of your mother and father during your high school years? (Place a check (✓) in the appropriate space.)

Remained married 196

Separate 7

Divorced 20

One predeceased 12

Both deceased 1

- a. What has been your father's or male guardian's main occupation during the last ten years? (Please use at least 2 words to describe his job. eg. restaurant manager, auto mechanic.) \_\_\_\_\_
- b. What has been your mother's or female guardian's main occupation during the last ten years? (Please use at least 2 words to describe her job. eg. bank manager, home maker.) \_\_\_\_\_

F. THE YEAR BEYOND HIGH SCHOOL

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
To what extent do you agree that your high school courses prepared you for the job market? (Check one only in the appropriate space.)	<u>21</u>	<u>79</u>	<u>70</u>	<u>53</u>	<u>13</u>
To what extent do you agree that your high school program of studies prepared you to take further education if you want to? (Check one only in the appropriate space.)	<u>21</u>	<u>79</u>	<u>70</u>	<u>53</u>	<u>13</u>

Which of the following activities best describes what you did between September, 1987 and May 1988. (Check (✓) one only in the appropriate space.)

- a. Full-time student at university, community college or other training facility. \_\_\_\_\_
- b. Part-time student at university, community college, or other training facility. \_\_\_\_\_ } 159
- i) Please circle the facility that you attended this past year: University, community college or other training facility.
- c. Employed full-time. \_\_\_\_\_
- d. Employed part-time. \_\_\_\_\_
- e. Homemaker. \_\_\_\_\_
- f. Unemployed. ⊖
- g. Other (Please specify) \_\_\_\_\_ } 78