

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

Bell & Howell Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
800-521-0600

UMI[®]

THE UNIVERSITY OF CALGARY

Trends in Occupational Attainment of Women Immigrants to Canada 1971-1991.

by

Michelle S. Ambrose

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE

DEGREE IN MASTER OF ARTS

DEPARTMENT OF SOCIOLOGY

CALGARY, ALBERTA

AUGUST, 1999

© Michelle S. Ambrose 1999



National Library
of Canada

Acquisitions and
Bibliographic Services

395 Wellington Street
Ottawa ON K1A 0N4
Canada

Bibliothèque nationale
du Canada

Acquisitions et
services bibliographiques

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file Votre référence

Our file Notre référence

The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-47930-7

Canada

ABSTRACT

Using a data file created by merging public-use microdata files from the 1971, 1981, and 1991 Census of Canada, the intent of this study is to examine the experience of a female immigrant cohort over time with respect to their occupational attainment levels. More specifically, I wish to determine the extent to which the effect of ethnicity on occupational status change over the careers of women aged 25 to 54 immigrating to Canada in the years prior to 1971. Changes in ethnicity effect on occupational attainment of women aged 25 to 34 immigrating prior to each of the census years are also studied in order to estimate the consequence of labour force changes for their occupational opportunities and the effect of changes in the ethnic make-up of the immigrant groups. In both cases attention has been paid to the labour market advantage of being educated in Canada compared to being educated in their country of origin. Using this design, cohort was held constant in the first instance and age in the second thus being able to separate age, period of immigration and cohort effect on occupational attainment. Models are estimated using multinomial logistic regression methods controlling for education level, language ability, work experience, marital status, number of children, size of place, full-time versus part-time employment and the probability of being in the labour force. The results indicate that Canada's 'vertical mosaic' appears to be a ranking of ethnic inequalities among adults educated before immigrating to Canada. Virtually each ethnic group at all ages experienced lower odds of employment, especially within the corporate sector of Canada's economic system, when compared to the attainment levels of the Canadian-born women. Plus there is no indication that the strength of effect of ethnicity declines over time.

TABLE OF CONTENTS

	<i>Page</i>
APPROVAL PAGE	ii
ABSTRACT	iii
TABLE OF CONTENTS	iv
LIST OF TABLES AND APPENDICES	v
CHAPTER ONE: INTRODUCTION	1
CHAPTER TWO: THE CANADIAN CONTEXT	5
Women's Employment Trends	5
Canadian Immigration Trends	8
CHAPTER THREE: THEORY AND PREVIOUS RESEARCH	15
Recent Literature	15
Theory	17
CHAPTER FOUR: METHOD, DATA AND MEASURES	26
Data	26
Design	27
Measures	28
Models	33
CHAPTER FIVE: RESULTS	37
CHAPTER SIX: DISCUSSION AND CONCLUSION	54
Discussion	54
Conclusion	59
BIBLIOGRAPHY	63
APPENDIX	70

LIST OF TABLES AND APPENDICES

<i>Table</i>	<i>Page</i>
Table 1: Descriptive Statistics for Cohorts Age 25 -34 By Place of Birth and Census Year, Canadian Women, 1971-1991	38
Table 2: Occupational Sector Distribution by Place of Birth for Cohorts Age 25-34, 1971-1991	40
Table 3: Effects of Country of Birth on Odds of Participating in the Labour Market as Compared to Canadian-born Women Aged 25 to 34 in 1971, 35 to 44 in 1981, and 45 to 54 in 1991.	43
Table 4: Model Selection for Logistic Regressions of Occupational Sector on Place of Birth, Socioeconomic Characteristics, and Trends in Place of Birth effects for Cohorts Age 25 to 34 in 1971, 35 to 44 in 1981, and 45 to 54 in 1991.	47
Table 5: Net Multiplicative Effects of Place of Birth on the Odds of Attaining Corporate Sector and Working-Class Occupations Compared to Low-Wage Sector Occupations, Canadian Women Aged 25 to 34 in 1971, 35 to 44 in 1981, and 45 to 54 in 1991.	51
Table 6: Net Multiplicative Effects of Place of Birth on the Odds of Attaining Corporate Sector and Working-Class Occupations Compared to Low-Wage Sector Occupations, Canadian Women Aged 25 to 34 in 1971, 1981, 1991.	52
Appendix A: Descriptive Statistics for the Aging Cohort	70
Appendix B: Descriptive Statistics for the Successive Cohort	71
Appendix C: Correlation Matrix for Aging Cohort	72
Appendix D: Correlation Matrix for Successive Cohort	74

CHAPTER ONE: INTRODUCTION

The sizeable presence of immigrant women in Canada has led to an increased interest in their occupational attainment vis-à-vis Canadian born women (Boyd, Goyder, Jones, McRoberts, Peter, Pineo and Porter, 1985). For example one may question whether the opportunities in the labour market afforded immigrant women are the same as those afforded Canadian born women given equivalent human capital endowments. Past studies indicate that immigrant women suffer lower levels of occupational attainment, controlling for education and other variables, than Canadian born women, although this disparity seems to narrow the longer the immigrant remains in Canada (Li, 1996; Basavarajappa and Verma, 1990). More specifically, some older research has revealed that immigrant women are under-represented in some types of work, and in higher-status and better paying jobs (Boyd and Taylor, 1986). Recently however, Canada's immigration patterns have shifted, leading one to question whether it is reasonable to presume that recent immigrants will experience similar work patterns to those experienced by immigrants in times past, assuming that country of birth or origin is related to skills and labour market performance (Borjas, 1987; Jasso and Rosensweig, 1986).

The discussion of immigrant labour force performance in Canada originated largely in John Porter's (1965) book, *The Vertical Mosaic*. Porter's work has in fact been described as "setting the terms of reference for what has become the dominant view" (Darroch, 1979) and remains a sociological classic in the study of ethnic stratification (Agcos and Boyd, 1993). Porter argued that ethnic differences played an important role

in the formation of the stratification system in both agricultural and industrial settings within Canada and demonstrated, using census data from the 1931 to the 1961 period, that the British monopolised the most prestigious occupational categories, dominating the French. Other ethnic groups were then distributed in a hierarchy below these two nationalities (Lian and Matthews, 1998). He suggested that ethnicity was a problem since it acted as an obstacle to social mobility. He further argued that some groups assumed a definite entrance status and that it was their mobility over time, with respect to this entrance status, that displayed whether or not ethnic affiliation is a causal factor in the assignment of occupational roles. In other words, if a particular ethnic group remained within the same entry-level occupation(s) with each successive generation, one could argue that ethnic affiliation does play an important role in the assignment of occupational roles. He said that those of British and Jewish origins were consistently successful within the Canadian occupational structure, whereas those of Southern or Eastern European descent were not, continuing to be over-represented in the bottom layers of the stratification system. However, should the particular ethnic group move out of their entrance status such that their occupational distribution mirrors that of the charter group, one would argue that ethnic affiliation is not a factor impeding social mobility (Porter, 1965).

Porter, like other researchers of that time, in his analysis of the determinants of a person's position within the social structure, paid little attention to gender or the interaction of ethnicity and gender, perhaps because, as he noted, there were no women amongst the economic elite (Porter, 1965). Analysis at that time thus ignored the sizeable flow of immigrant women, made little reference to immigrant women's economic or

political activities and generalised findings derived from studies on male or total populations to females (Boyd, 1992). It was not until the women's movement in the late 1960s and 1970s coupled with a dramatic increase in women's labour force participation that researchers began to focus attention on the ways in which and the extent to which women are disadvantaged in the economic and political structure of Canadian society (Breton, 1998). An important question in today's economic climate is whether or not, and if so how, the occupational opportunities of immigrant women have changed given the shift from European to non-European immigrant origins, as Canada's occupational structure has become increasingly service oriented and as women's labour force participation rates have soared.

This study investigates the dynamics experienced by immigrant women with respect to occupational distribution when compared to those experienced by Canadian-born women. More specifically, the investigation first focuses on the role played by ethnicity in the occupational distribution of new immigrant women to Canada. The second task is then to highlight the career mobility of these women over time, again comparing them to the native born. The study thereby examines the effect of country of birth on the occupational attainment of successive cohorts of women immigrants to Canada and of the single female cohort, having arrived in Canada prior to 1971, as its member's aged. Given the importance of educational attainment and the location of where that education is attained (Wanner, 1998), separate analyses are conducted for immigrants who obtained their education abroad versus those who obtained at least a portion of their education in Canada.

The next chapter of the thesis reviews women's occupational trends from the late

1800s to the present day, followed by a description of recent trends in immigration flows and Canadian immigration policy. The third chapter reviews the recent literature reporting on immigrants' occupational attainment in Canada, the United States and Israel, as well as the theories used to predict the occupational placement of immigrant women vis-à-vis Canadian born women. Chapter four describes the data and methods employed for this particular investigation. The results drawn from the investigation are laid out in chapter five. The final chapter includes the discussion and conclusion sections, plus policy issues raised by the results and recommendations for future research.

CHAPTER TWO: THE CANADIAN CONTEXT

Womens' Employment Trends

The number of women participating in the Canadian labour market has been rising steadily since the turn of the century (Cotter, DeFiore, Hermsen, Kowalewsky and Vanneman, 1995). At that time about 16 percent of women were employed outside the home, usually having started work around age 14 or 15 and ceasing when they married (Bradbury, 1994). Throughout the nineteenth century domestic labour was the most often reported occupation for women in Canadian cities. Following the Second World War women's labour force participation increased substantially and by 1975, 41 percent of women were employed. Their labour force participation peaked at about 59 percent in 1990 and 1991 and then dropped slightly to 57 percent in the years following (Krahn and Lowe, 1998).

It has been argued that the onset of the industrial revolution was especially important for the nature of women's work (Rosen, 1989) by offering them the opportunity to be employed in capacities other than domestics. New technology had made work easier and less physically burdensome. Women were thus able to operate the machines that had at one time required brute strength. As a consequence women were invited into the factories. The types of work they performed within the factories varied with the economic structure of the neighbourhood in which they lived, as few could afford to work at locations farther than within walking distance of their home. Women living in Eastern Canadian cities therefore worked as typewriters or tobacco workers and in shoe, shirt, collar or textile factories (Bradbury, 1994). The women employed were,

for the most part; either single or widowed and could not rely on others to help support her or her family, should she have one (Gold, 1994). It was only after World War II with the quickening of economic growth that more married women with children began to participate in the wage labour market. By 1983, 62 percent of employed women had children 15 or younger (Gold, 1994).

Industrialisation and its settings, it is argued by Rosen (1989), made organised feminism possible by offering the opportunity for women to gather and by supporting feminist values and goals. He suggested however, that, as influential as the industrial revolution and the feminist movement were in drawing women out of the home and into the labour market, it was the explosive growth of the service economy that has taken place within the past 35 years that has caused the drastic increase in women's labour force participation rates. Women were thought to be well suited to this type of work, which requires interpersonal skills and sensitivity to the needs of clients or customers.

In addition to the increase in job opportunities, Krahn and Lowe (1998) argued that by the late 1960s the post-war baby boom generation were completing their education and were pouring into an expanding job market. The fact that young women were becoming much better educated coupled with more liberal social values regarding women's employment boosted the demand for female labour. Not only were those women who had to work working, but the clean and responsible work environments of the service sector were now encouraging middle class women to participate in the labour market as well. Skills gained from volunteering and entertaining were now considered employable assets, and these women felt they could work without jeopardising their reputation as "ladies" (Rosen, 1989). Moreover, the rising separation and divorce rates

forced an increasing number of women into the labour market, as they needed to become economically self-sufficient (Krahn and Lowe, 1998). Often a declining standard of living made a second income essential for families.

Unfortunately this increase in the number of working women has not been marked by an equal distribution of men and women in male dominated professions, nor has the wage gap between men and women been eliminated. By 1991 those women employed full time received an average of 70 percent of the average earnings of a man employed in a comparable occupations (Badets, 1993). This remains a large gap given that it has been shown (Bradbury, 1994) that during the late 1880s women earned roughly half of the equivalent male wage within most industrial settings. Employed women have historically been concentrated in a narrow range of professions: dressmakers and seamstresses, domestic workers, nurses, teachers, office workers, saleswomen and clerks. Despite being practitioners in these occupations, women were barred from entering the decision- and policy-making positions historically held by men. The list of occupations available to women today, when compared to that at the turn of the century, has increased, although most women in the labour force remain concentrated in a few low skilled women's jobs (Armstrong, 1975) and the struggle for appropriate recognition and compensation for their work continues (Gold, 1994). The movement of women into high status and lucrative fields of work has been relatively slow. For those cases in which women have gained access to occupations previously dominated by men, such as baking or typesetting and composing in the newspaper industry, it is argued to be because these occupations have lost their lustre to men (Roos and Reskin, 1992). It has also been pointed out that the numerical gains made by women into these traditionally male

occupations may be deceiving, in that women often become segregated into low-paid female ghettos (Bird, 1996) and are still typically supervised by men (Krahn and Lowe, 1998).

The present investigation focuses on the extent to which immigrant women working in Canada have matched the occupational gains made by Canadian-born women and whether a modification in the ethnic make-up of the immigrant groups has continued to affect the progress made by immigrants. The existing studies addressing immigrant women's labour force participation usually consider cross-sectional data and compare the occupational attainment of immigrant women with that of the Canadian-born at one point in time. It should also be noted that ethnic differences in the rates at which immigrant women participate in the labour market do exist (Geschwender, 1994). These differences in turn may have important consequences for socioeconomic status. For example, married immigrant women from Asia, with the exception of Japanese immigrant women, are more likely to participate in the labour market than are Caucasian women (Duleep and Sanders, 1993). Several factors may influence an immigrant woman's decision to enter the labour market including transferability of country-of-origin skills to the host country, family circumstances and cultural factors (Duleep and Sanders, 1993).

Canadian Immigration Trends

It would appear that ethnic inequality as experienced in Canada rests on the foundations of its colonial history. Founded in war, the fusion of British and French immigrants led to an unequal distribution of power and to the domination of new groups

admitted to Canada. The ethnic inequalities alleged to be in existence in Canada today were thus spawned (Geschwender, 1994). With the dwindling numbers of new French immigrants to Canada in the 1700s and the surge of new immigrants from the British Isles, Ireland and the United States during the 1800s, British domination within elite economic and political positions was established (Agcos et al., 1993). The opening of the Canadian West and a need for industrial workers in eastern Canadian cities during the late 1800s and early 1900s led to government sponsored recruitment efforts that encouraged large group migrations from the United Kingdom, the United States and Europe which resulted in substantial ethnic diversification. Catastrophic world events, namely the First World War, the Great Depression and World War II, affected public opinion to the extent that the majority of Canadians did not favour additional immigration and consequently influenced the formation of government policy that discouraged immigration. Immigration from the early 1930s to late 1943 therefore hit record lows (Badets, 1989).

Following the Second World War, difficult economic and political circumstances in Europe coupled with rapid economic expansion in Canada, once again encouraged large volume immigration to Canada (Wanner, 1998). During this period however the 1953 Immigration Act restricted immigration flows to a few admissible source countries: The United States, the British Isles and Western Europe. Immigration from these countries was seen to satisfy Canada's need for highly skilled trades and professions. The demand for less skilled occupations in manufacturing and construction was declining and the need for labourers therefore followed suit. Although this act remained in place until 1978, changes to immigration regulations in 1962 and 1967 discontinued the

discrimination against immigrants on the basis of race, religion and source country.

Instead a point system was adopted that screens potential immigrants on the basis of education, skills and occupational background. In other words, potential immigrants are screened on the basis of possession of suitable labour market skills, as the object was to admit people who would fit Canada's economic needs.

Significant policy changes occurred again in 1978 and have remained in effect since that time. Under these regulations, applicants for immigration to Canada are classified under one of three classes: family, refugee and independent. The family class of immigrants was created in an effort to aid reunification of close relatives to Canadian citizens or landed immigrants. 'Sponsored' family members are close relatives of someone living in Canada whereas 'nominated' family members are generally more distant relatives. In order to be admitted to Canada under this category a relative living in Canada must have promised and be able to look after the immigrant's care and shelter for up to 10 years. The refugee class admits groups or individuals displaced by emergency situations or for whom humanitarian considerations may exist. The final category, independent, admits independent persons applying on their own initiative. This category also includes business immigrants who must either invest in a Canadian business or create one of their own. The independent and 'nominated' family class categories are screened on the basis of education, specific job skills, job experience, occupation, arranged employment, age and the ability to communicate in a host language, either in English or French. This screening process is referred to as the point system. In 1978 a new Immigration Act came into force in which the point system was revised to place less emphasis on education and more on occupational experience and demand.

Entrepreneurs in particular are encouraged to immigrate (Statistics Canada, 1984).

During the decade between 1970 and 1980, the proportion of immigrants entering under the independent class declined from 74 percent to less than 45 percent. During the same period the number of immigrants entering under the refugee class increased from 1.3 percent to nearly 18 percent of new immigrants. Consequently the ethnic origin of immigrants to Canada shifted noticeably. During the period of 1971 to 1975 almost 55 percent of immigrants had come from either the United States or Europe with the majority of immigrants being British (McVey and Kalbach, 1995). Twenty years later, the majority (52 percent) of new immigrants had come from Asia with only 24 percent originating in Europe or the United States (McVey and Kalbach, 1995). Asia, the Middle East, the Caribbean, South and Central America, Africa and other parts of the world have now become main source countries for immigrants into Canada (Breton, 1998). This visible minority population is expected to continue at an increasing rate with visible minority adults possibly accounting for 20 percent of all Canadian adults by the year 2016 (Statistics Canada, 1999).

In reviewing the total flow of immigrants over the last few decades, one must bear in mind that the policy amendments, and the resulting source country distributions, play a crucial role in occupational stratification because of the substantial dispersion of skills and labour market performance among national origin groups (Borjas, 1993). A foreign birthplace is associated with differing labour market skills because the immigrant arrives in the host country with an imprint of their former society. Differences exist in each place of birth with respect to educational systems, economic structure and urbanisation. These differences in turn generate differences amongst immigrants with respect to

educational attainment, occupational skills and expectations regarding family size, composition and life in general (Boyd, 1992). As noted there has been an increase in the proportion of new immigrants arriving from less developed countries. These migrants are generally less skilled and less successful occupationally in the receiving countries than immigrants originating from more developed countries (Citizenship and Immigration Canada, 1997).

Traditionally more men than women immigrate. This was especially true during the late 1800s and early 1900s when the economic call was for manual labourers (Statistics Canada, 1984). Despite the Canadian government launching a campaign to recruit European women to Canada, during the period 1870 to 1930, as domestic workers and as wives for the immigrant men (Cunningham, 1995), immigrant men still outnumbered immigrant women. This gender gap did narrow over the years and by 1981 the number of immigrant women in Canada's immigrant population outnumbered immigrant men, a consequence, perhaps of recent immigration policy encouraging family reunification (Boyd, 1992). During the decade between 1981 and 1991, 304,282 women entered Canada under the family reunification program as opposed to 219,418 men (Statistics Canada, 1999). Women, however, are more likely to enter as the spouse of the principal applicant as opposed to being the principal applicant herself. As well, women are less likely to enter Canada under the refugee class (Statistics Canada, 1999). Of the women accepted into Canada between 1981 and 1991, 43 percent of them were accepted under classes other than those with the humanitarian criteria (Statistics Canada, 1999).

Given that immigrant women to Canada are largely accepted under the family class (Boyd, 1992), their ethnic distribution in Canada reflects that of their male

counterparts. Those who entered before 1951 were for the most part British or American. More specifically, it has been recorded that prior to 1951 two in five immigrant women were born in the United Kingdom (Sorensen, 1995). The present day distribution is much more heterogeneous, with immigrant women now entering Canada from the United States, the United Kingdom, Europe, Asia, Africa and South and Central America (Boyd, 1992).

As mentioned earlier, the modification in ethnic distribution, which has occurred amongst Canada's immigrants over the past century, has had far reaching consequences for the occupational stratification of male immigrants (Wanner, 1999). The same holds true for immigrant women and is perhaps exacerbated by gender. Gender stratification in countries of origin is frequently translated into lower educational and employment-related training as their roles within the family shapes and constrains employment (Boyd, 1992). It has been argued that the occupational status of immigrant women in Canada reflects the combined negative impact of sex and birthplace. Being an immigrant generally means that she will not share the same economic location or labour market rewards as a native born woman, and being female usually translates into her being occupationally segregated into jobs of lower wages, less opportunity for advancement and less job security. In addition, it has been concluded that immigrant women in Canada experience a much lower occupational status than can be explained by the additive effect of nativity and gender (Sorensen, 1995).

Because of the shift of immigrants from the traditional source countries, today's immigrants are less likely to be fluent in either of the host languages due to greater linguistic distance (Wanner, 1999). They are more likely to be members of a visible

minority group possibly facing discrimination, are more likely to gain entry under humanitarian considerations and are therefore likely to be less experienced in the labour market when compared to those accepted under the point system (Prefontaine and Benson, 1999). The shift in immigrant flows as a result of policy changes between 1953 and 1978 as described above are therefore strong reasons to expect changes in the labour market performance of recent Canadian immigrants.

CHAPTER THREE: THEORY AND PREVIOUS RESEARCH

Recent Literature

As noted earlier, the question of occupational attainment by various ethnic groups has been the focus of many sociological studies since the publication of *The Vertical Mosaic* in 1965. More specifically, the ensuing controversy has to do with whether ethnic affiliation implies a higher or lower probability of being located within various strata of the occupational structure. Research subsequent to the success of *The Vertical Mosaic* was undertaken to address the common assumptions that, while the entrance status of immigrants might be low, they or their children would eventually assimilate and have occupational distributions indistinguishable from the native born (Blishen, 1970; Kalbach and Richmond, 1980). To date, however, few studies relate ethnicity to occupational status changes. Most often, the research examines the bivariate relationship between ethnicity and occupation using an index of dissimilarity rather than modelling the process with appropriate controls. A notable exception to the above criticism is Richmond (1967), who compared the occupational mobility of post-war immigrants in Canada and found a clear advantage of the British settlers over other immigrants. This advantage did diminish over time, leading him to conclude that language and national identity alone should not be counted as crucial in the blocking of social mobility.

Other studies of social mobility (Blishen, 1970; Cuneo and Curtis, 1975; Clement, 1975; Darroch, 1979; Kalbach and Richmond, 1980; Boyd, 1982, 1984), however, indicated that ethnic inequality in occupational attainment persists in Canada.

Furthermore, Blisshen went on to suggest that “White, Anglo-Saxon Protestants, for example are more likely to achieve high occupational status than some other ascribed status combinations” (Blisshen, 1970: 112). More recent studies have concluded that other variables, such as education and personal background characteristics, may possibly explain occupational differences as opposed to an ascriptive characteristic such as ethnicity (Reitz, 1980; Boyd, Featherman and Matras, 1980) although Boyd et al. did notice the existence of educationally and occupationally advantaged and disadvantaged groups.

The general conclusion of another body of work suggests that ethnic stratification among white European groups has lessened, although differences among racial groups have remained resulting in a division based on skin colour (Li, 1988; Reitz, 1980; Agocs and Boyd, 1993). Yet another body of work argues that some birthplace groups do as well as the native-born with respect to occupational placement whereas other groups do not (Duncan and Duncan, 1986; Featherman and Hauser, 1978; Goldlust and Richmond, 1973). With respect to women immigrants specifically, it has been argued that ethnicity is related to many of the factors which play an important role in their economic adaptation (Preston and Giles, 1997). Other findings show that women who arrived in Canada as children, before the age of ten, have higher socioeconomic standings at age thirty than those women who arrived in Canada as adolescents (Trovato and Grindstaff, 1986).

Questions concerning the relation between ethnicity and occupational attainment continue to plague those concerned with this issue, particularly in light of some omissions in previous studies and the modifications in ethnic origin distributions experienced within the past thirty years. A serious omission within the literature has been the tendency to

pay little attention to women, basing conclusions on investigations based largely on data for men or, at best, on data for both sexes combined (Lautard and Loree, 1984). In addition, the limited range and detail of ethnic distinctions made in this research results in a masking of ethnic group differences within the broad categories and reduces the explanatory power of the studies as tests of the vertical mosaic thesis (Lautard and Loree, 1984). Some studies examined entire ethnic communities as though they were a homogeneous group and failed to distinguish immigrants from Canadian born members of the same ethnic group (Geschwender, 1994). Such treatment may obscure societal trends in the patterns of inequality. Finally, as Borjas (1993) has shown, the introduction of the point system, the decline in the proportion of immigrants entering under the independent class, and the increase in numbers of immigrants entering under the status of refugee have resulted in the modification of Canada's ethnic origin distribution. These changes suggest that conclusions drawn from previous investigations may not be generalizable to the present ethnic make-up of Canada. Furthermore, given Porter's concern with the process of immigration, it is clear that we must study the role of ethnicity in the incorporation of new immigrants into the labour market, thus leading to the examination of shifting opportunities of new immigrants over time and their career mobility after arrival in the host country.

Theoretical Framework

Extending Porter's (1965) "ethnic mosaic" thesis, this study will attempt to understand how the occupational opportunities of immigrant women, vis-à-vis Canadian born women, may change as the source countries of immigrants change from European to

non-European, as the Canadian occupational structure becomes increasingly service oriented and as women's labour force participation continues to increase. Unlike many theories purporting to explain observed ethnic inequalities at a point in time, the theories selected for this investigation were chosen to explain how ethnic inequality may change over time in reaction to changes in source country distribution, immigration policy and opportunity structure within the host country.

Explanations for why different groups are subjected to different reward systems are often classified by whether they emphasise worker's 'supply side' or employer's 'demand side'. 'Supply side' explanations focus on choices made by individual workers with respect to their accumulation of human capital, whereas the 'demand' perspective stresses actions of the employers, including discrimination (Reskin, 1993). The 'demand' perspective will be used for the purposes of explanation in this study although the 'supply' perspective will be addressed given the important role that human capital plays in the allocation of occupational rewards.

Discrimination occurs when gatekeepers treat people unequally based on an aversion to a group that is unrelated to individual performance (Reskin, 1993). Sociologists have argued that employers harbouring ethnic or racial prejudice may discriminate against certain ethnic groups by refusing to hire them or, once hired, offering them lower rewards than the preferred group or possibly refusing to promote them regardless of their human capital attributes. It is assumed that the level of prejudice experienced by the employer is a function of social and cultural distance. In other words, it is assumed that an employer will be prejudiced against a potential employee who is perceived to be culturally distant or dissimilar from the members of the host society with

respect to credentials attained skills and personal characteristics. The greater the perceived dissimilarity the greater the cultural distance is said to be. It is also assumed that economic discrimination will increase as a function of cultural distance, but decrease as the level of prejudice felt by the population towards the ethnic group declines (Wanner, 1998) or as regulatory agencies enforce anti-discrimination laws (Reskin, 1993). With respect to the purpose of this investigation, I therefore expect that the new waves of immigrants to Canada will not attain as high a level of occupational attainment as previous European immigrants because of the increasing numbers belonging to visible minority groups because of the perceived dissimilarities, or cultural distance, between those group members and host society members.

Hypothesis 1, Discrimination: The effect of country of origin on occupational attainment of immigrant women may increase with the cultural distance of the ethnic origin groups. More specifically, the effect of country of origin on occupational attainment may be greater for the visible minority groups such as the Asian, the non-whites from Africa and the Caribbean, and the Latin Americans. The immigrants from the Anglophone and Francophone countries may experience the least effect of country of origin on occupational attainment with the Europeans experiencing a stronger effect than the Anglophones but a weaker effect than that experienced by the visible minority groups.

Roos and Reskin (1992) argue that employers, when choosing among prospective workers, consider the race and sex of the candidates and, more often than not, reserve the 'best' jobs for the white males. This selection process comes about to the extent that potential employees are ranked into queues based on desirability (Thurow, 1975).

According to queuing theory, a more sophisticated version of discrimination theory, labour markets are composed of labour queues based on employer's ranking of potential workers (Reskin, 1993). Given the difficulty of ranking potential workers, employers rank workers on observable characteristics that they believe to be associated with productivity (Wanner, 1999) and expected training costs (Thurow, 1975), such as gender, ethnicity, and the location of where one's education was attained. Potential employees will then be ranked; those with the lowest training costs near the front of the line and those with the highest at the back. Employers will then hire workers from as high on the labour queue as possible and workers will accept the best jobs offered to them. The final outcome is that the most desirable jobs will go to the most preferred workers until the workers lowest in the queue end up with the positions others have rejected or remain unemployed (Reskin, 1993). Thus, the theory predicts that the occupational attainment level of immigrant women will depend upon the proportion of workers ranked higher in the queue when evaluated on such characteristics as ethnicity and place of educational attainment, be that Canada or abroad. As the proportionate share of ethnic group members rises in the population, so would their average occupational level, as fewer opportunities to hire preferred group members would exist.

Hypothesis 2, Queue Rank: Queuing theory hypothesises that the effect of country of origin on occupational placement may be highest for those ethnic group members with the greatest cultural distance from the Canadian born and who had been educated abroad as they would be considered the most expensive to train. They may or may not speak a host language fluently and it is assumed that the education they received abroad differs significantly from that received by students in the Canadian system. At the

other end of the spectrum, the effect of country of origin on occupational attainment may be minimal for those ethnic groups member who are nearest to the Canadian-born in cultural distance and are educated in Canada. Anglophone immigrants educated in Canada is an example of such a group.

Gunderson et al. (1981) have pointed out that virtually all economic analyses assume that employers and employees are rational individuals in pursuit of their own interest. An economist would therefore argue that discrimination would not exist for long in a competitive market as a profit maximising firm would hire an equally productive female immigrant at a lower wage as opposed to a white Canadian-born female at a higher wage rate. In other words, rational employers will ignore their prejudicial feelings and hire immigrant women in order to maximise their return on investment. Such rational behaviour will, over time, bring the market to equilibrium. Although the theory is designed to apply to wage rates, it can be extended to occupational attainment and suggests the following:

Hypothesis 3, Competitive Market: Immigrant women, upon arrival in Canada may be allocated in lower status occupations, but as they acquire training and experience in the host country their occupational placement may reflect that of the native born. We would therefore assume that the effect of country of origin on occupational placement may be greatest shortly after arriving in Canada but may diminish over time as they gain Canadian labour force experience. No substantive difference in the effect of country of origin is expected to exist among the ethnic groups, as over time competitive forces will eliminate any differences.

Two additional theories have been offered to help explain the inequalities

experienced by immigrants. The first revolves around the notion of immigrant selection and the second theory addresses the resulting distribution of skills among immigrants. It is argued that the skill profile offered by a groups of immigrants at any point in time depends on the economic situation of the source country and the immigration policies of the host country (Borjas, 1993). More specifically, Borjas suggested that immigrants originating in more developed countries are more skilled and therefore will experience greater success in the host countries labour market than those immigrants originating in less developed countries. Given that the present Canadian immigration policy favours immigration from less developed source countries and an increasing proportion of immigrants are now accepted into Canada under the family reunification and refugee categories as opposed to being accepted under the point system designed to select those who best match the Canadian labour market demand. Plus, given that the movement of Canada's occupational structure towards a service orientation has resulted in an increasing demand for workers in the production and dissemination of knowledge (Krahn and Lowe, 1998), and that these skills are not those commonly possessed by those immigrants to Canada who originate in less developed source countries, the following is hypothesised:

Hypothesis 4, Source Country Development: As the proportionate share of immigrants to Canada originating in less developed countries increases, the effect of country of origin on occupational attainment may increase. More specifically, it is hypothesised that the effect of country of origin may be greatest for those groups arriving from Southern and Eastern Europe, Latin America, Black Africa and the Caribbean and whose members were educated abroad. The Anglophone and Northwestern Europeans

may experience the least effect of country of origin on occupational attainment, as these countries are more developed than those previously mentioned.

Although the theories mentioned above are underdeveloped and their predictions are vague and not mutually exclusive, it is hoped that they may assist in explaining the results and may provide an explanation for the ethnic inequalities that are argued to plague Canada's occupational landscape.

Turning to the 'supply' perspective in the allocation of occupational rewards, Becker's (1964) human capital theory is a neo-classical economic model used to explain the effect of education and other work-related skills on firm and occupational rewards. The theory argues that such investments should increase the individual's value to potential and employing organisations that will in turn offer the employee greater rewards. In other words, the model suggests that individuals have the power to affect the rewards they receive from working by making themselves more attractive to employers by enhancing their qualifications. In addition it suggests that individuals may invest in their own human capital in two different ways. One way takes general investments, which are investments in skills that are transferable from one organisation to the next (e.g. education and overall working experience). The other refers to firm-specific skills which reflect investments in skills that are most highly valued by the current employer but are not as highly regarded by other firms. The theory has recently been extended to include personal characteristics, such as family-status characteristics and psychological traits, within the definition of human capital investments (Mincer and Polacheck, 1984).

With respect to this investigation, the focus is on the more general human capital investments that are argued to be related to more general occupational outcomes, such as

occupational attainment. Specifically, educational attainment, work history and family-status variables are examined in this study.

Research indicates that two human capital variables, educational attainment and work history, have positive effects on the rewards received by a worker (Becker, 1964). With respect to the returns received by immigrant women on their human capital investments, the conclusions are not as positive as those drawn from other workers. Using data from the 1972 Canadian Mobility study, Boyd (1985) found that workers' human capital had a greater influence on the occupational outcomes for Canadian-born men, Canadian-born women and immigrant men than for immigrant women. Boyd suggested that the outcome could possibly be due to the fact that education received outside of Canada is not afforded the same market value as education received in Canada. In a more recent study, Beach and Worswick (1993) found that these effects appear to be stronger for women with higher education than for those with less education. They also concluded that women from European origin earn as much as Canadian-born women, controlling for education, whereas Non-European women do not.

In keeping with the increasing trends of married women and mothers working, the definition of human capital was amended to include marital status characteristics and the presence of children (Becker, 1964). It has been argued that these responsibilities may interfere with the amount of time an employee can devote to investing in her own human capital. More specifically, being married and having children may influence the decision to work part-time versus full-time, may affect the amount of time a woman can spend at work in any given day and may influence the decision of whether or not to take a leave of absence from the labour market for any length of time (Robinson, 1986). Work status is

included as a control variable because full-time employment is seen to provide greater opportunity for on-the job training and such training increases the potential of higher status employment. The individual who works full-time is also perceived to be more committed to her career. This increased level of commitment is perceived as a human capital asset. Any decisions made concerning the above, which consequently limit the amount of time a woman spends investing in her human capital, are shown to negatively affect her occupational rewards (Mincer and Polacheck, 1984). More specifically, it has been concluded that being married, having children, taking a leave from the labour force and working part-time are negatively associated with earnings for women (Marini and Fan, 1997; Mincer and Polacheck, 1984). Research on married immigrant women has shown that the rate at which they participate in the labour market varies by place of birth and has important consequences for the socio-economic status of different place of birth groups (Geschwender, 1994).

Given the assumptions of the human capital theory, one would predict that immigrant women and non-immigrant women alike would have equal access to work positions given equivalent levels of education, work history and family status. Should the distribution of immigrant women across various occupations not mirror that of Canadian-born women, the personal human capital attributes of the individuals could be responsible.

CHAPTER FOUR: METHOD, DATA AND MEASURES

The objective of this investigation is to determine the extent to which the occupational distributions of foreign-born women reflect the distribution of Canadian-born women, taking into consideration changes in the ethnic make-up of the immigrant population, increased labour force participation by women in Canada and the changes that have occurred in Canada's occupational structure. The investigation encompasses two separate analyses: the first is a comparison of career profiles of foreign versus Canadian-born women over time and the second is an analysis to determine the impact of shifting source-country distribution of immigrants on their occupational attainment in Canada.

Data: Given these objectives, the analysis presented is based on data from three Census of Canada public use files -- those for 1971, 1981 and 1991. The three census files are made up of random selections from the respective full census files, the sample being 1 percent of the total in 1971, 2 percent in 1981 and 3 percent in 1991. The data drawn from the 1981 and 1991 files are weighted in order to compensate for these differences in sample size. Although the 1991 census file contains many more variables that may have been used in the modelling of status attainment, the previous census files contain many fewer variables. As a result, a model was developed controlling for several crucial human capital resources and social characteristics using variables common to all three files. The analysis presented here is limited to women employed by others only, but a parallel analysis for men is reported in a separate paper (Wanner, 1999). Self-employed

women were not selected for the study as their labour market outcomes are not subject to the discretion of an employer.

Design: As mentioned earlier, the first objective of the study is to investigate the effect of ethnicity, or country of birth, on the occupational career of an immigrant women cohort which arrived in Canada before 1971, comparing their careers over time with the careers of Canadian born women. The second objective of the investigation is to determine the occupational attainment of successive cohorts arriving in 1971, 1981 and 1991, again comparing them with the attainment of Canadian born women in order to determine the impact of the shifting source-country distributions of immigrants on their occupational attainment in Canada. Given the above, two separate analysis files were created by selecting respondents from the census files. In order to satisfy the criteria demanded of the first investigation in which a comparison of career paths was undertaken respondents were selected who were between the ages of 25 to 34 in 1971, age 35 to 44 in 1981 and age 45 to 54 in 1991. This file thus includes Canadian women as a benchmark and immigrant women who had arrived in Canada before 1971. This aging cohort file thus permits the assessment of the effect of age and period of immigration on occupational attainment while controlling for cohort effects. As noted by Borjas (1994), the use of a sequence of cross sections rather than a panel design, when attempting to assess age effects, may lead to potential biases in that the composition of the cohort may change over time. These changes could possibly be the result of return migration or further migration to another destination.

In order to determine the impact of shifting source-country distributions on occupational attainment a second file was created. For this second file respondents

between the ages 25 and 34 were selected in 1971, 1981 and 1991. This “sequence of cohorts” file thus controls for age, permitting the focus to be on the change in source country distribution, the relative size of cohorts, and effects of changes to immigration policy. This particular age group was chosen for a number of reasons. First, by age 25 most have completed their education and have entered the workforce. Second, nearly 50 percent of all immigrants to Canada are younger than 35 (McVey and Kalbach, 1995). Not only are younger people more likely to undertake the stress of immigration, but the point system used by Immigration Canada actually penalises those older than 35. The ten-year age gap is also convenient to use given the 10-year intervals between the various census files.

Measures: The measures used in this study are described below. Summary tables of the descriptive information is provided in Appendices A and B. Appendix A contains the descriptive information for the aging cohort those 25 to 34 in 1971, 35 to 44 in 1981 and 45 to 54 in 1991; and Appendix B contains the same descriptive information for the successive cohort aged 25 to 34 in 1971, 1981 and 1991.

Occupational Attainment: The use of census data for a study on status attainment can be difficult because Statistics Canada, for confidentiality reasons, routinely provides only highly collapsed versions of many of the key variables. Two variables of importance to this study, namely ‘occupation’ and ‘place of birth’ suffer this defect. In addition to the foregoing, the Standard Occupational classification employed until 1991, did not classify the occupations in a hierarchical fashion according to skill, as does the new National Occupational classification, but rather aggregates occupations according to function or industry. In order to correct for the above and produce a measure of socio-economic

hierarchy within occupations, a measure proposed by Sakamoto and Tzeng (1998) was adapted for the study based on a combination of industry sector, occupation and class of worker.

The first selection made was the class of worker, which refers to the respondent being a wage earner. Those self-employed were excluded from the study because their labour market outcomes are not subjected to the discretion of an employer.

Next, the industry sector classification was derived from dual economy theory (Beck, Horan and Tolbert, 1980), which assumes a polarisation of industries into two main sectors: the core and periphery sectors. The core sector is characterised by high productivity and profit, the intensive use of capital and monopoly power all resulting in higher wages and fringe benefits and better working conditions. The core sector includes the following industries: mining, manufacturing, construction, transportation, finance, insurance and public administration. The periphery sector, at the other extreme, is characterised as being labour intensive, experiencing low productivity and generating lower profit levels, wages and fringe benefits, and poor working conditions. The periphery sector incorporates the following industries: agriculture, forestry, fishing/trapping, trade, commercial business and the service industry.

Third, the occupational classification employed for this study assigns respondents to three broad occupational sectors by combining the industry and occupational categories: the 'corporate sector' includes professionals, managers, those working in technical positions and white collar workers employed in the core industries; the 'working class' sector includes the manual workers employed in the core sector, white collar workers in the periphery sector, as well as farmers and farm managers; the final

category, referred to as the 'low-wage' sector, includes those employed within manual and service occupations located within the periphery sector as well as farm labourers. 'Occupational' sector is then measured by two dummy variables, one coded '1' if the respondent is employed in the corporate sector, '0' if employed in the 'low-wage' sector, the other coded '1' if employed in the 'working-class' sector and '0' if the respondent is employed in the 'low-wage' sector.

Place of Birth: In a similar fashion, the measure for place of birth was modified given its collapsed format within the census files, particularly the 1971 file. The categories used are, for the most part, straightforward as immigrants were classified by their source region: Northwestern Europe, Southern Europe, Eastern Europe, Asia, and Latin America. Other categories however have been adjusted to reflect certain characteristics shared by the respondents. As an example, white versus black South Africans have been divided into separate categories to reflect the separate economic and social circumstances in which the two groups would have functioned before immigrating to Canada. The whites were consequently assigned to a category including immigrants from anglophone or francophone countries and the black South Africans were assigned to a category including non-whites from other parts of Africa and the Caribbean. The Anglophone/Francophone category includes immigrants from the United States, the United Kingdom, France, the Republic of Ireland, and non-visible minorities from colonized countries in Africa and the Caribbean. Northwestern Europe includes Belgium, Luxembourg, Germany, Netherlands, and 'other' western and northern European countries. Southern Europe includes Greece, Italy, Spain, Portugal, Balkans and 'other' Southern European. Eastern Europe includes Poland, USSR and 'other' Eastern

European. Asia includes China, India, Pakistan, Hong-Kong, Vietnam, the Phillippians, the Middle East and 'other' Asia. Africa includes non-whites from Africa and the Caribbean. Latin America includes all Latin American countries.

Cultural Distance: For the purposes of this investigation the following place of birth categories are considered culturally distant: Asia, the non-whites from Africa and the Caribbean and the Latin America. The following place of birth categories are not considered culturally distant from Canada: Anglophone and Francophone, Northwestern, Southern and Eastern Europe.

Educated Abroad (1=Canada): This variable refers to whether or not the respondent attended school in Canada, including elementary, high school and post secondary education. An individual who received as little as one year in Canada is considered to be educated in Canada.

Lack of Official Language Proficiency (1=weak): Due to the difficulty of measuring language proficiency I have chosen instead to identify those who lack the ability to converse in either of the host languages. The variable is therefore coded '0' if English or French are the respondent's mother tongue or if one of the official languages is used at home. The variable is coded '1' if the respondent is unable to carry on a conversation in either of the host languages or uses a language other than English or French at home.

Canadian Labour Force Experience: This variable reflects the potential amount of work experience gained in Canada and is determined by the individual's age minus her age at which her education was completed if she was educated in Canada. If she was not educated in Canada, work experience is determined by subtracting her age at arrival from her present age. Canadian Labour Force Experience Squared, equals Canadian labour

force experience minus 10 squared. This variable captures declining returns to experience by fitting a curvilinear function. An approximation to mean experience is subtracted before squaring to reduce its correlation with experience.

Development of Host Country: This variable reflects the level of economic development of the source country. The level of development is assumed to be low in the following place of birth categories: Southern and Eastern Europe, Latin America and black Africa and Caribbean and high in the Anglophone and Francophone countries, Northwestern Europe and Asia.

Human Capital Variables: As indicated above the main controls included in this model are human capital variables that reflect workers' education, work history and family status.

Two measures of investment in education are controlled for in this study namely educational level and post-secondary education. Educational level is measured by the total number of years an individual has attended school including elementary, high school and post-secondary education. Graded school is coded 1 to 11 for those whose highest level is reflected by that range, and 12 for those who have 12 or more years of graded education. Post-secondary education is coded '0' for those never having attended a post-secondary institution. One unit is attributed to each year attended and Grade 13 is considered to be 1 unit of attendance. So, for example, if an individual has completed grade 13 and 1 year of post secondary education, then the post secondary measure will read '2' and so forth.

Two measures of work history, namely labour force experience and work-status are also controlled for in this study. Foreign labour force experience reflects the number

of years an individual may potentially have spent in the labour market of the country of origin. If born and educated in Canada then the variable was be set to '0'. If not educated in Canada then work experience is determined by her age minus her age at arrival in Canada. Foreign labour force experience, squared equals years of foreign labour force experience minus 10 squared. Like Canadian labour force experience squared, this variable was introduced to capture declining returns to experience.

Work status (1=full time) reflects whether the individual currently works full versus part time.

Two family status variables were included as human capital control variables. Specifically marital status and number of children. Marital Status (1=married) The variable is coded '1' if married and '0' if not. Number of children reflects the total number of children living with the respondent.

Controls:

Size of place of residence (1=large) reflects the size of the Census Metropolitan Area (CMA) in which the individual lives. Different opportunity structures exist within the different size CMAs, for example in the large urban CMA the existence of ethnic enclaves may offer an immigrant the opportunity for employment not found in a smaller CMA, and as such the variable is controlled for. The large urban CMA, containing populations greater than 30 000, was coded '1' and rural CMAs and urban CMAs less than 30 000 were coded '0'.

Models: The reported analysis is based on a multinomial logistic regression model in which the dependent variable is occupational sector and the set of independent variables includes the following: A set of dummy variables for country of birth with Canada being

the reference category; lack of official language skills, Canadian labour force experience and experience squared, educational level, foreign labour force experience and experience squared, marital status, size of place of residence and labour force participation.

The multinomial logistic regression is specified as a probability model. The observed outcomes are defined as employment within one of the following occupational categories: low-wage ($y=1$), working class ($y=2$), and corporate sector ($y=3$). The probability of each observed outcome, m , given the independent variables is represented by $\Pr(y=m/x)$. The model may be written as:

$$\Pr(y_i = 1|x_i) = \frac{1}{1 + \sum_{j=1}^J \exp(x_i \beta_j)}$$

for the reference category, in this case the low-wage sector, and:

$$\Pr(y_i = m|x_i) = \frac{\exp(x_i \beta_m)}{1 + \sum_{j=m}^J \exp(x_i \beta_j)}$$

for the working-class and corporate sectors. In the model B_j is the vector of estimated coefficients indicating the effect of the independent variables on the outcomes, while X_i is the matrix of independent variables. To test for trends in the effect of source country, dummy variables for year of census and the product of the source country dummies and year of census dummies are added to the baseline model.

Sample Selection Bias: When comparing immigrant labour force participation levels with non-immigrant levels, a form of sample selection bias may be occurring.

Working immigrant women may be a select group who differs significantly from the working Canadian-born women. They may have had to overcome extreme obstacles that those not working need never contend with. Thus the argument implies that even if no differences in earning or occupational status is found, discrimination may still be occurring. The immigrant women may possibly be entitled to higher earnings or status if they were being credited. A model of any prior or current labour force participation is therefore estimated using logistic regression and the predicted probabilities from that model are used as an independent variable in the occupational models to correct for this bias. A dichotomous measure of labour force participation was developed in which '1' refers to any previous paid work experience and includes current employment. '0' refers to no previous work experience for pay.

A rationale for each variable included in the estimation of labour force participation is as follows:

The Place of Birth categories referred to earlier are included in the model as specific place of birth differences are found to influence the probability of women's labour force participation.

Labour force experience refers to previous work experience in both the country of origin and the host country. This variable is included in the estimation as labour force experience is said to raise the likelihood of participation in the labour force.

Years of Schooling was measured by adding up the total number of years an individual attended school including elementary, high school and post secondary education.

Marital status refers to whether or not a woman is married. Females are less

likely to work if married.

Number of children is also included in the analysis as the presence of children in the home decreases the likelihood of women's labour force participation.

Spouse's income is specified as the income generated by a spouse. The likelihood of a woman participating in the labour market declines as family income increases.

Multicollinearity

Appendices C and D present the correlation matrices for the aging cohort aged 25 to 34 in 1971, 35 to 44 in 1981 and 45 to 54 in 1991; and for the successive cohort 25 to 34 in 1971, 1981 and 1991, respectively. Examination of the correlations suggests no serious multicollinearity problems as none are greater than .70.

CHAPTER FIVE: RESULTS

As noted, in 'Canadian Immigration Trends' section, the number of immigrant women arriving from European and Anglophone countries declines over this time period, to be replaced by an increasing number of immigrant women arriving from Asia, non-white immigrant women from Africa and the Caribbean countries, and Latin America. Table 1 presents some basic descriptive statistics for the sequence of female immigrants age 25 to 34 in each of the three census years. With respect to educational levels, in 1971 all immigrants other than the Southern European had educational levels, which exceeded the Canadian born. By 1981, the Canadian level of education had risen to 12.1 years from 10.3 years in 1971. Despite these gains, the educational levels of all immigrants, other than those originating in Southern Europe and the non-whites from Africa and the Caribbean, continued to equal or surpass the educational levels of the Canadian born. In 1991, however, only three of the eight immigrant groups exceeded the average educational levels held by the Canadian-born, namely the Anglophone, Northwestern European and Southern European groups. The immigrant women originating from Eastern Europe, Asia, Africa, the Caribbean and Latin America had lower average levels of schooling than the Canadian-born women did.

The measure of language proficiency employed in this study, does not directly measure the concept. It instead identifies those who lack the ability to converse fluently in either of the official Canadian languages. What is noticeable from the descriptive statistics laid out in Table 1, is the increase in weak language proficiency among

Table 1: Descriptives Statistics for Cohorts Age 25-34 by Place of Birth and Census Year, Canadian Women, 1971-1991

Place of Birth	Educated in Canada (Percent)	Years of Schooling (Mean)	Lack Language Proficiency (Percent)	Number of Cases
1971				
Canada	100.0	10.3	1.5	5330
Anglophone or Francophone Countries	31.0	12.2	2.1	560
Northwestern Europe	41.7	10.5	32.0	231
Southern Europe	13.2	7.5	80.5	322
Eastern Europe	38.9	10.9	52.2	99
Asia	12.2	12.6	56.5	127
Africa or the Caribbean (non-whites)	5.5	11.3	0.0	55
Latin America	8.9	10.6	20.2	85
1981				
Canada	100.0	12.1	.8	24077
Anglophone or Francophone Countries	64.8	12.9	2.7	857
Northwestern Europe	73.7	12.4	7.0	502
Southern Europe	51.5	10.1	52.5	673
Eastern Europe	58.9	12.1	36.8	206
Asia	60.3	12.8	48.7	212
Africa or the Caribbean (non-whites)	48.8	11.3	0.0	66
Latin America	47.8	12.0	11.8	131

Table 1 (cont.): Descriptives Statistics for Cohorts Age 25-34 by Place of Birth and Census Year, Canadian Women, 1971-1991

Place of Birth	Educated in Canada (Percent)	Years of Schooling (Mean)	Lack Language Proficiency (Percent)	Number of Cases
1991				
Canada	100.0	12.9	1.4	28789
Anglophone or Francophone Countries	59.0	13.5	1.8	1408
Northwestern Europe	52.6	13.1	11.8	220
Southern Europe	13.8	13.5	77.9	264
Eastern Europe	59.8	11.5	45.7	586
Asia	19.7	12.8	71.0	2150
Africa or the Caribbean (non-whites)	33.8	12.7	22.5	554
Latin America	30.5	12.6	40.1	559

Table 2: Occupational Sector Distribution by Place of Birth for Cohorts Age 25-34, 1971-1991

Place of Birth	Corporate Sector (Percent)	Working-Class Sector (Percent)	Low-Wage Sector (Percent)
1971			
Canada			
Anglophone or Francophone Countries	55.0	29.2	15.9
Northwestern Europe	56.8	32.5	10.7
Southern Europe	50.6	29.0	20.3
Eastern Europe	13.7	56.8	29.5
Asia	45.5	36.4	18.2
Africa or the Caribbean (Non-whites)	52.8	37.0	10.2
Latin America	61.8	21.8	16.4
	50.6	32.9	16.5
1981			
Canada			
Anglophone or Francophone Countries	60.9	28.2	10.9
Northwestern Europe	62.2	28.4	9.5
Southern Europe	56.0	31.1	12.5
Eastern Europe	42.5	41.0	16.5
Asia	49.5	38.8	11.7
Africa or the Caribbean (Non-whites)	58.5	21.7	19.8
Latin America	57.6	37.9	4.5
	61.1	30.5	8.4

Table 2: Occupational Sector Distribution by Place of Birth for Cohorts Age 25-34, 1971-1991

Place of Birth	Corporate Sector (Percent)	Working-Class Sector (Percent)	Low-Wage Sector (Percent)
1991			
Canada	56.9	23.4	19.7
Anglophone or Francophone Countries	61.4	21.2	17.4
Northwestern Europe	49.5	25.5	25.0
Southern Europe	38.6	32.6	28.8
Eastern Europe	39.6	31.6	29.2
Asia	38.6	28.0	33.3
Africa or the Caribbean (Non-whites)	50.2	30.5	19.3
Latin America	44.0	28.3	27.7

immigrants from less developed countries especially those arriving from Asia and Latin America, and the non-whites from Africa and the Caribbean. Of additional interest is that of the immigrants arriving from Northwestern, Southern and Eastern Europe before 1991, a greater percentage of them display weaker official language proficiency when compared to those having arrived before 1981 from the same source countries. I suspect that these figures are driven largely by the proportion of immigrants speaking a non-official language at home but such behaviour is of importance as it is argued to be a good indicator of the degree of integration into the mainstream culture (Wanner, 1999).

Table 2 presents descriptive statistics summarising the trends in distribution of women employed within the three occupational sectors in Canada during the period 1971 to 1991. An increasing proportion of the female labour force is found within the corporate and low-wage sector with a corresponding proportion decline in the working class sector. This trend can be explained by a process in which the increasing service economy in Canada is bifurcated into an upper tier of jobs in business, education, health and welfare, and public administration and a lower tier encompassing jobs in retail and other consumer services (Wanner, 1999). Table 2 offers more specific information with respect to the foregoing by displaying the proportionate percent of each ethnic group within each of the occupational sectors by year. Although occupational placement is modelled with appropriate controls in the next section, the patterns observed here are enlightening. Starting with the cohort having arrived before 1971, one is made aware of the fact that all ethnic groups, except the Anglophones and the non-whites from Africa and the Caribbean, have lower percentages of workers within the

Effects of Country of Birth on Odds of Participating in the Labour Market as compared to Canadian born Women Aged 25 to 34 in 1971, 35 to 44 in 1981 and 45 to 54 in 1991.

Place of Birth	1971	1981	1991
Anglophone or Francophone	1.981	1.148	1.063
Northwestern Europe	1.079	1.158	1.167*
Southern Europe	1.700*	1.501*	1.920*
Eastern Europe	1.175	1.823*	1.091
Asia	1.249	1.827*	1.372*
Africa or the Caribbbean (Nonwhites)	1.930*	3.011*	2.287*
Latin America	1.853*	1.638	1.593*

Effects of Country of Birth on Odds of Participating in the Labour Market as compared to Canadian born Women Aged 25-34 in 1971, 1981 and 1991.

Place of Birth	1971	1981	1991
Anglo or Francophone	.891	.969	.952
Northwestern Europe	1.074	1.015	.793
Southern Europe	1.703 *	1.550	.723*
Eastern Europe	1.175	1.145	1.360*
Asia	1.249	1.589	.929
Africa or the Caribbean (Nonwhites)	1.93*	6.728*	.993
Latin America	1.852*	1.616	1.065

* Statistically Significant at $\alpha = .05$

corporate sector than do the Canadian-born cohort. This distribution is modified with successive time periods. In 1981 only those from the Anglophone and Latin American countries have a higher percentage of workers in the corporate sector. By 1991, the only group to surpass the Canadian-born in corporate sector placement are those from the Anglophone countries. Immigrants from less developed regions experienced a decline in corporate sector employment over this thirty-year period. At the same time, the proportion of immigrants from the less developed regions employed in the low-wage sector increases. The Southern European group has the smallest proportionate percentage of workers employed in the corporate sector.

Before addressing the main objective of the study, I wish to point out that differences do exist among the place of birth groups with regard to their probabilities of being in the work-force after controlling for educational attainment, marital status, number of children and spouse's income. Table 3 demonstrates these differences. Of the aging cohort it is noted that in 1971 when these women are between the ages of 25 and 34, the Southern European and Latin American women are more likely to be in the labour market than Canadian-born women, as are the non-whites from Africa and the Caribbean. By 1981 changes occurred in that the Southern and Eastern European women, the Asians and non-whites from Africa and the Caribbean are more likely to be working. While in 1991 statistically significant differences exist between the Northwestern and Southern Europeans, the Asians, the Latin Americans and the non-whites from Africa and the Caribbean and Canadian-born women aged 45 to 54 in that these ethnic groups are more likely to be in the labour market than the Canadian born. This may indicate that

Canadian-born women retire from the labour market at a younger age than most immigrant women do.

Fewer differences exist among the younger ethnic cohort members and the Canadian born. Of the group aged 25 to 34 in 1981, only the non-whites from Africa and the Caribbean display any statistically significant differences with respect to the probability of being in the labour market than the Canadian-born. They are six times more likely to be working. Few differences are found between the ethnic groups and the Canadian-born in 1991, with respect to the probability of being in the labour market, other than that the Eastern Europeans are more likely to work and the Southern Europeans less likely to work.

To reiterate, the main objective of the study is to determine the effect country of birth has on the probability of being employed within the corporate sector or the working-class sector versus the low-wage sector. The analysis is conducted separately for those educated in Canada and those educated abroad to determine the effect Canadian and foreign credentials have on the probability of employment within the various sectors. The model employed to determine the above includes place of birth categories, lack of official language skills, Canada labour force experience, educational level, foreign labour force experience, marital status, work status, size of place of residence and the predicted probability of being in the work-force.

Table 4 reports the results from a series of model selection exercises. A baseline model including lack of official language skills, Canadian labour force experience, educational level, foreign labour force experience, marital status, work status and size of place of residence, is first augmented by dummy variables for place of birth. An

additional set of interactions between year of census and place of birth is later added to the model. These three models are estimated separately for those educated in Canada versus those educated abroad and for each of the two sets of cohort members. The first four panels of Table 4 summarises the findings for the aging cohort members 25 to 34 in 1971, 35 to 44 in 1981, and 45 to 54 in 1991. The remaining four panels of summarised information reflect the findings for the three successive cohorts of 25 to 34 year olds.

For the aging cohort members both educated within and outside of Canada, place of birth has a significant effect on the attainment of employment within both the corporate. With respect to the working-class sector, place of birth is only significant for those educated abroad. However, there is no evidence that these effects change over time for those educated in Canada, only for those educated abroad.

For the three separate cohorts of 24 to 35 year olds, place of birth is also found to play an important role in occupational attainment in all categories other than for those educated abroad and seeking employment in the working-class sector. There is no evidence of significant changes over time with respect to the importance of place of birth in the probability of occupational placement within the corporate or working-class sectors other than for those educated abroad and seeking employment in the corporate sector.

The top panel of table 5 summarises the results of the analysis conducted with the aging cohort members displaying the model parameters for place of birth which pinpoint specific changes over time. Only statistically significant differences are noted and are expressed as odds ratios relative to the Canadian born. Place of birth is found to have a significant effect on the attainment of corporate sector employment versus low-wage

Table 4 Model Selection for Logistic Regressions of Occupational Sector on Place of Birth, Socioeconomic Characteristics, and Trends in Place of Birth effects for Cohort Age 25 to 34 in 1971, 35 to 44 in 1981, and 45 to 54 in 1991.

Model	Predictor Variables	Model d.f.	Contrast	Contrast d.f.	-2LL for Model	-2LL for Contrast
A. Cohort 25 to 34 in 1971, 35 to 44 in 1981, 45 to 54 in 1991						
Educated in Canada						
<i>Corporate Sector vs. Low-Wage Sector</i>						
[1]	Socioeconomic Characteristics Plus Year	12	[1] vs. null	12	12873	4666*
[2]	[1] plus Place of Birth dummies	21	[2] vs. [1]	7	12856	16.09*
[3]	[2] plus Year/Place of Birth Interactions	35	[3] vs. [2]	14	12848	8.51
<i>Working-Class Sector vs. Low-Wage Sector</i>						
[1]	Socioeconomic Characteristics Plus Year	12	[1] vs. null	12	12764	706.88*
[2]	[1] plus Place of Birth dummies	19	[2] vs. [1]	7	12751	12.63
[3]	[2] plus Year/Place of Birth Interactions	33	[3] vs. [2]	14	12741	9.43
Educated Abroad						
<i>Corporate Sector vs. Low-Wage Sector</i>						
[1]	Socioeconomic Characteristics Plus Year	14	[1] vs. null	14	14280	5889*
[2]	[1] plus Place of Birth dummies	21	[2] vs. [1]	7	14195	85.1*
[3]	[2] plus Year/Place of Birth Interactions	35	[3] vs. [2]	14	14169	25.85*
<i>Working-Class Sector vs. Low-Wage Sector</i>						
[1]	Socioeconomic Characteristics Plus Year	13	[1] vs. null	13	15362	682.57*
[2]	[1] plus Place of Birth dummies	20	[2] vs. [1]	7	15342	20.22*
[3]	[2] plus Year/Place of Birth Interactions	34	[3] vs. [2]	14	15294	47.48*
B. Cohorts 25 to 34 in 1971, 1981, and 1991						
Educated in Canada						
<i>Corporate Sector vs. Low-Wage Sector</i>						
[1]	Socioeconomic Characteristics Plus Year	12	[1] vs. null	12	24354	7714*
[2]	[1] plus Place of Birth dummies	19	[2] vs. [1]	7	24333	21.24*
[3]	[2] plus Year/Place of Birth Interactions	33	[3] vs. [2]	14	24314	18.76
<i>Working-Class Sector vs. Low-Wage Sector</i>						
[1]	Socioeconomic Characteristics Plus Year	12	[1] vs. null	12	21582	1216*
[2]	[1] plus Place of Birth dummies	19	[2] vs [1]	7	21567	14.42*
[3]	[2] plus Year/Place of Birth Interactions	33	[3] vs. [2]	14	21555	12.71
Educated in Abroad						
<i>Corporate Sector vs. Low-Wage Sector</i>						
[1]	Socioeconomic Characteristics Plus Year	14	[1] vs. null	14	24731	8560*
[2]	[1] plus Place of Birth dummies	21	[2] vs. [1]	7	24679	50.81*
[3]	[2] plus Year/Place of Birth Interactions	35	[3] vs. [2]	14	24649	31.28*
<i>Working-Class Sector vs. Low-Wage Sector</i>						
[1]	Socioeconomic Characteristics Plus Year	14	[1] vs. null	14	22965	1264*
[2]	[1] plus Place of Birth dummies	21	[2] vs. [1]	7	22952	13.44
[3]	[2] plus Year/Place of Birth Interactions	35	[3] vs. [2]	14	22933	18.65

sector employment and working-class employment versus low-wage sector employment. More specifically, of the immigrant women educated in Canada, the Anglophone women, the non-whites from Africa and the Caribbean, and the immigrant women from Latin America experience similar corporate and working-class sector attainment patterns as the Canadian born. When this cohort was age 25 to 34 (1971), the Southern Europeans and the Asian were the only groups to have lower odds of being employed in the corporate sector. By middle age (1981) the Asians were the only women who experienced disadvantages with respect to placement in the corporate sector. Any disadvantages experienced by the Southern Europeans disappeared at this time. As this cohort continued to age and with regard to employment in the working-class sector, only the Northwestern Europeans experienced any disadvantages in the odds of employment therein. The Asians continued to be disadvantaged in corporate sector placement alongside the Northwestern Europeans. What these patterns suggest is that certain groups, namely the Northwestern Europeans and the Asians, began to experience consistent disadvantages after having reached middle age.

The picture is considerably more severe among those educated abroad as no one group experiences similar patterns to the Canadian born. Each group, at one time or another, experiences lower odds of being employed in the corporate or working-class sector when compared to the Canadian born. When young (1971), the Southern Europeans were less likely to be employed in the corporate sector and the Northwestern Europeans and non-white from Africa and the Caribbean were less likely to be employed in the working class sector. By middle age (1981), five of the seven groups experience

lower odds of being employed in the corporate sector, namely the Northwestern, Southern and Eastern Europeans plus the Asians and the Latin Americans. As this cohort passed age 45 in 1991, four of the ethnic groups maintained their disadvantaged position, namely the Europeans and the Asians. The women from the Anglophone countries also joined the roster. Within this age group only the Asians are hindered from employment in the working-class sector. Other than the disadvantage experienced when young (1971), the non-whites from Africa and the Caribbean and who are educated abroad, are not hindered from employment in either the corporate or working-class sectors. The conclusion drawn from the detail above is that immigrant women from a variety of source countries who received their education before immigrating to Canada experience lower rates of career mobility when compared to the Canadian born.

Table 6 summarises the net effects of place of birth on occupational sector attainment of the sequence of cohorts age 25 to 34 in 1971, 1981 and 1991. The results of the 1971 cohort are identical to those addressed in the previous paragraph. With respect to those immigrants educated in Canada, the results for the younger cohort members of the Northwestern European and Asian groups are similar to those of their older counterparts. More specifically, the younger members of these ethnic groups also experienced reduced likelihood of entering the corporate sector as opposed to the low-wage sector. The Southern Europeans experienced no reduced opportunities in 1981 or 1991. Unlike the Northwestern Europeans and Asians belonging to the 45 to 54 age group in 1991, this younger cohort did not experience any obstacles preventing them from entering the corporate sector or working-class sector in 1991. Of those immigrant women selected for this study, no group experienced a greater likelihood of employment

in the corporate or working-class sector when compared to the Canadian-born.

The young immigrant women entering Canada with credentials earned abroad were not offered the same opportunities to work in the corporate or working-class sectors as the Canadian born women. More specifically, the Asians having arrived before 1981 were three-quarters less likely to be employed in the corporate sector versus the low-wage sector than the Canadian born women. The opportunity profile for those having arrived before 1991 does resemble that of their older counterparts now 45 to 54 in 1991. The Anglophones and the non-whites from Africa and the Caribbean were the only two groups not to experience any disadvantage with respect to opportunity for employment in the corporate sector. Of the Europeans the Southern Europeans were the most likely to be employed in the corporate sector, although, the Asians and Latin Americans were even more likely to do so. With respect to the working-class occupations versus the low-wage occupations, the number of origin groups encountering difficulty fluctuates over the three time periods: in 1971 the non-whites from Africa and the Caribbean and the Northwestern Europeans were less likely to be employed in this sector, no group experienced difficulty in 1981 and in 1991 the Asians were one-third less likely than the Canadian-born to be employed in the working-class sector.

In sum, we can conclude the following with respect Canadian-born and immigrant women's labour force participation: First, regarding the aging cohort it was determined that statistically significant differences do exist with respect to their labour force participation over the three time periods. The most poignant finding is that most immigrant women between the ages 45 to 54 are more likely to be in the workforce than Canadian-born women. This suggests that immigrant women retire at an older age than

Table 5

Net Multiplicative Effects of Place of Birth on the Odds of Attaining Corporate Sector and Working-Class Occupations Compared to Low-Wage Sector Occupations, Canadian Women Aged 25 to 34 in 1971, 35 to 44 in 1981, and 45 to 54 in 1991.

Place of Birth ^a	1971	1981	1991	
	Sector Corp. Work-Class	Sector Corp. Work-Class	Sector Corp.	Work-Class
Educated in Canada				
Anglo or Francophone				
Northwestern Europe		.671	.448	.639
Southern Europe	.316			
Eastern Europe				
Asia	.157	.265	.232	
Blk Africa or Carib.				
Latin America				
Educated Abroad				
Anglo or Francophone			.397	
Northwestern Europe	.343	.476	.337	
Southern Europe	.156	.236	.565	.106
Eastern Europe		.129	.492	.124
Asia		.420	.358	.217
Blk Africa or Carib.	.223			.448
Latin America		.320	.232	

Note: All parameter values are maximum likelihood estimates from multinomial logistic regressions including the human capital variables, the place of birth and size of residence variables. The reference category for both dependent variables is the low-wage sector. All reported coefficients are significant beyond $p < 0.05$, with blank spaces representing coefficients for which the null hypothesis could not be rejected.

^aThe reference category for place of birth is Canadian born.

Net Multiplicative Effects of Place of Birth on the Odds of Attaining Corporate Sector and Working-Class Occupations Compared to Low-Wage Sector Occupations, Canadian Women Aged 25 to 34 in 1971, 1981, 1991

Place of Birth ^a	1971	1981	1991
	Sector Corp. Work-Class	Sector Corp. Work-Class	Sector Corp. Work-Class
Educated in Canada			
Anglo or Francophone Northwestern Europe		.51	
Southern Europe	.316		
Eastern Europe			
Asia	.157	.117	.12
Blk Africa or Carib.			
Latin America			
Educated Abroad			
Anglo or Francophone Northwestern Europe	.343		.189
Southern Europe	.155		.368
Eastern Europe			.335
Asia		.273	.442
Blk Africa or Carib.	.223		.678
Latin America			.484

Note: All parameter values are maximum likelihood estimates from multinomial logistic regressions including the human capital variables, the place of birth and size of residence variables. The reference category for both dependent variables is the low-wage sector. All reported coefficients are significant beyond $p < 0.05$, with blank spaces representing coefficients for which the null hypothesis could not be rejected.

^aThe reference category for place of birth is Canadian born.

Canadian-born women as it is unlikely that the latter will re-enter the labour market after age 54. Fewer differences were found among the younger cohort members with respect to labour force participation. Besides the fact that the non-whites from Africa and the Caribbean, and Southern Europeans and Latin Americans were found more likely to work than the Canadian-born in the 1971 and 1981, and the Southern Europeans were less likely to work in 1991, no significant differences exist among the ethnic groups. All women regardless of place of birth are equally likely to work.

Secondly, for those educated in Canada, be they members of the aging cohort or of the younger successive cohort, place of birth plays a significant role in occupational attainment, although the significance of place of birth was not found to change over time. The findings for the women educated abroad are not as clean-cut. For example, place of birth does play a significant role in the occupational attainment of aging immigrant women with respect to placement in both the corporate and the working-class sector and these effects do change over time. For the 25 to 34 year olds selected from the three time periods, place of birth plays a significant role and does vary over time with respect to the probability of occupational attainment within the corporate sector whereas neither holds true with respect to the probability of occupational attainment within the working-class sector.

CHAPTER SIX: DISCUSSION AND CONCLUSION

Returning to the original objective of this investigation, I wish to review, within this section of the paper, the findings described above from the perspective of the four hypotheses described in the theory section. In other words, the results will be discussed in terms of the theories chosen to help understand how the occupational opportunities of immigrant women vis-à-vis Canadian-born women appear to change over time in reaction to changes in source country distribution, changes in immigration policy and changes in the Canadian occupational structure as it becomes increasingly service oriented.

Recalling Hypothesis 1, it suggests that the effect of country of origin on occupational attainment of immigrant women may increase with the cultural distance of the ethnic origin groups. Groups such as the Asians, the non-whites from Africa and the Caribbean and the Latin Americans were therefore expected to experience stronger negative effects of place of birth on occupational attainment levels than are groups such as the Anglophone or the Europeans. The results derived from analyses conducted with the sample educated in Canada did not support the hypothesis. For example, when considering the aging cohort members educated in Canada, the non-whites from Africa and the Caribbean and the Latin Americans alongside the Anglophones experienced patterns similar to Canadian-born with respect to occupational attainment in the corporate and working-class sector across the three time periods. The results derived from analysis conducted on the those educated abroad offer partial support for the hypothesis as the

Asians were found less likely to be employed within the working-class in all three time periods than, for example, the Northwestern Europeans. Patterns similar to the foregoing exist for the younger successive cohort members educated in Canada. For example, the Latin American, the Eastern Europeans, the non-whites from Africa and the Caribbean and the Anglophones are shown to experience similar occupational attainment patterns as the Canadian-born. For the younger members aged 25 to 34 in 1991 and educated abroad, the Asians and the Latin Americans did not experience the lowest probabilities of being employed within the corporate or working-class sectors. In 1991, for example, the Europeans as a group experienced lower probabilities of employment within the corporate sector than did the immigrants from less developed countries.

Overall it appears that the discrimination theory does not adequately explain the inequalities that exist among ethnic groups in Canada with respect to occupational attainment levels. Those groups farthest in cultural distances from the Canadian-born are not necessarily those least likely to work in higher-ranking occupational positions.

The second hypothesis also addresses the issue of discrimination, although its argument is more sophisticated arguing that potential employees are ranked by employers. Those educated in Canada and are closer to the Canadian-born woman in cultural distance will be more successful in occupational attainment levels than those educated abroad and dissimilar to the Canadian in cultural attributes. Partial support was found for this hypothesis. Of the 25 to 34 year olds in 1971, 1981 and 1991 those educated abroad have lower odds of attaining employment within the corporate and working-class sector in 1991. Similar patterns were found for the aging cohort members in 1981 and 1991 when comparing the odds of attaining employment within the corporate

working-class sector for those educated in Canada versus those educated abroad. Queuing theory would suggest that the above findings support the argument that employers hesitate to hire those educated abroad because of the perceived training costs associated with their employment and their perceived lower productivity. However, no support was found for the cultural distance aspect of the hypothesis. As discussed previously, the immigrant women originating in less developed countries are not necessarily the least likely to work in higher-ranking occupational positions. A possible explanation for the why the discrimination hypotheses did not adequately explain the results of this investigation could concern the criterion employed to discern cultural distance. Cultural distance was determined by the perceived dissimilarity between of the place of birth groups and the Canadian-born. The Anglophone was therefore perceived to be closer in cultural distance than for example the Asian. A more rigorous measure of cultural distance would perhaps yield different findings than those reported here.

The competitive market hypothesis or Hypothesis 3 states that immigrant women, upon arrival in Canada may initially be allocated in lower status occupations. Their occupational placement patterns should change over time as they acquire training and work experience in the host country and may eventually reflect the patterns of the Canadian-born. In reviewing the findings of the aging cohort members, it is concluded that no support was found for this hypothesis. In order to support the argument the coefficients for each place of birth would initially reflect low probabilities of occupational attainment within each of the employment sectors in 1971. The coefficients would then change over time to reflect increasing odds of employment within the corporate and working-class sectors. This pattern was not found for those educated in

Canada or for those educated abroad. Instead we find that for the aging cohort educated in Canada, some groups such as the Anglophones, non-whites from Africa and the Caribbean, and the Latin Americans experience employment patterns similar to those of the Canadian-born. The Northwestern Europeans experience declining odds of employment within the corporate sector as time passes whereas the Asians experience the inverse. For those educated abroad several different patterns exist. The non-whites from Africa and the Caribbean, for example, have lower odds of occupational placement when young (1971) but these disadvantages disappear as time passes. Other ethnic groups such as the Asians, the Europeans and the Latin Americans experience declining odds of occupational attainment as time passes. The lack of support for this hypothesis could stem from the underlying assumption of the competitive market theory itself. The theory assumes that the economic climate remains stable in the long run. Expansions and recessions within markets are expected to occur but the forces of supply and demand will quickly bring the markets back to equilibrium. Such potential swings in the demand for labour were not taken into consideration when hypothesising the effect of place of birth on occupational attainment. It was assumed that demand remained stable over the three time periods, which may not have been the case. Taking such market imperfections into consideration would possibly have helped explain why the immigrant group as a whole had a lower probability of being employed within the various sectors at various times. Differing odds amongst the ethnic groups would not have been explained by a surge or recession in the economic market.

Finally, Hypothesis 4 states that differences among place of birth groups groups in their levels of occupational attainment levels can be explained by the changing

composition of ethnic groups immigrating to Canada. More specifically, it was hypothesised that immigrants having originated from and been educated in less developed countries such as Southern and Eastern Europe, Latin America, Africa and the Caribbean would not be as successful in Canada as immigrants originating in more developed countries. Once again, the results did not support the hypothesis as some groups from the less developed countries display occupational attainment patterns similar to the Canadian-born. The Eastern Europeans, for example, between the ages of 25 and 34 in 1971, 1981 and 1991 do not experience lower odds of attainment in either of the occupational sectors until 1991 when they are disadvantaged in the corporate sector. Nor do the non-whites from Africa and the Caribbean suffer any drawbacks in occupational attainment except within the working-class sector in 1971. The aging cohort members educated abroad experience many more disadvantages. Inconsistencies exist within the pattern, however, that leads one to refute the hypothesis. For example, the non-whites from Africa and the Caribbean experienced occupational attainment patterns similar to the Canadian born other than when young (1971) and seeking employment within the working-class sector. Plus, neither the Asians nor the Latin Americans are disadvantaged across all occupational sectors and time periods. An underlying assumption of this hypothesis is that the immigrants from particular regions are homogeneous with respect to educational levels and skills. The study thus assumes that someone originating from a Third World region, for example, would not be well educated nor would she have the occupational skills to function successfully in Canada. Such assumptions may not be valid given that it is not uncommon for African and Middle Eastern students, as examples, to study abroad. So even though their place of birth is Africa or the Middle

East they should not be categorised as reflecting the average on that region.

Conclusion

I would suggest that the most noticeable outcome of this investigation is the difficulty experienced by women educated abroad with respect to their occupational attainment levels. Although certain groups educated in Canada such as the Asian and the Northwestern Europeans were less likely to be employed in the corporate and working-class sectors, the situation was exacerbated for those educated abroad. Virtually each ethnic groups at all ages experienced lower odds of employment, especially within the corporate sector in 1991. For the aging cohort educated abroad it is clear that those from the less developed regions had greater difficulty attaining corporate sector jobs than the Canadian-born. This was not the case for the younger cohort members aged 25 to 34 in 1991 as the Europeans suffered greater disadvantages with respect to corporate employment opportunities than did those from the less developed countries. These observations consequently lead to the conclusion that Canada's 'vertical mosaic' appears to be a ranking of ethnic inequalities among adults educated before immigrating to Canada. There is no indication that the strength of effect of ethnicity declines over time. As well, support for the argument stating that the locus of ethnic inequality is shifting to groups from less developed nations is mixed. The argument holds for the aging cohort members but does not for the younger successive members having arrived before 1991. In closing, several limitations of this study must be noted. First, a general problem with measures used in this study is that none directly assess employers' hiring needs or decisions as articulated by the demand side theories. Rather, one outcome in particular, occupational attainment, was used as an indirect measure of employers' decision-making,

discrimination and ranking of potential employees. Future research should attempt to assess not only employers' preferences and decision making more explicitly, but employees' as well, in order to better understand the attainment process.

Secondly, and more specifically, the measures of certain variables, such as occupational attainment, place of birth, lack of language proficiency, cultural distance and labour force experience are somewhat problematic. These difficulties in measurement arose as a consequence of the data sets analysed in this study. First, occupational attainment was measured using three broad categories: corporate sector, working-class sector and low-wage sector. The descriptive statistics indicate that as many as 50 percent of the women selected for the study are located within the corporate sector. Such large percentages suggests that a problem in the coding scheme may exist. With respect to the place of birth variable, again the study may have been jeopardised because the categories are not detailed enough. The Asian group, for example, encompasses many heterogeneous groups, which should not be lumped together but were so due to the nature of the data. The concern with the measure of language proficiency is that it too is a crude measure of determining whether or not the respondent speaks either of the host languages well enough to pass successfully in the work place. Concerning the measurement of cultural distance, the measures are problematic because they focus on perceived differences with respect to credentials attained, skills and personal characteristics of the various place of birth groups rather than using an empirical scale to quantitatively measure any such differences. Such perceptions, due to inherent biases may lead to incorrect conclusions. It is more difficult to study women's labour force participation than it is to study that of men and this difficulty is reflected in the

measurement of the immigrant woman's labour force participation. For this study the measurement of labour force experience made the assumption that no interruptions occurred in the women's work career. Such an assumption does not reflect reality but given the nature of the data employed it was a necessary assumption. Women, unlike men, seldom enter the work force and remain there until retirement with no interruptions or breaks and the breaks taken are shown to affect career outcomes and rewards. The measure may, perhaps, more accurately reflect time spent in Canada. The overarching concern with the crude measurement of these variables is that the outcomes of the study may possibly have been affected. Should the analyses be rerun with more detailed data then the conclusions drawn may differ from those determined in this study.

Given the results as reported in this study, the main policy implication of this research arises from the findings that foreign credentials are not afforded the same respect as the credentials received from a Canadian education institution. Such devaluation can be viewed as a form of exclusionary discrimination, occurring perhaps because as suggested by queuing theory, employers perceive the training costs of such individuals to be higher than those of the Canadian-born. The devaluation could perhaps also be occurring because the immigrant women do not arrive in Canada with skills and credentials needed by Canadian employers. Supposedly such speculations were taken into consideration by controlling the human capital variables. However, the concerns previously expressed with respect to certain variables employed in the study, such as labour force experience and language proficiency leaves a shred of doubt. I would suggest though that the Canadian government become involved in the interpretation process of foreign credentials as many stand to benefit from the recognition of foreign

skills.

Bibliography

Agcos, Carol and Monica Boyd. 1993. "The Canadian Ethnic Mosaic Recast: Theory, Research and Policy Frameworks for the 1990s." in James Curtis et al. (eds.) *Social Inequality in Canada: Patterns, Problems, Policies*. Toronto: Prentice-Hall pp. 330-352.

Armstrong, Pat. 1975. "Participation of Women in the Canadian Labour force, 1941-71." *Canadian Review of Sociology and Anthropology*. 12(4):

Armstrong, Pat and Hugh Armstrong. 1984. *The Double Ghetto: Canadian Women and their Segregated Work*. Toronto: McClelland and Stewart Ltd.

Averitt, Robert T. 1968. *The Dual Economy: The Dynamics of American Industry Structure*. New York: Norton.

Badets, Jane. 1989. "Canada's Immigrant Population." *Canadian Social Trends* Autumn: 2-6.

_____ 1993. "Canada's Immigrants Recent Trends." *Canadian Social Trends* Summer: 8-11.

Basavarajappa, K.G. and Ravi B.P. Verma. 1990. "Occupational Composition of Immigrant Women." *Ethnic Demography: Canadian Immigrant, Racial and Cultural Variations*. Ottawa: Carlton University Press.

Beaujot, Roderic P., K.G. Basavarajappa, Ravi B.P. Verma. 1988. *Income of immigrants in Canada: A census data analysis*. Ottawa: Statistics Canada.

Beaujot, Roderic and J. Peter Rappak. 1990. "The Evolution of Immigrant Cohorts." *Ethnic Demography: Canadian Immigrant, Racial and Cultural Variations*. Ottawa: Carlton University Press.

Beach, C.M. and C. Worswick. 1993. "Is There a Double Negative effect in the earnings of immigrant women?" *Canadian Public Policy* 19: 36-53.

Beck, E. M., Patrick M. Horan, and Charles M. Tolbert. 1980. "Industrial Segmentation and Labour Market Discrimination." *Social Problems* 28(2): 113-130.

Becker, Gary S. 1964. *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*. New York: Columbia University Press.

Berk, Richard A. 1983. "An Introduction to Sample Selection Bias in Sociological Data." *American Sociological Review* 48: 386-398.

- Bird, Chloe E. 1996. "An Analysis of Gender Differences in Income Among Dentists, Physicians, and Veterinarians in 1987." *Research in the Sociology of Health* 13A: 31-61.
- Blishen, Bernard R. 1970. "Social class and opportunity in Canada." *Canadian Review of Sociology and Anthropology* 7: 110-127.
- Borjas, George J. 1987. "Self-Selection and the Earnings of Immigrants." *American Economic Review* 77: 531-53.
- Borjas, George J. 1993. "Immigration Policy, National Origin and Immigrant Skills: A Comparison of Canada and United States." Pp. 21-48 in David Card and Richard B Freeman (eds.), *Small Differences that Matter: Labor Markets and Income Maintenance in Canada and the United States*. Chicago: The University of Chicago Press.
- _____. 1994. "The Economics of Immigration." *Journal of Economic Literature*. 32: 1667-1717.
- Bonacich, Edna. 1972. "A Theory of Ethnic Antagonism: The Split Labor Market." *American Sociological Review* 37: 547-559.
- _____. 1979. "The Past, Present and Future of Split Labour Market Theory." *Research in Race and Ethnic Relations* 1: 17-64.
- Boyd, Monica. 1976. "Occupations of Female Immigrants and North American Immigration Statistics." *International Migration Review* 10: 1 73-80.
- Boyd, Monica, David L. Featherman and Judah Matras. 1980. "Status Attainment of Immigrant and Immigrant Origin Categories in the United States, Canada, and Israel." *Comparative Social Research* 3: 192-228.
- Boyd, Monica. 1982. "Sex Differences in the Canadian Occupational Attainment Process." *Review of Sociology and Anthropology* 19(1): 1-28.
- _____. 1984. "At a Disadvantage: The Occupational Attainments of Foreign Born Women in Canada." *International Migration Review* 18: 1091-1119.
- _____. 1985. "Revising the Stereotype: Variations in Female Labour Force Interruption." Paper presented at the Canadian Population Society Meetings, Montreal.
- Boyd, Monica, J. Goyder, F.E. Jones, H.A. McRoberts, Peter. C. Pineo, John Porter. 1985. *Ascription and Achievement: Studies in Mobility and Status Attainment in Canada*. Ottawa: Carlton University Press.
- Boyd, Monica and C. Taylor. 1986. "The Feminization of Temporary Workers: The Canadian Case." *International Migration Review* 24: 717-734.

Boyd, Monica. 1990. "Immigrant Women: Language, Socio-economic Inequalities and Policy Issues." *Ethnic Demography: Canadian Immigrant, Racial and Cultural Variations*. Ottawa: Carlton University Press.

_____. 1992. "Gender, Visible Minority, and Immigrant Earnings Inequality: Reassessing an Employment Equity Premise." *Deconstructing a Nation: Immigration, Multiculturalism and Racism in the '90s Canada*. Halifax: Fernwood Publishing.

_____. 1992. "Gender Issues in Immigration and Language Fluency." Pp. 305-372 in Barry R. Chiswick (eds.), *Immigrants, Language and Ethnicity in Canada and the United States*. Washington, D.C.: The AEI Press.

Bradbury, Bettina. 1994. "Women's Workplaces: The Impact of Technological Change on Working-class Women in the Home and in the Workplace in Nineteenth-Century Montreal." Pp. 27-43 in Audrey Kobayashi (ed.), *Women, Work and Place*. Montreal: McGill-Queen's University Press.

Breton, Raymond. (1998). "Ethnicity and Race in Social Organisation: Recent Developments in Canadian Society." Pp. 60-109 in Rick Helmes-Hayes and James Curtis (ed.), *The Vertical Mosaic Revisited*. Toronto: University of Toronto Press.

Citizenship and Immigration Canada. 1997. "Preliminary Profile of Immigrants Landed in Canada over the 1980 to 1994 Period." Paper presented at the Conference on Immigration, Employment, and the Economy sponsored by the Canadian Employment Research Forum and Citizenship and Immigration Canada, Richmond, B.C., October 17-18.

Clement, Wallace. 1975. *The Canadian Corporate Elite*. Toronto: McClelland And Stewart.

Cotter, David A., Joann M. DeFiore, Joan M Hermsen, Brenda Marsteller Kowalewski and Reeve Vanneman. (1995). "Occupational Gender Desegregation in the 1980s." *Work and Occupations*. 22(1); 3-21.

Cuneo, Carl J and James E. Curtis. 1975 "Social ascription in the educational and occupational status attainment of urban Canadians." *Canadian Review of Sociology and Anthropology* 12: 6-24.

Cunningham, Annacost Nicola. 1995. "Gender and Immigration Law: The Recruitment of Domestic Workers to Canada, 1867-1940." *Indian Journal of Gender Studies*. 2: 25-43.

Darroch, Gordon A. 1979. "Another look at ethnicity, stratification and social mobility in Canada." *Canadian Journal of Sociology* 4: 1-25.

Denis, Ann B. 1986. "Adaptation to Multiple Subordination? Women in the Vertical

Mosaic". *Canadian Ethnic Studies* 28: 3 61-74.

Duleep, Harriet Orcutt and Seth Sanders. 1993. "The Decision to Work by Married Immigrant Women." *Industrial and Labour Relations Review* 46: 667-690.

Edwards, Richard C., Michael Reich and David M. Gordon. 1973. *Labour Market Segmentation*. Toronto: D.C. Heath and Company.

Duncan, Beverly and Otis Dudley Duncan. 1968. "Minorities and the Process of Stratification." *American Sociological Review* 33: 356-64.

Evans, Mariah D.R. 1987. "Language Skill, Language Usage, and Opportunity: Immigrants and Enclave Economies in Australia." *Sociology* 21: 253-274.

_____. 1989. "Immigrant Entrepreneurship: Effects of Ethnic Market Size and Isolated Labor Pool." *American Sociological Review* 54: 950-962.

Evans, Mariah D.R. and Jonathan Kelley. 1991. "Prejudice, Discrimination, and the Labor Market: Attainments of Immigrants in Australia." *American Journal of Sociology* 97: 721-759.

Fagnan, Sheila. 1993. "Female Immigrant Earnings Profiles." University of Calgary. MA. Unpublished Manuscript.

Featherman, D. L. and R. M. Hauser. 1978. *Opportunity and Change*. New York: Academic Press.

Geschwender, James A. 1994. "Married Women's Waged Labor and Racial/Ethnic Stratification in Canada." *Canadian Ethnic Studies* 26:53-73.

Gold, Sylvia. 1994. "Women, Work and Place: The Canadian Context." Pp. 98-111 in Audrey Kobayashi (ed.) *Women, Work and Place*. Montreal: McGill-Queen's University Press.

Goldlust, John and Anthony H. Richmond. 1973. "A Multivariate Analysis of the Economic Adaptation of Immigrants in Toronto." Paper presented at the annual meeting of the Canadian Sociology and Anthropology Association, Queen's University, Kingston.

Green, David A. 1999. "Immigration Occupational Attainment: Assimilation and Mobility over Time." *Journal of Labor Economics* 17: 49-79.

Gunderson, Morley and Frank Reid. 1981. "Equality in the Workplace Sex Discrimination in the Canadian Labour Market: Theories, Data and Evidence." *Women's Bureau Labour Canada*. 3: 1-75.

Kalbach, Warren and Anthony H. Richmond. 1980. *Factors in the Adjustment of*

Immigrants and their Descendants. Ottawa: Statistics Canada.

Kalleberg, Arne L. and Aage B. Sørensen. 1979. "The Sociology of Labour Markets." *Annual Review of Sociology* 5: 351-379.

Krahn, J and Graham S. Lowe. 1998. *Work, Industry, and Canadian Society*. Toronto: International Thomson Publishing.

Jasso, Guillermina and Mark R. Rosenweig. 1986. "What's in a Name? Country-of-Origin Influences on Earnings of Immigrants in the United States." *Research in Human Capital and Development* 4: 75-106.

Lautard, E. Hugh and Donald J. Loree. 1984. "Ethnic Stratification in Canada, 1931 - 1971." *Canadian Journal of Sociology* 9: 333-343.

Li, Peter S., 1988. *Ethnic Inequality in a class society*. Toronto: Oxford University Press.

_____. 1996. *State of the Art Literature Review on Immigration: Sociological Perspectives*. Saskatoon: Prepared for Citizenship and Immigration Canada.

Lian, Jason Z. And David Ralph Matthews. 1998. "Does the Vertical Mosaic Still Exist? Ethnicity and Income in Canada, 1991." *Canadian Review of Sociology and Anthropology* 35: 461-481.

Marini, Margaret Mooney and Pi-Ling Fan. 1997. The Gender Gap in Earnings at Career Entry. *American Sociological Review* 62: 588-604.

McVey, Wayne W. Jr. and Warren E, Kalbach. 1995. *Canadian Population*. Toronto: Nelson Canada.

Menard, Scott. 1995. *Applied Logistic Regression Analysis*. London: Sage Publications Inc.

Mincer, Jacob and Solomon Polacheck. 1984. Family Investments in Human Capital: Earnings of Women. *Journal of Political Economy* 82: 76-108.

Prefontaine, J.P. and Andrew Benson. 1999. "Barrier to Canadian Immigrants' Economic Integration: Government Response to Market Failure." Paper presented at the Third National Metropolis Conference, Vancouver, B.C. January 14-16.

Porter, John. 1965. *The Vertical Mosaic: An Analysis of Social Class and Power in Canada*. Toronto: University of Toronto Press.

Portes, Alejandro. 1978. "Towards a Structural Analysis of Illegal (undocumented) Immigration." *International Migration Review* 12: 469-484.

- Reich, Michael, David M. Gordon and Richard C. Edwards. 1973. "Dual Labour Markets: A Theory of Labour Market Segmentation." *American Economic Review* 63: 359-365.
- Preston, Valerie and Wenona Giles. 1997. "Ethnicity, Gender and Labour Markets in Canada: A Case Study of Immigrant Women in Toronto." *Canadian Journal of Urban Research* 6: 135-159.
- Reitz, Jeffrey. 1980. *The Survival of Ethnic Groups*. Toronto: McGraw-Hill Ryerson.
- Reitz, Jeffrey and Raymond Breton. 1994. *The Illusion of Difference: Realities of Ethnicity in Canada and United States*. Toronto: C.D. Howe Institute.
- Reskin, Barbara. 1993. "Sex Segregation in the Workplace." *Annual Review of Sociology* 19: 241-70.
- Richmond, Anthony H. 1967. "The social mobility of immigrants in Canada." *Population Studies* 18: 53-69.
- _____. 1976. "Immigration, Population, and the Canadian Future." *Sociological Focus* 9: 125-136.
- Roos, Patricia A. and Barbara F. Reskin. 1992. "Occupational Desegregation in the 1970s: Integration and Economic Equity?" *Sociological Perspective* 35: 69-91.
- Rosen, Bernard Carl. 1989. *Women, Work and Achievement: The Endless Revolution*. New York: St. Martin's Press.
- Sorensen, Marianne. 1995. "The Match Between Education and Occupation for Immigrant Women in Canada." *Canadian Ethnic Studies* 27: 49-66.
- Sakamoto, Authur and Jessie M. Tzeng. 1998. "A Fifty-Year Perspective on the Declining Significance of Race in the Occupational Attainment of White and Black Men." McGill Working Papers in Social Behaviour. McGill University, Montreal, Quebec.
- Statistics Canada. 1984. "Government Immigration Policies." *Canada's Immigrants*. 1-16.
- _____. 1997. "1996 Census: Immigration and citizenship." *The Daily* November 4: 1-16.
- Statistics Canada. 1999. "Canada's Refugee Flows: Gender Inequality." <http://www.statcan.ca/english.ads/11-008-XIE/refugees.html>: 1-5.
- Strober, M.H. 1984. "Towards a General Theory of Occupational Sex Segregation: The

Case of Public School Teaching." *Sex Segregation in the Workplace: Trends, Explanation and Remedies*. Washington D.C.: Barbara F. Reskin National Academy Press.

Thurow, Lester C. 1975. *Generating Inequality*. New York: Basic Books Inc.

Trovato, Frank and Carl F. Grindstaff. 1986. "Economic status: a census analysis of thirty-year-old immigrant women in Canada." *Canadian Review of Sociology and Anthropology* 23: 569-587.

Wanner, Richard A. and Lionel S. Lewis. 1983. "Economic Segmentation and the Course of the Occupational Career." *Work and Occupations* 10: 307-324.

Wanner, Richard A. 1998. "Prejudice, Profit, Or Productivity: Explaining Returns To Human Capital Among Male Immigrants To Canada." *Canadian Ethnic Studies* 30: 1-30.

Wanner, Richard A. 1999. "Shifting Origins, Shifting Labour Markets: Trends in the Occupational Attainment of Male Immigrants to Canada, 1971-1991." Paper presented at the meeting of the International Sociological Association Research Committee on Social Stratification, Warsaw, Poland May 5-8.

Winship, C., More R.D. 1992. "Models for Sample Selection Bias." *Annual Review of Sociology* 18: 327-350.

Worswick, Christopher. 1996. "Immigrant Families in the Canadian Labour Market." *Canadian Public Policy* 22: 4 378-396.

APPENDIX A: Descriptive Statistics for the Dependent, Occupational Level Predictor, Human Capital and Control Variables. Aging cohort members 25 to 34 in 1971, 35 to 44 in 1981 and 45 to 54 in 1991. 70

Variable Name	Mean	S.D.	Range
Occupational Class	1.62	.733	1-3
Anglophone/Francophone	.059	.236	0-1
Northwestern European	.028	.165	0-1
Southern European	.028	.166	0-1
Eastern European	.031	.174	0-1
Asian	.017	.130	0-1
Nonwhites – African & Caribbean	.006	.077	0-1
Latin American	.007	.086	0-1
Canadian	.882	.382	0-1
Lack Language Proficiency	.064	.245	0-1
Canadian Labour Force Exp.	24.71	8.6	0-51
Grade School Education	10.438	2.225	0-12
Post-Secondary Education	.671	1.412	0-6
Foreign Labour Force Exp.	.987	3.034	0-29
Marital Status	.798	.401	0-1
Number of Children	2.987	1.621	0-13
Work Status	.614	.487	0-1
Size of Urban Residence	.582	.493	0-1
Spouse's Income	33257.26	31993.40	-112491- 319352 ^a
Labour Force Activity	.642	.48	0-1

^a =Loss

APPENDIX B: Descriptive Statistics for the Dependent, Occupational Level Predictor, Human Capital and Control Variables. Successive cohort members aged 25 to 34 in 1971, 1981 and 1991. 71

Variable Name	Mean	S.D.	Range
Occupational Class	1.606	.76	1-3
Anglophone/Francophone	.038	.192	0-1
Northwestern European	.013	.114	0-1
Southern European	.018	.134	0-1
Eastern European	.014	.118	0-1
Asian	.040	.197	0-1
Nonwhites – African & Caribbean	.012	.109	0-1
Latin American	.013	.111	0-1
Canadian	.851	.356	0-1
Lack Language Proficiency	.065	.246	0-1
Canadian Labour Force Exp.	11.653	4.251	0-32
Grade School Education	11.273	1.588	0-12
Post-Secondary Education	1.027	1.636	0-6
Foreign Labour Force Exp.	.534	.007	0-26
Marital Status	.735	.441	0-1
Number of Children	2.084	1.316	0-13
Work-time	.684	.465	0-1
Size of Urban Residence	.587	.492	0-1
Spouse's Income	27980.01	24548.69	-112491- 290928 _a
Labour Force Activity	.708	.455	0-1

_a=loss

APPENDIX C: Correlation Matrix of Variables in the Proposed Model for Aging Cohort Members aged 25 to 34 in 1971, 35 to 44 in 1981, and 45 to 54 in 1991.

	1	2	3	4	5	6	7	8	9	10
1. Occupational Class	1.000									
2. Labour Force Activity	-.076	1.000								
3. Canadian Labour Force Exp.	.139	.074	1.000							
4. Foreign Labour Force Exp.	.107	.013	-.263	1.000						
5. Marital Status	.058	-.124	-.041	.049	1.000					
6. Number of Children	.198	-.131	.293	-.022	.148	1.000				
7. Spouse's Income	-.046	.051	.374	.004	.363	.123	1.000			
8. Grade Schooling	-.414	.258	-.151	-.223	-.013	-.178	.139	1.000		
9. Post-Secondary Schooling	-.324	.159	-.168	-.046	-.081	-.147	.097	.334	1.000	
10. Lack Language Proficiency	.151	-.028	-.118	.539	.059	.029	-.011	-.282	-.050	1.000
11. Size of Urban Residence	-.126	.067	-.067	.173	-.102	-.019	.055	.072	.114	-.072
12. Work Status	-.091	.442	.033	.049	-.171	-.088	-.126	.096	.093	-.093
13. Anglophone/Francophone	-.051	.042	-.15	.261	.009	-.048	.017	.128	.090	-.090
14. Northwestern European	.024	.009	-.044	.106	.017	-.004	.002	.015	-.000	-.000
15. Southern European	.102	-.016	-.137	.358	.046	-.022	-.033	-.202	-.048	-.048
16. Eastern European	.105	.001	.009	.371	.038	.018	.058	-.168	-.034	-.034
17. Asian	-.002	.033	-.103	.266	.016	-.017	.011	.015	.098	-.098
18. Nonwhites- African & Caribbean	-.028	.038	-.061	.17	-.035	-.022	-.019	.029	.027	-.027
19. Latin American	-.012	.022	-.076	.165	-.015	-.021	-.013	.021	.017	-.017
20. Canadian	-.058	-.048	.233	-.693	-.046	.047	-.022	-.063	-.063	-.063

APPENDIX C (cont.): Correlation Matrix of Variables in the Proposed Model for Aging Cohort Members aged 25 to 34 in 1971, 35 to 44 in 1981, and 45 to 54 in 1991.

	11	12	13	14	15	16	17	18	19	20	21
11. Lack Language Proficiency	1.000										
12. Size of Urban Residence	.119	1.000									
13. Work Status	.029	.118	1.000								
14. Anglophone/Francophone	-.057	.070	.012	1.000							
15. Northwestern European	.066	.020	-.008	-.043	1.000						
16. Southern European	.445	.108	.001	-.043	-.029	1.000					
17. Eastern European	.423	.115	.041	-.045	-.031	-.031	1.000				
18. Asian	.249	.077	.045	-.033	-.023	-.023	-.024	1.000			
19. Nonwhites African & Caribbean	-.010	.057	.039	-.019	-.013	-.013	-.014	-.010	1.000		
20. Latin American	.024	.054	.025	-.022	-.015	-.015	-.016	-.012	-.007	1.000	
21. Canadian	-.048	-.201	-.052	-.540	-.365	-.367	-.387	-.285	-.166	-.186	1.000

Note: All Correlations $\geq \pm .01$ are statistically significant at $p < .05$

APPENDIX D: Correlation Matrix of Variables in the Proposed Model for Aging Cohort Members aged 25 to 34 in 1971, 1981, and 1991.

	1	2	3	4	5	6	7	8	9
1. Occupational Class	1.000								
2. Labour Force Activity	-.085	1.000							
3. Canadian Labour Force Exp.	.168	-.169	1.000						
4. Foreign Labour Force Exp.	.116	-.032	-.382	1.000					
5. Marital Status	.009	-.149	.107	.027	1.000				
6. Number of Children	.203	-.298	-.317	.058	.241	1.000			
7. Spouse's Income	-.106	.067	-.047	-.094	.206	.203	1.000		
8. Grade Schooling	-.290	.257	-.414	-.215	-.018	-.221	.203	1.000	
9. Post-Secondary Schooling	-.326	.179	-.494	-.040	-.094	-.216	.181	.288	1.000
10. Lack Language Proficiency	.109	-.034	-.201	.526	.008	.061	-.048	-.169	.007
11. Size of Urban Residence	-.137	.090	-.171	.145	-.125	-.144	.032	.075	.151
12. Work Status	-.108	.410	-.172	.053	-.171	-.234	-.050	.113	.115
13. Anglophone/Francophone	-.019	.002	-.096	.139	.004	-.002	-.007	.047	.052
14. Northwestern European	.008	-.016	-.002	.065	.019	.006	-.022	-.013	-.008
15. Southern European	.052	-.026	-.052	.288	.041	.022	-.040	-.166	-.032
16. Eastern European	.033	.006	-.017	.109	.019	.022	.002	-.046	-.010
17. Asian	.078	.016	-.238	.439	-.018	-.003	-.007	-.015	.073
18. Nonwhites- African & Caribbean	.008	.013	-.102	.179	-.045	.007	-.029	.010	.014
19. Latin American	.023	.006	-.101	.192	-.019	.017	-.025	-.005	.006
20. Canadian	-.073	-.006	.269	-.592	-.001	-.022	.045	.063	-.057

APPENDIX D (cont.): Correlation Matrix of Variables in the Proposed Model for Aging Cohort Members aged 25 to 34 in 1971, 1981, and 1991.

	10	11	12	13	14	15	16	17	18	19	20
10. Lake Language Proficiency	1.000										
11. Size of Urban Residence	.142	1.000									
12. Work Status	.047	.152	1.000								
13. Anglophone/Francophone	-.037	.048	.010	1.000							
14. Northwestern Europe	.042	.006	-.016	-.023	1.000						
15. Southern Europe	.333	.083	-.001	-.027	-.016	1.000					
16. Eastern Europe	.072	.072	.024	-.024	-.014	-.016	1.000				
17. Asian	.140	.140	.070	-.041	-.024	-.028	-.025	1.000			
18. Nonwhites African & Caribbean	.083	.083	.036	-.022	-.013	-.015	-.013	-.023	1.000		
19. Latin American	.073	.073	.029	-.023	-.013	-.015	-.014	-.023	-.012	1.000	
20. Canadian	-.523	-.201	-.066	-.476	-.276	-.327	-.286	-.491	-.263	-.186	1.000

Note: All Correlations $\geq \pm .01$ are statistically significant at $p < .05$