# CAREER DEVELOPMENT IN THE PROFESSIONS AND SEMI-PROFESSIONS IN THREE SOCIETIES

by

CHRISTINE KLUCK DAVIS

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AUTHOR: Christine Kluck Davis, B.A. (University of Western Ontario)

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ABSTRACT

The purpose of this thesis is to analyze the career development of four occupations, medicine, law, secondary school teaching and social work, representing three countries - Australia, Canada and Sweden. Based on the literature, it was proposed that at the collective level there would be more consensus in work-related attitudes within the two professions of medicine and law than within the two semi-professions of teaching and social work; and that the professionals would be more homogeneous in terms of their background characteristics than the semi-professionals. At the individual level, it was hypothesized that certain background characteristics such as father's occupation, parents' education, family size and the influence of significant others would be directly related to the age when the career decision was made, as well as the career entry pattern and professional orientation. It was also hypothesized that the age when the career decision was made would be directly related to the career entry pattern and that both would directly affect professional orientation.

Several methods were used to test the propositions and hypotheses, including the comparison of percentage distributions, variances, consensus and homogeneity indices and path analysis. The findings supported both major propositions.

There was generally more consensus with respect to work-related attitudes among the doctors and lawyers than among the teachers and social workers. In addition, the professionals were more homogeneous than the semi-professionals in terms of background characteristics such as age when the career decision was made, father's occupation and social class identification. At the individual level, the age when the career decision was made was found to be strongly related to the type of career entry pattern in the hypothesized manner. Specifically, respondents who reported earlier career decisions were more likely to enter directly into their career choice. Persons whose fathers had higher SES occupations and who were influenced by close family members usually made earlier career decisions, and in some cases also had more direct entry patterns. Professional orientation was not explained by the variables in the model.

Finally, the 'community' model of the professions which stresses homogeneity among its members is seen as conflicting with a contemporary emphasis on increasing equality of opportunity for entering into the professions, an emphasis which implies increasing heterogeneity.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

# CHAPTER ONE

## INTRODUCTION

The study of occupations can be approached from two perspectives: the collective, emphasizing such aspects as the ease of entry into an occupation or its level of prestige; and the individual emphasizing individual choice and career development. The two are interrelated. It is generally recognized that both supply and demand factors operate in the process of occupational allocation. In the case of the more professionalized occupations, the fact that the profession is a corporate grouping means that the demand factors, in the form of restriction upon entry, are potentially more powerful than for many other occupations. In addition to formal controls, there are informal barriers to entering certain professions in the form of values and attitudes which may be directly or indirectly related to recruitment.

Although one is able to distinguish professions and non-professions at the collective level, very few authors have differentiated between professional and non-professional individuals within a particular occupation (Freidson, 1971:60). However, Freidson advocates an approach adopted in this thesis that assumes there are two professional models- one at the collective level, and one at the individual level, and two continua - an occupational continuum and an individ-

ual continuum. Even though some occupational groups are at the highest professional end of the occupational continuum, some individuals within that occupation are not (Freidson, 1971:61). The relationship between professionalism at the individual level and professionalization at the aggregate level goes right to the heart of sociology according to Freidson, because it is concerned with the relationship between the social structure ( and in this case the structure of an occupation) and individual attitudes and behavior (Freidson, 1971:62).

An individual's occupational development is made up of several stages - the career choice process, the career entry pattern and the eventual socialization into a particular occupation. It is an objective in this thesis to examine aspects of these three stages for persons who have achieved professional and semi-professional status, and to relate the findings to an explanation of differences between the two occupational groups as a whole. Four occupations will be studied; two professions - medicine and law; and two semi-professions, secondary school teaching and social work. The four occupations are represented by samples from three countries - Australia, Canada and Sweden.

The conceptual framework underlying the present study includes an analysis of the relationship between the age when the career choice was made, and the number of other occupations an individual had prior to the present occupation, as well as the association between each of these two

aspects of career development and an individual's professional orientation. In addition, differences with respect to the homogeneity in family background characteristics and work related attitudes measuring professional orientation of the two occupational groups as a whole will be emphasized.

Career development is not independent of such factors as social origin, family size and the influence of significant others. These variables are known to affect not only the initial career choice but also eventual career success. The strength of effect that each of these factors has on the three aspects of career related behavior will therefore also be measured.

The importance of the relationship of the various background characteristics to the stages of career development has implications for the occupation as a whole. Different recruitment processes can result in a difference in membership of an occupation not only in terms of factors such as social origin but also in terms of work related attitudes. In this study, it is possible not only to test these individual relationships but also to research differences in the homogeneity level of background characteristics and professional orientation at the aggregate level of the four occupations as a whole.

To set the scene for the aggregate and individual analysis to follow, the description of the data will be presented first since the same data set was used to test the propositions and hypotheses in both sections.

DESCRIPTION OF THE DATA SET:

The data were collected by Frank Jones (1976) via a mailed questionnaire in three countries - Australia, Sweden and Canada. The data gathering itself was three phased: the first phase was completed in Australia in the Fall of 1971; the second phase was completed in Sweden in the Spring of 1972; and the third phase was undertaken in Canada during 1973/74. Four occupations were sampled in each country - doctors, lawyers, secondary school teachers and social workers - the former two representing the professions and the latter two representing the semi-professions. Medicine and law were chosen on the basis of their high SES rating measured by income, education and prestige since Jones was primarily interested in comparing the accessibility to professional occupations in terms of their social origins. Jones also included two lesser ranking occupations, teaching and social work, for comparative purposes (Jones, 1976:143).

The questionnaire (see Appendix A) contained both structured as well as unstructured open-ended questions. Eighty items were included in the self enumerated questionnaire and covered such areas as father's occupation, parent's education, as well as aspects of the respondent's occupational experience other than the present occupation. Questions were also asked to obtain the usual background information such as age, sex, education and family size (Jones, 1976:145).

The sampling procedure was the same in all three

countries. A systematic random sample was drawn from the various sources available[1], and a total of 750 questionnaires was sent to each group. A follow-up questionnaire was sent to those persons sampled who had not responded within the first two weeks. The return rate varied not only among the three countries, but also across the four occupations. The rates are given in Table 1 below.

Table 1

Total Response Rate by Occupations by Country

| | Doctors | Lawyers | S.S.Teachers | Social Workers |
|---|---|---|---|---|
| Australia | 64.5% (378) | 49.1% (317) | 73.7% (534) | 76.6% (536) |
| Canada | 41.0 (288) | 36.8 (265) | 61.7 (387) | 63.2 (455) |
| Sweden | 54.5 (365) | 44.7 (178) | 59.2 (419) | 70.1 (582) |

(Jones, 1976:146)

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Generally, a lower response rate was observed for the two professions, especially in Canada. Lawyers had the lowest rate in each country, while social workers consistently had the highest. It is difficult to be sure of a reason

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1. Australia - Medical Directory, Law List, State lists for teachers and Social Work Association
Canada - Medical Directory, Law List, Provincial lists teachers and the National Union of Social Workers
Sweden - Medical Association, Independent Lawyers association, random lists were provided from the Salaried Lawyers association, Swedish Central Statistics Office, and National Social Work Organization(Social Administrators were distinguished at a later date)

for the lower rate among professionals. It may be, for example, because the questionnaires were sent to business addresses rather than the home, they were not always received directly by the sample participants. Some have maintained that those surveys with official backing may expect a higher response rate than those emanating from a university or a research agency (Moser, 1969:179). Perhaps if the questionnaires had been administered by the medical or law association, a higher return rate would have resulted. Even though the return rates were quite low by interview enumerated standards, a rate of about 40-65% is considered quite acceptable for mail questionnaires (Koenig, Martin & Seiler, 1977:433; Warwick et al, 1975:129).

The problem of non-response raises the question of how representative the data are since the lower the response rate the more likely the possibility of bias. However, if it is assumed that a given pattern of responses to items is associated with a given distribution of age, sex, and certain background characteristics, and if respondents and non-respondents can be compared in terms of such characteristics, it is possible to assess the possibility of bias resulting from non-response. Several descriptive and demographic variables were collected for the samples as a whole, and although the number and types of items differed in each country, it is possible to compare respondents with non-respondents within each occupation. The results are given in Tables 2.1 to 2.4 in Appendix B. In general

most of the differences between respondents and non-respondents were insignificant, however, a few significant relationships were detected, particularly for the Canadian sample.

For the Canadian physicians, a significant difference can be noted in specialization, residence and language. Sample members from Quebec and those who were mainly French speaking were generally under-represented among the respondents. (Respondents from Quebec = 18% versus 28% for non-respondents; Respondents who were French speaking = 12% versus 24% for non-respondents). By contrast, respondents who resided in Ontario were overrepresented (42% vs 38%). With regard to specialization, a significant difference between respondents and non-respondents was noted for both Australian and Canadian physicians. In both cases there was an overrepresentation of specialized physicians among the respondents. (Canada 78% vs 68%; Australia 46% vs 37%) In Sweden there was a significant difference in the response between those who belonged to the Swedish Medical Association and those who did not; non-members being under-represented among the respondents. (12% vs 18%)

There were only a few sample characteristics available for lawyers and for the most part no significant differences between respondents and non-respondents were found in any of the three countries. The only variable which differed substantially between respondents and non-respondents was sex, and only for lawyers in Sweden where females were under-represented. (4% vs 14%)

A range of information was collected for the secondary school teachers even though not all of the characteristics were available on a national basis in Canada. There were considerably fewer items collected in Australia and Sweden, however, a comparison can still be made for some of them. In general, most variables did not prove to be significantly related to the response rates of sample members. For Canada, however, there was an overrepresentation of department heads among the respondents (25% vs 14%), and once again, an underrepresentation of French speaking and residents of Quebec (29% vs 42%; 28% vs 41% resp.). The latter case was partly due to the failure of attempts to obtain cooperation from the Quebec Protestant Teachers Association. There was also an overrepresentation of persons holding an academic B.A among the respondents (36% vs 27%) which complements the overrepresentation of department heads since one might expect that they all held B.A.s. In Australia, there was a significant overrepresentation of single teachers among the respondents (43% vs 21%), and in Sweden there were no significant differences noted for those characteristics which were known.

Once again, only a few sample characteristics were available for social workers in each country, however some differences were found. In Canada, a significant under-representation of residents from Quebec and French speaking members was once again noted among the respondents (31% vs 49%; 25% vs 37% resp.). In Australia, an overrepresentation

of married social workers was found among the respondents (64% vs 54%), and once again no significant differences were found in Sweden.

Although for the most part, for those variables which were collected, no significant differences were found between respondents and non-respondents, a few exceptions and notable patterns can be identified. Particularly in Canada, it becomes evident that the French speaking sample members and those residing in Quebec have a lower return rate than the rest of the sample. The implications of these differences and the possibility of correcting for such sample biases will be discussed later on in this section.

To assess the general representativeness of the sample respondents of the population at large, one can compare the percentage distribution of crucial background variables such as sex, age, ethnicity etc. of the respondents to the percentage distribution of the Census in a particular country. When comparing special samples such as those used in this study to the population one must be aware of differences in definitions of the parameters - in this case, occupation. The samples used in this study were carefully drawn from sources which included only those persons who belonged to the particular professional association and who were fully qualified in a formal sense. This is true in virtually all cases for doctors and lawyers, however, it is still possible to teach or to work in the capacity of a social worker without having either a university degree or proper certification.

The samples used here, however, only included teachers with teaching certificates and social workers with M.S.W.s. In the Census, on the other hand, occupation is recorded as exactly what an individual reports, thus not making the above distinctions. Despite these differences, a comparison between the Canadian sample and the 1971 Census with respect to selected background characteristics, is reported in Tables 3.1 to 8.2 in Appendix B since a general overview is helpful in assessing the possibility of any major misrepresentation.

An inspection of the tables indicates, that for the most part, the Canadian sample was fairly representative of the population, despite the problems noted above. In general, even though a few differences will be noted below, both the professions and the semi-professions represented the Canadian population in terms of the selected background characteristics, although as might not be expected, given the differences in definition noted above, the two semi-professions were slightly better represented than the two professions.

Closer study of the tables allows certain problem areas with respect to population representation to be pinpointed. Table 3 reports the sex distribution for the four occupations and although no serious biases are indicated, it should be noted that the very few professionals in the sample who are females (34 for physicians and 9 for lawyers) limits the possibility of controlling for sex. An under-representation

of female secondary school teachers in the sample is evident and may be due to sampling problems mentioned earlier. Tables 4.1 and 4.2 show the age distributions for males and females. Although the means and medians do not reveal any particular age bias, a closer inspection of specific age groups indicates an under-representation of younger physicians, teachers and social workers within both sexes. Although there is a two year difference between the time the census was taken and the sample was collected, this could not account for the discrepancy. For example, the census reports that about 30% of male physicians are under 35 years of age, and only about 15% of the respondents fall into that age category. While the difference is not as great for the male lawyers or secondary school teachers, an even larger discrepancy is observed for social workers. Whereas the 1971 census reports 46% or almost half of the male social workers as under 35, the sample produced only about one fifth. Part of the bias may be due to the differences in the definition of 'occupation' noted above. For example, the census includes interns, residents and teachers in training as well as apprenticing or aspiring social workers. These individuals are not included in the sample. The same under-representations were found for females.

Some of the differences noted in marital status can be partly explained by the differences in the age distributions (see Tables 5.1, 5.2). We see a slight under-representation in the single category for all four occupations for

males and in all the groups except the teachers for the females, which corresponds with the under-representation of the younger age groups.

There are no serious biases in the birthplaces of the male respondents in any of the four occupational groups, even though the coding scheme of the census differed slightly from the study. An 'other' category was included in the study which when redistributed among the other categories may eliminate some of the minor differences observed. For the females, the two semi-professions were representative of the population at large with respect to birthplace. There were not enough female professionals for adequate comparison.

There were no serious biases detected in the date of immigration, although slight differences were noted for male and female social workers. Whereas about 10% of all male social workers and about 9% of all female social workers in Canada immigrated prior to World War II, only about 4% of the males and 22% of the females in the sample did so. (see Table 7.1,7.2). Although an attempt was made to compare the ethnic background of the sample respondents and the Canadian population, the differences in the classification scheme made the task very difficult, and the results are reported with caution. It becomes apparent when one observes the two charter groups, the British and French, that the French are badly under-represented in our sample - a problem brought to light in the comparison of the sample characteristics earlier - among the professional groups and less so

among the semi-professional occupations. Even though many of the respondents reported 'Canadian' which the census did not include as a category, it is not likely that a large proportion of these were of French ethnic background since 'French-Canadian' and 'Quebecois' was also reported and in included in the French category. (see Table 8.1, 8.2)

Although some bias and sample misrepresentations were detected, they were not considered alarming for several reasons. First, one must keep in mind that the Census is not strictly comparable to the Canadian sample since the definitions governing which cases fall into specific categories are different. Also the Census data were collected a couple of years earlier and thus small differences can be expected. Even with these problems in mind, however, most variables in the sample were comparable in terms of percentage frequencies to the same variables taken from the Census.

What procedures, if any, are available to modify the effects of sample bias in the data? Warwick and Lininger, although specifically referring to interview surveys, suggest three alternative routes one might follow: The first is to redefine the population; the second is to ignore the missing data; and the third alternative is to devise a differential weighing system (Warwick & Lininger, 1975:273). Each of these three suggestions has its disadvantages, and the researcher must weigh the consequences before deciding on a suitable procedure. Redefining the population, for example, often means the loss of valuable and meaningful analysis.

In our case, studying only the career patterns of males or English Canadians is vastly different in theoretical implication from the study of sex differences, or language differences with respect to career patterns. Similarly, ignoring the missing data is not always advisable, particularly if there are serious response biases.

The third solution offered, that of differential weighting, appears quite reassuring as it seems to allow one to 'fix' the problem. However, weighting can be very complicated where the data are biased along several dimensions such as age, sex and ethnicity.

Moser and Kalton sum the problem of sample bias when they say

> Often the population coverage actually achieved differs from that initially intended: the sampling frame may have turned out to be incomplete or substantial population segments, may have been lost through non-response. Whatever the reason, the resultant loss in coverage, as far as it is known to the researcher, must be acknowledged, and the conclusions generalized only to the population actually covered (Moser & Kalton, 1972:443).

Although Moser and Kalton's solution may not be ideal, it does seem the safest solution. It allows one to use all of the data collected as long as the conclusions are not generalized in those cases where the subgroups are not representative of the population at large.

In the analysis to follow, the concern is not so much with specific subgroups such as ethnic groups etc. but with the total samples for each country and each occupational group, sometimes broken down by sex. Since no sample problems

were detected at this level of any great concern, the analysis was undertaken without any weighting, this course of action is supported in a recent study of response problems in mailed questionnaires (Koenig, et al, 1977).

It is concluded on the basis of the comparisons reported in this section, and because the samples were randomly drawn from official lists, that apart from the non-response problem, the data must be assumed to be representative of the population.

## CHAPTER TWO

## A COLLECTIVE PERSPECTIVE

### Introduction and Review of the Literature

Much has been written on the process of professionalization (see for example, Moore & Rosenblum, 1970; Pavalko, 1972) and the differences between the professions and the semi-professions at the collective level. Anderson and Western describe the ideal profession as having the following five characteristics: (a) a high level of generalized and systematic knowledge leading to a formal qualification; (b) work directed towards general community or cultural benefit rather than to individual self interest; (c) large measures of autonomy correlated with recognition of responsibility towards clients or employers and public; (d) self-consciousness and a measure of corporate control of professional groups through lengthy socialization processes and traditional codes of conduct; (e) money and honours regarded as symbols of work achievements and thus ends in themselves rather than as means to serve other self interests (Anderson, Western, 1972:290). The semi-professions, on the other hand, as implied by the label 'semi' possess some of the above characteristics but lack others. (See in particular Etzioni, 1969) In particular, it is questionable whether most semi-professions such as teaching, nursing or social work have

complete autonomy over the professional conduct of their members, or whether they are able to control recruitment.

A brief history of the professions[2] will be presented next as an introduction to the development of the main propositions to follow. The history of the professions is frequently presented from a conservative viewpoint[3], particularly when treated in functional terms[4] where professional groups are seen as entities in themselves, remaining stable and self-regulated throughout time.

Durkheim saw professional occupations as a stabilizing force in a society that was changing as the division of labour increased. The professions remained relatively cohesive with the professional association maintaining its regulatory and integrating force upon its individual members. The strength of this group association was important according to Durkheim (1958:7), for authority over members to exist. The importance of this authority or "moral discipline" as Durkheim referred to it, is exemplified when

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2. professions used in this context refers to a general group of occupations esteemed throughout history and most often include such occupations as medicine, law, university teaching and the clergy.

3. The conservative approach to the study of the professions is by no means the only one, and has been critized by some. (See for example, Gerstle & Jacobs, 1976:1-20)

4. The theoretical foundations of functional sociology have perhaps been most systematically outlined by R.K. Merton.

he said

> There is no form of social activity which can do without the appropriate moral discipline...It is this discipline that curbs him, that marks the boundaries, that tells him what his relations with his associates should be, where illicit encroachments begin, and what he must pay in current dues towards the maintenance of the community. Since the precise function of this discipline is to confront the individual with aims that are not his own, that are beyond his grasp and exterior to him, the discipline seems to him -and in some ways so in reality- as something exterior to himself and also dominating him (Durkheim, 1958:15).

Nor does this moral discipline come about merely as a result of inter-dependence among members of a group. This does not assure social solidarity. Such solidarity requires subscription to common and overriding values and thus also to the rules that will govern exchange (Durkheim, 1933:229). The professional association appears, according to Durkheim, to be an essential active principle of solidarity (Durkheim, 1958:7).

In addition to the extent that the professional group influences its own members, there is the idea in Durkheim that the stronger the professional group as a whole, the more influence it has on the society at large. Therefore..."the more closely the group coheres, the closer and more frequent the contact of the individuals; and, the more frequent and intricate these contacts and the more exchange there is of ideas and sentiments, the more does a public spread to cover a greater number of things." (Durkheim, 1958:8). At the same time, however, the professional group resists external control. Hughes, in his discussion of Durkheim's work refers to the

propensity of professional groups to generate social rules and sanctions and to become impermeable to attempts by outsiders to control them. Durkheim, according to Hughes, saw professional groups as organs of society, partly autonomous systems of relations which cannot, however, exist except in contact with other organs of society (Hughes, 1960:64).

Barber interpreted Durkheim's theory of the function of the professions in society as the reconciliation of two conflicting interests in society - between the individual and the community -which should stand as a moral example for the rest of society (Barber, 1963:16).

Johnson (1972) concurring with Barber's interpretation, claimed that Durkheim felt professional organizations to be a precondition of consensus in industrial societies, and that "the break up of the traditional moral order initiated by the fragmenting division of labour would be rectified only by the formation of moral communities based upon occupational membership." (1972:12). In much the same vein as Durkheim, Tawney (1920) discusses the importance and power of professional groups in society. For him the

> Professional spirit is a force like gravitation which in itself is neither good nor bad...It is a matter of common training, common responsibilities and common dangers. (1920:150)

Unlike Durkheim, however, Tawney claims that this 'spirit' of professionalism is a force which is part of the individual and not a force outside him. Although Durkheim does not use the term "professional spirit", he holds that

professional control comes from both within and outside the individual as an expression of a collective conscience. Tawney, according to Johnson, like Durkheim felt professionalism was a stablizing force for the community at large and in fact was necessary to maintain a truly "functional society". (Johnson, 1972:12).

A later analysis of the professions also in this classical tradition was undertaken by Carr-Saunders and Wilson. The origin of the "corporate spirit" or professionalism as they saw it began as early as the eleventh century, and before the end of the fifteenth century had become universal among all city dwellers (Carr-Saunders & Wilson, 1933:289). Students and teachers alike had formed "guilds of learning" out of which universities eventually arose. Universities soon became closely associated with the Church and thùs the earliest professions which were learned through the university also came to be closely associated with the clerical tradition (Carr-Saunders & Wilson, 1933:290). There were also a number of professions which, because they were regarded more as crafts (such as surgeons, apothecaries and notaries) organized themselves not through the church but through the trading guilds. Gradually, the church-related professions became more secularized, and only teaching remained in clerical hands after the Reformation. At the same time, the professional guilds strengthened their ranks as professional techniques developed (Carr-Saunders & Wilson, 1933:294).

The professions became regarded in the post industrial revolution days as occupations fit only for gentlemen, and the field of true professional occupations had narrowed to divinity, law and physic related occupations. Some of the ideas formed about the professions in the eighteenth century linger on. For example, in Bacon's writing one finds the notion that professional men are persons in possession of a specialized intellectual technique. For some time (several centuries) some half-dozen professions provided all those skilled intellectual services upon which the everyday functioning of society depended. These were gradually expanded to include other professions (such as architecture or dentistry) as they became more prominent (Carr-Saunders & Wilson, 1933:295).

More recent analysis of the professions has departed from the dichotomous profession/non-profession approach to one which views the characteristics of an occupation as forming a continuum, scale or index with non-professional at one end and professional at the other. Aspiring professional occupations are thus seen as possessing some professional characteristics and lacking others. Although these studies are still in the conservative functional tradition, they attempt to expand the theory of their predecessors into a more workable form. Leading proponents of this approach are sociologists such as Moore and Goode. Others have followed suit.

William Goode takes a 'community' approach to the

analysis of the characteristics of a professional group. He maintains that the extent to which members of an occupation have a sense of belonging to a community is an important characteristic of the occupation-profession continuum and classifies the attribute of "professional community" as a characteristic present in the more established professions, and as a goal of each aspiring occupation (Goode, 1957:195). Goode lists the following characteristics as being inherent within the professional community: (a)its members are bound by a sense of identity; (b) once in it few leave, so that it is a terminal or end status for the most part; (c) its members share values in common; (d) its role definitions vis-a-vis both members and non-members are agreed upon and are the same for all members; (e) within the areas of communal action there is a common language, which is understood only partially by outsiders; (f) the community has power over its members; (g) its limits are reasonably clear; (h) the community has control over the recruitment and selection process, and the sending of recruits through an adult socialization process (Goode, 1957:195). According to Goode, therefore, the more these characteristics are present in an occupation, the more professional that occupation.

Moore tries to operationalize this concept further by advocating that professionalism similar to Goode, should be treated as a scale rather than just a set of attitudes. Subscales along the professional scale would include such attributes as: (a) the occupation being fulltime; (b) the

assumption of an orderly career based on a calling; (c) a form of occupational organization; (d) degree of formal education; (e) a service orientation; (f) autonomy (Moore, 1970:7-15).

In sum, there is continuity in the conservative literature about the role of the professions in society, from as early as Durkheim's work to the more contemporary theories of Goode or Moore. Each is portraying the professional group as an autonomous body of individuals, with both a degree of self control as well as control over the society at large.

The conceptual framework at the collective level incorporates a theoretical perspective that combines Durkheim's earlier concepts of the relationship between the group and the individual with later functional analysis of the "professional community", and uses this framework to study the relationship between the occupational group and the recruitment of individual members.

Durkheim saw the social system as one which progressed from a society characterized by mechanical solidarity to one characterized by organic solidarity. The ideal mechanical society is one where cohesion among individuals is based upon resemblances and thus the mass is absolutely homogeneous. The solidarity of the group is based primarily on likenesses since society is formed of similar segments (Durkheim, 1933:176). The social life of a mechanical society "is made up exclusively of common

beliefs and of common practices which derive from unanimous adhesion a very particular intensity." (Durkheim, 1933:138). In terms of power, the authority over the group emanates entirely from the common conscience (Durkheim, 1933:181).

Organic solidarity, on the other hand, is based on differences among members of a social system. "Not only are social elements not of the same nature, but they are not arranged in the same manner." (Durkheim, 1933:181). According to Durkheim, as society came to be based more and more on a specialized division of labour, solidarity necessarily became organic in nature. Although Durkheim saw mechanical solidarity disappearing as organic solidarity progressed (Durkheim, 1933:183), it seems plausible that the two types of solidarity could exist simultaneously depending on the nature of certain subgroups in society. Hill, applying this notion to the study of professional groups, analyzed the external interactions of professionalization using Durkheim's concept of mechanical solidarity. In his view, for an occupation to become more professional, two types of mobilization were necessary. Those employed in an occupation must collectively seek to raise its status in the eyes of the community and professionalize at the group level; and at the same time, individuals must become more professional in their behavior and attitudes. Hughes concurs with Hill when he states

> The advancement is of two kinds. The first is the rise of the individual by getting into an

> occupation of high prestige, or by achieving special success in his occupation. The second is the collective effort of an organized occupation to improve its place and increase its power in relation to others (Hughes, 1960:56).

It might be argued that both processes will inevitably occur together; that they cause or reinforce each other. However, as Hall found that occupations were not always professionalized in both structure and attitudes, this is not necessarily the case (Hall, 1969:89). Similarily, Barber remarked that

> It is typical of the structure of the occupational group that is emerging as a profession that its members are not homogeneous with respect to the amount of knowledge and community orientation they possess (Barber, 1963:22).

It would seem, therefore, that in the semi-professions as compared to the professions, there will be a greater variation in attitudes and behavior.

Although functionalists have been criticised for virtually ignoring the process of professionalism at the individual level (Ritzer, 1972:36), it is possible to incorporate both levels into a suitable theoretical framework which explores further the professionalization process. At the same time, limitations of the functional approach in the study of professions will surface, implications of which will be discussed in a later section. The relationship between professionalization at the collective level and professionalism at the individual level may take three different focuses depending on the theoretical perspective used. First, it might be assumed that they are independ-

ent of each other; secondly, an increase in professionalism may be seen as causing an increase in professionalization; or thirdly, an increase in professionalization may be seen as causing an increase in professionalism. In the Durkheimian framework, the latter approach would be most appropriate since Durkheim assumes that the group has control over the individual.

The approach used by Hill in his study of professional groups is most interesting. Using a Durkheimian framework, he builds on the earlier functional work of researchers such as William Goode. Hill sought to treat the ideal professional group as a social system in itself, mechanical in nature in an otherwise organic society. He felt it was useful to view professions as mechanical societies because, in Durkheim's sense, this implies meaningful relationships between significant others. In the context of a profession, however, rather than being based on personal interaction with significant others, the meaningful relationships are on a more abstract level - i.e. the relationship is between any professional group as a whole (Hill, 1974:32). As Hill clarifies

> We have then in a 'mechanical' profession a very close relationship between personal identity and the underlying meaning system of the profession (1974:32).

Modern society in a Durkheimian sense is organic, based on differences among members of the society. The mechanical association represented by the professions pro-

vides a means of establishing individual identity and status within an otherwise specialized organic society (Hill, 1974:35). "Consequently, professions and professionalization provide an example of a more general social process: i.e. the evolution of social meaning, identity and status within organic society." (Hill, 1974:32).

According to Hill therefore, occupations can develop into professions to the extent that interaction between occupation members assumes "mechanical solidarity" and is perceived by wider society (and particularly its contemporary power groups) as that of a like-minded community whose institutional actions are beneficial to society (Hill, 1974:30). Hill explains how the mechanical nature is maintained

> Their 'mechanical' character reinforces like-mindedness of otherwise isolated specialists and thus reinforces identity. The existence of mechanical character indeed requires like-mindedness of members so becomes associated with socialization and identity formation (Hill, 1974:30)

Socialization is thus a key process in the maintenance of the professional community, and established professions have gone to great lengths to assure that members are socialized into the group and acquire a strong sense of professional identity. The importance of socialization for the professions is emphasized by Bucher and Strauss

> Socialization of recruits consists of induction into the common core. There are norms, codes which govern the behaviour of the professional to insiders and outsiders. In short, the sociology of professions has largely been focussed upon the mechanics of cohesiveness

> and upon detailing the structure (and/or social organization) of given professions. (Bucher & Strauss, 1961:186)

One way that the professions can assure 'like-mindedness' among members through the socialization process is by way of the structured professional school. The importance of professional education and how it is related to professional socialization is emphasized by Towle when she discusses the aims of professional education.

> These aims require that we select socially educable students, those who can become motivated to work for the common good rather than be driven largely to strive for self-maximization (Towle, 1954:175).

Professional education, according to Towle, is a process for changing the behaviour of students in a desired direction. A student is expected to acquire ideas, habits, interests and ways of feeling, thinking and doing which he did not have before he entered the professional school. This implies an educational process which fosters identification with the profession (Towle, 1954:175).

The mechanical nature of the professions is preserved by a recruitment process which begins directly upon the entry to professional school and indirectly through a variety of other influences, social in nature, much earlier in a person's life. Why are the professions able to exert such an influence upon society through the recruitment process? The answer to this lies in the very nature of the

professions themselves and how they are perceived by the rest of society.

Society must place and motivate its members in the social structure and must distribute them in social positions identified mainly through occupation. Thus a system of 'rewards' is built into the system - both tangible and intangible - in order to attract certain individuals to certain positions or occupations. In addition to material gain, intangible rewards such as society's image of prestige of a certain occupation are generated. This image of prestige is largely a function of the opinion of the members of the society at large (Davis & Moore, 1970:369). As was discussed earlier, the functional view of the professions places them as a stablizing force in society, self regulating and coherent over time. Because they are stable and self regulating, the professions are able to control recruitment. The 'professional spirit' or perceived prestige permeates the rest of society as a result of the strong collective solidarity generated by the professional group itself. It is thus as a result of the mechanical nature of the professions that they are able to recruit persons who are easily socialized into the group. The professions therefore, seek to attract individuals with characteristics similar to those of the members of the professions so that the like-mindedness of the group and the prestige can be preserved.

The semi-professions, on the other hand, are not so easily able to recruit persons who are solid in their commitment to their occupation because..."a cohesive social organization which would exercise strict control over its members and which would assure its perpetuation..." does not exist. (Denzin & Mettlin, 1968:377).

This framework supports the proposition that the stronger and more cohesive the group solidarity and the more mechanical in nature the profession, the more likely it will be able to ensure this solidarity through the recruitment of like-minded individuals. It is therefore, the strength of the mechanical solidarity of the profession, as Hill defines it, which makes it possible for the professional group to retain its position in society, and it is the lack of mechanical group solidarity which prevents the aspiring professions from raising their position.

## COLLECTIVE ANALYSIS

The sociological literature reviewed in the last section emphasizes the importance of both control by the professions over recruitment, as well as the control over socialization of potential recruits. Based on the theory that the established professions exercise more of this control than other occupational groups, the following two propositions are presented.

1. There will be a greater degree of consensus in attitudes within the professional groups than within the semi-professional groups.

2. There will be a greater degree of homogeneity in background characteristics within the professional groups than within the semi-professional groups.

The analysis will be undertaken separately for the three countries - Australia, Canada and Sweden - partly because the data were available and partly for comparison. Regarding the process of mobility, Carlsson, for example, advocates for a basic similarity between countries in the western world and that the role of material differences and local historical traditions has been exaggerated. (Carlsson, 1958:168) He goes on to say that even though the degree of industrialization in various western countries may be different, and therefore we might expect differences, it is the growth of industrialization that is the key factor and here there is relative uniformity among industrialized nations (Carlsson, 1958:169). Although he refers to the inter-generational mobility process, it is felt that similar arguments apply to intra-generational mobility studies. More recently, Tepperman, in a review of social mobility literature stressed the importance of comparative research (Tepperman, 1975).

Two procedures were used to test whether homogeneity or consensus in work related attitudes differed between the two professions and the two semi-professions - one involving the computation of agreement level percentages described

below, and the other involving the calculation of Consensus Indices described later in this section.

To calculate the agreement level percentages, respondents were first asked which two of eighteen work related characteristics (see Questionnaire, p. 10, Appendix A) provided the greatest amount of satisfaction in their work, and which two items provided the least amount of satisfaction, respectively. Using the frequencies of the responses given for these variables it was possible to arrange a list of characteristics which were most (and least) favoured by a proportion of the members within each occupation. Only the top three characteristics were chosen for each occupation group and a percentage measuring the agreement level was created by summing the number of responses for the items which provided the greatest source of satisfaction and the number of responses for the same items which were the second most satisfactory and calculating the percentage over the total number of responses. The same procedure was used to arrive at an 'agreement' percentage for the two least favoured characteristics. By observing the percentage figures for each item chosen as first or second most favoured work related characteristics, it is possible to compare the percents across groups.

Differences were found in all three countries between the professional occupations and the semi-professional occupations with respect to agreement over which characteristics provided the least source of satis--

faction in their work. The same types of characteristics were listed by most groups in each of the three countries. The general list of items which caused dissatisfaction included such things as lack of leisure time, too much routine work, personal strain related to professional responsibilities, and lack of opportunity for advancement. A complete breakdown of the various items chosen can be seen in Tables 9.1-9.3. In Australia, about 69% of the doctors and just over 80% of the lawyers were in agreement over which characteristics provided the least source of satisfaction in their work. The teachers and social workers agreed only 52% and 51% respectively. A similar difference was observed for the second most dissatisfactory item and the percents ranged from 30% agreement for the social workers to 48% agreement for the doctors.

In the Canadian sample, the same types of differences in general agreement were observed. About 82% of the lawyers, followed by 79% of the doctors, 61% of the social workers and only 52% of the teachers were in agreement over at least three characteristics which provided a source of dissatisfaction to their work. Agreement over the second least satisfactory item ranged from 33% for the secondary school teachers to 50% for the doctors and lawyers.

Although the differences were not as great in Sweden, there was more agreement among the professionals than the semi-professionals over which characteristics

provided the least source of satisfaction in their work. The percents ranged from 86% for the lawyers, followed by 82% for the doctors, 70% for the teachers and 51% for the social workers. The second choice agreement levels ranged from 31% for the social workers to 52% for the doctors.

The second set of results, found in Tables 9.4 to 9.6, for the three most satisfactory items are not as conclusive. In fact, no consistent pattern appears. Although the social workers had the highest level of agreement in both Australia(72%) and Canada(69%), this was not the case in Sweden where the doctors had the highest percentage(82%). Similarily, the lawyers in Australia and Canada had the lowest level of agreement(52%;56% resp.), but not in Sweden where the teachers scored the lowest(56%). The results for the second choice items are also not supportive of the proposition. In Australia, the highest level of agreement was held by the teachers(48%) and the lowest by the lawyers(38%). In Canada, the teachers also had the highest score(49%), however, both the lawyers and the social workers had low levels of agreement of 37% each. In Sweden, on the other hand, the teachers once again scored the lowest(36%) and the doctors the highest(51%). Although the results were not consistent in all three countries, the types of items chosen as most and second most satisfactory were consistent. The opportunity to help people and interesting work were chosen by each occupation in all three countries. The opportunity to gain a sense of accomplish-

THE THREE CHARACTERISTICS WHICH PROVIDED THE LEAST SOURCE OF SATISFACTION - AUSTRALIA

| Occupation and Characteristic | First Choice | Second Choice |
|---|---|---|
| Doctors - Total N=367 | N | N |
| Amount of Leisure Time | 112 | 53 |
| Routine Work | 86 | 54 |
| Personal Strain related to Professional Responsibility | 54 | 69 |
| | 252=68.7% | 176=48.0% |
| Lawyers - Total N=309 | | |
| Routine Work | 109 | 46 |
| Personal Strain... | 89 | 76 |
| Leisure Time | 52 | 56 |
| | 250=80.9% | 178=57.6% |
| Secondary School Teachers - Total N=533 | | |
| Routine Work | 127 | 81 |
| Personal Strain... | 108 | 75 |
| Stepping Stone to Higher Responsibility in the Community | 43 | 22 |
| | 278=52.2% | 178=33.3% |
| Social Workers - Total N=523 | | |
| Routine Work | 154 | 52 |
| Personal Strain... | 71 | 64 |
| A High Income | 42 | 39 |
| | 267=51.1% | 155=29.6% |

Table 9.2

THE THREE CHARACTERISTICS WHICH PROVIDED THE LEAST SOURCE OF SATISFACTION - CANADA

| Occupation and Characteristic | First Choice | Second Choice |
|---|---|---|
| Doctors - Total N=275 | N | N |
| Amount of Leisure Time | 105 | 31 |
| Routine Work | 60 | 38 |
| Personal Strain related to Professional Responsibility | 40 | 60 |
| | 205=79.2% | 129=49.8% |
| Lawyers - Total N=250 | | |
| Personal Strain... | 84 | 48 |
| Routine Work | 63 | 33 |
| Amount of Leisure Time | 58 | 43 |
| | 205=82.0% | 124=49.6% |
| Secondary School Teachers - Total N=371 | | |
| Personal Strain... | 73 | 48 |
| Routine Work | 78 | 34 |
| Amount of Leisure Time | 44 | 40 |
| | 195=52.6% | 122=32.9% |
| Social Workers - Total N=420 | | |
| Personal Strain... | 101 | 75 |
| Routine Work | 99 | 37 |
| Amount of Leisure Time | 58 | 64 |
| | 258=61.4% | 176=41.9% |

Table 9.3

THE THREE CHARACTERISTICS WHICH PROVIDED THE LEAST SOURCE OF SATISFACTION - SWEDEN

| Occupation and Characteristic | First Choice | Second Choice |
|---|---|---|
| Doctors - Total N=348 | N | N |
| Amount of Leisure Time | 149 | 68 |
| Personal Strain related to Professional Responsibility | 107 | 61 |
| Routine Work | 30 | 52 |
| | 286=82.2% | 181=52.0% |
| Lawyers - Total N=168 | | |
| Personal Strain... | 101 | 31 |
| Amount of Leisure Time | 30 | 41 |
| Routine Work | 13 | 14 |
| | 144=85.7% | 86=51.2% |
| Secondary School Teachers - Total N=392 | | |
| Personal Strain... | 149 | 97 |
| Opportunity for Advancement | 88 | 45 |
| Opportunity to Gain a Sense of Accomplishment | 36 | 40 |
| | 273=69.6% | 182=46.4% |
| Social Workers - Total N=558 | | |
| Personal Strain... | 195 | 48 |
| Opportunity for Advancement | 67 | 63 |
| Routine Work | 58 | 60 |
| | 320=51.3% | 171=30.6% |

Table 9.4

THE THREE CHARACTERISTICS WHICH PROVIDED THE GREATEST SOURCE OF SATISFACTION - AUSTRALIA

| Occupation and Characteristic | First Choice | Second Choice |
|---|---|---|
| Doctors - Total N=367 | N | N |
| Interesting Work | 90 | 46 |
| Opportunity to Help People | 88 | 42 |
| Opportunity for Accomplishment | 49 | 56 |
| | 237=61.9% | 144=39.2% |
| Lawyers - Total N=309 | | |
| Opportunity to Help People | 61 | 32 |
| Independence | 56 | 43 |
| Interesting Work | 44 | 41 |
| | 161=52.1% | 116=37.5% |
| Secondary School Teachers - Total N=533 | | |
| Opportunity to Help People | 168 | 72 |
| Opportunity for Accomplishment | 94 | 102 |
| Interesting Work | 82 | 79 |
| | 344-64.5% | 253=47.5% |
| Social Workers - Total N=523 | | |
| Opportunity to Help People | 225 | 61 |
| Interesting Work | 109 | 93 |
| Opportunity to Exercise Initiative | 42 | 48 |
| | 376=71.9% | 202=38.6% |

Table 9.5

THE THREE CHARACTERISTICS WHICH PROVIDED THE GREATEST SOURCE OF SATISFACTION - CANADA

| Occupation and Characteristic | First Choice | Second Choice |
|---|---|---|
| Doctors - Total N=278 | N | N |
| Opportunity to Help People | 96 | 40 |
| Interesting Work | 57 | 41 |
| Opportunity for Accomplishment | 32 | 34 |
| | 185=66.5% | 115=41.4% |
| Lawyers - Total N=260 | | |
| Interesting Work | 57 | 32 |
| Independence | 50 | 46 |
| Opportunity to Help People | 39 | 17 |
| | 146=56.2% | 95=36.5% |
| Secondary School Teachers - Total N=371 | | |
| Opportunity to Help People | 140 | 60 |
| Interesting Work | 57 | 58 |
| Opportunity for Accomplishment | 45 | 64 |
| | 242=65.2% | 182=49.1% |
| Social Workers - Total N=440 | | |
| Opportunity to Help People | 187 | 51 |
| Interesting Work | 63 | 48 |
| Opportunity for Accomplishment | 54 | 63 |
| | 304=69.1% | 172=36.8% |

Table 9.6

THE THREE CHARACTERISTICS WHICH PROVIDED THE GREATEST SOURCE OF SATISFACTION - SWEDEN

| Occupation and Characteristic | First Choice | Second Choice |
|---|---|---|
| Doctors - Total N=357 | N | N |
| Opportunity to Help People | 138 | 50 |
| Interesting Work | 129 | 79 |
| Opportunity to Gain a Sense or Accomplishment | 27 | 54 |
| | 294=82.4% | 183=51.3% |
| Lawyers - Total N=173 | | |
| Opportunity to Help People | 47 | 17 |
| Interesting Work | 37 | 31 |
| Variety in the Work | 23 | 20 |
| | 107=61.8% | 68=39.3% |
| Secondary School Teachers - Total N=409 | | |
| Interesting Work | 115 | 63 |
| Variety in the Work | 57 | 44 |
| Opportunity to Help People | 55 | 40 |
| | 227=55.5% | 147=35.9% |
| Social Workers - Total N=568 | | |
| Opportunity to Help People | 214 | 58 |
| Interesting Work | 118 | 107 |
| Opportunity to Exercise Initiative | 54 | 80 |
| | 386=68.0% | 245=43.1% |

ment was chosen several times by different occupation groups but never by lawyers.

In general, there seems to be more agreement among the professionals over which characteristics were a source of dissatisfaction in their work than those which were a source of satisfaction. This pattern, for the most part (except in Sweden) seems to be reversed for the semi-professionals whose percentage agreement is greater for the items providing a source of satisfaction. In particular, the opportunity to help people was strongly favoured as the first choice by the teachers and social workers in all three countries (except Swedish teachers). This was not the case for the doctors and lawyers where the choices were more evenly split.

It is also interesting to note that items such as opportunity to exercise initiative or independence were seldom chosen by the semi-professionals as a source of satisfaction but did appear on the list for some of the professionals. The choice of these characteristics on the part of some of the professionals probably reflects the higher degree of autonomy that doctors and lawyers have in comparison to teachers and social workers who experience more outside control.

Finally, one must remember that although the results do reflect differences in the occupational groups themselves, the respondents were limited to the list given to them in the questionnaire. These items by no means exhaust the possible number of satisfactory or dissatisfactory characteristics that are available in a particular job.

The second method used to establish homogeneity within each occupation, involved the calculation of Consensus Indices (CI). This statistical measure of descriptive diversity was first developed by G.A, Ferguson for use in a study of children's attitudes about foreign peoples (see Lambert and Klineberg, 1967), and later modified to the version used here by F.J. Henry (see Jones, 1968:233). The index, which reflects variations in the distribution of categories of responses given by groups of any size, produces a high score when comparatively few different responses are given, and a low score when the responses are spread more randomly over many categories (Lambert & Klineberg, 1967:162). The CI was computed using the following formula (Jones, 1968: 233).

$$CI = \frac{k\frac{\Sigma f^2}{(\Sigma f)^2} - 1}{k-1}$$

where
k=number of categories in each variable
$\Sigma f$=sum of the frequency responses to each category
$\Sigma f^2$=sum of squared frequency responses to each category

Possible values range from 0 to 1. The closer the CI approaches 1, the more consensus there is on a particular item, and conversely the closer the index approaches 0, the more random the distribution of cases in each of the categories.

Four items from the work related questions were chosen for simplicity and on the basis of their relationship

to common professional attributes measuring autonomy. In addition, preliminary analysis suggested that there was sufficient variation in the responses to these four items among the four occupations to warrant further comparison. The four characteristics were; (a) Decision making responsibility; (b) Opportunity to exercise initiative; (c) Independence and (d) Opportunity to gain a sense of accomplishment. Respondents were asked to rate the degree to which the characteristics were present in their respective occupations. Possible responses measured in a Likert type scale ranged from very low to very high.

In general, there was more consensus with respect to the four items chosen among the doctors and lawyers than the secondary school teachers and social workers in all three countries with the exception of social workers in some cases. (see Table 10) For decision making responsibility, the index ranged from a high of .40 for Swedish doctors to a low of .09 for Swedish teachers. The scores for the same characteristic in Australia and Canada were not as divergent, but the direction was the same. In Canada, there was greatest consensus among the lawyers(.33) and least among the teachers(.15). Similarly in Australia, the lawyers had the highest score(.25) and the teachers the lowest(.11).

There was less general consensus about "the opportunity to exercise initiative", however the direction of the results remain the same. The indices ranged from .28 for Canadian lawyers to .09 for Australian teachers. Once again,

Table 10

CONSENSUS INDICES FOR WORK RELATED CHARACTERISTICS MEASURING AUTONOMY

| Country and Occupation | Work Related Characteristics | | | |
|---|---|---|---|---|
| | Decision Making Responsibility | Opportunity to exercise initiative | Independence | Opportunity to gain a sense of accomplishment |
| Australia | | | | |
| Doctors (350) | .21 | .19 | .15 | .23 |
| Lawyers (300) | .29 | .25 | .24 | .18 |
| S.S Teachers (525) | .11 | .09 | .10 | .18 |
| S. Workers (525) | .21 | .21 | .14 | .19 |
| Canada | | | | |
| Doctors (275) | .30 | .19 | .16 | .24 |
| Lawyers (250) | .33 | .28 | .21 | .21 |
| S.S. Teachers (380) | .15 | .14 | .14 | .15 |
| S. Workers (430) | .21 | .20 | .19 | .19 |
| Sweden | | | | |
| Doctors (350) | .40 | .21 | .14 | .19 |
| Lawyers (170) | .40 | .24 | .25 | .21 |
| S.S. Teachers (400) | .09 | .14 | .14 | .14 |
| S. Workers (450) | .14 | .19 | .20 | .19 |

( ) = Approximate N

the lawyers had the highest score in all three countries (Australia = .25; Canada = .28; Sweden = .24), and the teachers had the lowest score (.09; .14; .14 resp.).

A similar pattern was observed for the two remaining characteristics. For 'independence' the scores ranged from .25 for the Swedish independent lawyers to .10 for the Australian teachers. The same results were found for the two remaining countries. The lawyers consistently had the highest degree of consensus (.24; .21; .25) and the teachers had the lowest degree of consensus (.10; .14; .14).

For the last item, "opportunity to gain a sense of accomplishment", the scores ranged from a high of .24, this time for Canadian doctors, to a low of .14 for the Swedish teachers. In this case, the doctors in two of the three countries had the greatest degree of consensus (Australia = .23; Canada = .24) along with the Swedish lawyers (.21) The lowest score, however, was once again obtained by the teachers in all three countries. (.18; .15; .14)

In sum, it was found that the secondary school teachers scored the lowest in consensus on all four items in in each of the three countries. For the most part, the lawyers scored the highest with only one exception where the doctors scored the highest.

On the whole, the preceding analysis provides support for proposition one. Although few differences were found in the agreement levels over which work-related characteristics provided the most satisfaction in the job,

there were sufficient differences found between the professionals and the semi-professionals with respect to the characteristics which were dissatisfactory to them in their work. A greater degree, in terms of percentages, of agreement was found among the doctors and lawyers than among the teachers and social workers. The types of items included in the questionnaire, and their relation to the types of occupations chosen for the sample may be the reason why there are no differences found in the first instance for the items of satisfaction. For example, as all four types of occupations provide services directly to the public it is highly likely that respondents in all four groups would choose the opportunity to help people as being satisfactory to them. In a way, this is a basic characteristic of each occupation. Secondly, most persons may not care to admit that their work is not interesting, especially in the higher level occupations such as those sampled, and thus this item is likely to be chosen.

The consensus indices, on the other hand, strongly support the general proposition. In almost all cases and in each of the three countries, the professionals received higher scores than did the semi-professionals.

To summarize this part of the analysis, the level of agreement percentages for least favoured work-related characteristics and the consensus indices for the four selected items provide general support for proposition one

which anticipates a greater consensus among professionals than among semi-professionals.

Consensus indices (which in this secion will be referred to as homogeneity indices (HI)) as well as variances were computed to test the second proposition that there will be a greater degree of homogeneity in background characteristics among the professionals than among the semi-professionals. Two different types of measurements were used since some of the background variables were interval level and the variance was the appropriate measure of homogeneity while for other variables which were nominal or ordinal level, the homogeneity index was more appropriate. For reasons of comparison, variances and HIs were computed for all variables.

The following background variables were chosen - father's occupation, father's education, mother's education, family size, the influence of significant others, social class identification[5], the age when the career decision was made and sex. The choices were made partly because of questionnaire constraints, and partly because most of the variables are common background variables found frequently in the literature. Also, with the exception of social class identification, all of the above variables enter into

5. Although social class identification cannot be considered a background characteristic in the same way as the others, it was included as a measure of "perceived status". Income was disregarded for this purpose since the length of time employed affects income.

the individual analysis. Prior to presenting the results expressed as variances, a brief description of how the variables were scored is given. Father's occupation was coded using the 1961 Blishen scale[6]. Even though the scores are based on Canadian data, work reported by Jones and Jones (1972) justifies assigning Blishen values to occupation variables in all three countries. Zero-order correlations were computed between Blishen scores and scores based on SES or prestige scales available for limited sets of occupations in Australia and Sweden (Jones & Jones, 1972; Jones, 1976). On the basis of correlation coefficients of .83 and .70 respectively for Australia and Sweden, the authors concluded that Blishen values may be used to order longer lists of occupations in each country.

For parents' education in Canada and Australia, the categories ranged from no education to as many as 9 years tertiary education and were ordinal in nature. In Sweden the values for parents' education ranged from attendance at an elementary school to attendance at a university. Although the highest grade and the type of degree were also asked, the high non-response rate for these two questions made their use impossible. Family size was computed by adding together the total number of brothers and the total number of sisters reported by each respondent. An upper limit of 16 was determined by coding constraints. The influence of significant

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6.For a detailed description of how the Blishen scores were constructed refer to Blishen(1967).

others was also formed by combining responses to questions asking which person was the most and which person was the second most instrumental in helping respondents make a career choice. Responses included family members as well as teachers, vocational guidance counsellors and friends. Preliminary analysis indicated that the combined variable could be re-coded into two categories - close family members and others (including a category for 'no-one' influencing the career choice) - and still explain the same variation in the career development model.

Social class identification was measured in terms of nine ordinal responses ranging from high to low. The age when the career decision was made was coded as the actual age reported.

Looking first at the percentage distributions for sex, it is evident that the professions are more homogeneous than the semi-professions. Historically, professions such as law and medicine have been male dominated and the present data show that this tendency persists. Most of the doctors and lawyers in each country were males (Table 11.1). In Australia, the percentages ranged from 85% of the doctors to 97% for the lawyers. Similarly in Canada, 88% of the doctors were males, and 97% of the lawyers. Although the differences were not quite as great in Sweden, the contrast was still striking. Eighty-one percent of the doctors and 94% of the lawyers were males.

Table 11.1

PERCENTAGE DISTRIBUTION OF SEX FOR EACH OCCUPATION BY COUNTRY

| Occupation | Australia | Canada | Sweden |
|---|---|---|---|
| 1. Doctors | | | |
| Males | 85 | 88 | 81 |
| Females | 15 | 12 | 19 |
| 2. Lawyers | | | |
| Males | 97 | 97 | 94 |
| Females | 3 | 3 | 6 |
| 3. Secondary School Teachers | | | |
| Males | 60 | 65 | 64 |
| Females | 40 | 34 | 36 |
| 4. Social Workers | | | |
| Males | 18 | 42 | 38 |
| Females | 82 | 58 | 63 |

Table 11.2

PERCENTAGE DISTRIBUTION OF THE INFLUENCE OF SIGNIFICANT OTHERS FOR EACH OCCUPATION BY COUNTRY

| Occupation | Australia | Canada | Sweden |
|---|---|---|---|
| 1. Doctors | | | |
| Close Family | 51 | 47 | 37 |
| Other | 49 | 53 | 63 |
| 2. Lawyers | | | |
| Close Family | 55 | 39 | 40 |
| Other | 45 | 61 | 60 |
| 3. S.S. Teachers | | | |
| Close Family | 35 | 35 | 26 |
| Other | 65 | 65 | 74 |
| 4. Social Workers | | | |
| Close Family | 25 | 17 | 19 |
| Other | 75 | 83 | 81 |

It is apparent from the Table that the two semi-professions are not as male dominated as the professions, however, the teaching profession in all three countries has a higher percentage of males than females. Social work is the only occupation of the four where females are the dominant sex. Here the percentages vary from 58% in Canada to 82% in Australia.

The results for the influence of significant others neither revealed pronounced homogeneity nor did they support the main proposition. In fact, in each country there was more homogeneity among the semi-professionals where most reported an influence by those other than family members. The largest percentages were reported by the social workers where as many as 83% in Canada reported being influenced in their career choice by someone other than a family member. The responses were more equally distributed for the professionals.

About half of the variances reported in Table 12 supported the proposition - social class identification in Australia and Canada, the career decision age in all three countries and family size in Canada and Sweden only. The variances for father's occupation were greater for the professionals than for the semi-professionals in all three countries. In Sweden, there was more homogeneity with respect to father's education for the professionals than for the semi-professionals, but the reverse was true in Australia

Table 12

VARIANCES FOR BACKGROUND CHARACTERISTICS
BY OCCUPATION FOR EACH COUNTRY

| Country and Occupation | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| **Australia** | | | | | | |
| Doctors (350) | 239.7 | 66.2 | 39.1 | 3.7 | 0.8 | 16.3 |
| Lawyers (300) | 237.0 | 53.7 | 32.9 | 3.4 | 0.8 | 32.0 |
| S.S. Teachers (525) | 185.8 | 38.0 | 21.7 | 3.2 | 1.9 | 47.8 |
| S.Workers (525) | 208.7 | 53.1 | 33.7 | 3.1 | 1.0 | 63.4 |
| **Canada** | | | | | | |
| Doctors (275) | 245.1 | 53.9 | 40.3 | 5.6 | 0.8 | 30.3 |
| Lawyers (250) | 239.6 | 46.6 | 28.0 | 4.4 | 0.8 | 28.8 |
| S.S. Teachers (380) | 176.1 | 39.1 | 25.3 | 9.1 | 1.3 | 56.2 |
| S. Workers (430) | 222.7 | 45.0 | 25.8 | 7.3 | 1.3 | 51.3 |
| **Sweden** | | | | | | |
| Doctors (350) | 219.7 | 1.3 | 1.7 | 3.1 | 1.6 | 39.9 |
| Lawyers (170) | 204.8 | 1.5 | 2.0 | 2.7 | 0.3 | 39.9 |
| S.S. Teachers (400) | 191.8 | 1.8 | 1.6 | 3.7 | 2.1 | 71.4 |
| S. Workers (450) | 169.8 | 1.8 | 1.6 | 3.6 | 0.6 | 41.9 |

( ) = Approximate N

1 - Father's Occupation
2 - Father's Education
3 - Mother's Education
4 - Family Size
5 - Social Class Identification
6 - Age When Career Decision was Made

and Canada. There were no significant differences in the variances for mother's education in most cases.

There was more homogeneity among the doctors and lawyers in both Australia and Canada, than among teachers and social workers in relation to social class identification. The variances ranged from 0.8 for doctors and lawyers in both countries to 1.9 for teachers in Australia and 1.3 for teachers and social workers in Canada. The Swedish results were not as conclusive, for although the lawyers had a high level of homogeneity (0.3), the score for the doctors (1.6) was higher than for the social workers (0.6). The variances for family size were smaller for the doctors and lawyers in Canada and Sweden than for the two semi-professions, indicating a higher level of homogeneity. In Australia, there was virtually no difference in the variances for family size.

There was more homogeneity in career decision age among the two professions than among the semi-professions in each of the three countries (Table 12). In Australia, the social workers had the highest variance score (63.4) and the doctors had the lowest (16.3). The two extremes in Canada were the teachers (56.2) and the lawyers (28.8), while in Sweden teachers had the highest variance (71.4), and doctors and lawyers had equally low variances of 39.9.

Although the consensus or homogeneity index was designed to measure consensus about certain attitudes, it

is also possible to compare the distribution of responses to non-attitude type questions using the modified formula. Lambert and Klineberg claim that the "magnitide of the coefficient does not depend on the number of descriptions being considered, only by their distribution". (Lambert & Klineberg, 1967:163). Thus variables such as father's occupation, with many possible responses are also suitable. However, since it would be very cumbersome to calculate scores for large interval variables such as father's occupation, and since the HIs offer an opportunity to use an alternative measurement of homogeneity, the interval level variables were recoded into a manageable number of categories. A brief description of the recodes will be given before the results are presented.

Father's occupation was collapsed into five categories: upper white collar which include all professional and managerial occupations, as well as semi-professional and technical ones; lower white collar, including clerical and sales occupations; upper blue collar, including foreman and semi and skilled workers; lower blue collar, including all unskilled occupations; and farm. Parents' education was recoded into: primary or less; some secondary; completed secondary; and tertiary in Australia and Canada, and: primary; secondary; and post secondary in Sweden. Family size was recoded into four categories: only child; one other sibling; two or three other siblings; and more than three siblings.

Finally, the age when the career decision was made was collapsed into four groups: 0-14 yrs; 15-19 yrs; 20-24 yrs; and 25+ yrs. Social class identification remained as a nine level ordinal variable.

Results for the HIs for the selected background variables can be found in Table 13. Although differences in the expected direction are observed for four of the six characteristics providing support for the general proposition, the results were not identical to those when homogeneity was measured by variances. For example, according to the HIs, there was more homogeneity in father's occupation among the professionals then among the semi-professionals, a finding which is reversed when variances are observed. In Australia, the doctors had a HI of .17 and the lawyers .23. This can be compared to only .09 for the secondary school teachers and .13 for the social workers. Similar differences were found in the Canadian data where the homogeneity indices were .28, .27, .07 and .17 for the doctors, lawyers, teachers, and social workers respectively. The Swedish results were even more pronounced. Swedish doctors and the lawyers had HIs of .44 and ,45 respectively, followed by .13 for the teachers and .12 for the social workers.

There was a slight difference in the homogeneity factor supporting the proposition for family size in two of the three countries. Although differences were also found in Australia they were not in the direction expected. The Canadian HIs, however, ranged from .15 for lawyers to .06

Table 13

HOMOGENEITY INDICES FOR THE BACKGROUND CHARACTERISTICS

| Country and Occupation | Background Characteristics | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Australia | | | | | | |
| Doctors (350) | .17 | .14 | .15 | .16 | .29 | .27 |
| Lawyers (300) | .23 | .14 | .29 | .13 | .28 | .23 |
| S.S. Teachers (525) | .09 | .18 | .32 | .19 | .22 | .16 |
| S. Workers (525) | .13 | .13 | .32 | .16 | .28 | .12 |
| Canada | | | | | | |
| Doctors (275) | .28 | .11 | .13 | .12 | .39 | .12 |
| Lawyers (250) | .27 | .11 | .24 | .15 | .34 | .08 |
| S.S. Teachers (380) | .07 | .11 | .21 | .06 | .27 | .04 |
| S. Workers (450) | .17 | .11 | .17 | .09 | .21 | .11 |
| Sweden | | | | | | |
| Doctors (350) | .44 | .16 | .35 | .15 | .44 | .20 |
| Lawyers (170) | .45 | .09 | .21 | .13 | .50 | .16 |
| S.S. Teachers (400) | .13 | .21 | .36 | .12 | .23 | .09 |
| S. Workers (450) | .12 | .22 | .39 | .11 | .35 | .12 |

( )= Approximate N

1 - Father's Occupation
2 - Father's Education
3 - Mother's Education
4 - Family Size
5 - Social Class Identification
6 - Age When Career Decision was Made

for secondary school teachers, and the Swedish scores ranged from .15 for doctors to .11 for social workers. As well there was more consensus among the professionals as to the age the career decision was made. Here the scores ranged from .27 for Australian lawyers to .12 for Australian social workers; .12 for Canadian doctors to .04 for Canadian teachers and .20 for Swedish doctors to .09 for Swedish teachers.

The results for social class identification concurred with the variance results. The differences found in Australia were not that great, however in the other two countries, the homogeneity indices were considerably higher for the professionals than for the semi-professional groups. In Canada, the HIs ranged from .39 for the doctors to .21 for the social workers; and in Sweden a range from .50 for the lawyers to .23 for the teachers was found. Differences for the most part, were slight for parents' education, however, the reverse of what was expected was found in Sweden. In this case, there was more homogeneity among the teachers and social workers than among the other occupational groups.

Of the eight background characteristics tested, differences in the homogeneity level between the professions and the semi-professions were found for five of them using either percentage differences or the variance or the HI results. As professionals were found to be more homogeneous with respect to father's occupation, family size, the age when the career decision was made, their social class identi-

fication and sex, general support was given to proposition two.

One might try to conjecture why all of the characteristics did not prove to be significant in the expected direction. Firstly, one should recall that the background variables are based on retrospective data which is usually considered more unreliable than other types such as demographic data for example. Parents' education for instance, may test the respondent's memory even more than some of the other variables (such as father's occupation) as it is not information that everyone has readily on their mind. Often, the respondent is making only an "educated guess". In the questionnaire at hand, respondents were asked to choose a category which best described their father's or mother's education. This structured type of question is often problematic for those whose parents were educated in another country where the system may not be comparable to the categories listed. All the other variables had at least an 'other' category where the respondent was asked to describe in his/her own words what the response was.

Although the homogeneity index and the variance describe the homogeneity within an occupation, they tell nothing about the actual differences in the background characteristics between the professions and the semi-professions. In other words, even if the homogeneity factor or index is the same for two groups, there may still be

differences in terms of SES background etc. between them. A closer look at the percentage distributions for the various characteristics will reveal if any differences exist.

Other studies mentioned in an earlier section have found that persons in professional occupations generally come from higher SES backgrounds and our sample is no exception. Over half of the Australian doctors (54%), about 62% of the Canadian doctors and over 79% of the Swedish doctors have fathers who are in white collar occupations. The figures are almost identical for lawyers (59%; 60%; 74% resp.). This can be compared to only about one third for Australian teachers and Canadian teachers, and slightly higher at 46% for the Swedish teachers. The social workers come from higher social origins than the teachers but not as high as the doctors and lawyers (50%; 50%; 44% resp.). Similarly for father's education, almost 40% of the Australian doctors had fathers with tertiary education. The Australian lawyers reported a slightly lower percent at 35%, but both were significantly greater than the 17% reported by the teachers. The Australian social workers reported that 37% of their fathers had some tertiary education which is higher than expected. In Canada, the same percent of doctors reported having fathers with some tertiary education as in Australia. About 34% of the lawyers reported the same, and 16% of the teachers and 31% of the social workers said that their fathers had some post secondary education. The Swedish

results ranged from 51% for the doctors to 12% for the teachers and social workers. One must remember that these percentages are not comparable to those reported for Canada and Australia as education was not measured exactly the same way. Mother's education, although the percentages were generally lower, was distributed in a similar manner with the exception of the Australian and Canadian social workers who reported mothers that were as well educated (if not more so) than those of the doctors and lawyers. It was mentioned earlier that social class identification was considered to be a reflection of occupation and education, and the data demonstrate this quite clearly. In Australia, about one third of the doctors felt that they belonged to the highest social class, and over 70% said that they belonged to the first or second highest social class. Almost 70% of the Australian lawyers said that they belonged to the highest two social class groups. On the other hand, only about 45% of the teachers, and only 54% of the social workers said the same thing. In Canada, about 65% of the doctors, and 57% of the lawyers said that they felt they belonged to either the highest or the second highest social class. This can be compared to about 50% of the teachers and only 44% of the social workers. One can see that the discrepancy is not as great in Canada as far as the respondents' own opinions are concerned. Similarly, in Sweden, the differences in social class are not as pronounced as in Australia. In this case, the percents reporting themselves as belonging to

the two higher classes are 70%, 69%, 61% and 71% for doctors, lawyers, secondary school teachers and social workers respectively. In interpreting these results, one must keep in mind that each respondent has a different perception of what social classes are all about and thus true comparison is impossible at the individual level. However, when aggregated, one does get a sense of group differences, particularly when the responses are not randomly distributed but rather between only a few categories.

The literature also leads one to expect a difference in the age when the final career choice is made between the professions and the semi-professions and a closer examination of the percentage distributions confirms this expectation. In Australia, 85% of the doctors and 72% of the lawyers had made their career decision prior to the age of 20. Although only 46% of the social workers had done so, almost 73% of the teachers had chosen their occupation at an earlier age. The Canadian doctors also made earlier career decision, with about 70% having chosen medicine prior to the age of twenty. In both Australia and Canada about 25% of the doctors had chosen medicine before the age of fourteen. These results concur with studies undertaken earlier by Merton et al (1957), Becker (1961), and Freidson (1971). The lawyers in Canada tended to report later ages, and only 47% said that they had chosen law prior to the age of twenty. This was similar to the teachers where 48% reported making an earlier decision.

The social workers, on the other hand, overwhelmingly made later career decisions - only 25% said that they chose social work prior to the age of twenty. In Sweden, except for the doctors, most respondents reported making their career decisions after the age of twenty, however, the remaining percentages ranged to as low as around 28% for the social workers. Once again, caution is stressed in the interpretation of these results as they are based on retrospective data.

In sum, proposition one was clearly accepted, and proposition two was accepted with the exceptions noted. Differences were found at the collective level between the two professions - medicine and law, and the two semi-professions - teaching and social work with respect to both work related attitudes and background characteristics.

## CHAPTER THREE

## AN INDIVIDUAL PERSPECTIVE

### Introduction and Review of the Literature

The way in which individuals choose and are allocated to occupations, when they do so, and why they do so has been of interest to sociologists of occupations and professions for some time. Numerous studies provide support for the general hypothesis that the occupational decision making process is social in nature. The occupational choice process is related to an individual's social background and educational experiences, and affects the general career development. Particularly, it is proposed that professional orientation is partly determined by an individual's entry pattern into the occupation, the decision making pattern and selected background characteristics. In an earlier section, we found that there were differences between the professions and the semi-professions with respect to selected attitudes and background characteristics. What we wish to consider here is the way these structural differences influence recruitment and how in turn recruitment affects these structural differences.

Although the term "occupational choice" is used throughout this research, it is recognized that one does not always make a rational career choice, and that in fact the

whole issue of occupational choice is value laden. Occupational 'choices' are often made as a result of extraneous circumstances. For example, certain occupations require candidates to complete a particular educational requirement which, even in a society stressing equal opportunity, not everyone can meet for financial and other reasons. (see Jencks, 1972; Porter, Porter & Blishen, 1973) Thus, even if a person chooses to enter such an occupation, he/she is often compelled to change this choice in exchange for a more realistic goal. However, as the present research concerns individuals who are professionals and semi-professionals rather than those who intend to find employment in these occupations a more restricted view of the occupational choice process is adopted. Since the competition for entry into the professions and semi-professions is severe, the analysis of the selection process is important.

The literature, as will be shown in detail, reveals that the career decision is affected by various background characteristics - family SES and size, and the influence of significant others - and that the decision making process itself is not the same for everyone. In particular, it can be shown that some individuals make earlier choices than others and enter into the occupation of their choice more directly. In addition, certain work-related attitudes are associated with certain occupations, and persons within the professions for example, differ in the strength of their professional orientation. In this analysis, the focus of

concern is the relationship between these various aspects of career development: namely the relationship between social origin, background influences, the age when the career decision was made, the nature of entry into the occupation and the occupational attitudes held at some career stage. Before proceeding to the analysis, however, the relevant literature is reviewed.

Occupational choice has been approached at both a general and particular level. Ginzberg, for example, responded to what he felt were inadequate theories in the area of vocational decision making such as the 'accident' theory whereby individuals are recruited into a particular occupation or profession merely be chance, by developing his own comprehensive theory of occupational choice. His basic assumption was that an individual never reached an ultimate decision at a single moment in time, but through a series of decisions over a period of many years (Ginzberg et al, 1951: 28). Three main stages could be isolated - fantasy, tentative and realistic - corresponding with childhood, adolescence and early adulthood respectively (Ginsberg et al, 1951). In trying to divide the decision making process into stages, Ginzberg failed to allow for individual differences. For example, not all childhood decisions are derived out of fantasy nor are all adult decisions realistic in a rational sense. These stages inevitably vary from individual to individual. It is this individual variation which is of part-

ticular interest here. If we start with the assumption that a rational career choice will be made at some point in a person's life, what factors determine the type of choice made, or when the choice is made?

Musgrave suggests the approach to a sociological theory of occupational choice should be through the concept of socialization. The important questions he poses are... "how and when the individual learns the stereotypes of the various occupations in the labour force, how he comes to see which occupations are available to him, and how he learns the behavior, values and attitudes needed in the various work situations of his culture or subculture". (Musgrave, 1974:100). He places occupational choice theory in that part of secondary socialization that deals with producer (in an economic sense) roles, although primary, tertiary and other parts of secondary socialization may have latent relevance (Musgrave, 1974:101). Musgrave considers four stages of economic socialization based on a structural and organizational framework; (a) pre-work socialization (b) entry into the labour force (c) socialization into the labour force, and (d) job changes. These stages are chosen so that despite the prominence given to the first choice of occupation, the framework can be applied to all choices made throughout an individual's working career (Musgrave, 1974: 104). The four stages can be briefly summarized. Pre-work socialization refers to the pathway of roles available to

the child and hence his choice of occupation, is narrowed by the experiences that he undergoes more particularly, namely the family, the school and the peer group (Musgrave, 1974: 102). The second stage, entry into the labour force, is a choice which is largely influenced by market conditions and opportunities at the time of entry. Socialization into the job refers to the learning of roles, behavior and attitudes necessary for a particular job. Apprenticeship programs and professional schools are the main agents here. Lastly, the final stage, job changes, occurs partly due to structural changes in the labour force and partly to individual motivation. Whichever the case may be, 2/3 to 3/4 of the American labour force were seen likely to change their jobs by Wilensky and thus it is important, according to Musgrave, to take this stage into account when formulating a theory of occupational choice (Musgrave, 1974:104-106). The relative importance of these stages may vary according to the type of occupation an individual chooses. Studies (Becker, 1961; Merton, 1957) indicate that certain occupations may require earlier decisions than others, and that particularly for these occupations early childhood socialization may be decisive. The timing of occupational decisions is important, and two general sources - one American and one Canadian should be noted for their contributions to this area.

James A. Davis in his book, Undergraduate Career Decisions analyzed surveys completed by approximately 34,000

graduates from 135 colleges and universities in the U.S. in the early 1960's in order to establish a relationship between those students who had changed their choice during the college years and those who did not. (Davis, 1965:1) He assumed that choices made at the undergraduate level were real rather than originating out of fantasy, and therefore, felt that his conclusions were based on valid data. (Davis, 1965:9) In other words, factors other than whim were related to a change of mind (voluntary or involuntary).

Davis suggested that personal characteristics of the students as well as their families and communities, played a role in the process by which half the students found a new or definite career between entrance to college and graduation. (Davis, 1965:40) He proposed two general relationships which he felt were very influential in the area of the undergraduate career decision making process. Firstly, those characteristics (i.e., academic performance, family background variables, sex, place of residence, religious background) that were associated with a given field among the entering students tend to be the same characteristics that discriminate between loyalists and defectors (terms which Davis used to describe those students who did not change their minds and those who did) and to be characteristic of recruits to the field. (Davis, 1965:44) In other words, those fields for example, which were distinctly masculine in the first place, tended to recruit mostly males and dis-

courage females during the college years. (Davis, 1965:46) Davis's second general relationship was that career decisions in college tend to accentuate the occupational differences already present at the beginning of college. (Davis, 1965: 44) It is not entirely clear why Davis separates these two relationships, for it seems that they overlap in some ways. Perhaps he is referring not only to background differences in the recruits and subsequent members of various occupational groups, but also to differences in the size of various occupations. It follows that occupations with restricted size limitations such as medicine will lose or discourage recruits during the undergraduate years. Davis attributes this loss to a purging of weaker students in terms of academic performance, and also found, however, that over 70% of aspiring lawyers and doctors had higher SES backgrounds, which suggests not only a relationship between academic performance and SES but also between SES and recruitment to law and medicine.

The Canadian study, undertaken by Raymond Breton, looked at career decisions at the secondary school level and provides further insight into the decision making process. Breton's sample included 150,000 secondary school students from all grade levels and representing 373 publicaly operated secondary schools in Canada. (Breton, 1972:9)

In attempting to explain reasons for the indecision of some students, Breton observed such variables as mental

ability, socio-economic background, family life (position in family, number of siblings) and the student's background. He also looked at the kinds of professional areas that the student preferred and how the foregoing variables influenced this decision (Breton, 1972:255). Unfortunately, his breakdown was not precise enough to allow complete occupational comparison.

Breton made some interesting conclusions about the vocational indecision of Canadian highschool students. He found that family life was an important factor in the decision making process and noted that students from large families, especially those who had older siblings, were more likely to be without a career plan than those who came from small families and had no older siblings. He also found that French speaking students were more indecisive than English speaking students (Breton, 1972:386). Parents' education had a positive impact on the plans of children and for males it was found that those students who came from homes where the mother or both parents were absent, were more indecisive than males who came from intact homes. (Breton, 1972:387).

Breton's work is of particular interest to the present study because many of the same variables that Breton studied will be analyzed in this paper. Since the questions dealing with the initial career choice in this study are retrospective, it will be very worthwhile to compare them

to the findings made by Breton.

On a more particular level, two trends in the literature can be noted. First, the decision-making process may be different for different occupational groups. Secondly, and less well documented, the decision making process may be different for males and females.

Generally, it is more likely that persons aspiring to be professionals will do so at an earlier age (Merton, 1957:111). As a result, career routes are often more direct (Marshal, 1939:339). In addition, there is evidence that parental encouragement and early childhood socialization is more important for persons choosing professional career goals. The idea that a professional calling is formed early in a person's life was noted by Hall in his study of professional career patterns. He found, for example, that the first stage in acquiring a medical career was the generation of an ambition. This, Hall felt was social in nature and was strongly related to background factors such as parents' and friends' encouragement. (Hall, 1939:328).

Similarly, Sherlock and Cohen in their study of predental students held to an important degree, that the choice of a professional occupation may be a function of status ambitions created by the upward mobility of a middle class family (Pavalko, 1972:87). The early decider in their study was found to be from the higher classes (Pavalko, 1972: 89).

Slocum also maintains that family and friends exert a significant influence on the socialization of a person through the internalization of the values of the reference group or person. When making an occupational decision, one is not necessarily aware of such influences at the conscious level even though they may be transmitted through personal contacts. Slocum found evidence in his own work to suggest that the higher the perceived educational orientation of a student's reference group, the higher his own educational aspirations (Slocum, 1966:261). Of course, economic factors such as family income also came into play, particularly in the choice of a professional career.

Moore lists the characteristics of the professional recruit and finds that in terms of background characteristics the professions are among the most hereditary of occupational categories, as well as being overrepresented in the higher SES backgrounds. A child growing up in a professional family is assured of having at least one parent with a relatively high educational level, and the professional parent acts as a 'role model' for the child as he is growing up (Moore, 1972:67).

Very little has been written in the area of vocational decision theory specifically for females, however, a few studies indicate that there is a difference between the sexes in how and why choices are made. Katz and Martin, for example, present the view that the decision to enter nursing

may be due more to a series of limited choices rather than a deliberate choice of nursing in the true rational sense. In other words, the view is that the process of entry into an occupation may be looked upon as a cumulative product of a series of specific acts, which may or may not be directly focused upon a deliberate career choice (Pavalko, 1972:96). They go on to say that persons making decisions in this manner are more likely to make later decisions (Pavalko, 1972: 99). This proposed theory may have implications for other female dominated occupations such as teaching and librarianship as well.

In a study of women doctorates in the U.S., Helen Astin maintained that parents often hold different expectations for their daughters and for their sons and this is partly reflected in the occupational aspirations and eventual choices of young adults (Astin, 1969:4). One consequence that she sees is that women generally perceive their choices as more limited than men (Astin, 1969:35). Krause agrees with Astin and claims that particularly for girls, studies show that sex role stereotyping in occupations - what girls ought to want to be - begins in very early childhood (Krause, 1971:37). Davis found that even women who may have chosen a less traditional occupation prior to college, often change their minds during the undergraduate years and enter more traditional vocations (Davis, 1965:46).

In spite of the evidence given, Slocum feels that in

most respects, the decision making process between males and females appears to be similar, although some of the cultural and social factors involved are obviously different. (Slocum, 1966:270)

Although early childhood socialization through the influence of the family is important for the occupational choice process, a further stage, the years of schooling (including post secondary schooling in some cases) is an important socialization agent. This secondary socialization period is especially important for the professions, and assures to some extent that the necessary attitudes, values and feelings of commitment are attained. As mentioned earlier, the professional school aids in inspiring common interests and goals among its members which strengthens the profession at the group level. At the individual level, the degree of professionalism of individual members is partly determined by the professional school. Secondary occupational socialization is therefore necessary at both the group and individual level in order to serve the best interests of the professional group.

According to Hughes, the first task of socialization into a profession is to transform the person's lay conceptions (formed during childhood) about the occupation into the technical orientations of the insider. This is done by the professional school (Pavalko, 1972:170). As Hughes states

> In general we may say that the longer and more rigorous the period of initiation into an occupation, the more culture and technique are associated with it, and the more deeply impressed are its attitudes upon the person. (Hughes, 1958:36)

In sum, the occupational choice process involves both early childhood socialization through the family, and secondary socialization through formal education. Both stages are particularly important for individuals choosing professional careers, and an early career decision is often made by individuals more strongly influenced during both periods of socialization, particularly the early childhood period.

It has been noted in the literature that a relationship does exist between the social background variables of aspiring professionals and the occupational choice process. In addition, the professional school aids in further socialising potential recruits into their prospective professional roles. Not much has been written, however, on the differences among professionals and non-professionals with respect to these relationships, and to what extent the relationship between social origin and occupational choice is also related to professional attitudes and values. Anderson and Western in their study of four occupational groups in Australian universities - law, medicine, teaching and engineering - sought to find an association between family background variables and differences in the professional attitudes displayed.

They claim that although there has been a good deal of study of the recruits to the professions in terms of their education and training, there has not been much systematic study of the professional culture or the attitudes and values associated with particular professions. These, they claim, have been more or less left to speculation rather than to empirical research (Anderson & Western, 1972:290). Anderson and Western concur with others that the unity of these values and attitudes is important to the profession's autonomy. The professional association exists not only to promote the interests of its members but also to supervise a code of ethics which are a form of social control. This control is maintained mainly by the acquisition of values which have been internalized by the individual practitioners (Anderson & Western, 1972:291). Anderson and Western conclude from their data that, compared with teaching and engineering, law and medicine recruit more of their students from families with high levels of education and where the father's job is professional or managerial. It seems plausible they assert, to suppose that children from such families will be much better informed about the professional occupations and decide earlier than others about a career which matches their class backgrounds (Anderson & Western, 1972:294). They found occupational inheritance to be related to early decisions and that in particular, teachers tended to go into teaching by default rather than choice. Many were either

not qualified for or were refused their first choice, or had no strong preference of what they wanted to do other than attend a university (Anderson & Western, 1972:296).

Anderson and Western view the professional socialization process in three phases - pre-training, training and post-training. In order to test the extent of socialization in each stage, the researchers surveyed the students at various times during their university life commencing with the first week. In general, they found significant faculty differences in attitudes such as liberalism, intellectual interests, pragmatism, dogmatism, and cynicism regardless of which university was sampled (Anderson & Western, 1972:297). They felt that the association between a particular attitude and the professional faculty was as a result of a spurious connection arising from a common underlying variable - i.e. social class - which is in some way causally associated with both attitude and career choice. Using stepwise regression Anderson and Western tested the following background variables- father's occupation, income, education, mother's education, religion, subjects studied and liked at school, type of school attended, age, sex, birthplace and faculty. They found the variance explained to range from as low as 5% to as high as 39% depending on the attitude scale chosen as the dependent variable. They also found the faculties of law and medicine and engineering to be quite clearly associated with some attitudes. Teaching, however, was not a signifi-

cant predictor in any of the attitude analyses (Anderson & Western, 1972:198).

Although Anderson and Western were interested in the relationship between background characteristics and attitudes, they studied only university students and thus could not project their findings into the work world in general. Other researchers however, have measured job satisfaction for example, of persons in the work force and have tried to find correlates. Robinson and his associates summarize several studies which concern themselves with work related attitudes.

For example, in a study of professional, clerical and skilled blue collar workers in the early sixties in the Detroit lower social class area, Wilensky found that having a choatic work history was at least as good as lower-social class a predictor of alienation, indifference and a lack of attachment in the job (Robinson et al., 1968:27).

These studies together indicate a relationship not only between background characteristics in terms of family SES and occupationally related attitudes but also between previous career experience and attitudes about job satisfaction.

A problem which most researchers have to face when dealing with job related attitudes is their measurement. Robinson et al. list the considerations a researcher should take prior to the construction of attitudinal items in a

questionnaire. In addition to such things as having a representative sample, reliability and validity, they go on to add:

(1) proper sampling of content - for example in the job satisfaction area, researchers should give detailed consideration to the analysis of responses to open-ended questions from representative samples

(2) one must know enough about the field to construct the instrument so that it will cover an important theoretical construct well enough to be useful to other researchers in the field.

(3) simplicity of wording - attitudes should be written in a language easily comprehended and recognized by the respondents.

(4) item analysis - this is one way of checking whether the individuals are responding to the items in the manner intended. Many types of item analysis exist including factor analysis, correlation matrices and multi-dimensional analysis. (Robinson et al., 1968:4-6)

In sum, the construction and analysis of attitudinal variables related to the work field is an important sociological problem.

The occupational choice and development literature reviewed in this section suggests a relationship between various background characteristics and career choice, as well as between these two aspects of career development and work-related attitudes. In addition, others (see also - Eckland, 1964; McDill and Coleman, 1965; Sewell and Shah, 1967; Sewell, Haller and Portes, 1969; Shapira, Yuchtman, 1975; Simpson, 1962; Strodbeck, 1959; Woelfel and Haller, 1971) have analyzed various subgroups of the population in North America and Europe

and have found that family SES and related variables such as family size and the influence of significant others are related in the manner proposed above, not only to career choices and success, but also to career related attitudes.

INDIVIDUAL ANALYSIS:

The causal model, depicted in Figure A below and referred to as the Career Development Model, is made up of three main stages, each representing a different phase of an individual's career development. The first stage, the age when the career decision is made (CDA), is dependent upon a number of family background variables - father's occupation(FOCC), father's education(FED), mother's education(MED), family size(NSIBS), and the influence of significant others (ISO). It is hypothesized that those respondents whose fathers had higher SES occupations and whose parents were more highly educated will report earlier career decisions. In addition, it is expected that respondents from smaller families and whose career decision was influenced by close family members will make earlier career decisions.

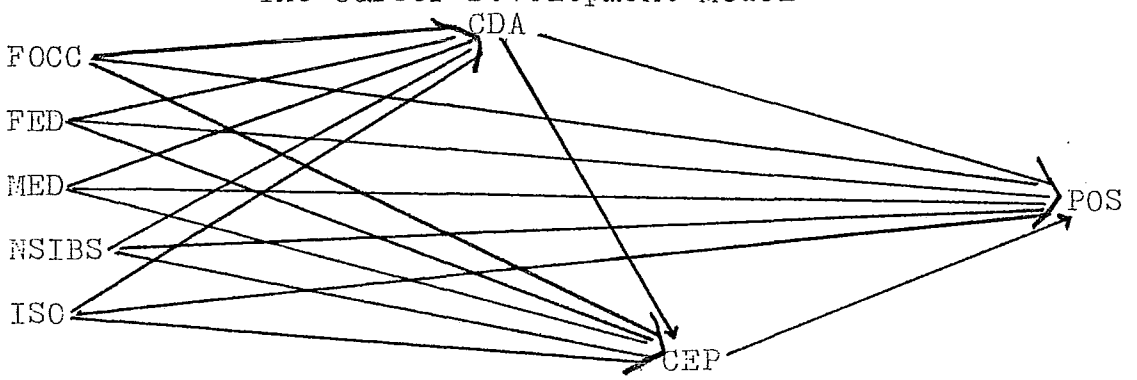
The career entry pattern(CEP) represents the second stage of the model and is dependent not only on the same background factors but also on the career decision age. In this stage, it is hypothesized that persons from higher SES backgrounds in terms of father's occupation and parents' education, and those from smaller families will have more direct

career routes. In addition, respondents who made earlier career decisions and whose career decision was influenced by close family members will also have had more direct career entry patterns.

The final stage of the career development model measures the degree of professional orientation(POS). The degree of professional orientation is dependent on the other two stages of the model - the career entry pattern and the career decision age as well as the various family background variables. It is hypothesized that those respondents from higher SES and smaller families will have a higher degree of professional orientation. As well, those respondents with direct career entry patterns and earlier career decisions will also have a higher degree of professional orientation.

Figure A

The Career Development Model




In this section the analysis will focus mainly on the four occupation groups in Canada, however, comparisons with Australia and Sweden will be made to highlight the results. In addition, the career development model will be

tested separately for sex[8] since it has been argued that one might expect differences in the relative strengths of the causal variables because the occupational choice process is not identical for males and females.

It is often desirable in exploratory work, as in the case of the analysis here, to test the relationship between a dependent variable Y and an independent variable X without controlling for other intervening variables. It is possible to predict an effect, measured in both strength and direction, that any particular independent variable has on a dependent variable. This is most effectively and commonly done using correlation analysis at the zero-order(r) or two way level.

The causal model was tested by path analysis, a mathematical tool that relates a theoretical model to a methodological one. Based on a predetermined set of theoretical inferences, the path model is written as a set of structural equations that represent the causal processes assumed to operate among the variables under consideration. These equations in turn lead to parameter estimates needed to solve the model (Land, 1969:4).

According to Heise, there are two basic mathematical models - (1) estimation models which use several indices to estimate a person's occupation, for example, the most com-

---

8. Due to sample size restrictions, the doctors and lawyers will be combined into a 'professional' group for females.

monly used technique would be regression analysis (Heise, 1969:40) and (2) structural models used in theory building and systems analysis, where the goal is to define a set of equations which correspond to actual causal processes in the real world - that is, where a set of equations is used to permit estimates of how change in any one variable in the system affects the values of other variables in the system. Because of the dual goals of specifying causal paths and identifying causal parameters in the structural model, it is clear that one's interest in the relations between variables is more complex than is the case with estimation models (Heise, 1969:41). Heise concludes by saying that a structural or path model allows one to break down empirically observed correlations into parts that are due to different processes (Heise, 1969:41).

Path coefficients are estimated using a set of regression equations, and thus certain basic assumptions about the variables in the causal model are made. First, it is assumed that there is a linear additive relationship between a dependent variable and a set of independent variables; and secondly, the variables used in the regression equations should be interval in measurement. Both of these assumptions are ideal, and it is often impossible in social science research to realize them completely. Thus in more recent years, many articles have been written concerning the problem of not being able to meet these restrictions and suggesting

possible solutions. (see in particular Goodman, 1976; Heise, 1969; Leik, 1976; Lyons, 1971; Mayer & Robinson, 1978) There is wide but incomplete acceptance in sociological research that data, for example, may be treated as interval, and that relationships within the regression model be as linear as possible. Land, for example, states that it is generally maintained that it is best to treat "almost interval" data as interval rather than ordinal and use interval type statistics because "some idea of the difference between two scores is much more useful than just knowledge that one is greater than the other." (Land, 1969:33). Heise lists five additional assumptions, several of which are unique to the path model.

(1) that no reciprocal or feedback loops exist - i.e. if X causes Y then Y cannot affect X either directly or indirectly through other variables.(Note that in any assumption the ideal is expressed but is not always achieved. Methodologists have recognized the possibliity of feedback loops and have developed methods to incorporate them into a path model - see in particular, Blalock, 1971)
(2) that the causal laws governing the system are established to specify the causal priorities among variables in a way that is undebatable.
(3) that all possible variables are entered explicitly into the analysis.
(4) that the usual methodological assumptions involved in multivariate regression analysis are met
(5) that the measuring instruments used to obtain empirical data have high reliability (Heise, 1969:44-59)

The path diagram itself which was used as early as 1918 by Sewall Wright ; came to prominence during the 1960's as a result of the Blau and Duncan research on occupational mobility is drawn with the following conventions in mind:

(1) The postulated causal relations among the variables of

the system are represented by uni-directional arrows extending from each determining variable to each variable dependent on it.

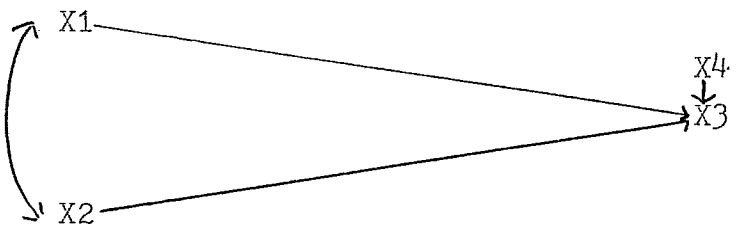
(2) The postulated non-causal correlations between exogenous variables, or independent variables of the system are symbolized by two headed curvilinear arrows to distinguish them from causal arrows.

(3) Residual variables are also represented by uni-directional arrows leading from the residual variable to the dependent variable.

(4) There is a path coefficient assigned to each causal line in the model denoted by Pij where i is the dependent variable and j is the independent variable. (Land, 1969:6-7)

A simple example for a model with two independent variables, a residual variable and one dependent variable is given below in Figure B.

Figure B




Given in terms of standardized path coefficients, the following equation would apply to Figure B

$$X3 = P31X1 + P32X2 + P34X4$$

Although the path coefficient is commonly found in the standardized form and is equivalent to the beta in regression analysis, the unstandardized regression coefficient (or metric coefficient) can be substituted for the standardized version in some analyses. Blalock sees the former as

most appropriate for describing relationships within particular populations and the latter for comparing populations (Blalock, 1971:145).

Since this study will compare both within and across groups, the standardized or path coefficient and the unstandardized or metric coefficient will be reported for each path.

Three regression equations are necessary in order to solve the path model, and they are given below:

(1) CDA=a + b1(FOCC) + b2(FED) + b3(MED) + b4(NSIBS) +b5(ISO) + RES.1

(2) CEP=a + b1(CDA) + b2(FOCC) + b3(FED) + b4(MED) + b5(NSIBS) +b6(ISO) + RES.2

(3) POS=a + b1(CEP) + b2(CDA) + b3(FOCC) + b4(FED) + b5(MED) + b6(NSIBS) + b7(ISO) + RES.3

The background variables, father's occupation, parents' education, family size and the influence of significant others were operationalized in the same way as described earlier for the calculation of the variances. The only difference was that father's and mother's education were transformed into their z score values for each country so that cross-nation comparisions could be made. The career entry pattern and the degree of professional orientation, however, were measured using scaling techniques and a brief description of each is given below.

The Career Entry Pattern was created in the following manner. Respondents were asked whether they had any other full time occupations for a period of six months or

more prior to their present occupations. (see Questionnaire, p.3 in Appendix A) They were also asked whether their present occupation was their first choice upon entry to college. (see Questionnaire, p.4 in Appendix A) A score of 0 was assigned to respondents who said that their choice of occupation prior to entry to college was their present one, and a score of 1 was assigned to those who said it was not. Questionnaire constraints allowed each respondent to list only up to a maximum of six other full time jobs, and each job listed earned another score of 1.

Scores were summed and ranged from a low of 0 (for persons whose first choice was their present occupation and who had no other jobs) to a 7 (for persons whose first choice was not their present occupation and who had at least 6 other jobs prior to their present profession). The career route scale is interpreted as a continuum of scores ranging from most direct career route (0) to least direct career route (7).

Two methods, both relating to item selection were used to create the professional orientation scale. Firstly, four items were chosen on the basis of their relation to each other and the common attribute of professional autonomy. These characteristics which are the same as those described earlier in the group analysis section, were - opportunity to exercise initiative, independence, amount of decision-making responsibility, and opportunity to gain a sense of accomplishment. Preliminary analysis suggested that these four items

allowed for the most variation among the four occupational groups and would thus lend themselves best to the comparative analysis. For example, over half of the Canadian doctors and lawyers (52%, 56%) felt that their decision making responsibility was very high compared to only about 12% of the secondary school teachers and 25% of the social workers. Similarly for the opportunity to exercise initiative, the percentage of those who felt it was very high ranged from 54% for the lawyers to 24% for the teachers. Almost half of the Canadian lawyers felt that they were very independent in their jobs compared to about one quarter of the doctors and teachers and only 13% of the social workers. The variation was not quite as high for the final characteristic - opportunity to gain a sense of accomplishment where the values ranged from 46% for the lawyers to 27% for the teachers. Similar patterns were found in Australia and Sweden.

The 'intuitive'' professional scale was created by summing the values of the four items which were scored in a Likert type form and ranged from 1(strongly disagreed that the characteristic was present in their job) to 5(strongly agreed).

The second scale construction also involved the method of summated ratings, however this time the items were not chosen for theoretical reasons, but rather by the amount of their actual variation (see Edwards, 1957:152-153). The

method of selection was as follows for the Canadian sample only. First, a total score based on the weighted responses for all 18 items(see Questionnaire, p.9 in Appendix A) was obtained. Two groups of subjects - one with the top 25% of the total possible score and one with the bottom 25% were chosen as representative of the two extremes and to provide criterion groups in terms of which to evaluate the individual statements. Selecting only those two groups of respondents, scores for all 18 items were rerun for each group separately and a t statistic was computed for each item using the following formula

$$t = \frac{\bar{x}_h - \bar{x}_l}{\sqrt{\frac{S_h^2}{N_h} + \frac{S_l^2}{N_l}}}$$

where

$\bar{x}_h$ =the mean score of a given statement in the high group

$\bar{x}_l$ =the mean score of a given statement in the low group

$S_h^2$=the variation of the distribution of the responses of the high group to the statement

$S_l^2$=the variance of the distribution of the responses of the low group to the statement

$N_h$=the number of valid reaponses to the statement of high group

$N_l$=the number of valid responses to the statement of the low group

The value of t is a measure of the extent to which a given statement discriminates between the high and low groups (Edwards, 1957:153). A new scale was created using the sign-

nificant nine items whose t scores were equal or greater than 1.75 (a 'rule of thumb' significance level which Edwards uses), and summing the values as before.

Several factors[9] were weighed before deciding which scale to use in the final analysis. First, it was found that all four items chosen on a theoretical basis fell into the significant group above. In addition, when the same procedure was followed for only the four items (rather than all 18), all four had t scores well over the 1.75 significant mark. Finally, a multiple regression equation was computed (for Canadian males only) with each of the two scales as the dependent variable and the remaining variables in the causal model as independent variables, and the regression coefficients were compared. The results of the equation were as follows:

(1) $POS_1$(4 items)=a +(-.083) -.55)CEP + (-.053) -.129 CDA + (.018) .105 FOCC + (-.005) -.003 FED + (-.047) -.038 MED + (-.111)-.106 NSIBS +(.013) -.002 ISO $R^2$=.03

(2)$POS_2$(9 items)=a + (-.199) -.066 CEP + (-.034) -.044 CDA + (.026) .072 FOCC + (.007) .009 FED + (-.046) -.046 MED +(-.174) -.085 NSIBS + (.004) .000 ISO $R^2$=.03

b=( )
B=

Differences between the standardized and the unstandardized coefficients are slight, however, since the background char-

9. In addition to the evidence presented here, preliminary analysis involving a scale using all 18 items, produced no greater variance explained in the career development model.

acteristics explain twice as much of the variance in the 4 item scale than the 9 item scale, the former was chosen as a better predictor of professional orientation.

Before presenting the results for the career development model, the means and standard deviations of the three main dependent variables may be compared in relation to country, sex and occupation (Table 14). For all four occupations taken together, there is little evidence of significant differences (using the t test) by sex for each of the three variables. In both Canada and Australia, although females decide on their career slightly later than the men; have a slightly more indirect career route, and a slightly lower mean POS score, the differences are not great enough to be significant. The only interesting difference worth noting is that, in general, the Swedish results are out of line with the rest. For the males, the average age when the career decision was made in Sweden was 23.7 compared to 18.8 in Australia and 20.6 in Canada. For females, the difference was smaller ranging from 21.9 in Sweden to 19.6 in Australia. Similarly the career route was more indirect for the Swedish males (1.6) than the Australian (1.1) or Canadian (1.0) males. Once again this was not the case for the females. Finally, the POS score was only slightly lower for the Swedish males but there was a greater difference for the female sample, with mean scores ranging from 14.4 for the Swedish females to 15.6 for the Canadian females.

Table 14

MEANS AND STANDARD DEVIATIONS OF THE DEPENDENT VARIABLES USED IN THE CAREER DEVELOPMENT MODEL

| Country and Occupation | Dependent Variables | | | | | |
|---|---|---|---|---|---|---|
| MALES: | CDA | | CEP | | POS | |
| | $\bar{x}$ | st.d. | $\bar{x}$ | st.d. | $\bar{x}$ | st.d. |
| Australia | | | | | | |
| All Occupations | 18.8 | 6.7 | 1.1 | 1.8 | 15.9 | 2.9 |
| Doctors | 16.0 | 4.0 | 0.4 | 1.1 | 16.8 | 2.6 |
| Lawyers | 18.5 | 5.7 | 1.0 | 1.5 | 17.1 | 2.3 |
| S.S. Teachers | 19.5 | 7.1 | 1.3 | 2.8 | 13.8 | 2.8 |
| S. Workers | 26.4 | 8.5 | 2.7 | 2.5 | 15.8 | 2.7 |
| Canada | | | | | | |
| All Occupations | 20.6 | 6.6 | 1.0 | 1.8 | 16.0 | 2.7 |
| Doctors | 17.4 | 5.4 | 0.5 | 1.3 | 16.7 | 2.2 |
| Lawyers | 19.6 | 5.2 | 1.0 | 1.8 | 17.3 | 2.1 |
| S.S. Teachers | 21.8 | 6.9 | 1.5 | 2.0 | 14.1 | 2.8 |
| S. Workers | 24.7 | 7.0 | 1.3 | 1.9 | 16.0 | 2.6 |
| Sweden | | | | | | |
| All Occupations | 23.7 | 7.6 | 1.6 | 2.2 | 15.4 | 2.5 |
| Doctors | 18.5 | 6.3 | 0.5 | 1.1 | 16.0 | 2.1 |
| Lawyers | 24.0 | 6.2 | 1.1 | 1.5 | 17.3 | 2.0 |
| S.S. Teachers | 25.2 | 7.8 | 2.1 | 2.6 | 14.0 | 2.6 |
| S. Workers | 25.4 | 5.6 | 2.9 | 2.4 | 14.8 | 2.1 |
| FEMALES: | | | | | | |
| Australia | | | | | | |
| All Occupations | 19.6 | 7.5 | 1.2 | 1.8 | 15.3 | 2.6 |
| Professionals | 15.2 | 4.3 | 0.4 | 0.9 | 16.3 | 2.7 |
| S.S. Teachers | 16.2 | 6.1 | 0.8 | 1.7 | 14.2 | 2.8 |
| S. Workers | 21.9 | 7.6 | 1.6 | 1.9 | 15.6 | 2.3 |
| Canada | | | | | | |
| All Occupations | 21.0 | 7.9 | 1.1 | 1.7 | 15.6 | 2.4 |
| Professionals | 15.9 | 7.4 | 0.3 | 0.6 | 16.6 | 3.0 |
| S.S. Teachers | 19.0 | 8.1 | 1.0 | 1.9 | 14.8 | 2.4 |
| S. Workers | 22.8 | 7.2 | 1.2 | 1.8 | 15.8 | 2.2 |
| Sweden | | | | | | |
| All Occupations | 21.9 | 7.5 | 1.7 | 2.2 | 14.4 | 2.3 |
| Professionals | 18.4 | 1.3 | 0.6 | 1.3 | 15.6 | 2.2 |
| S.S. Teachers | 22.3 | 9.3 | 1.6 | 2.5 | 14.2 | 2.4 |
| S. Workers | 22.2 | 6.6 | 1.9 | 2.1 | 14.2 | 2.1 |

When the means and standard deviations for the three dependent career related variables are broken down by occupation, an interesting and consistant trend appears. For both the males and females in Australia and Canada, there are pronounced differences between the two professions and the two semi-professions in all three dependent variables. Firstly, the average age when the career decision was made is lower for the doctors and lawyers in each country than the teachers and social workers. At the same time, the standard deviation is higher for the semi-professions, implying less homogeneity, than for the professions. The means for the males range from a low of 16 years for the lawyers in Australia to 26.4 for the Australian social workers, and from 17.4 for the Canadian doctors to 24.7 for the social workers. Although the Swedish doctors decided on their careers at an earlier age (18.5), there was no trend among the lawyers, the teachers and the social workers (24.0 ; 25.2; 25.4) even though each group decided at a significantly later time than the doctors. The same sort of pattern appears for the standard deviation in Sweden as well.

Although the females generally tended to decide on their careers a little earlier than the males, the same sort of inter-occupational differences are observed. Once again, the patterns are only clear in the Australian and Canadian samples.

Turning to the Career Entry Pattern, differences were once again found in each country. For both the males and females, the doctors and the lawyers had more direct career routes than did the teachers and social workers. As a score of zero means that an individual both chose his/her respective occupation upon entry to college and entered directly into the occupation after college, the closer the score comes to zero, the more direct the entry pattern. In Australia, the males averages ranged from .4 for the doctors and lawyers combined to 1.6 for the social workers. In Canada, the range was from .5 for the doctors to 1.5 for the social workers for the males, and from .3 for the doctors to 1.2 for the social workers, for the females. The average career route for males in Sweden ranged from 0.5 for the doctors to 2.9 for the social workers. The female results ranged from 0.6 to 1.9 (for professionals and S. Workers resp.). Once again the standard deviations were generally lower for the professions, although this was not always the case. Also, for the most part, the females had more direct career routes than the males. This is understandable, given that even with equal rights legislation there are still fewer occupations that females are 'likely' to enter, thus the odds are that females would more likely enter directly into a chosen occupation than males who have a wider choice.

The final dependent variable - the professional

orientation scale score - also displayed variation with respect to occupation. In all cases, for both males and females, the semi-professions scored lower, on the average, than the professions. In Australia, there was a 3.3 point difference for males between the highest - the lawyers - and the lowest - the teachers. In Canada, the scores ranged from 17.3 for the independent lawyers to 14.1 for the teachers. The female results were similar - in each case the professionals had the highest score and the teachers had the lowest (except in Sweden where the teachers and social workers had the lowest). The standard deviation for the POS score was similar for all groups.

The results from Table 14 indicate that there are differences with respect to the career related variables between the professions and the semi-professions. In general, for both the males and females, the professionals made earlier career decisions, had more direct career routes and had higher POS scores than the semi-professionals. Although there were also slight differences found between the males and the females, they were smaller than the inter-occupational differences. There was also more homogeneity evident among the professionals than the semi-prpofessionals for the career decision age and the career route, which complements earlier findings.

With respect to male-female differences, the means and standard deviations do not suggest any great differences,

other than ones which might be expected given the social structure in each of the three countries. The individual hypotheses, however, do suggest that different types of independent variables affect the females' career.

A final step was taken prior to the path analysis and that was to determine whether the length of time a respondent was employed in an occupation had an influence on the relationship between the background characteristics and the respondent's professional orientation. A partial correlation was computed between the POS and each of the independent variables controlling for the length of time spent in the same occupation, and it was found that the vast majority of the correlations did not change substantially. Only in the case of the female professionals is there a notable change in a few of the correlations involving certain background characteristics, however, the rather small case base in each of the cases may have influenced the results. The variable 'length of time' was by itself only significantly related to the POS score in one case - the Australian male doctors (-.14) - which when interpreted means that the longer the respondent was in his profession, the lower his POS score. This one exception, however, did not warrant including length of time into the overall model.

The career development model was analyzed in three stages - career decision age, career entry pattern and professional orientation - and the path results for Canada will

be presented systematically for each stage.

The first stage of the model explores the relationship between the various background characteristics and the career decision age. With the four occupations pooled, the only finding which was significant for both males and females was that the influence of close family members results in an earlier career decision. Although the gross effect of ISO (Table 15) was stronger for males than for females (.17 vs. .12), the direct effect (Table 16, Figure 1) was about the same (2.002 vs. 2.097) for both. Respondents who were influenced by close family members made their career decision roughly two years earlier than those respondents who were not influenced by family members. This relationship was not important for all occupations, however, it was significant for the male doctors and lawyers (Figure 2.1,2.2). Father's occupation was also significantly related to the career decision age for males in general, although the effect was not as strong as ISO. The direct path model for FOCC which was -.136 compared to .143 for ISO, supports the hypothesis that respondents from higher social origins make earlier career decisions. Father's occupation was not significant for any of the occupation groups for males, however, the path was significant for female teachers (-.205) in the expected direction (Figure 3.3).

For females, mother's education provided the strongest influence on career decision age (.141), however, not

in the direction expected. Females with higher educated mothers tended to report later career decisions. Once again, mother's education was not significant for females when the model was tested separately for occupation. It was, however, significant for male teachers. This time the direct path (-.197) supported the hypothesis.

The overall $R^2$ for males and females was .06 (Table 16) and the high residual paths for all sub-groups tested (Figure 1-3) indicate that the background variables as a whole do not really explain much about why some persons make earlier career decisions. Only a few of the paths were significant and in only one case, the influence of significant others, was a pattern detected in the Canadian results. The influence of close family members was conducive to an early career decision for both male professionals which supports the literature on the professions and the general supposition that persons seeking to enter professional occupations tend to be supported and influenced by parents and other close relatives.

If we compare the Canadian results for stage one of the model to Figures 4-9 for Australia and Sweden given in Appendix C, a few additional points can be made. Firstly, the effect of ISO is further strengthened since the influence of significant others was also found to be significant for Australian females in general (1.515) and Australian male lawyers and doctors (1.105; 2.550 resp.). In both Canada

and Australia, the relationship was strongest for male lawyers. Secondly, the effect of father's occupation was again significant for the career decision age in both Australia and Sweden for males in general, however, it was not important for females.

The residual paths into CDA in both Australia and Sweden were equally as large as in Canada, averaging around .97.

Finally, two conclusions can be made about the comparative results for stage one on the basis of the significant effects found in the Australian, Canadian and Swedish data. Firstly, the influence of significant others was more important for the career decision age for the professionals than for the semi-professionals; and secondly, father's occupation was more influential for males than for females.

The second stage of the career development model tests the influence of the various background characteristics and the career decision age, on the career entry pattern. Looking first at the general male and female results in Figure 1, we see that only one path, from the career decision age, is significant in both cases. In fact, for males, even though three of the gross effects (Table 15) - CDA, FOCC, ISO - were significant, only the effect of CDA remains significant after the other variables in the second stage are controlled. The career decision age is significant for every occupation indicating its general importance for the

Table 15

GROSS EFFECTS FOR THE CAREER DEVELOPMENT MODEL - CANADA (ALL OCCUPATIONS)

Males

| Dependent Variables | Independent Variables | | | | | | |
|---|---|---|---|---|---|---|---|
| | CEP | CDA | FOCC | FED | MED | NSIBS | ISO |
| CDA | | | -.16 | -.03 | -.06* | .06* | .17* |
| CEP | | .41* | -.09* | .00 | .02 | .05 | -.07* |
| POS | -.12* | -.17* | .14* | .02 | .00 | -.13* | -.05 |

Females

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CDA | | | .00 | .17* | .18* | .00 | .12* |
| CEP | | .39* | -.17* | .06* | .00 | .08* | .07 |
| POS | -.04 | .05 | -.06 | -.07 | -.11* | -.03 | .05 |

*Significant at the .05 level using the one-tailed test of significance

Table 16

PATH AND METRIC COEFFICIENTS FOR THE CAREER DEVELOPMENT MODEL -CANADA (ALL OCCUPATIONS)

Males

| Dependent Variables | Independent Variables | | | | | | | $R^2$ |
|---|---|---|---|---|---|---|---|---|
| | CEP | CDA | FOCC | FED | MED | NSIBS | ISO | |
| CDA | | | -.058* (-.136) | .182 (.054) | -.193 (-.064) | .083 (.032) | 2.00* (.143) | .06 |
| CEP | | .110* (.405) | -.003 (-.027) | -.021 (-.023) | .056 (.068) | .018 (.026) | -.035 (-.009) | .17 |
| POS | -.083 (-.055) | -.053* (-.129) | .018* (.105) | -.005 (-.003) | -.047 (-.038) | -.111* (-.106) | -.013 (-.002) | .06 |

Females

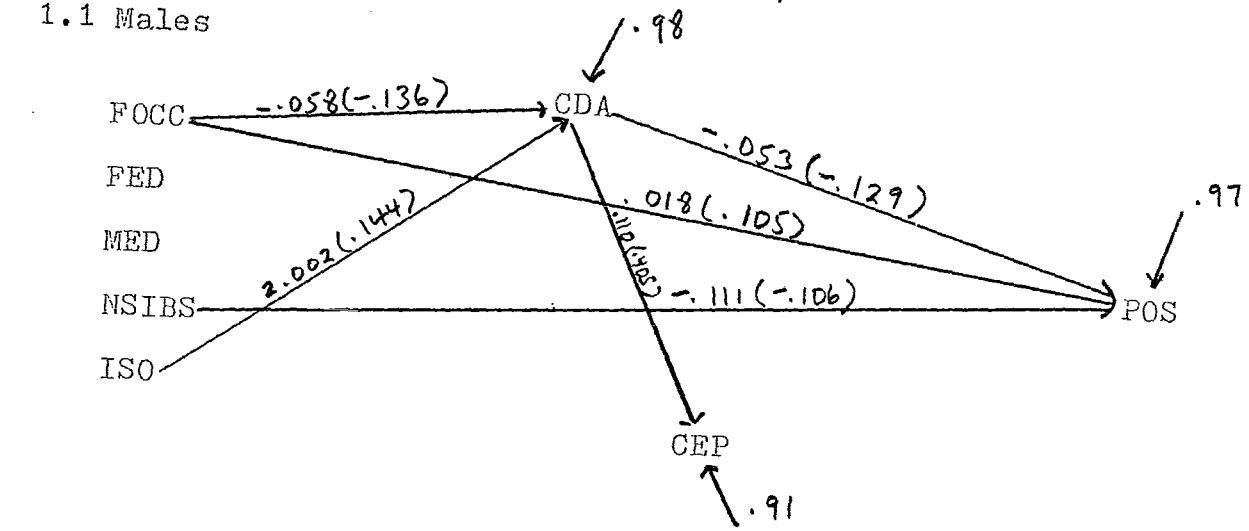
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CDA | | | -.029 (-.055) | .382 (.108) | .477* (.141) | .019 (.007) | 2.097* (.119) | .06 |
| CEP | | .087* (.392) | -.021* (-.180) | .092* (.115) | -.071 (-.094) | .037 (.058) | .545 (.014) | .20 |
| POS | -.118 (-.085) | .029 (.095) | -.010 (-.062) | -.016 (-.015) | -.109 (-.105) | -.033 (-.037) | .213 (.039 | .03 |

*=b equals twice the Standard Error
( )=Path Coefficient

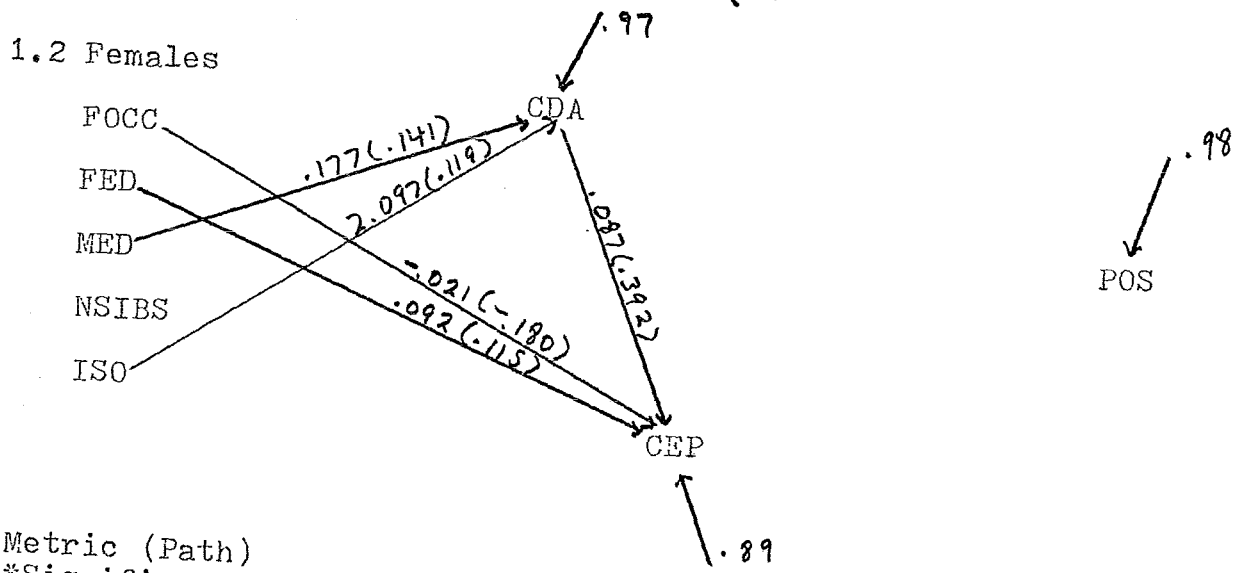
Figure 1

THE CAREER DEVELOPMENT MODEL* - CANADA (ALL OCCUPATIONS)

1.1 Males



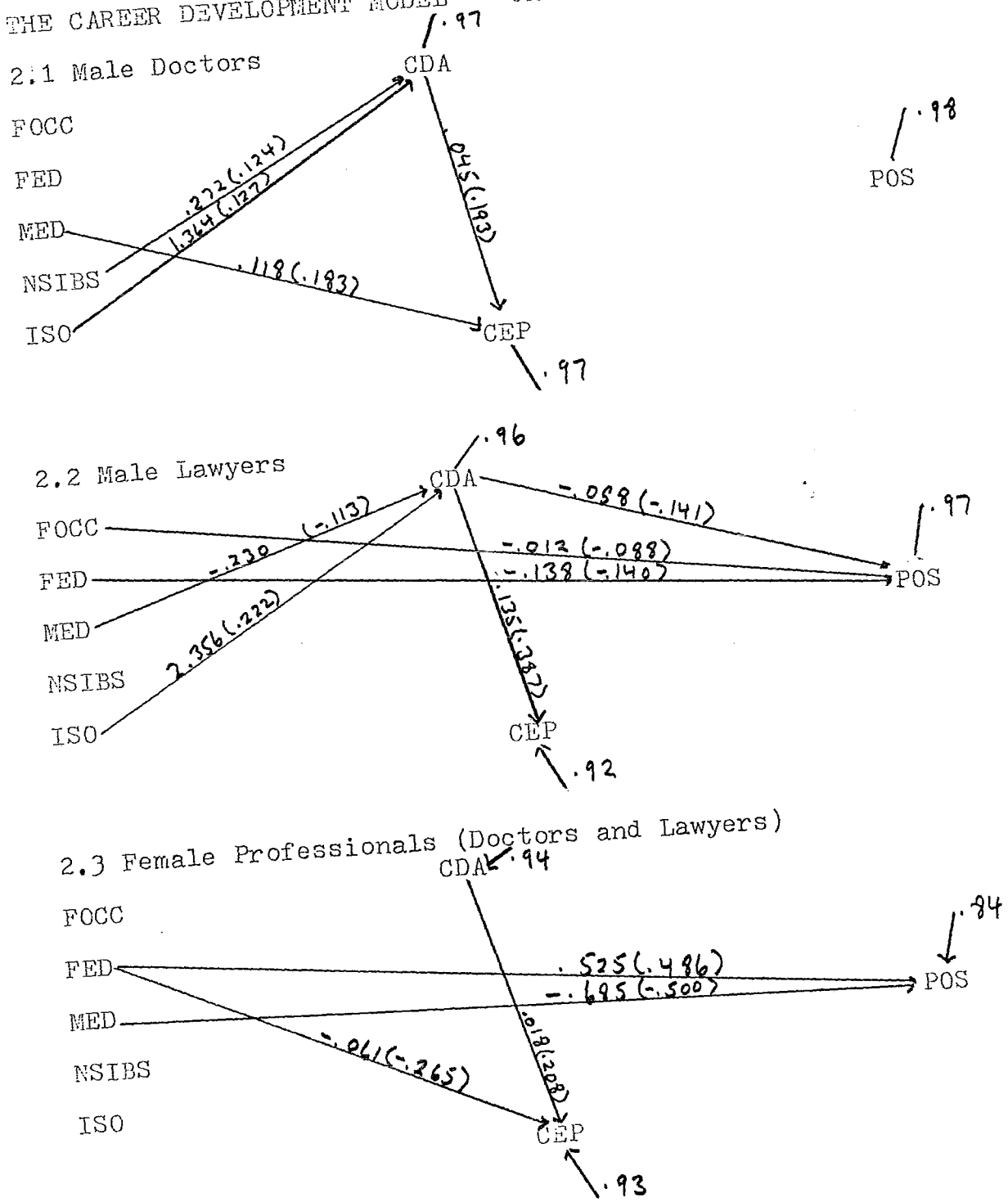

1.2 Females




Metric (Path)
*Significant Paths Only

Figure 2

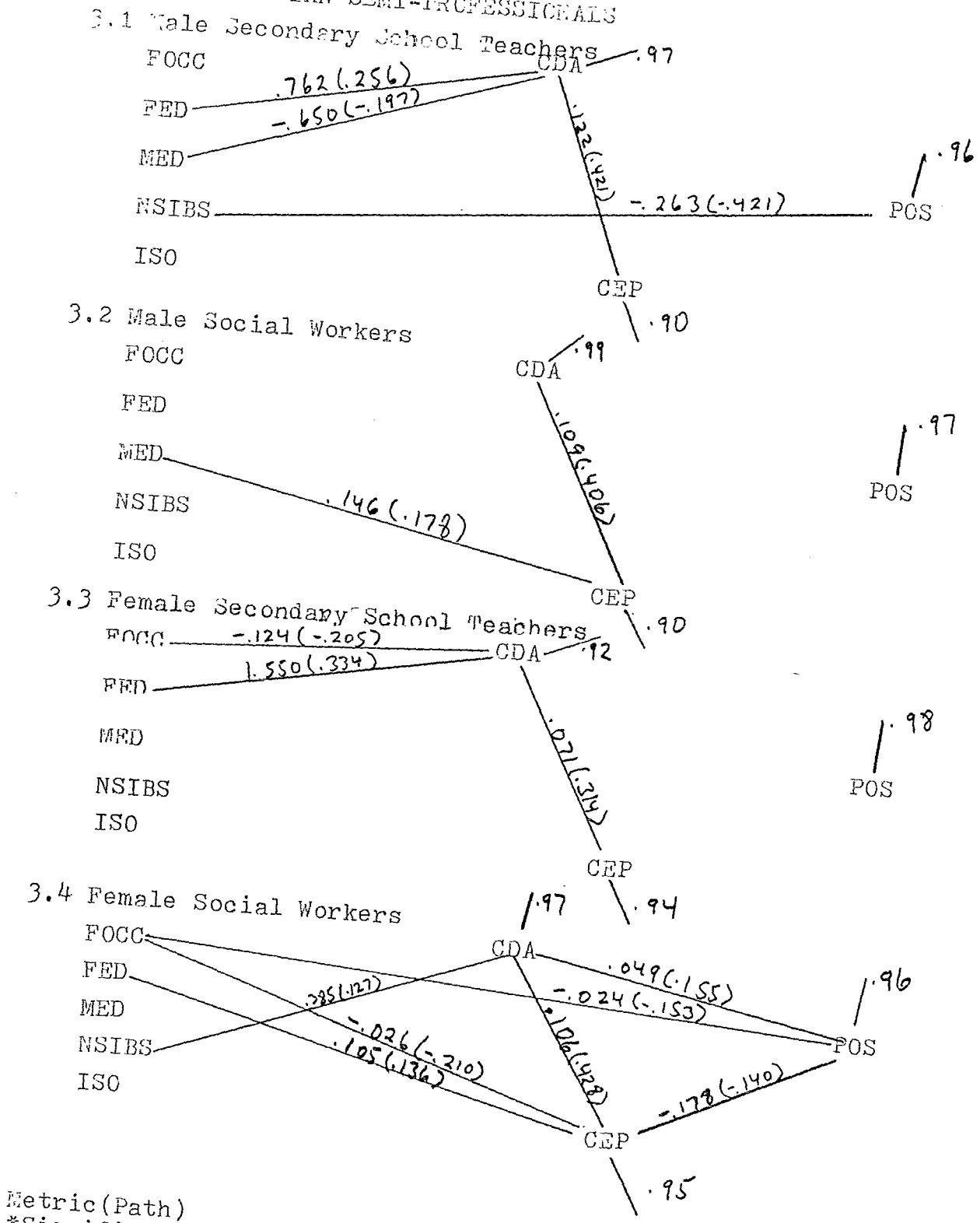
THE CAREER DEVELOPMENT MODEL* - CANADIAN PROFESSIONALS




Metric(Path)
*Significant Paths Only

Figure 3

THE CAREER DEVELOPMENT MODEL* - CANADIAN SEMI-PROFESSIONALS




Metric(Path)
*Significant Paths Only

career entry pattern. In every instance, those respondents who reported earlier career decisions, had a more direct entry pattern. The strength of the relationship varied between groups. For example, it was stronger for males as a whole than females (.110 vs. .087). With the exception of the male lawyers (.135), it was stronger for the semi-professions than for the professionals. The largest metric coefficient (besides male lawyers) was .122 for male teachers, followed by .109 for male social workers, and ranging to as low as .018 for female professionals.

Since the effect of the career decision age was quite strong in most cases, the residuals tended to be lower for the second stage of the model than for the first, and the variance explained for the males and females as a whole was .17 and .20 respectively. The path from CDA to CEP was the only consistent one. There were no other notable trends in the Canadian results. Turning to the results for Australia and Sweden given in the Appendix C, we see that the career decision age was an important predictor of the type of entry pattern for all three countries, regardless of occupation and sex. Once again, in both Australia and Sweden, the relationship was stronger for males than for females, and for semi-professionals than for professionals. The residuals however, were generally lower in Australia and Sweden often dropping below .90.

Before proceeding to the final stage of the career

development model, a look at the indirect effects presented in Table 17.1 below will determine whether the effect of any of the background variables (which were significant for the career decision age) on the career entry pattern was mediated by CDA. (see Alwin & Hauser, 1975 for procedure used)

Table 17.1

INDIRECT EFFECTS FOR STAGE TWO OF THE CAREER DEVELOPMENT MODEL - CANADA

| Independent Variables | Total Effect on CEP | Indirect Effect on CEP via CDA | Direct Effect on CEP |
|---|---|---|---|
| A.Males | | | |
| FOCC | -.085 | -.057 | -.028 |
| ISO | .060 | .071 | -.027 |
| B.Females | | | |
| ISO | .080 | .044 | .036 |
| MED | .011 | .048 | -.037 |

A reduced form of the model was used where only those variables which had a significant effect on the career decision age were entered into the analysis. The indirect effects were calculated for males and females independent of occupation for Canada only. For males, the indirect effects of both father's occupation (-.057) and the influence of significant others (.071) are greater than the direct effects (-.028; .027 resp.). In other words, respondents from higher social origins and who were influenced by close family members tend to enter their occupation more directly, because they are

also more likely to make earlier career decisions. The career decision age intervenes in both cases. For ISO, the indirect effect is greater than both the direct and total effect, indicating that most of its effect on the career entry pattern is indirect.

For females, the reduced model included mother's education and the influence of significant others, and once again both variables indirectly influenced the career entry pattern. The indirect effect of ISO (.044) was greater then the direct effect (.036) but not the total effect (.080) as was the case for males. However, the indirect effect of mother's education (.048) was greater then both the direct (-.037) and the total (.011) effect, indicating once again that most of the effect of mother's education on the career entry pattern is channelled through the career decision age.

In the final stage of the career development model, the relationships between the first two stages and the professional orientation of respondents were tested. Once again, only a few of the relationships were important, and in some instances, there were three significant paths leading into POS. For males in general, there were three significant paths - from family size, father's occupation, and the career decision age. The career decision age had the strongest effect on professional orientation (-.129), supporting the hypothesis that respondents who made early career commitments had a higher degree of professional orientation. The

same relationship was quite strong for male lawyers (-.141), also in the expected direction.

There were no significant relationships observed for females as a whole, however, the professional orientation of female doctors and lawyers was affected by both parents' education (in opposite directions) where only the path from father's education (.486) supported the hypothesis. The female social workers' professional orientation was affected by CDA (.155), father's occupation (-.153) and the career entry pattern (-.140), and only the latter path supported the hypothesis that a direct career entry would be positively related to professional orientation.

In general, for the Canadian sample, there were no consistent predictors of professional orientation, and the residuals were quite high. There were, however, more significant paths for males as a whole than for females, a finding which was reflected in the Australian and Swedish results as well. More of the hypotheses were overturned in the third stage of the model than in the first stages indicating that the background variables are more able to explain career decision age and the career entry pattern than professional orientation.

Finally, the indirect effects were calculated for males for the Canadian sample and are presented in Table 17.2 below.

Table 17.2

INDIRECT EFFECTS FOR STAGE THREE OF THE CAREER DEVELOPMENT MODEL - CANADA

| Independent Variables | Total Effect on POS | Indirect Effect via CDA | Direct Effect on POS |
|---|---|---|---|
| FOCC | .132 | .009 | .123 |
| ISO | -.027 | -.007 | -.020 |

Both the indirect effect from father's occupation through the career decision age, and the indirect effect from the influence of significant others through the career decision age were virtually non-existent.

In sum, although about half of the gross effects were significant, only a few of the direct effects remained significant after controls were introduced into the model. In spite of the large residuals, however, several major relationships were predicted. The most important and consistent finding was that the career decision age strongly affected the career entry pattern, and that particularly those respondents who made earlier career decisions reported more direct career entry routes. The relationship was generally stronger for men and for the semi-professionals. Secondly, it was found that the influence of significant others was more important for the career decision ages of male professionals than semi-professionals, and that the influence of close family members resulted in earlier career decisions. Lastly, a general pattern observed, was that the career

development model as a whole was better suited to the male data than to the female data. This was noted both in terms of the number of significant paths, and the number of overturned hypotheses. All of the general conclusions made were based on the results from all three countries.

Whenever a path model is used to describe a set of relationships in a causal scheme, one questions whether the solutions to the model are reliable, particularly when the paths are small and the residual is large. In sociological analysis, it is almost always the case that the paths leading from the residual variables will be larger than any of the internal paths as researchers generally only include a handful of measured variables. The residual, which represents the universe of unmeasured variables is inevitably vast in most problems of a sociological nature. Not only is a researcher plagued with whether he has indeed measured as many of the relevant factors as possible, but he must also be sure of the reliability of his measurements. It has already been put forth that variables of a retrospective nature are often less reliable than attitudinal variables. Duncan sums up the issue when he says that the "... gist of the assumptions about reliability, therefore, is that status items are somewhat more reliably reported than are the psychological scale values." Duncan is responding to self criticism of a path model which is an extended version of

the familiar Blau-Duncan path model that included two social psychological variables 'ambition' and 'work orientation'. Each of the two psychological variables was created by combining a number of background and work related items and creating a scale (Duncan, 1969:93).

In figure C below we see the similarity in the size of Duncan's standardized path coefficients and ours. As mentioned previously this model is a modified version of the standard status attainment model. In this case Duncan adds 'ambition' to the background variables and omits in its place father's education (which normally is not significant). In addition, 'work orientation' and the occupation at first marriage are entered in lieu of 'first occupation'. Although the model used in this study and the model Duncan describes are not equivalent, a point can be made about the size of the path coefficients in studies where attitudinal variables are used. It seems that neither the size of the coefficients nor the size of the residual are unique to our analysis. Duncan criticizes the way motivational variables are handled in most questionnaires and suggests improvements in their construction and measurement rather than attacking the causal assumptions in the models employing them (Duncan, 1969:106-110). It should also be noted that most of Duncan's paths in Figure C are rendered significant according to Duncan who also uses the standard error for comparison, however, he treats any path coefficients as significant paths

which are larger than the standard error (in its unstandardized form). If we were as liberal with our interpretation the number of significant paths for each country would more than double. (Australian Males = 2xSt.Error=17,1xS.E.=38; Females=11vs35; Can. Males=18vs39; Can. Females=12vs39; Swedish Males=26vs49; Swedish Females=11vs38)

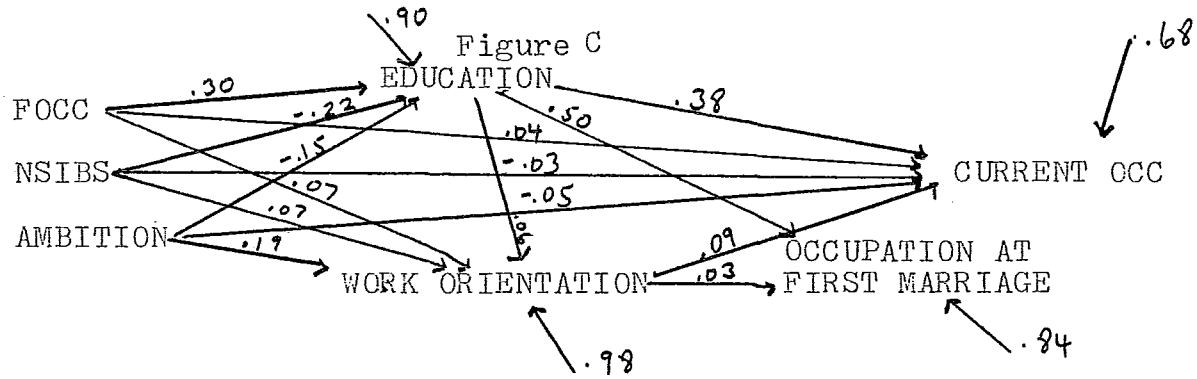


Figure C

We might also compare our results, in terms of total variance explained with that of Anderson and Western described in an earlier section. It may be recalled that they also studied four occupation groups, three of which were the same as those analyzed here. To test their hypothesis that certain background variables of the respondents were related to different types of attitudes about their profession, Anderson and Western used stepwise regression. Their model included several different types of attitude scales (which were not explained in detail in the article) as dependent variables and the following background variables as independent variables - father's occupation, father's education, father's income, mother's education, religion, subjects studied and liked, type of school attended, age, sex,

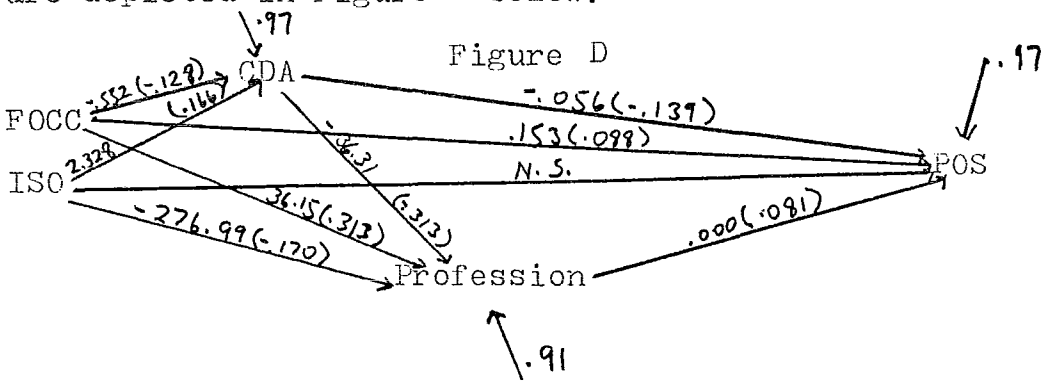
birthplace and faculty. They found that the variance explained for the different attitudes ranged from a low of 5% to a high of 39%. More specifically, they found the faculties of law, medicine and engineering to be quite clearly associated with having certain attitudes. Teaching, however, was not a significant predictor in any way of the analyses (Anderson & Western, 1972:298). In our study, the overall variance explained for the professional attitude scale ranged from 1% to 39% depending on the particular sample chosen. Of course, these figures are not strictly comparable to those from the Anderson and Western study since the variables are not the same - only the procedure. Once again, however, we wish to attest to the fact that other studies with similar objectives also do not have strong results in terms of variance explained. For interests sake, we tried to simulate Anderson's and Western's results by computing our own regression analysis using a similar set up. We used our POS scale as the dependent variable and included the same variables used in the path model as well as some of those which Anderson and Western used (as many as we had measured) - birthplace, age, profession, religion, type of school. In addition, we added year of immigration, place of schooling and ethnicity. We ran the regression on the Canadian sample only and found that we were able to explain a respectable 20% of the variance in the professional attitude scale. Just as in the Anderson and Western case,

we found the teaching profession was the least and the lawyers the most, associated with a high POS score.

These two examples lend support to the reliability of our results as far as the overall reliability of studies using attitudinal variables is assured. One must however, always question one's results in terms of measurement of variables and construction of indicators and no exception is made here.

Since some difference was found with respect to the explanation of professional orientation among the various occupations in the example just presented, and since the means of the POS differed (see Table 14), a path model was constructed replacing CEP with a variable - profession - where each of the four occupations were recoded into their respective Blishen scores. Only FOCC and ISO were entered as background predictors along with the career decision age.. The model was constructed to test whether membership in a particular occupation had an effect upon one's professional orientation, and whether this effect in fact, was greater than the one from the Career Entry Pattern. The results are depicted in Figure D below.

Figure D



The residuals in Figure D above can be compared to those in Figure 1.2. Virtually, no differences exist. In fact, the residual paths into POS and Profession are identical to those into POS and CEP in Figure 1.2, however, the residual path into CDA is slightly lower due probably to the fact that only the two significant background variables FOCC and ISO were entered into the model. Modifying the career development model to include the occupation itself rather than the career entry pattern does not increase the fit for POS.

## CHAPTER FOUR

Summary and Conclusions:

The analysis of career development of the four occupations chosen for this study - doctors, lawyers, secondary school teachers and social workers - resulted in some major findings at both the aggregate and individual level. The literature on the history of the professions in the conservative tradition stresses the importance of homogeneity among the members of a profession both in terms of family background or social origin and in terms of work related attitudes. This homogeneity, or consensus makes it easier for some occupations to exercise both internal control over their membership, and a degree of external control, in the form of projected status, over the society at large. Based on this framework, two major propositions were presented to be tested at the aggregate level: that there would be more consensus on work related attitudes' among the professionals - doctors and lawyers - than among the semi-professionals - teachers and social workers; and that the two professions would have a greater homogeneity in their background characteristics than the two semi-professions. Based on the results of the various forms of measurement used, the two propositions were accepted. Generally, there was more consensus among the doctors and lawyers that autonomy related characteristics such as decision

making responsibility, independence, opportunity to exercise initiative and the opportunity to gain a sense of accomplishment existed in their profession than among the teachers and social workers. In addition, there was a higher level of agreement among the professionals over which work-related characteristics were a source of dissatisfaction to them in their work than among the semi-professionals. Items such as the lack of leisure time, the amount of routine work and personal strain related to professional responsibilities were frequently mentioned.

Although the results were not quite as conclusive, it was found that in general there was a higher level of homogeneity among the professionals with respect to background characteristics, particularly, their social class identification, family size, father's occupation, sex and career decision age. The greatest difference between the two groups was found with respect to sex. The two professions were largely male-dominated in all three countries - Australia, Canada and Sweden; and with exception of the Australian social workers (who were largely female-dominated), the two semi-professions had more equal male/female distribution.

The individual analysis took the form of a causal model - the career development model - and included three stages: the career decision age (CDA), the career entry pattern (CEP) and the degree of professional orientation

(POS). A group of five family background characteristics were chosen on the basis of other studies reported in the literature, and entered into the model. It was hypothesized that father's occupation (FOCC), father's education (FED), mother's education (MED), family size (NSIBS) and the influence of significant others (ISO) would directly affect each stage of the model. Particularly,it was predicted that respondents whose father's had higher SES occupations, whose parents had higher levels of education, who came from smaller families, and who reported an influence from close family members would not only make earlier career decisions and have more direct career entry patterns, but would also have a higher degree of professional orientation. In addition, it was hypothesized that an earlier career decision would be directly related to a more direct career entry pattern, and that both would be related to a higher degree of professional orientation.

The major finding of the career development model was that the career decision age was strongly related to the career entry pattern. In every case, both male and female, semi-professional and professional, and in each country, those respondents who made earlier career decisions were more likely to have entered directly into the occupation of their choice after their formal schooling was finished. They were also less likely to have made any other serious career commitments along the way (i.e. during col-

lege). The relationship was strongest for semi-professionals regardless of sex, and for males as a whole. In part, this relationship is structural in nature since persons who make later career decisions are more likely to have had more time for other choices and occupations. The causal dilemma here is not unlike the one experienced by researchers of occupational mobility. An assumption is made, for example, that one's education preceeds one's first occupation which of course is not always the case, however, the researcher makes the causal assumption based on the theoretical notions about the relationship between education and jobs. (see Blau and Duncan, 1967) For the purpose of this research, an assumption was made that the career decision preceeds the actual working career itself.

Another finding of the career development model, although not as strong as the one above, was that father's occupation and the influence of significant others were important variables for the career decision age for males and the latter for females in general. In both cases, the hypothesis was supported. Father's occupation was not particularly important for females, and in fact, the career development model did not fit the female data as well as it did the males even though the residuals were large in both instances.

There was some continuity between the aggregate and the individual results. For example, parents' education was not significant in either case, although in some isolated

cases, the individual paths were significant. Secondly, both father's occupation and the career decision age were important differentiating variables at both levels of analysis.

Some drawbacks of the analysis were noted. Firstly, a limited sample size for female doctors and lawyers did not allow separate analysis and thus both were combined into a 'professional' group. This no doubt affected the comparative aspects of the research. Secondly, sample restrictions in terms of size made it difficult to draw any firm conclusions about the outcome of the career development model for each occupation by itself. As a whole, there was no consistency in the results. Lastly, the large residual paths leading into each stage of the career development model is a sign of poor fit. Although it was shown that this is not atypical of attitudinal type research, an improvement in both scaling technique and measurement of attitudes in general may help to overcome this problem.

What are the implications of the results presented in this research? In this thesis, the ideal profession was seen as a homogeneous body or 'community' of individuals, each unified with the other through a common bond of background and attitudinal factors. Bishop, in addition to others reviewed earlier, sees the process of becoming professional in two parts: (a) an inward search for unity within the aspiring profession, whereby a common consensus of beliefs

and modes of practice is obtained, and (b) once these 'internal' conditions are satisfied, then the aspiring profession can turn outwards and increase its status in the public eye through what he refers to as 'props' such as sanctions, codes and control over the enrollment to the profession (Bishop, 1973:38). In general, the conservative literature sees the professionalization process as a move towards greater honogeneity, and it is within this framework which we tested our proposed relationships. It was found that the two established professions - medicine and law - were, for the most part, more unified in their attitudes and background characteristics than the two semi-professions - secondary school teaching and social work. It was found that as a whole, the professionals tended to make earlier career decisions, had a more direct career route and were more professionally oriented. In addition, the professionals were more likely to come from higher social origins than the semi-professionals. These findings were in agreement with the literature and with what other researchers of occupations and professions have found. (see also Becker, 1961; Blishen, 1969; Jones,1976; Lipset & Bendix, 1959; Merton, 1957; Pins, 1962; Zelan, 1967)

It was the objective of this thesis, however, to extend the analysis to the individual level in order to establish a relationship among the various social origin variables and the career-related ones. Our goal was only partially

realized in that some of the hypothesized associations were accepted while others were not. Based on those relationships which were found to be true, the notion of the 'professional community' as a model of professionalization can be brought into question. For example, since we established differences between the two professions and the two semi-professions with respect to background and career related variables at the group level, and since we also found some association among those variables at the individual level what are the implications of these findings for the further professionalization of the two semi-professions? Is it in fact possible for teaching and social work to become completely professionalized through increased homogeneity? There are several barriers which have been brought to light in this study to increased professionalization within the context of the professional ' community' ideal. The first is the greater female participation rate within teaching and social work. This pattern is interesting because even though a greater percentage of females within an occupation is a barrier to complete unity, the females in our sample conform more to the 'community' ideal than the males. Although women have been found to have a greater 'in' and 'out' pattern within an occupation (Tavistock, 1969:34), a finding we could not replicate here, they displayed a more direct career route than the males in our sample, meaning that females are less likely than males to have had other jobs and career

choices prior to their present occupation. This was the case in all four occupations. A second barrier to professionalization using the 'community' model for teachers and social workers is the greater proportion of individuals from a variety of SES backgrounds. In societies which stress equal opportunity, this factor should increase rather than decrease making unity in background characteristics an unlikely possibliity. Jones, in his analysis of the same sample sets found that there was a trend over time towards greater proportionality in social origins in each of the four occupations reflecting what he terms a direction towards equalizing opportunities to enter the four professions (Jones, 1976:160).

A final barrier to increased professionalization using the 'community' model is the size of the occupation itself. It is logical to conclude that the greater the number of individuals within an occupation, the greater the chance of heterogeneity in their backgrounds. Both teaching and social work have increased substantially to meet the increased demand over the last few decades, and this increase has only very recently began to ease.

We conclude, therefore, that since certain background variables such as father's occupation and the age when the career decision was made, have an effect on the career route and the degree of professional orientation, that occupations which have a higher percentage of their members

making later career decisions (such as was the case for teaching and social work) or with fathers who had lower SES occupations will be more affected in terms of their professionalization than those occupations where this occurred to a lesser degree.

Freidson questioned a professionalization model which did not allow for diversity in individual professionalism. The analysis here posed the same question. In order for complete professionalization to occur, occupations must become homogeneous in terms of the attitudes and background characteristics of their members. This could only happen at the expense of equal opportunity. Even the more established professions with their tight control over recruitment have felt an increasing pressure to "open their doors" to the rest of society which threatens their unity. We can note that one Canadian medical school recently had a fifty percent female participation rate in their first year class.[10] In addition, their policy is to encourage students with a variety of backgrounds to apply for entry into the professional school.

Is the 'professional community' model becoming obsolete? Some have argued that we should allow for individual variation within an occupation and that in fact it adds to rather than detracts from the overall functioning of the

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10. Registrar's Office, M.U.M.C., Hamilton, Ontario

occupation (Partridge, 1966:81). This notion, however, leaves open the possibility of personal versus group conflict in the cases where the traits of the individual do not complement the group characteristics (Cogan, 1955:110). Bucher and Strauss argue that the functionalist approach to the study of the professions overlooks the more subtle features of the profession's organization and fails to appreciate that differences within the profession are consequential for change (Bucher and Strauss, 1961:325). They advocate a model called the 'process' model where the different 'segments' within a profession are held together loosely under a common name at a particular period in history (Bucher and Strauss, 1961:325).

Others have questioned the traditional professional models. Seymour, in a short brief on teaching and professionalism argued that the criterion for determining professional status should be deemed obsolete with the increasing spread of education and technology (Vollmer and Mills, 1966:129).

It is not within the scope of this research to develop an alternative model for professionalism, but rather to test an existing one. It is concluded, however, that alternative models must be explored in the light of changing opportunity structure. Finally, as is the case in most studies, further research is necessary to fully comprehend the relationship between professionalization at the group

level, and the individual characteristics of persons within the occupation. The results here can only be generalized to the four occupations studied - medicine, law, secondary school teaching and social work, and are only as reliable as the methods used here.

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# APPENDIX A

(Questionnaire)

McMASTER UNIVERSITY

HAMILTON, ONTARIO, CANADA

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

UNIVERSITY COLLEGE

Dear Sir or Madam:

I am engaged in research on persons employed in selected professional occupations in Australia, Canada and Sweden. I have obtained the necessary information from persons employed in these professions in Australia and Sweden and I am now conducting the Canadian phase of the research. I invite you to participate in this research by completing this questionnaire, which will take you about 20-30 minutes, and returning it to me as promptly as possible.

As I am asking only a small number of persons, selected at random from a list of persons employed in your profession, to answer the questionnaire, it is very important that each person chosen in the sample should return the completed questionnaire to me.

Although the results of the research may not benefit you directly, I hope that my project will contribute to an understanding of recruitment into the professions.

When I analyse and report the results of the survey, I shall not refer to the replies of any individual as I am interested only in similarities and differences among replies from persons grouped together by, for example, age, income and community. Consequently, your replies will be regarded as strictly confidential and you will not be identified in any reports of the research. The number stamped on the questionnaire is only for my records and will not be used to identify your answers. The rather unusual numbering scheme for the questions is for clerical purposes.

If you have any questions about the questionnaire or the research, please do not hesitate to write to me.

I look forward to receiving your completed questionnaire in the very near future.

Yours sincerely,

Frank E. Jones
Professor of Sociology

PROFESSIONAL EMPLOYMENT QUESTIONNAIRE

MOST QUESTIONS CAN BE ANSWERED BY CIRCLING THE NUMBER BESIDE THE APPROPRIATE ANSWER

Card 1
Col. 7 Are you 1. Male 2. Female?

8-9 In what province (or country) were you born?

| | | | |
|---|---|---|---|
| 01. | Newfoundland | 13. | England |
| 02. | Prince Edward Island | 14. | Italy |
| 03. | Nova Scotia | 15. | Netherlands |
| 04. | New Brunswick | 16. | N. Ireland |
| 05. | Quebec | 17. | Scotland |
| 06. | Ontario | 18. | United States |
| 07. | Manitoba | 19. | U.S.S.R. |
| 08. | Saskatchewan | 20. | Germany |
| 09. | Alberta | 21. | Poland |
| 10. | British Columbia | 22. | Wales |
| 11. | Yukon | 23. | Other (Please specify) |
| 12. | North West Territories | | |

10-11 If you were not born in Canada, what year did you immigrate to Canada?

| | | | | | |
|---|---|---|---|---|---|
| 01. | Born in Canada | 05. | 1956-1960 | 10. | 1969 |
| 02. | Before 1939 | 06. | 1961-1965 | 11. | 1970 |
| 03. | 1939-1945 | 07. | 1966 | 12. | 1971 |
| 04. | 1946-1955 | 08. | 1967 | 13. | 1972 |
| | | 09. | 1968 | 14. | 1973 |

12-13 In what province (or country) was your father born?

| | | | |
|---|---|---|---|
| 01. | Newfoundland | 13. | England |
| 02. | Prince Edward Island | 14. | Italy |
| 03. | Nova Scotia | 15. | Netherlands |
| 04. | New Brunswick | 16. | N. Ireland |
| 05. | Quebec | 17. | Scotland |
| 06. | Ontario | 18. | United States |
| 07. | Manitoba | 19. | U.S.S.R. |
| 08. | Saskatchewan | 20. | Germany |
| 09. | Alberta | 21. | Poland |
| 10. | British Columbia | 22. | Wales |
| 11. | Yukon | 23. | Other (Please specify) |
| 12. | North West Territories | | |

14-15 In what province (or country) was your mother born?

| | | | |
|---|---|---|---|
| 01. | Newfoundland | 13. | England |
| 02. | Prince Edward Island | 14. | Italy |
| 03. | Nova Scotia | 15. | Netherlands |
| 04. | New Brunswick | 16. | N. Ireland |
| 05. | Quebec | 17. | Scotland |
| 06. | Ontario | 18. | United States |
| 07. | Manitoba | 19. | U.S.S.R. |
| 08. | Saskatchewan | 20. | Germany |
| 09. | Alberta | 21. | Poland |
| 10. | British Columbia | 22. | Wales |
| 11. | Yukon | 23. | Other (Please specify) |
| 12. | North West Territories | | |

16-17 In what year were you born? _____

18 Are you

1. Single
2. Married
3. Separated
4. Divorced
5. Widowed?

19-23 Please state the highest grade or year of education that you completed and the degree or diploma obtained

GIVE INFORMATION FOR HIGHEST LEVEL OF EDUCATIONAL ATTAINMENT

| | Highest grade or year completed | Degree or Diploma | Date completed (year only) | Part or full time |
|---|---|---|---|---|
| High School or Equivalent Secondary Level Education | | | | |
| Teachers' College | | | | |
| Community College or Equivalent Junior College | | | | |
| University Undergraduate | | | | |
| University Post-graduate (Master's or Doctorate Degree) | | | | |
| Postgraduate Professional Diploma | | | | |

24-25 What age were you when you completed your highest grade or year of education?

_____years

26-27 In all, how many years of primary, secondary and tertiary education did you complete?

_____years

28-29 Where did you receive most or all of your education?

01. In Canada
02. Elsewhere (Please specify) _____

30 Did you receive your secondary school education

1. in a non-denominational or protestant public school system?
2. in a Roman Catholic separate school system?
3. in a protestant or non-denominational private school?
4. in a Roman Catholic private school?

(If you were not educated in Canada, circle the nearest Canadian equivalent)

31 How well, in general, did you do in secondary school?

1. Well above average
2. Somewhat above average
3. About average
4. Somewhat below average
5. Well below average

32 Were you awarded a scholarship to University? 1. Yes 2. No



It would be very helpful to me if, in answering questions such as the following about your occupational history, you would provide complete occupational titles.

Examples of complete and incomplete titles are:

| Complete | Incomplete |
|---|---|
| Drill-press operator | Machine operator |
| High school English teacher | Teacher |
| Invoice clerk | Clerk |
| Medical X-ray technician | Technician |
| Electrician foreman | Foreman |
| Office machine mechanic | Mechanic |
| Farm owner | Farmer |
| Farm hand | Farmer |

33-36 Was your first full-time occupation your present profession?

1. Yes
2. No, my first full-time occupation was (Please give complete title) _____

37-39 In what kind of industry, or business, or service did you work?

_____

(For example: auto assembly plant, mining, retail supermarket, farm, health services, education)

40 IF FARM OWNER: Main produce was_____Acreage was_____

41-42 How old were you when you began your first full-time occupation after you left school? (Include service in the Armed Forces only if you joined for a career)

_____

43-45 If your first full-time occupation was not your present profession, how long were you employed in it?

_____years_____months

After your first full-time occupation, if you were employed in any occupation other than your present profession for six months or more, please state the exact title of the occupation and the period of employment. Start with the occupation following your first full-time occupation and so on to the occupation nearest to the present. (See Question 33-36 above for example of complete and incomplete occupational titles)

| | Occupation | Length of Time employed | Industry or Business or Service |
|---|---|---|---|
| 46-54 | | yrs. mos. | |
| 55-63 | | yrs. mos. | |
| 64-72 | | yrs. mos. | |
| Card 2 7-15 | | yrs. mos. | |
| 16-24 | | yrs. mos. | |

25-26 In what year did you begin work in your present profession?

_____

27 Are you

1. Working for wages or salary for an individual, a private agency, a private company or a business?
2. Working for fees, commissions, business profits, etc. for an individual, a private company or a business?
3. A government employee (Federal, Provincial, Local government)?
4. Self employed with your own business, professional practice or farm?
5. Working without pay in a family business or farm?
6. Not presently employed but plan to return to professional work?
7. Retired?

28-29 At what age did you first decide to become a member of your present profession?

_____years

30 By age 16 I had

1. A clear idea of the kind of occupation I wanted
2. A fairly clear idea of the kind of occupation I wanted
3. Only a vague idea of the kind of occupation I wanted
4. No idea at all of the kind of occupation I wanted

31 If at age 16, you had a clear or fairly clear idea of the occupation you wanted, was that occupation your present profession? 1. Yes 2. No

32-35 When I began to study for my present profession, it was my first choice among those occupations I had considered in planning a career.

1. Yes 2. No, my first choice was_____

36-37 Please circle one or two of the following who most influenced your ideas about the occupation you wanted

1. Father
2. Mother
3. Brother
4. Sister
5. Teacher
6. Vocational Guidance Counsellor
7. Friend
8. Other (Please specify)

_____

9. No-one influenced me

38 When I was about 16, I spent my free time

1. Mostly with a lot of friends
2. Mostly with a few friends
3. Mostly by myself

39 Would you say that your friends' educational plans were

1. More ambitious than your own?
2. About the same as your own?
3. Less ambitious than your own?

40 Would you say that your friends' occupational plans were

1. More ambitious than your own?
2. About the same as your own?
3. Less ambitious than your own?



41 About how much time did you spend discussing with your friends the kind of career you wanted?

1. More than average amount of time
2. About average
3. Below average amount of time
4. I have never discussed it with them

42 Would you say, when you were about 16, that your friends were

1. Better off financially than yourself?
2. About the same?
3. Worse off financially?

43 When you were about 16, were your parents living?

1. Both parents were living
2. Only your mother was living
3. Only your father was living
4. Neither parent was living

44 When you were about 16, with whom did you live?

1. Your mother and father
2. Your mother and stepfather
3. Your father and stepmother
4. With your mother only
5. With your father only
6. With someone other than your parents
7. Alone

What is or was your father's main occupation - the one in which he has worked most of his life? (Substitute the head of the family if you were not living with your father when you were about 16) Please give the most complete occupational title that you can remember. (Please refer to page 2, Question 33-36, for examples of complete and incomplete occupational titles)

45-47 My father's main occupation is or was

_____

48-50 In what kind of industry, business or service does or did he work?

_____

(For example: auto assembly plant, mining, retail supermarket, farm, health services, education)

51-54 Was your father already employed in his main occupation when you were 16?

1. Yes
2. No, his occupation when I was 16 was

_____

55-57 and the industry, business or service was

_____

(For example: auto assembly plant, mining, retail supermarket, farm, health services, education)

58-59 In what country did your father receive most of his education?

_____

60-61 What was the highest grade or year of schooling your father achieved? (If your father was educated in another country, please state the nearest Canadian equivalent grade or year)

| Never attended school | Kindergarten or preparatory | Highest year at: Primary School | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

| Secondary School (Junior and Senior High School) | | | | | | |
|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

Highest Year at:

| College or University | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | or more |
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

62-63 What was the highest grade or year of schooling your mother achieved? (If your mother was educated in another country, please state the nearest Canadian equivalent grade or year)

| Never attended school | Kindergarten or preparatory | Highest year at: Primary School | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

| Secondary School (Junior and Senior High School) | | | | | | |
|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

Highest year at:

| College or University | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | or more |
| [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] |

64-66 If you were to explain to an overseas visitor what social classes there are in Canada, what would you call those classes?
(Highest class) A_____ B_____ C_____

D_____ E_____ F_____

G_____ H_____ I_____

67 To which social class do you belong?_____

68 To which social class did your parents belong when you were about 16? (If your parents were living in another country, please give the nearest Canadian equivalent)

_____



69 Where were you living when you were about 16 years old?

1. In the same place (e.g. village, town, city) as at the present time
2. In a different place (Please give its name)

_____

70 Including those no longer living, how many sisters have you?

_____ sisters

71 Including those no longer living, how many brothers have you?

_____ brothers

72 How many of your sisters were older than you?_____

73 How many of your brothers were older than you?_____

74-75 What is your religious affiliation?

| | |
|---|---|
| 01. Anglican | 06. Presbyterian |
| 02. Baptist | 07. Roman Catholic |
| 03. Orthodox (Greek, Russian etc.) | 08. United Church |
| 04. Jewish | 09. Ukrainian Catholic |
| 05. Lutheran | 10. Other (Please specify) |

_____

11. No formal religious affiliation

76-77 With which ethnic group do you identify?

| | | |
|---|---|---|
| 01. Danish | 07. Italian | 13. Swedish |
| 02. English | 08. Dutch | 14. Ukrainian |
| 03. French | 09. Norwegian | 15. Welsh |
| 04. German | 10. Polish | 16. Other (Please specify) |
| 05. Hungarian | 11. Russian | |
| 06. Irish | 12. Scottish | |

_____

17. None

Card 3

7-8 When did your ancestors (on your father's side) immigrate to Canada?

| | | |
|---|---|---|
| 01. Before 1750 | 06. 1921-1940 | 11. I (or another member of my generation) was the first of the family to immigrate to Canada |
| 02. 1751-1800 | 07. 1941-1945 | |
| 03. 1801-1850 | 08. 1946-1950 | |
| 04. 1851-1900 | 09. 1951-1960 | |
| 05. 1901-1920 | 10. After 1960 | |

9-10 When did your ancestors (on your mother's side) immigrate to Canada?

| | | |
|---|---|---|
| 01. Before 1750 | 06. 1921-1940 | 11. I (or another member of my generation) was the first of the family to immigrate to Canada |
| 02. 1751-1800 | 07. 1941-1945 | |
| 03. 1801-1850 | 08. 1946-1950 | |
| 04. 1851-1900 | 09. 1951-1960 | |
| 05. 1901-1920 | 10. After 1960 | |

11-12 What was your personal income group, before taxes, during the last 12 months? (If you are self-employed, state the amount after deduction of business expenses)

| | | | |
|---|---|---|---|
| 01. | Less than $2,000 | 11. | $11,000-11,999 |
| 02. | $2,000-2,999 | 12. | 12,000-12,999 |
| 03. | 3,000-3,999 | 13. | 13,000-13,999 |
| 04. | 4,000-4,999 | 14. | 14,000-14,999 |
| 05. | 5,000-5,999 | 15. | 15,000-15,999 |
| 06. | 6,000-6,999 | 16. | 16,000-19,999 |
| 07. | 7,000-7,999 | 17. | 20,000-29,999 |
| 08. | 8,000-8,999 | 18. | 30,000-39,999 |
| 09. | 9,000-9,999 | 19. | 40,000 and over |
| 10. | 10,000-10,999 | 20. | No Income, did not work for pay |

13 During this year

1. I worked full time or mostly full time
2. I worked part time
3. I did not work



Please rate the degree to which each of the following characteristics is generally present in your occupation.

The degree to which the characteristic is present is:

| | | Very low | Low | Moderate | High | Very High |
|---|---|---|---|---|---|---|
| 14 | Routine work | 1 | 2 | 3 | 4 | 5 |
| 15 | Decision-making responsibility | 1 | 2 | 3 | 4 | 5 |
| 16 | Amount of leisure or free time | 1 | 2 | 3 | 4 | 5 |
| 17 | Material security | 1 | 2 | 3 | 4 | 5 |
| 18 | Need to improve professional knowledge and skills | 1 | 2 | 3 | 4 | 5 |
| 19 | Opportunity to help people | 1 | 2 | 3 | 4 | 5 |
| 20 | Opportunity for advancement | 1 | 2 | 3 | 4 | 5 |
| 21 | Opportunity to exercise initiative | 1 | 2 | 3 | 4 | 5 |
| 22 | A high income | 1 | 2 | 3 | 4 | 5 |
| 23 | Variety in the work | 1 | 2 | 3 | 4 | 5 |
| 24 | The work is basically interesting | 1 | 2 | 3 | 4 | 5 |
| 25 | Opportunity to work with stimulating colleagues | 1 | 2 | 3 | 4 | 5 |
| 26 | Personal strain or worry directly related to professional responsibilities | 1 | 2 | 3 | 4 | 5 |
| 27 | Stepping stone to higher responsibility in politics, business or community affairs | 1 | 2 | 3 | 4 | 5 |
| 28 | A high reputation in the community | 1 | 2 | 3 | 4 | 5 |
| 29 | Independence | 1 | 2 | 3 | 4 | 5 |
| 30 | Opportunity to serve the community | 1 | 2 | 3 | 4 | 5 |
| 31 | Opportunity to gain a sense of accomplishment | 1 | 2 | 3 | 4 | 5 |

# APPENDIX B

Table 2.1

Difference of Sample Characteristics between Respondents and Non Respondents for Doctors

| Sample Characteristic | Canada | Australia | Sweden |
|---|---|---|---|
| Yr. of Graduation | N.S. | N.S. | - |
| Place of Graduation | N.S. | - | - |
| Sex | N.S. | N.S. | N.S. |
| Specialization | S.=.001 | S.=.02 | N.S. |
| Administration | N.S. | - | N.S. |
| Residence | S.=.05 | N.S. | N.S. |
| Language | S.=.001 | - | - |
| Member of Assoc. or not | - | - | S.=.04 |

Table 2.2

Difference of Sample Characteristics Between Respondents and Non Respondents for Lawyers

| Sample Characteristic | Canada | Australia | Sweden |
|---|---|---|---|
| Sex | N.S. | N.S. | S.=.001 |
| Type of Employment | N.S. | - | N.S. |
| Type of Lawyer | N.S. | N.S. | - |
| Language | N.S. | - | - |
| Residence | - | N.S. | N.S. |
| Year of Graduation | - | N.S. | - |

Table 2.3

Difference of Sample Characteristics between Respondents and Non Respondents for Secondary School Teachers

| Sample Characteristic | Canada | Australia | Sweden |
|---|---|---|---|
| Sex | N.S. | N.S. | N.S. |
| Yr. of Graduation | N.S. | - | - |
| Administration | S.=.002 | N.S. | - |
| Place of Graduation | N.S. | - | - |
| Residence | S.=.006 | N.S. | N.S. |
| Language | S.=.000 | - | - |
| Marital Status | N.S. | S.=.05 | - |
| Year of Birth | N.S. | - | N.S. |
| Place of Birth | N.S. | - | - |
| Degree Held | S.=.05 | - | - |
| Years of Experience | N.S. | - | - |
| Salary | N.S. | - | - |
| Size of Class | N.S. | - | - |
| Subject Taught | - | N.S. | N.S. |

Table 2.4

Difference of Sample Characteristics between Respondents and Non Respondents for Social Workers

| Sample Characteristic | Canada | Australia | Sweden |
|---|---|---|---|
| Sex | N.S. | N.S. | N.S. |
| Residence | S.=.002 | N.S. | N.S. |
| Language | S.=.001 | - | - |
| Marital Status | N.S. | S.=.03 | - |
| Member of S.W. Assoc. or not | - | - | N.S. |

Table 3

Comparison of Percentage Distributions of Sex Between the Canadian Sample and the 1971 Census

| | Doctors | | Lawyers | | S.S. Teachers | | S. Workers | |
|---|---|---|---|---|---|---|---|---|
| | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. |
| Males | 89.9 | 88.2 | 95.2 | 96.6 | 55.5 | 65.5 | 46.6 | 42.3 |
| Females | 10.1 | 11.8 | 4.8 | 3.4 | 44.5 | 34.5 | 53.4 | 57.7 |
| N | 28580 | 288 | 16315 | 265 | 111105 | 387 | 11845 | 455 |

Table 4.1

Comparison of Percentage Distributions of Age Groups Between the Canadian Sample and the 1971 Census - Males

| | Doctors | | Lawyers | | S.S. Teachers | | S. Workers | |
|---|---|---|---|---|---|---|---|---|
| | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. |
| 20-24 | 2.5 | 0.0 | 2.3 | 0.4 | 11.4 | 2.0 | 17.8 | 2.6 |
| 25-29 | 13.0 | 3.2 | 19.2 | 15.4 | 30.1 | 25.5 | 27.6 | 18.1 |
| 30-34 | 14.6 | 10.7 | 16.6 | 20.9 | 21.3 | 27.5 | 13.5 | 21.8 |
| 35-39 | 14.7 | 17.8 | 15.5 | 17.8 | 12.1 | 16.7 | 10.3 | 15.0 |
| 40-44 | 14.4 | 15.4 | 13.0 | 12.3 | 8.8 | 8.8 | 8.0 | 11.4 |
| 45-49 | 14.1 | 15.4 | 9.8 | 9.5 | 6.3 | 8.8 | 6.6 | 12.4 |
| 50-54 | 9.4 | 12.6 | 7.2 | 8.7 | 4.3 | 6.8 | 7.5 | 8.8 |
| 55-59 | 7.0 | 10.3 | 5.1 | 4.3 | 3.2 | 3.2 | 4.1 | 6.2 |
| 60-64 | 4.5 | 5.9 | 4.2 | 4.0 | 1.8 | 0.4 | 1.9 | 3.1 |
| 65-69 | 3.2 | 2.4 | 3.1 | 2.0 | 0.4 | 0.4 | 0.8 | 0.5 |
| 70+ | 2.6 | 6.3 | 3.8 | 4.7 | 0.1 | 0.0 | 0.4 | 0.0 |
| Mean | 43.0 | 46.9 | 41.0 | 41.4 | 34.0 | 35.9 | 35.0 | 39.1 |
| Median | 42.0 | 45.3 | 39.0 | 38.2 | 32.0 | 33.4 | 31.0 | 37.0 |
| N | 25695 | 253 | 15535 | 253 | 61645 | 251 | 5520 | 193 |

Table 4.2

Comparison of Percentage Distributions of Age Groups Between the Canadian Sample and the 1971 Census - Females

| | Doctors | | Lawyers | | S.S. Teachers | | S. Workers | |
|---|---|---|---|---|---|---|---|---|
| | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. |
| 20-24 | 11.4 | 0.0 | 10.2 | 0.0 | 21.8 | 15.9 | 21.0 | 3.1 |
| 25-29 | 20.8 | 2.9 | 26.8 | 66.7 | 25.5 | 28.0 | 21.7 | 14.2 |
| 30-34 | 16.6 | 8.8 | 17.8 | 0.0 | 12.0 | 17.4 | 10.0 | 11.1 |
| 35-39 | 13.3 | 20.6 | 11.5 | 11.1 | 9.0 | 7.6 | 8.5 | 11.9 |
| 40-44 | 11.4 | 17.6 | 8.9 | 11.1 | 8.3 | 6.8 | 9.3 | 11.5 |
| 45-49 | 11.2 | 17.6 | 8.3 | 0.0 | 6.9 | 5.3 | 8.9 | 17.2 |
| 50-54 | 6.6 | 14.7 | 4.5 | 0.0 | 6.5 | 9.8 | 8.2 | 11.1 |
| 55-59 | 3.8 | 11.8 | 6.4 | 11.1 | 5.6 | 6.1 | 6.6 | 7.3 |
| 60-64 | 2.4 | 0.0 | 1.9 | 0.0 | 3.2 | 3.0 | 3.0 | 8.4 |
| 65-69 | 1.7 | 2.9 | 0.6 | 0.0 | 0.8 | 0.0 | 0.7 | 2.3 |
| 70+ | 0.5 | 2.9 | 2.5 | 0.0 | 0.2 | 0.0 | 0.4 | 1.9 |
| Mean | 37.0 | 45.9 | 37.0 | 33.6 | 35.0 | 35.6 | 36.0 | 43.6 |
| Median | 35.0 | 44.0 | 34.0 | 28.8 | 31.0 | 31.2 | 33.0 | 43.9 |
| N | 2890 | 34 | 785 | 9 | 49460 | 132 | 6325 | 261 |

Table 5.1

Comparison of Percentage Distributions of Marital Status Between the Canadian Sample and the 1971 Census - Males

| | Doctors | | Lawyers | | S.S. Teachers | | S. Workers | |
|---|---|---|---|---|---|---|---|---|
| | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. |
| Single | 8.0 | 5.5 | 12.3 | 9.5 | 22.3 | 12.4 | 24.8 | 15.5 |
| Married | 90.2 | 91.3 | 85.5 | 88.6 | 76.5 | 86.0 | 74.3 | 82.9 |
| Widowed | 0.9 | 2.4 | 1.0 | 0.8 | 0.4 | 0.0 | 0.3 | 0.5 |
| Divorced | 1.0 | 0.8 | 1.2 | 1.2 | 0.8 | 1.6 | 0.6 | 1.0 |
| N | 25695 | 254 | 15535 | 254 | 61645 | 250 | 5520 | 193 |

Table 5.2

Comparison of Percentage Distributions of Marital Status Between the Canadian Sample and the 1971 Census - Females

| | Doctors | | Lawyers | | S.S. Teachers | | S. Workers | |
|---|---|---|---|---|---|---|---|---|
| | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. |
| Single | 34.4 | 23.5 | 42.0 | 22.2 | 37.8 | 38.3 | 41.7 | 35.6 |
| Married | 59.9 | 70.6 | 44.6 | 66.7 | 57.3 | 57.9 | 51.5 | 57.1 |
| Widowed | 2.8 | 2.9 | 6.4 | 0.0 | 2.9 | 1.5 | 3.9 | 5.0 |
| Divorced | 2.6 | 2.9 | 6.4 | 11.1 | 1.9 | 2.3 | 2.9 | 2.3 |
| N | 2890 | 34 | 785 | 9 | 49460 | 133 | 6325 | 261 |

Table 6.1

Comparison of Percentage Distributions of Birthplace Between the Canadian Sample and the 1971 Census - Males

| | Doctors | | Lawyers | | S.S. Teachers | | S. Workers | |
|---|---|---|---|---|---|---|---|---|
| | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. |
| Canada | 65.3 | 65.6 | 89.3 | 88.3 | 82.2 | 82.9 | 79.1 | 85.4 |
| U.S.A. | 1.8 | 2.4 | 1.6 | 2.3 | 2.0 | 0.8 | 4.1 | 3.1 |
| U.K. | 10.2 | 12.3 | 3.3 | 5.1 | 5.2 | 5.6 | 8.2 | 2.6 |
| Europe | 10.3 | 7.9 | 4.2 | 2.7 | 6.0 | 5.7 | 4.6 | 5.0 |
| Asia | 6.4 | 5.9 | 0.6 | 0.0 | 1.5 | 1.2 | 1.7 | 1.3 |
| Other | - | 5.9 | - | 1.6 | - | 3.8 | - | 10.4 |
| N | 25695 | 253 | 15535 | 256 | 61645 | 251 | 5520 | 192 |

Table 6.2

Comparison of Percentage Distributions of Birthplace Between the Canadian Sample and the 1971 Census - Females

| | Doctors | | Lawyers | | S.S. Teachers | | S. Workers | |
|---|---|---|---|---|---|---|---|---|
| | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. |
| Canada | 50.2 | 26.5 | 87.8 | 88.9 | 85.6 | 87.2 | 79.5 | 78.2 |
| U.S.A. | 3.3 | 2.9 | 2.6 | 0.0 | 2.6 | 0.8 | 3.5 | 5.0 |
| U.K. | 13.3 | 47.1 | 4.5 | 0.0 | 4.3 | 5.3 | 6.1 | 6.9 |
| Europe | 15.9 | 17.6 | 3.8 | 11.1 | 5.8 | 5.3 | 7.0 | 5.3 |
| Asia | 12.3 | 2.9 | 0.0 | 0.0 | 1.1 | 0.8 | 1.6 | 3.4 |
| Other | - | 2.9 | - | 0.0 | - | 0.8 | - | 1.1 |
| N | 2890 | 34 | 785 | 9 | 49460 | 133 | 6325 | 262 |

Table 7.1

Comparison of Percentage Distributions of Date of Immigration Between the Canadian Sample and the 1971 Census - Males

| | Doctors | | Lawyers | | S.S. Teachers | | S. Workers | |
|---|---|---|---|---|---|---|---|---|
| | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. |
| Pre 1946 | 11.6 | 15.9 | 40.1 | 36.7 | 10.2 | 9.9 | 10.0 | 3.7 |
| Post 1946 | 88.4 | 84.1 | 59.9 | 63.3 | 89.8 | 90.1 | 90.0 | 96.3 |
| N(F.Born) | 8920 | 88 | 1670 | 30 | 10995 | 44 | 1155 | 27 |

Table 7.2

Comparison of Percentage Distributions of Date of Immigration Between the Canadian Sample and the 1971 Census - Females

| | Doctors | | Lawyers | | S.S. Teachers | | S. Workers | |
|---|---|---|---|---|---|---|---|---|
| | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. |
| Pre 1946 | 7.3 | 12.5 | 31.6 | 0.0 | 14.7 | 11.8 | 9.4 | 22.8 |
| Post 1946 | 92.7 | 87.5 | 68.4 | 100.0 | 85.3 | 88.2 | 90.6 | 77.2 |
| N(F. Born) | 1440 | 24 | 95 | 1 | 7100 | 17 | 1925 | 57 |

Table 8.1

Comparison of Percentage Distributions of Ethnicity Between the Canadian Sample and the 1971 Census - Males

| | Doctors | | Lawyers | | S.S. Teachers | | S. Workers | |
|---|---|---|---|---|---|---|---|---|
| | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. |
| Br. Isles | 45.2 | 52.6 | 51.0 | 52.6 | 46.0 | 40.6 | 50.6 | 35.4 |
| French | 21.0 | 13.4 | 22.1 | 11.1 | 28.8 | 23.9 | 24.8 | 20.6 |
| German | 3.6 | 1.2 | 2.9 | 2.0 | 6.6 | 2.4 | 5.5 | 8.5 |
| Italian | 1.1 | 0.8 | 1.3 | 0.8 | 1.6 | 4.0 | 1.5 | 1.1 |
| Jewish | 8.5 | 2.8 | 13.2 | 5.5 | 1.2 | 0.4 | 2.7 | 2.6 |
| Dutch | 1.1 | 2.0 | 0.8 | 0.8 | 1.8 | 1.2 | 1.6 | 0.0 |
| Polish | 1.3 | 0.4 | 0.9 | 1.2 | 1.3 | 0.4 | 1.0 | 2.6 |
| Scand. | 1.0 | 0.4 | 1.0 | 1.2 | 1.9 | 1.6 | 2.0 | 0.5 |
| Ukrain. | 2.2 | 0.8 | 2.2 | 2.4 | 3.3 | 1.6 | 1.9 | 1.1 |
| Other Eur. | 4.9 | 5.1 | 2.6 | 5.5 | 3.4 | 4.4 | 2.6 | 6.9 |
| Asian | 7.8 | 4.3 | 1.1 | 0.8 | 2.2 | 0.8 | 1.9 | 1.1 |
| Other* | 0.1 | 16.2 | 0.1 | 15.4 | 0.2 | 18.7 | 1.7 | 19.6 |
| N | 25695 | 253 | 15535 | 253 | 61645 | 251 | 5520 | 189 |

* Other category included 'Canadian' for the sample and thus is different from the 'other' category in the Census which refers to Native Indian and other.

Table 8.2

Comparison of Percentage Distributions of Ethnicity Between the Canadian Sample and the 1971 Census - Females

| | Doctors | | Lawyers | | S.S. Teachers | | S. Workers | |
|---|---|---|---|---|---|---|---|---|
| | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. | Cen. | Samp. |
| Br. Isles | 43.1 | 70.6 | 49.7 | 33.3 | 46.0 | 36.6 | 48.8 | 38.9 |
| French | 14.5 | 2.9 | 26.1 | 22.2 | 33.5 | 33.6 | 22.9 | 21.4 |
| German | 4.0 | 0.0 | 3.8 | 0.0 | 5.0 | 2.3 | 5.5 | 0.4 |
| Italian | 1.0 | 2.9 | 1.9 | 0.0 | 1.1 | 0.0 | 0.9 | 0.0 |
| Jewish | 5.2 | 2.9 | 6.4 | 0.0 | 1.9 | 0.0 | 6.6 | 5.1 |
| Dutch | 1.2 | 0.0 | 0.6 | 0.0 | 1.3 | 1.5 | 1.7 | 0.4 |
| Polish | 1.9 | 2.9 | 1.9 | 11.1 | 1.4 | 0.8 | 1.7 | 0.4 |
| Scand. | 1.4 | 0.0 | 1.3 | 0.0 | 1.8 | 0.0 | 1.6 | 0.4 |
| Ukrain. | 1.9 | 0.0 | 1.3 | 11.1 | 2.5 | 0.8 | 2.3 | 0.8 |
| Other Eur. | 10.7 | 8.8 | 3.8 | 0.0 | 3.0 | 12.2 | 4.0 | 7.0 |
| Asian | 13.0 | 5.9 | 1.3 | 0.0 | 1.4 | 0.0 | 0.3 | 2.7 |
| Other* | 0.2 | 5.9 | 0.0 | 22.2 | 0.1 | 12.2 | 0.1 | 23.0 |
| N | 2890 | 34 | 785 | 9 | 49460 | 131 | 6325 | 257 |

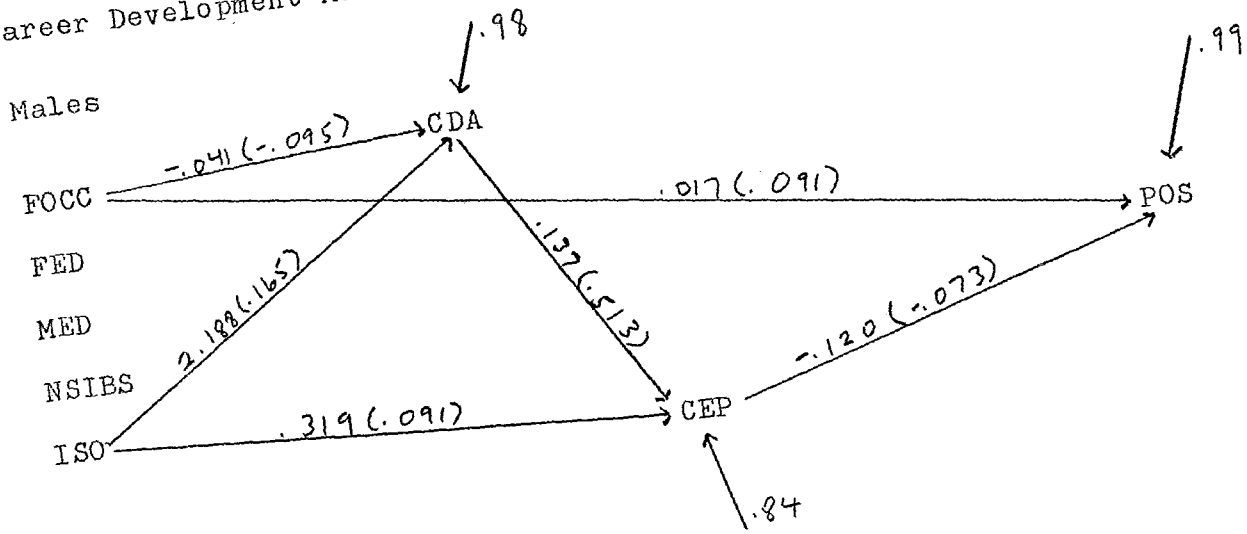
* Other category included 'Canadian' for the sample and thus is different from the 'other' category in the Census which refers to Native Indian and other.

# APPENDIX C

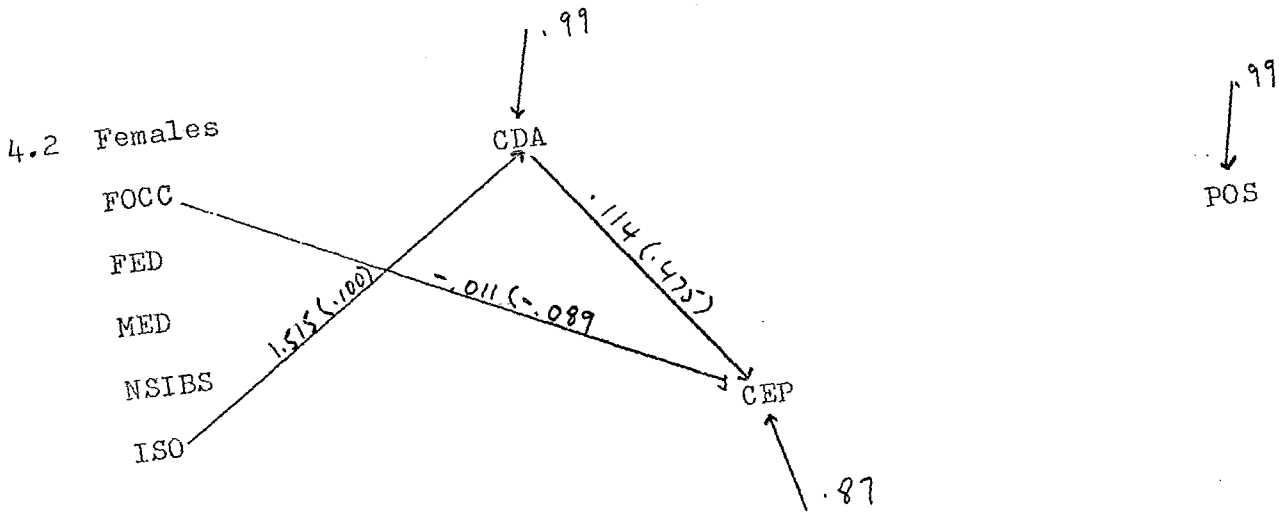
Figure 4

The Career Development Model* - Australia (All Occupations)

4.1 Males



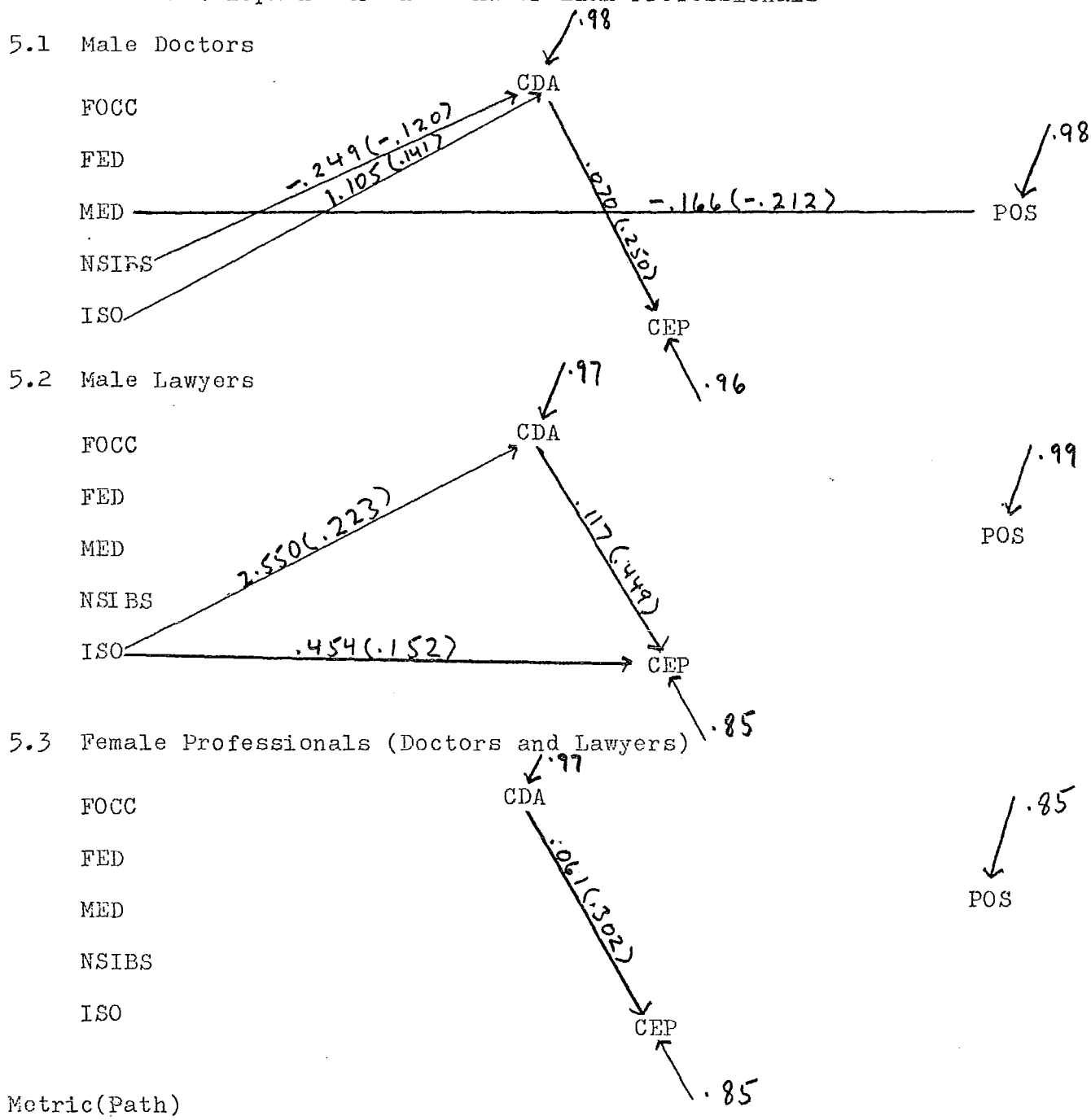

4.2 Females




Metric(Path)
*Significant Paths Only

Figure 5

The Career Development Model* - Australian Professionals




Metric(Path)
*Significant Paths Only

Figure 6

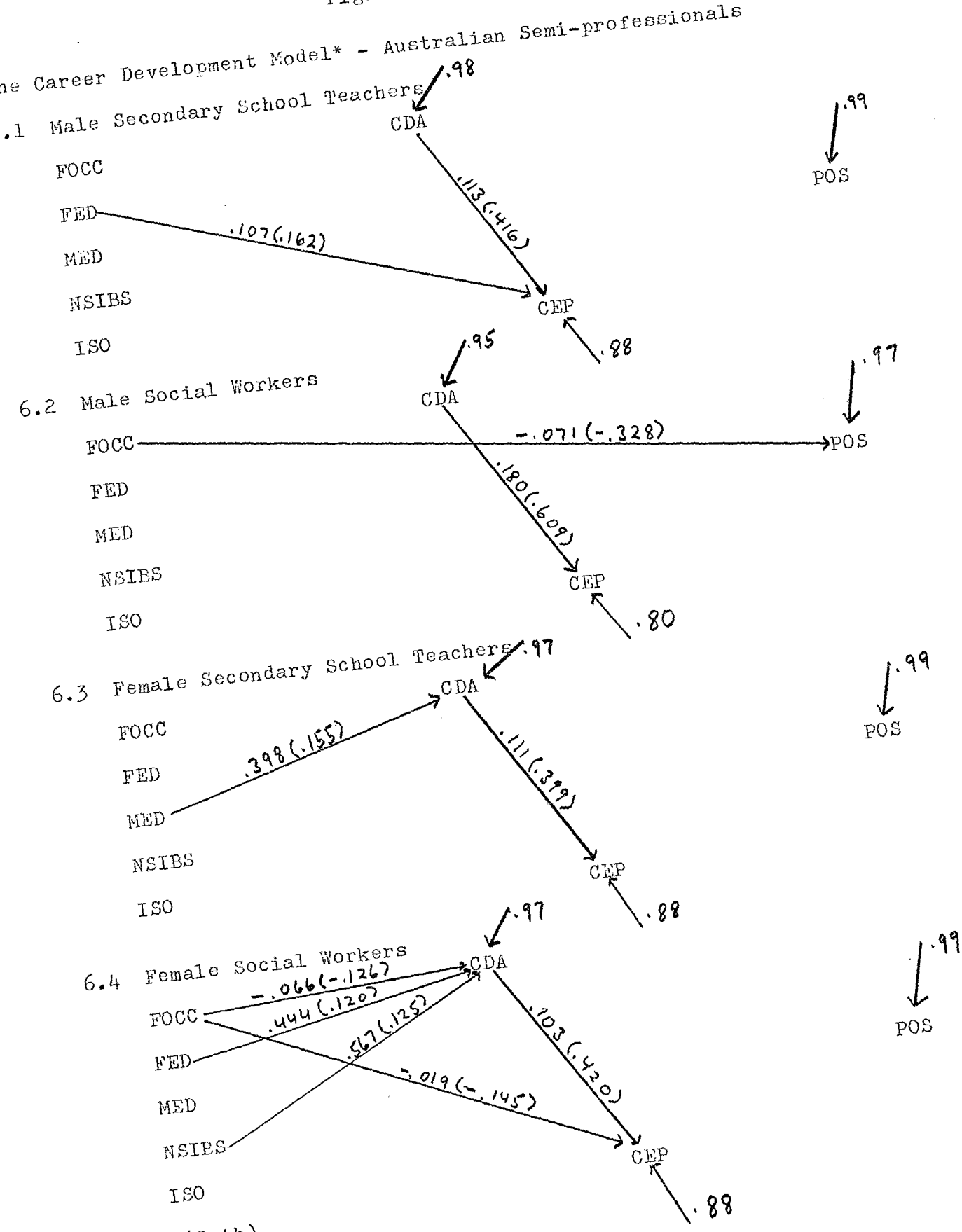
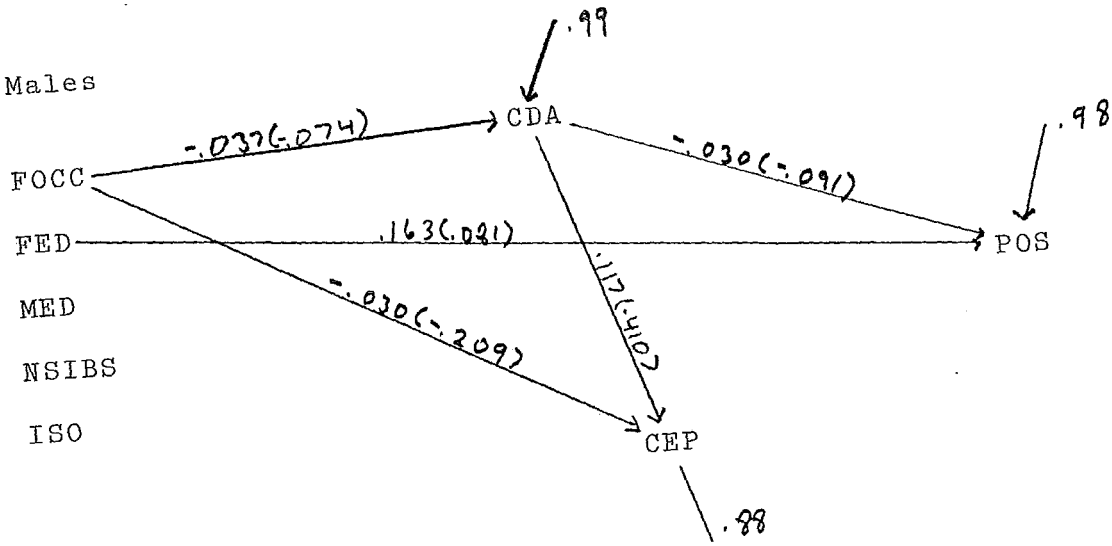

he Career Development Model* - Australian Semi-professionals
.1 Male Secondary School Teachers
.98
CDA
.99
POS
FOCC
FED
MED
NSIBS
ISO
.107(.162)
.113(.416)
CEP
.88
6.2 Male Social Workers
.95
CDA
.97
POS
FOCC
FED
MED
NSIBS
ISO
-.071(-.328)
.180(.609)
CEP
.80
6.3 Female Secondary School Teachers
.97
CDA
.99
POS
FOCC
FED
MED
NSIBS
ISO
.398(.155)
.111(.399)
CEP
.88
6.4 Female Social Workers
.97
CDA
.99
POS
FOCC
FED
MED
NSIBS
ISO
-.066(-.126)
.444(.120)
.567(.125)
-.019(-.145)
.103(.420)
CEP
.88
Metric(Path)
*Significant Paths Only

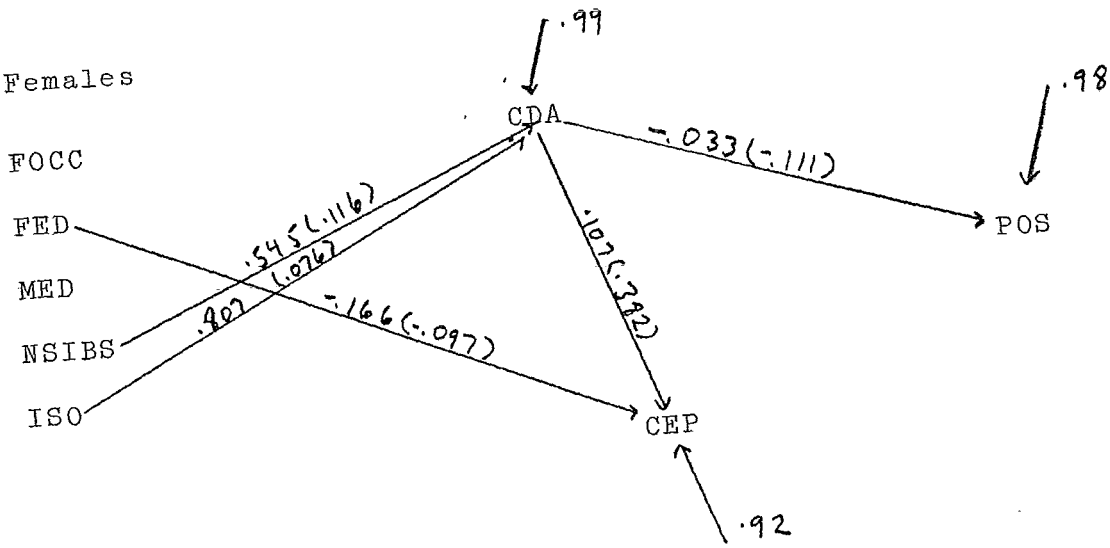
Figure 7

The Career Development Model* - Sweden(All Occupations)

7.1 Males




7.2 Females

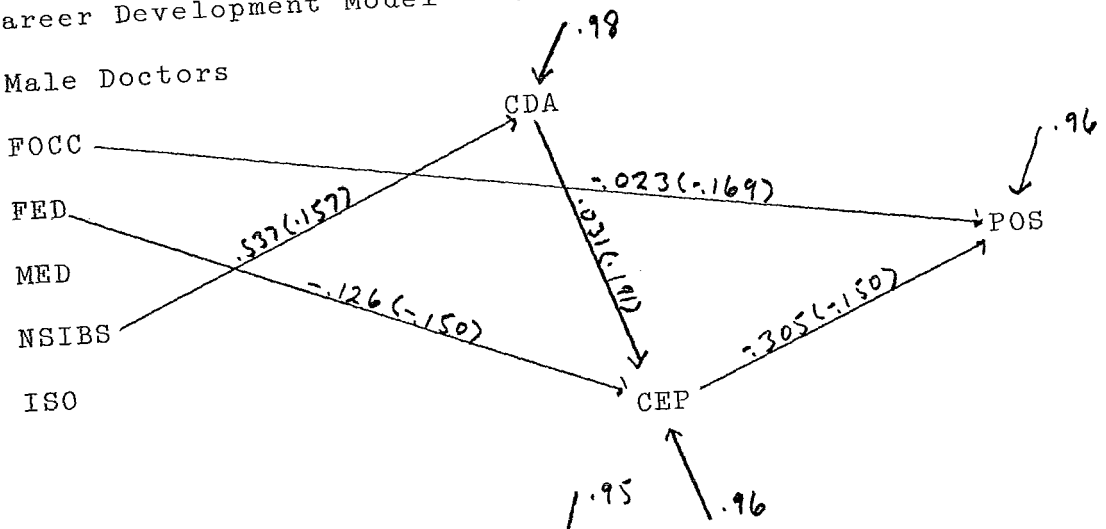



Metric(Path)
*Significant Paths Only

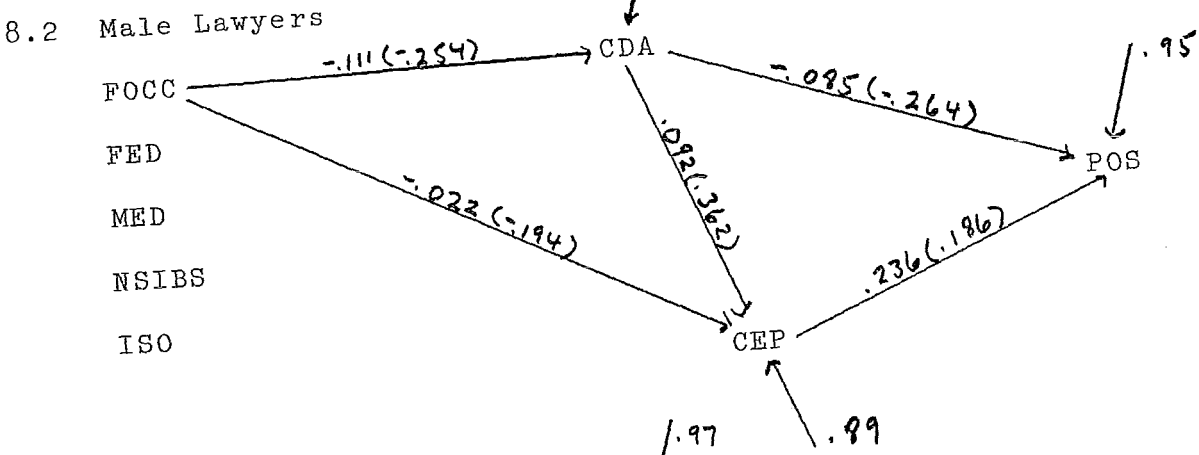
Figure 8

The Career Development Model* - Swedish Professionals

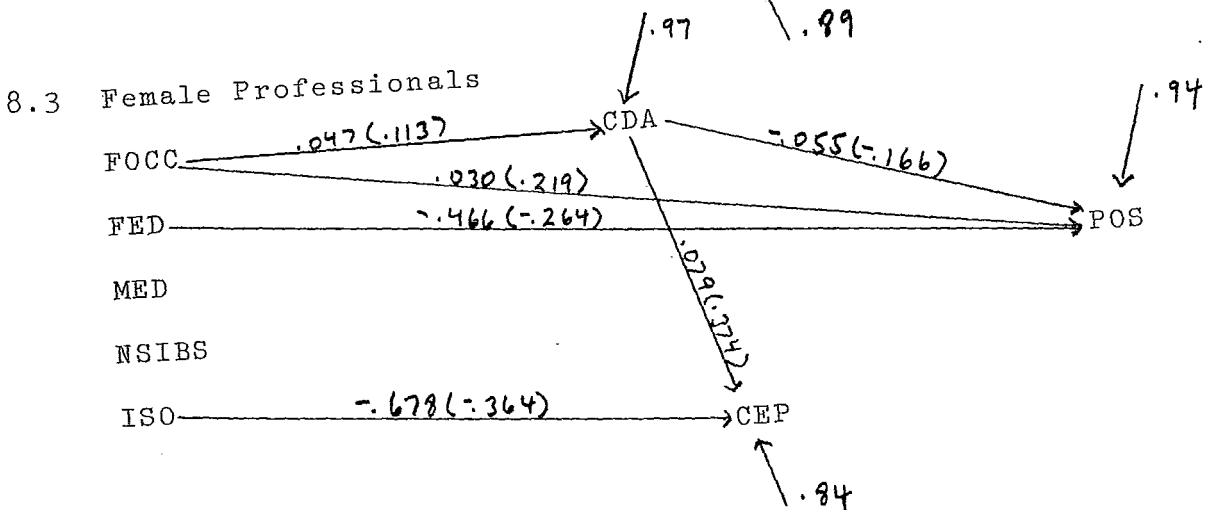
8.1 Male Doctors




8.2 Male Lawyers



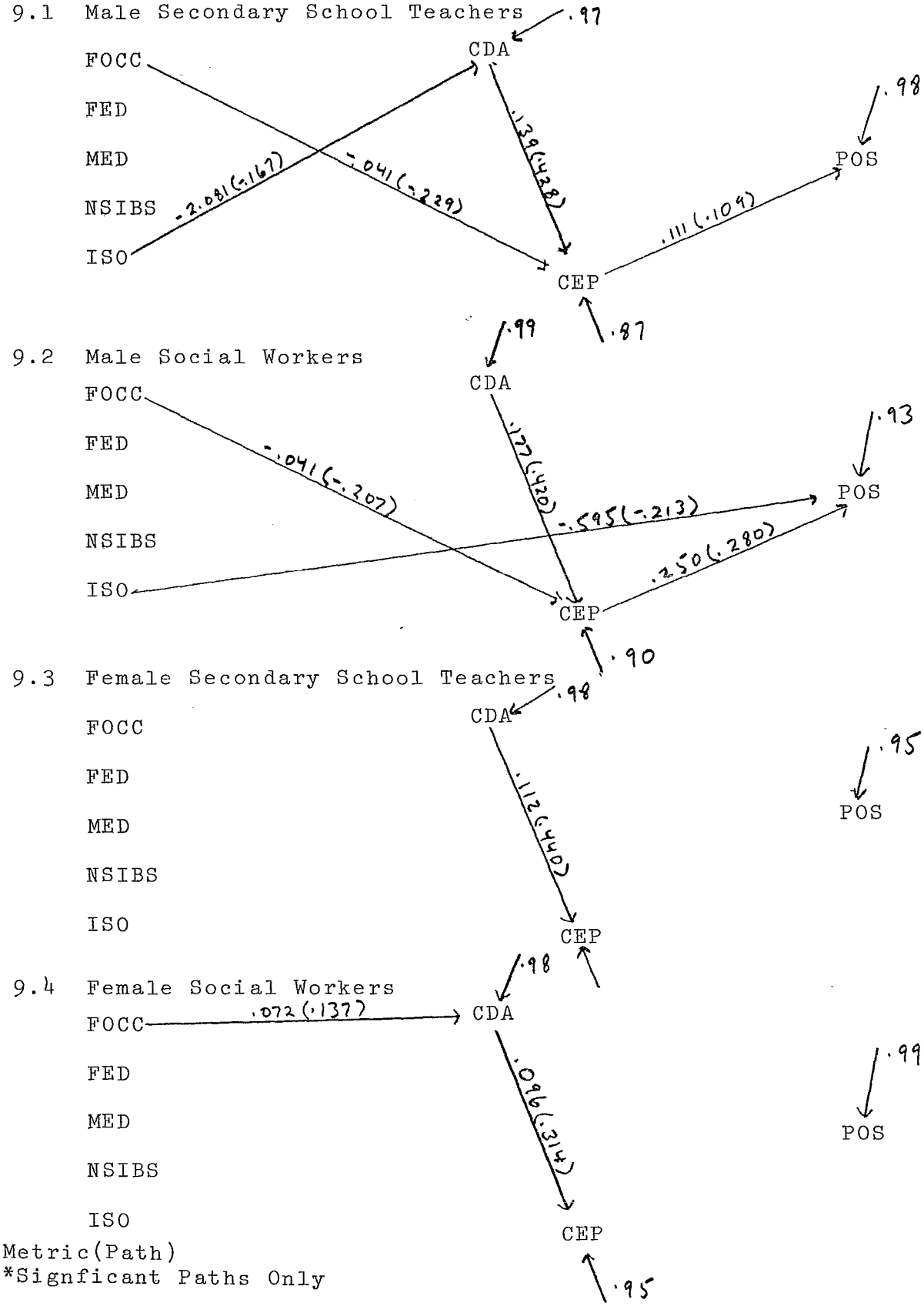

8.3 Female Professionals




Metric(Path)
*Significant Paths Only

Figure 9

The Career Development Model* - Swedish Semi-Professionals




Metric(Path)
*Signficant Paths Only