IMMIGRANT AND MINORITY SELF-EMPLOYMENT IN CANADA: DISADVANTAGE, SEGREGATION, AND FAMILY AND CLASS RESOURCES THEORY

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Abstract

This is a quantitative research of immigrants' and minorities' self-employment in Canada. Using The Public Use Micro File of Canada, I will (1) empirically evaluate the effect of disadvantage, family and class resources, and segregation on self-employment propensity and income, and (2) assess the current theories by comparing minorities, non-minorities, the foreign-born, and the native-born. I first review five broad theoretical approaches including 'cultural theory', 'disadvantage theory', 'class resources theory', 'middleman minority theory', and 'opportunity structure theory', and analyze their various strengths and weaknesses. I suggest that despite their differences in emphasis, one of the common limitations of each of these approaches is that little attention is paid to the way that the self-employed sector is socially organized. A Logistic regression for propensity to be self-employed, and ordinary linear regression for income are used in this analysis. In this thesis, I show that disadvantaged groups are not more self-employed than non-disadvantaged groups, despite the disadvantage they face in the general labour market. This is contrary to some of the expectations associated with disadvantage theory. Next, I find that there is support for class resources theory in the findings. Concerning family resources theory, I show that marriage does not uniquely facilitate immigrants' and minorities' self-employment. Instead, marriage facilitates self-employment in all four groups. Also, married self-employed minorities and immigrants tend to earn less than their counterparts who are single, while married self-employed non-minorities and Canadian-born respondents tend to earn more than their counterparts who are single. Although more investigation is needed for this finding, it may be due to the concentration of immigrants' and minorities' small businesses in small-scale, low-profit industries. Segregation theory is proposed as a framework for this pattern.

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Sad, sad periods of my life passed with this thesis. I literally crippled, struggled, and was kicked out of the country in the period that I worked on this Master's thesis. I have been sick a lot of the time, which I haven't been aware of until recently, and now overcoming. I also worked on this thesis in two continents, at York and McMaster University in North America and at Seoul National University in Korea. I carried this with me all along my troubled journey. It has its own limitations and shortcomings. However, I firmly believe it also contains originality, creativity, technical competence, and sound logic, which genuinely constitute a qualified Master's thesis. This is one of the first steps of my intellectual voyage, and I am proud of it.

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CHAPTER 1:

INTRODUCTION AND LITERATURE REVIEW

INTRODUCTION

Until the 1970's, many social scientists believed that small businesses in advanced industrial countries such as the U.S, Canada, and Britain would eventually either die out, or be swallowed up by giant corporations as a result of the advance of capitalism (Light, 1988: 10). Writing in the early 1950's, prominent American sociologist C. W. Mills (1951) maintained that the continuous decrease in the number of small businesses in the American Census between 1880 and 1940 was due to their elimination or incorporation by large corporations in the process of capitalist concentration. His 'concentration thesis' was widely accepted in the social science literature, and much subsequent empirical research also confirmed the trend towards the declining importance of small firms.

But in the 1970's and 1980's, the U.S. Census reported a reversal of this trend, and commentators began talking about 'the revival of small business'. Non-agricultural self-employment ceased to decline as a percentage of the labour force, and, in the period

1972-1984, it actually increased 28 percent faster than the wage and salary labour force (Light, 1988: 11). Small businesses also contributed to 80 percent of job creation in the period 1969-1976, and since the 1970's, the self-employment rate has stabilized around 10 percent rather than continuously decline.

In explaining this turnaround, social scientists started paying increasing attention to immigrant-owned small businesses. They did this for several reasons. First, immigrants, on average, demonstrated high rates of self-employment. In 1970, 9.8 percent of foreign-born men were self-employed whereas only 6.0 percent of the U.S. native-born men were involved in self-employment (Light, 1988: 14). Second, although the foreign-born are, overall, more likely to be self-employed than the native-born, the self-employment rate varies greatly among ethnic groups. In the U.S., for example, persons of Arab, European, and East Asian ancestry were self-employed above the national average, and persons of South American and African ancestry were clustered near the low end (Yoon, 1997: 17). This pattern seems to have persisted over time. Third, some ethnic groups achieved great economic success in small business, and successfully climbed into the middle class in American society. These minority groups were often called 'model

minorities' by the U.S. mass media, and social scientists began to see self-employment as a vehicle for economic mobility of immigrants (Portes and Zhou, 1992: 491).

However, existing research on the determinants of ethnic self-employment has failed to provide a complete picture of how immigrant and minority status influences the propensity of ethnic and immigrant groups to become self-employed because it focuses only on the foreign-born, and foreign-born minorities. It neglects how factors affecting the self-employment of minorities and the foreign-born are different from those of non-minorities and the native-born. In other word, the current literature lacks a comparative perspective regarding foreign-born and minority status. Also, little attention has been paid to the differences in self-employment of these groups whose minority and foreign-born status is different. The current theories that are developed to explain why some immigrant groups are more self-employed than other immigrant groups are rarely evaluated in the context of comparing them with non-minorities and the native-born. In fact, the focus has been on comparing certain immigrant groups with other immigrant groups, and researchers examine what makes certain immigrant groups more self-employed than other immigrant groups. The effects of these factors are rarely tested by being compared to other groups. For example, the availability of family resources may

not be a unique phenomenon in immigrant enterprise. However, in much of the literature, family resources are treated as if they are the factor that drives immigrants into self-employment more than the native-born. Yet, these conclusions are reached without empirical examination of the two groups.

In addition, current research has the following limitations. (1) Most research focuses on examining the factors that determine the propensity of immigrants to be self-employed. However, the relationship between these factors (disadvantage, family and class resources, segregation) and income is largely unexamined. (2) Few researchers conduct quantitative analysis of the relative importance of disadvantage, family, class, and segregation theories in Canada. (3) Although it is assumed that these factors either facilitate or discourage immigrants and minorities in relation to self-employment, it is not clear if these factors are exclusive to the situation of immigrants and minorities. As a result, it is only with a comparative perspective that it is possible to assess whether immigrant and ethnic minority self-employment can be a vehicle for upward mobility for these groups.

The Public Use Micro File (PUMF) of the Canadian Census contains data that can be used to test the relative importance of disadvantage, family and class resources and

segregation theories of self-employment. Using PUMF, I will (1) empirically evaluate the effect of disadvantage, family and class resources, and segregation on self-employment propensity and income, and (2) assess the current theories by comparing minorities, non-minorities, the foreign-born, and the native-born.

In this chapter, I review five broad theoretical approaches that are relevant to the problem of immigrant self-employment. The five approaches include 'cultural theory', 'disadvantage theory', 'class resources theory', 'middleman minority theory', and 'opportunity structure theory'. After reviewing the basic tenets of each approach, I analyze their various strengths and weaknesses. I suggest that despite their differences in emphasis, one of the common limitations of each of these approaches is that little attention is paid to the way that the self-employed sector is socially organized. That is, I argue that explanations of immigrant involvement in self-employment need to pay attention to the economic sectors that different immigrant groups are self-employed in, and the associated variations in rewards that come with self-employment in different sectors. Following this, I review the literature on income disadvantage in the Canadian wage labour market, and provide a brief historical analysis of the Chinese in the early 1900's in Canada in order to elaborate on the analysis of self-employment.

LITERATURE REVIEW

The Propensity to Self-Employment

Cultural Theory

The first theoretical perspective is cultural theory. Cultural theory maintains that immigrants' cultural attributes explain their propensity towards self-employment. It is argued that some immigrant groups have a tradition of trading, and some have a tradition of self-help organizations such as rotating credit associations and provincial affiliations (Light, 1972). It is believed that these cultural traditions provide immigrants with knowledge, networks, and capital necessary for successful entry into the small business sector.

Cultural theory is often further classified into two versions, orthodox and reactive, depending on how these cultural traits are seen to be obtained. The orthodox version maintains that immigrants' familiarity with, and respect for, buying and selling is a result of being raised in a culture that emphasizes commercial activity. This in turn prompts them to engage in buying, selling and trading in their host countries (Light, 1972). The main criticism of this version of cultural theory is that it underestimates the role of structural factors, like discrimination, in shaping decisions to become involved in

entrepreneurship. Research suggests that while some immigrant groups do possess strong commercial traditions and histories, and actively seek self-employment when they move to new locations, many groups also experience discrimination and disadvantage in the labor market, and turn to self-employment as a response to 'limited labour market opportunities' (Yoon, 1997: 27).

On the other hand, the reactive version views immigrants' spirit of self help and the establishment of co-ethnic networks as the by-product of the group's minority status in the host society. According to this view, immigrant financial self-help groups, and ethnic solidarity, are developed or invoked as a response to the discrimination and disadvantage that they face in the host society (Portes and Zhou, 1992). Although successful in incorporating structural factors into the theory, the reactive version cannot explain variations in the self-employment rate among ethnic groups that experience labour market discrimination (Yoon, 1997: 28, Light, 1972).

With the recent increase in family-based immigration and small businesses, more attention is paid to the family as a source of immigrant and minority small businesses. The family's chief advantages include not only the family member's unpaid labor, but also the mutual obligation and trust characteristic of solidaristic small groups. Members

of a family engage in daily social exchanges that give rise to mutual dependence and expectations based on the performance of sexual, childrearing, and productive activities. As a result of cooperation that stems from the accumulation of obligations and mutual dependence, membership in the family entitles its members to the collective goods produced by the family. They in turn become an important source of advantage for immigrant and minority enterprises (Sanders and Nee, 1996).

Immigrant business relies heavily on family labour. For example, Yoon's (1997) study of Korean small business in the United States showed that approximately 60 percent of Korean store owners in Chicago had family members who worked in their stores at least part-time. Unpaid family members, if available, provided between 40 and 45 hours of labour per week. Spouses, particularly wives, are the most important source of family labor. About 50 percent of the Chicago respondents and 70 percent of the Los Angeles respondents had spouses who worked in their stores.

Unpaid family labour can be seen as beneficial to small businesses in several ways. First, it reduces the cost of wages, thereby reducing operating costs. With Korean businesses, the availability of unpaid family labour is especially important, because long business hours, which are a competitive advantage that Korean businesses have over non-

Korean businesses, are possible only with the support of unpaid family members. Like all small businesses, Korean businesses are labour-intensive. Also, family labour provides a more trustworthy and reliable labor force than paid employees who are non-relatives, and therefore reduces shoplifting by paid employees. Family labour can be trusted to handle sensitive transactions where the risks of opportunism and malfeasance are high. Likewise, family members can be trusted in some of the under-the-counter cash transactions that occur which are aimed at evading taxes and other regulations. Furthermore, because they have a greater stake in the success of the business, family workers are more productive than non-family labour when hourly wages are low. In short, the family confers advantages to immigrant entrepreneurs by enabling them to economize on production and transaction costs (Yoon, 1997).

Intra-family loans can also facilitate the launching of new businesses. Yoon (1997) also shows that social ties to friends and family play an important role in generating capital for owners of White, Hispanic and Korean businesses in New York. The owners queried in Yoon's (1997) survey indicate that personal savings were the most important source of start-up funds.

Disadvantage Theory

A second theoretical perspective is disadvantage theory, which suggests that the reason why immigrants are overrepresented in self-employment when compared to the native-born is not because they regard entrepreneurship more highly than the native-born. Instead, this approach suggests that the experience of discrimination or disadvantage in the general labour market is responsible for immigrant self-employment. A variety of factors, including the lack of recognition of foreign credentials, segregated labour markets, racism, and discrimination, discourages immigrants from seeking preferred jobs in the 'mainstream' labour market, and as a result they tend to be more concentrated than the native-born in small business (Kim, 1981; Bonacich, 1972; Min, 1996; Li, 1992). Since immigrants' self-employment is seen to be a result of blocked access to 'good' jobs in the labour market, they often find that they have to work harder than the native-born for the same amount of money, or that their income is less than that of their native-born counterparts with similar backgrounds and levels of education (Portes & Zhou, 1996; Wong, 1982).

Research suggests that recent immigrants with high education and occupational status also experience labour market disadvantage (Li, 2003). For example, research on

Koreans shows that 75% of female and 86% of male Korean immigrants hold a secondary school graduation certificate. This is significantly higher than the total non-visible minority population's 47% for females, and 49% for males (Davies, 1998). However, because of language barriers and the difficulties they face in having their non-Canadian educational credentials not evaluated fairly in the general labour market, a substantially higher portion of Korean immigrants whose job was a white-collar occupation before immigration are engaged in self-employment (Min, 1984; Hong, 2000).

Disadvantage theory is successful in highlighting the exclusionary factors that push immigrants out of the general labour force and into their own ethnic businesses. However, as with the reactive version of cultural theory discussed above, one of the problems with this approach is that it cannot explain variations in self-employment within ethnic groups. In other words, it is not clear why some immigrants of the same ethnicity who experience blocked mobility turn to entrepreneurship and others do not (Yoon, 1997). Besides, disadvantage theory assumes that the foreign-born are more likely to be self-employed in all industries and views all the self-employment sectors as uniform. It largely ignores differences in industrial sectors when it examines the probability of self-employment.

Class Resources Theory

A third theoretical perspective is class resources theory. Proponents of this theory argue that immigrants' middle class origins and their human capital are the factors that facilitate their self-employment (Yoon, 1991; Sanders and Nee, 1997). Immigrants have often acquired substantial human capital prior to coming to host countries like Canada. In fact, within current immigration policy in Canada applicants for admission with higher levels of education have a better chance of entering Canada than applicants with low levels of education (Li, 2003). The irony, however, is that immigrants often find their foreign-earned degrees not recognized in the mainstream labour market. Although immigrant foreign-acquired human capital is devalued in the mainstream labour market, their human capital still reflects the possession of skills, work experience, knowledge and other qualities that are useful for establishing and successfully operating small businesses. For example, they may have a better grasp of legal procedures to start a new business; they may have a better ability to analyze business opportunities; they may maintain better bookkeeping practices; and they may develop more efficient and innovative ways to operate a business. For immigrants, self-employment may be an opportunity to use the education that they cannot find opportunities to make use of in the mainstream labour

market. As a result, people with higher educational levels tend to establish small business more often than those with lower levels of education.

Immigrants with more human capital also tend to possess better English or French language skills than those with less human capital (Tainer, 1988). Better language proficiency allows them to operate more effectively in wider contexts with bankers, lawyers and government officials. They can also open businesses that cater not only to co-ethnics, but also to members of English and French speaking groups outside of the ethnic community. They can also take advantage of opportunities that require better language proficiency. In fact, Sanders and Nee (1996) find that the effect of English-language skills on involvement in self-employment is positive among immigrants in the United States.

Middleman Minority Theory

A fourth theoretical perspective is middleman minority theory, which maintains that some minority groups play an economic role as an intermediary between the ruling class and 'the masses'. These groups are often concentrated in trade and commerce, and also work as labour contractors, rent collectors, money lenders, and brokers. In other words, they play the role of middlemen between producer and consumer, employer and

employee, owner and renter, elite and masses. The Chinese in Southeast Asia, and Armenians in Turkey are the examples of middleman minorities (Blalock, 1967).

The development of a middleman minority is largely traced to a ruling elite's hostility toward a subordinate ethnic group, and a marked status division in a host society. In a society with great status divisions, the ruling class avoids the occupations that necessitate contact with the masses. The detested role then is often taken by minority groups who themselves have difficulty finding jobs in the mainstream society because of discrimination (Bonacich, 1973).

In the early 1970's, Bonacich (1973) suggested that some minority groups in modern industrial societies function as middleman minorities (e.g. the Indians in Britain, Chinese in New Zealand, Japanese in the United States). At that time, she argued that these groups move to a host society not as permanent immigrants, but with the intention to eventually return to their home country. These groups tend to engage in occupations that do not tie them to the host society for a long time, and which are characterized by a willingness to suffer short-term deprivation in order to hasten the long-term objective of returning to the homeland. Min (1996) also suggests that middleman minority theory is useful for understanding Korean immigrants' entrepreneurship in the U.S. because Korean

grocery and corner stores play the middleman role, delivering goods produced by capitalists to poor minority neighborhoods.

But middleman minority theory as a theoretical framework for the explanation of immigrants' involvement in small business in general, and specifically Korean ethnic business, has been criticized for its internal contradictions. Korean immigrants are not sojourners, which Bonacich argues is an important element of a middleman minority. Also, the majority of products that Korean business people sell in poor minority communities is produced in developing countries, not by American capitalists, and is often supplied by other Koreans. Hence the advantage of Korean ethnic business should be viewed as a result of vertical integration between Korean suppliers and retailers, not as the role of a middleman minority (Yoon, 1997: 34).

Opportunity Structure Theory

A fifth theoretical approach, opportunity structure theory, emphasizes the social conditions that enable ethnic small businesses to flourish. A number of factors are identified. First, the existence of ethnic markets, which are based on the demand for particular cultural products such as ethnic foods and newspapers, create protected markets for ethnic business. The continuous flow of immigrants also produces business

opportunities, such as immigration lawyers, accountants, translation services, and travel agencies, that serve immigrant needs (Waldinger, 1986). Second, in some U.S. cities, ethnic transition in an area often creates business opportunities for immigrant entrepreneurs. As white residents leave once predominantly white neighborhoods, and as minority groups move into these areas, white-owned businesses also tend to leave with the white residents. In the U.S., this ethnic residential succession served as a business opportunity for some immigrant groups as they took over existing businesses from white owners. Italian and Jewish immigrants once dominated businesses in these neighbourhoods, but recently Korean immigrants have taken over these businesses as the first generation Italians and Jews retired. Third, peripheral sectors of industry provide business opportunities for minority members. Sectors where large-scale businesses are not advantageous because of fluctuating market conditions, diversified customer demand, or long hours of work, are taken over by minority businesses (Waldinger, 1986). Opportunity structure theory is useful in explaining why opportunities for immigrant and ethnic minority business exist. But it doesn't explain why these groups, as opposed to others, take up these opportunities.

Self-Employment Income

Class resources and family resources theory suggest that those with more class and family resources fare better in self-employment. Those with higher education tend to be endowed with superior skills, work experience, and knowledge that can be applied to the management of small business. Also, those of middle class origins tend to be able to mobilize more investment capital so that they can enjoy economies of scale and rationalize the operation of their businesses. Furthermore, people who possess English or French language proficiency also have better access to business information and opportunities than those who do not. Consequently, self-employment allows them an opportunity to utilize their superior human capital and class resources, and they tend to be financially more successful than those with fewer resources (Tainer, 1988).

On the other hand, unpaid family labour provides a reliable, committed and free source of labour that can be trusted in sensitive transactions. As a result, those who have access to family resources can reduce operating costs, economize on production, and minimize transaction costs. Consequently, they tend to make more profit in their business than others who do not have access to these resources.

Segregation Theory

Studies that analyse economic performance in the Canadian labour market show that immigrants have an average earnings level similar to, or higher than, native-born Canadians. At the same time, that research also shows that immigrants, particularly visible minority immigrants, have lower earnings after accounting for differences in education and other variables. That is, they have lower earnings than native-born Canadians with equivalent levels of education and human capital.

Using data from the 1981 Census, Beaujot, Basavarajappa, and Verma (1988) found that immigrant men and women had a higher average income than Canadian-born men and women, and Boyd's (1985) analysis of the 1973 mobility survey showed that native-born and foreign-born males had similar occupational statuses. But Boyd's analysis also indicated that returns to schooling are lower for immigrants than native-born Canadians, although this disparity narrows the longer immigrants stay in Canada. It also showed that immigrant women had the lowest occupational status compared to other gender and nativity groups.

Since a typical female or male immigrant had a significantly greater endowment of human capital than their native-born counterparts, after controlling for these differences

in age, education, training and other variables, immigrants' earnings fell substantially below those of native-born Canadians of the same gender, racial origin, and other characteristics. An analysis of the 1971 and 1981 Censuses indicated that immigrants earned 7 percent less than non-immigrants in 1971 and the gap increased to 17 percent in 1981. Also, Shamsuddin (1991) argued that this income differential is due to discrimination by gender and birthplace. As a result, immigrant men and women's earnings were lower than what they could be considered entitled to because of their broader productive characteristics.

Other studies also indicate that immigrant status combines with gender and racial origin to produce complex interactive effects on earnings. First, minority status is associated with lower earnings among immigrants. Pendakar and Pendakar (1998, 2000) found that after controlling for education, occupation, and other variables, visible minority immigrants suffered larger earnings differentials than white immigrants. Second, foreign-born status is associated with lower earnings among minorities. Boyd (1992) showed that native-born racial minorities were less disadvantaged than foreign-born minority immigrants in earnings, as compared to native-born European Canadians. Third, foreign-born status does not lead to a significant income differential among immigrants of

European origin (Reitz and Breton, 1994), who earned as much as English Canadians, after adjusting for differences in education and other demographic factors. But immigrant men and women from non-European countries, especially blacks and Asians, make significantly less income than their European immigrant male and female counterparts. It is also found that immigrants of visible minority origin suffer the most income disadvantage when compared to other immigrant groups. Thus, being a female and being an immigrant seem to produce a 'double penalty' in net earnings for immigrant women (Li, 2003).

Studies also suggest that immigrant and minority small businesses are limited to labour-intensive, low pay, and small-scale enterprises. In his analysis of the Chinese in the early 1900's, Li (1998) argues that facing discrimination and exclusion in the mainstream labour market, the Chinese retreated into limited, service-oriented businesses as a 'survival mechanism'. They were mostly concentrated in the laundry and restaurant industries, where they delivered services that they once provided to Canadian households as domestic servants. He suggests that one reason the laundry business flourished among the Chinese in British Columbia at the turn of the previous century was that it was one of the few occupations that did not compete with white owned businesses at the time. Yet,

the provision of that service was socially accepted by the dominant society. According to Li (1998), the dominant society accepted the Chinese in these industries because the restaurant and laundry work were seen as women's work with poor pay and low social standing, and was consequently defined as undesirable among white male workers at the time.

STATEMENT OF HYPOTHESES

The Public Use Micro File of the Census of Canada does not contain variables that allow us to test the effect of individuals' cultural values on the propensity to self-employment. Therefore my focus will be on family resources theory in testing cultural theory. In this thesis, I will examine the effect of disadvantage, family resources, class resources, and sectoral segregation on immigrants' self-employment propensity and income.

There are three broad kinds of hypotheses that I want to examine in this thesis. These are broken down as follows:

A) PROPENSITY HYPOTHESES: 1) the foreign-born and minorities have higher propensities to self-employment than the native-born and non-minorities; 2) those with more family resources have higher propensities to self-employment; 3) those with class resources have higher propensities to self-employment.

B) INCOME HYPOTHESES: 1) Those with more family resources have higher incomes than those with fewer family resources; 2) those with more class resources have higher incomes than those with fewer class resources.

C) SEGREGATION HYPOTHESES: 1) the foreign-born and minorities have lower incomes from self-employment than the native-born and non-minorities; 2) The foreign-born and minorities tend to be more self-employed in low income industries and the native-born and non-minorities tend to be more self-employed in high income industries.

Data

The 1996 Census Public Use Micro-data File on Individuals is the primary data source for this analysis. Based on a 2.8% sample of the population in the Census, it contains data on various individual characteristics such as ethnicity, socio-economic status, age, sex, occupation and the like. Only those residing in CMA's (Census

Metropolitan Areas) are included. The Atlantic Provinces and territories are excluded from analysis because of the small numbers of immigrants in these areas.

SUMMARY

In this chapter, I reviewed five main explanations of immigrants' propensity to self-employment. I argued that one of the limitations of the 'orthodox' version of cultural approaches to immigrant involvement in self-employment is that it tends to underestimate the role of discrimination and blocked opportunities in explaining entrepreneurship. Further, I suggest that 'reactive' versions of cultural theory are problematic because they cannot easily explain why there are variations in self-employment among immigrant and ethnic groups. While paying more attention to structural factors, disadvantage theory is also problematic because it has difficulty explaining why some immigrants and members of ethnic communities who experience blocked mobility within the 'mainstream' labour market end up in self-employment while others do not. Middleman minority theory is problematic because it assumes that status differences between two groups generate economic niches that sojourning immigrants and members of ethnic communities fill on a temporary basis. As recent research on Korean small business in the United States shows,

however, Koreans and other minority groups that end up being employed in small businesses are not 'sojourners', and instead tend to be permanent additions to American society. Finally, opportunity structure theory has difficulty explaining why some groups take advantage of certain opportunities to become involved in small businesses while other groups do not. I suggest that more attention needs to be paid to variations in self-employment within immigrant and ethnic groups, and the characteristics of the economic sectors where different groups are concentrated. This chapter concluded with a discussion of whether patterns of 'racial' differences in earnings derived from wages and salaries are also present when it comes to the analysis of the income of the self-employed. That is, is self-employment an economic safety valve for immigrants who face blocked mobility in the labour market, or do the patterns of earnings differences reproduce themselves even when looking at self-employment?

CHAPTER 2:

RESEARCH METHODS

INTRODUCTION

In this chapter, I elaborate on the source of data to be used in this thesis, the variables that are included in the analysis, and the models and statistical techniques that will be used in order to examine patterns of self-employment in Canada. I suggest that the Public Use Micro File, based on the Canadian census, provides a useful source of data to investigate differences in self-employment between immigrants and the Canadian-born, and between minorities and non-minorities, along with the economic consequences of self-employment in different economic sectors. I use two main dependent variables in my analysis: self-employment status, and income of the self-employed. A number of independent variables, including sex, nativity, region of residence, industry of employment, and education, among others, are used in order to assess whether immigrants and the Canadian-born are differentially self-employed in different sectors, and whether there are consistent 'racial' differences in earnings of the self-employed. The

chapter also includes preliminary information on variations in self-employment by ethnic origin, gender, nativity, Census Metropolitan Area, and industry.

THE MODELS

A Logistic regression for propensity to be self-employed, and ordinary linear regression for income are used in this analysis. To examine the effect of immigration and minority status on self-employment engagement, the interactions of the two factors are included in the logistic regression models, but they are excluded in the ordinary linear regression for income since some categories do not have enough observations.

I am particularly interested in the effects of 1) disadvantage factors, 2) family and class resource factors, and 3) the types of industry on the likelihood of being self-employed and the level of income of the self-employed.

LOGISTIC REGRESSION MODEL

To examine the effect of foreign-born status and minority status, the sample is divided into four groups using two classifying schemes. First, the sample is divided into

the foreign-born and the native-born. Second, the sample is divided into minority and non-minority subgroups. The sample is divided in this way rather than divided into four separate groups to test the effect of foreign-born status and minority status.[1]

In the foreign-born and native-born subgroups, only the interactions of the main effects with minority status are included, and the interactions with the foreign-born status are not included because each group is divided according to their foreign-born status. On the other hand, in the minority and non-minority subgroups, only the interactions with foreign-born status are included, and the interactions with minority status are not included because each group is divided according to their minority status.

Significantly positive coefficients indicate that the corresponding variables increase the probability of the respondents being self-employed. Alternatively, significantly negative coefficients indicate that the corresponding variables decrease the probability of the respondent being self-employed. Not significant coefficients indicate that there is no evidence that the corresponding variables have an effect on the probability of the respondent's being self-employed.

[1] As professor Fox pointed out, an alternative and better approach would be to model the main effects and interactions of the two factors, rather than dividing the sample into two groups. But the current approach still serves the purpose of measuring the foreign-born and minority status effect.

Model for the foreign-born and the native-born

$$\ln\frac{\Pi_i^{self-employed}}{1-\Pi_i^{self-employed}} = \beta_0 + \sum_{k=1}^{3}\beta_k \times FAMILY_{ik} + \sum_{k=4}^{6}\beta_k \times FAMILY_{ik} \times MINORITY_{ik}$$
$$+\sum_{k=7}^{10}\beta_k \times CLASS_{ik} + \sum_{k=11}^{14}\beta_k \times CLASS_{ik} \times MINORITY_{ik} + \sum_{k=15}^{21}\beta_k \times INDUSTRY_{ik}$$
$$+\sum_{k=22}^{28}\beta_k \times INDUSTRY_{ik} \times MINORITY_{ik} + \sum_{k=29}^{31}\beta_k \times REGION_{ik}$$
$$+\sum_{k=32}^{34}\beta_k \times REGION_{ik} \times MINORITY_{ik} + \beta_{35} \times SEX_i + \beta_{36} \times SEX_i \times MINORITY_i$$
$$+\beta_{37} \times AGE_i + \beta_{38} \times AGE_i^2 + \beta_{39} \times MINORITY_i + \beta_{40} \times FUNIVERSITY_i + error_i$$

Model for the minorities and the non-minorities

$$\ln\frac{\Pi_i^{self-employed}}{1-\Pi_i^{self-employed}} = \beta_0 + \sum_{k=1}^{3}\beta_k \times FAMILY_{ik} + \sum_{k=4}^{6}\beta_k \times FAMILY_{ik} \times FOREINGBORN_{ik}$$
$$+\sum_{k=7}^{10}\beta_k \times CLASS_{ik} + \sum_{k=11}^{14}\beta_k \times CLASS_{ik} \times FOREIGNBORN_{ik} + \sum_{k=15}^{21}\beta_k \times INDUSTRY_{ik}$$
$$+\sum_{k=22}^{28}\beta_k \times INDUSTRY_{ik} \times FOREIGNBORN_{ik} + \sum_{k=29}^{31}\beta_k \times REGION_{ik}$$
$$+\sum_{k=32}^{34}\beta_k \times REGION_{ik} \times FOREIGNBORN_{ik} + \beta_{35} \times SEX_i + \beta_{36} \times SEX_i \times FOREIGNBORN_i$$
$$+\beta_{37} \times AGE_i + \beta_{38} \times AGE_i^2 + \beta_{39} \times FOREIGNBORN_i + \beta_{40} \times FUNIVERSITY_i + error_i$$

INCOME REGRESSION MODEL

The self-employed are divided into four groups. The self-employed foreign-born and self-employed native-born groups are obtained by dividing the self-employed

according to Place of Birth. The self-employed minority and self-employed non-minority groups are obtained by dividing the self-employed according to minority status.

In the foreign-born and native-born subgroups, only the interactions of other variables with minority status are included, and the interaction with the foreign-born status is not included as in the logistic regression model. Likewise, in the minority and non-minority subgroups, only the interactions with foreign-born status are included, and the interactions with minority status are not included.

Significantly positive coefficients indicate that the corresponding variables increase the income of the self-employed respondents. To the contrary, significantly negative coefficients indicate that the corresponding variables decrease the income of the self-employed respondents. Non-significant coefficients indicate that there is no evidence that the corresponding variables have an effect on the income of the respondents.

Model for the self-employed minority

$$\ln INCOME_i = \beta_0 + \sum_{k=1}^{3} \beta_k \times FAMILY_{ik} + \sum_{k=4}^{7} \beta_k \times CLASS_{ik} + \sum_{k=8}^{14} \beta_k \times INDUSTRY_{ik}$$
$$+\beta_{15} \times FOREIGNBORN_i + \sum_{k=18}^{20} \beta_k \times REGION_{ik} + \beta_{21} \times SEX_i + \beta_{22} \times AGE_i + \beta_{23} \times AGE_i^2$$
$$+\beta_{24} \times HOURS_i + \beta_{25} \times FUNIVERSITY_i + error_i$$

Model for the self-employed non- minority

$$\ln INCOME_i = \beta_0 + \sum_{k=1}^{3} \beta_k \times FAMILY_{ik} + \sum_{k=4}^{7} \beta_k \times CLASS_{ik} + \sum_{k=8}^{14} \beta_k \times INDUSTRY_{ik}$$
$$+\beta_{15} \times FOREIGNBORN_i + \sum_{k=18}^{20} \beta_k \times REGION_{ik} + \beta_{21} \times SEX_i + \beta_{22} \times AGE_i + \beta_{23} \times AGE_i^2$$
$$+\beta_{24} \times HOURS_i + \beta_{25} \times FUNIVERSITY_i + error_i$$

Model for the self-employed foreign-born

$$\ln INCOME_i = \beta_0 + \sum_{k=1}^{3} \beta_k \times FAMILY_{ik} + \sum_{k=4}^{7} \beta_k \times CLASS_{ik} + \sum_{k=8}^{14} \beta_k \times INDUSTRY_{ik}$$
$$+\beta_{15} \times MINORITY_i + \sum_{k=18}^{20} \beta_k \times REGION_{ik} + \beta_{21} \times SEX_i + \beta_{22} \times AGE_i + \beta_{23} \times AGE_i^2$$
$$+\beta_{24} \times HOURS_i + \beta_{25} \times FUNIVERSITY_i + error_i$$

Model for the self-employed native-born

$$\ln INCOME_i = \beta_0 + \sum_{k=1}^{3} \beta_k \times FAMILY_{ik} + \sum_{k=4}^{7} \beta_k \times CLASS_{ik} + \sum_{k=8}^{14} \beta_k \times INDUSTRY_{ik}$$
$$+\beta_{15} \times MINORITY_i + \sum_{k=18}^{20} \beta_k \times REGION_{ik} + \beta_{21} \times SEX_i + \beta_{22} \times AGE_i + \beta_{23} \times AGE_i^2$$
$$+\beta_{24} \times HOURS_i + \beta_{25} \times FUNIVERSITY_i + error_i$$

On the right-had side of the regression models, β_0 is an intercept, and the rest of the coefficients are for the corresponding independent variables. For the categorical variables,

deviation coding is used. Therefore, the difference is twice the magnitude of the coefficients.

Dependent and independent variables in the models consist of the following components:

DEPENDENT VARIABLES

The respondent's self-employment status is the dependent variable of the first set of the models. The variable is coded as either self-employed (1) or not self-employed (0). The probability of an individual's being self-employed is contrasted with the probability of his or her not being self-employed in the logistic model. $\Pi_i^{self-employed}$ in the logistic model is the probability that the individual i is self-employed, and $1-\Pi_i^{self-employed}$ is the probability that the individual i is not self-employed.

To analyze the effect of independent variables on income, ordinary least squares regression is used. To normalize the positive skew of the income variable, the natural log of income is used as the dependent variable.

INDEPENDENT VARIABLES

Disadvantage Variables

$MINORITY_i$ indicates whether the person is a member of a visible minority in Canada. The visible minority category includes Black, South Asian, Chinese, Korean, Japanese, Southeast Asian, Filipino, Arab/West Asian, Latin American, Visible Minority, n.i.e.(Fijian, Polynesian, Guyanese, or West Indian, etc), or Multiple Visible Minority. If the person is a visible minority, $MINORITY_i$=1, otherwise $MINORITY_i$=-1.

Research (Li, 2003; Maxim, 1992; McDade, 1988) indicates that foreign-born status, foreign educational credentials, and language barriers are the factors through which immigrants are disadvantaged in the general labor market. Consequently, immigrants possessing these characteristics tend to be more likely to be self-employed than employed for wages. Interaction terms of two variables between the ethnicity variable, and each of the foreign-born status, foreign university, and English fluency variables are employed to account for the differential effect of these disadvantage variables on the various ethnic groups.

If a respondent immigrated after 24 years of age and has completed university education, the person was regarded as having foreign university education; other university graduates are regarded as native university graduates. A dummy variable, Foreign University, is used to indicate a respondent's foreign university education (foreign university=1, Canadian university=-1). Knowledge of the official languages is coded according to the respondent's answer (speak the official language=1, cannot speak the official languge=-1).

Family Resources Variables

$FAMILY_{ik}$ refers to three variables used to measure the individual's family resources. Research (Sanders and Nee, 1996) indicates that an immigrant's marital status, the existence of older children, and relatives in the household influence the person's self-employment involvement. The spouse variable indicates whether the respondent is married and living with his or her partner. The children variable refers to the number of older children (over 15 years old) in the household, and the cohabiting adult variable refers to the number of adults in the household other than husband, wife, and their

children. To account for the differential influence of these variables on ethnic groups, interaction terms between ethnicity and each of these three variables are used.

The Class Resources Variable

In this thesis, class resources are measured by the respondent's years of education. Research (Sanders and Nee, 1996) indicates that the more a person is educated, the more the person tends to be self-employed. Interaction terms between education and ethnicity are also used.

Industry

$INDUSTRY_{ik}$ is seven deviation coded dummy variables that indicate what industry the respondent is engaged in. The seven dummy variables are used to indicate eight industry sectors including Agriculture, Manufacture, Construction, Retail, Business Services, Health Services, Accommodation, and the Other Industries (the baseline category).

Control Variables

To control for other factors that affect the likelihood of self-employment, age, years of residence, and gender are included in the model.

Research (Sanders and Nee, 1996) indicates that age has a positive effect on the likelihood of an individual's self-employment involvement. Literature (Li, 2003) also indicates that as immigrants stay longer in a host society, they tend to be more self-employed because as their residence lengthens they gain more experience, contacts, and knowledge necessary for managing a business. To control for the length of residence, the variable years of residence is used. Research (Sanders and Nee, 1996) also indicates that the older age at which an individual immigrates, the more likely the person is to be self-employed, and that male immigrants are more likely to be self-employed than female immigrants.

SEX_i is the self-reported gender of the respondent: 1 indicates female, and -1 indicates male; AGE_i refers to the age at last birthday as of the Census reference date, May 14th, 1996. Only those older than 15 years of age are included in the analysis.

$REGION_{ik}$ indicates the geographic area in which the respondent resides. In this study, Canada is subdivided into four geographical regions: British Columbia, Prairies, Ontario, Quebec. Only respondents residing in the census metropolitan areas (CMA) are

included in the analysis, and those residing in the Atlantic Provinces (Newfoundland, Prince Edward Island, Nova Scotia, and New Brunswick) and the territories (Yukon Territory and Northwest Territories) are excluded.

OVERVIEW: VARIATIONS IN THE SELF-EMPLOYMENT RATE

Table one provides information on self-employment rates by ethnic origin. It shows that the national self-employment rate is 12.42%. Jewish origins have the highest self-employment rate (26.13%). Other single origins include American, Australian, Fijian, New Zealander, Pacific Islander, n.i.e.; Polynesian, Quebecois. They have the second-highest self-employment rates. Other Western European origins include Australian, Belgian, Flemish, Luxembourger, and Swiss. Dutch, Other Western European origins, German (Western European origins) and Greek, Other European origins, Hungarian (European origin), Ukrainian, Polish have high self-employment rates.

Other East and Southeast Asian origins (21.61%), West Asian origins (18.47%), Chinese origins (14.55%), and Asian origins (13.33%) have fairly high self-employment rates. British Isles origins have a slightly higher self-employment rate than the national average (13.40%). French origins have a slightly lower self-employment rate than the

national average (10.69%). African origins (8.17%), Caribbean origins (5.83%), and African and Caribbean origins (5.82%) have low self-employment rates. South Asian origins (9.91%), and Vietnamese (7.57%) have a low self-employment rate. Filipinos have the lowest self-employment rate of all (3.66%). Among the same origin region, there is a substantial variation in self-employment rate. Latin, Central and South American origins have a low self-employment rate.

Table 1: Self-Employment Rates by Ethnic Origin (Listed Highest to Lowest)

Ethnic Origins	Rates (%)	Ethnic Origins	Rates (%)
Jewish	26.13	Asian origins	13.33
Other single origins	25.74	Italian	12.58
Other Western European origins	25.39	**National Average**	**12.43**
Dutch (Netherlands) origins	21.76	Balkan origins	12.35
Other East and Southeast Asian origins	21.62	Other single origins	10.82
German	21.51	French origins	10.69
Lebanese	19.96	Canadian	10.53
Greek	18.68	South Asian origins	9.91
West Asian origins	18.48	Spanish	9.52
Other European origins	18.40	Latin, Central and South American origins	8.83
Hungarian (Magyar)	18.37	African origins	8.17

Other European origins	17.49	Portuguese	7.92
Ukrainian	17.42	Vietnamese	7.57
Other Arab origins	14.78	Aboriginal origins	6.06
Chinese origins	14.60	Caribbean origins	5.83
Polish	13.89	African and Caribbean Origins	5.56
British Isles origins	13.40	Filipino	3.66

(Source: 1996 Census PUMF- Individuals File: Statistics Canada) N=28,528,128

Women have a lower self-employment rate than men. The difference is substantial. Women's self-employment rate (8.9%) is only about half the men's (15.5%). The Canadian-born have a lower self-employment rate than the foreign-born—11.82% versus 14.9%.

According to table 2, there is substantial variation in self-employment rates among the CMA's. Some CMA's in western provinces such as British Columbia (Vancouver, Victoria), and Alberta (Calgary, Edmonton) have high self-employment rates. CMA's in Ontario and Quebec are below the national average. The CMA with the highest self-employment rate is Vancouver (14.55%), and the CMA with the lowest rate is Windsor (7.02%).

Table 2: Self-Employment Rates by CMA's (Census Metropolitan Areas: Listed Highest to Lowest)

CMA's	Rates(%)	CMA's	Rates(%)
Vancouver	14.55	Montreal	10.10
Victoria	13.72	Winnipeg	10.04
Calgary	13.51	Sherbrooke and Trois-Rivieres	9.90
National Average	**12.43**	Hamilton	9.84
Regina and Saskatoon	12.03	Oshawa	9.66
Toronto	11.98	Kitchener	9.47
Edmonton	11.98	Halifax	8.66
London	11.26	Quebec	8.58
Ottawa-Hull	10.64	Sudbury and Thunder Bay	7.92
St. Catharines-Niagara	10.14	Windsor	7.02

(Source: 1996 Census PUMF- Individuals File: Statistics Canada)

As table 3 shows, agriculture, construction, business services, other services, and retail trade have higher than average rates of self-employment. For instance, within agriculture, 46.49% of the total workforce is self-employed. This is substantial considering that agriculture accounts for only 3.45% of the total jobs in Canada. Construction (26.46%) and business services (26.44%) also have higher than average rates of self-employment. The industry with the lowest portion of self-employed is educational services (2.5%), even though it occupies a relatively larger proportion of the labour force as a whole.

Table 3: Self-Employment Rates by Industry (Percentages of Self-Employment in Each Industry: Listed Highest to Lowest)

Industries	Rates(%)	Industries	Rates(%)
Agriculture	46.49	Wholesale Trade	10.28
Construction	26.47	Health and Social Services	10.19
Business Services	26.45	Finance, Insurance & Real Estate	8.75
Other Services	20.84	Accommodation, Food &Beverage	8.33
Other Primary Industries	13.81	Manufacturing	4.93
Retail Trade	12.72	Communication & Other Utilities	3.59
Transportation & Storage	12.00	Educational Services	2.50

(Source: 1996 Census PUMF- Individuals File: Statistics Canada)

Finally, Table 4 provides information on the percentage of total self-employment that is accounted for by each industry. Industries such as business services (13.81%), other services (13.34%), agriculture (12.90%), retail trade (12.86%), and construction (12.21%) collectively make up over 65% of total self-employment in Canada. Other primary industries (2.52%), educational services (1.41%), and communication and other utilities (0.87%) make up relatively small proportions of total self-employment in the country.

[Table 4] Percentages of Total Self-employment Accounted for by Each Industry (Number of Self-employment in Each Industry/ Number of Total Self-employment: Listed Highest to Lowest)

Industries	Rates(%)	Industries	Rates(%)
Business Services	13.81	Accommodation, Food & Beverage	4.85
Other Services	13.34	Wholesale Trade	3.99

Agriculture	12.90	Transportation & Storage	3.95
Retail Trade	12.86	Finance, Insurance & Real Estate	3.74
Construction	12.21	Other Primary Industries	2.52
Health & Social Services	7.98	Educational Services	1.41
Manufacturing	5.55	Communication & Other Utilities	0.87

(Source: 1996 Census PUMF- Individuals File: Statistics Canada)

SUMMARY

In this chapter, I explained that the main source of the data for this thesis is the PUMF. That data set contains information on self-employment and earnings as well as a range of other variables that can be used in order to assess the relative importance of disadvantage, family and class resources, and segregation in explaining self-employment. I show that while the national self-employment rate is 12.43% of the labour force, ethnic groups vary in their involvement in self-employment. A variety of ethnic groups, including Jews, the Dutch, Germans, Lebanese and Greeks, among others, are shown to have self-employment rates above the national average, while other groups, such as Spanish, Vietnamese, Caribbean, and Filipino groups, among others, have lower than average rates of self-employment. I also show that men have higher rates of self-employment than women, that rates of self-employment are higher among the foreign-born than they are among the Canadian born, that Vancouver, Victoria, and Calgary have the highest rates of self-employment among CMA's, and that there are significant industry

variations in self-employment, with agriculture, construction, business services, and other services with higher than average rates of self-employment. The task for the next chapter is to begin to assess how the different variables contribute to differences in self-employment and to explain the broad patterns of self-employment that have been identified in a preliminary fashion in this chapter.

CHAPTER 3: SELF-EMPLOYMENT

PROPENSITY, INCOME, AND SEGREGATION

INTRODUCTION

In this chapter, I first compare the effect of disadvantage, family and class resources, and segregation, along with a number of other control variables, on the propensity for self-employment of four groups: foreign-born, native-born, minorities and non-minorities. Logistic regression models containing self-employment propensity as the dependent variable and the factors as independent variables are estimated for the four groups. I begin by presenting the results of the logistic regression models in tabular form and then go on to discuss the significance of each of the three groups of the main variables (disadvantage, family resources, and class resources) , and the control variables, in explaining the propensity to self-employment. In the chapter, I show that contrary to the predictions of disadvantage theory, foreign-born and minority status do not increase the respondent's likelihood of self-employment. Concerning class resources theory, I find that those with university and graduate education tend to be more self-employed than those with less than high school and high school education. The foreign-born with

language proficiency have higher propensity to self-employment than their counterparts without it. I also find that a marriage is associated with an increase in the likelihood of being self-employed. However, residence with relatives is not significantly associated with involvement in self-employment.

Next, I compare the effect of disadvantage, family and class resources, and segregation, along with a number of other control variables, on the income of the self-employed of four groups: self-employed foreign-born, native-born, minorities and non-minorities. Ordinary linear regression models containing logged income as the dependent variable and the factors as independent variables are estimated for the four groups. I begin by presenting the results of the ordinary linear regression models in tabular form and then go on to discuss the significance of each of the three groups of the main variables, and the control variables, in explaining the earnings of the self-employed. Lastly, examining the results in table 1 and 2, I discuss the significance of the segregation variables in explaining how the self-employment sector is organized according to foreign-born and minority status. I show that among the self-employed foreign-born and minorities, those with knowledge of the official languages (English and French) tend to have higher incomes than those without it. The self-employed with more education (graduate and

bachelor degrees) tend to make higher income than their counterparts with less education (high school and less than high school). Among self-employed minorities, and the foreign-born, marital status has no association with self-employment income. Conversely, among self-employed non-minorities and the native-born, marriage is significantly positively associated with the income of the self-employed. Residence with relatives is not significantly associated with the income of the self-employed in all but the native-born. The disadvantaged status of the self-employed, namely foreign-born and minority status, is significantly associated with a decrease in the income of the self-employed in all but self-employed minorities, and foreign university education is associated with a significant decrease only in the income of self-employed non-minorities. The native-born tend to have a higher self-employment propensity in industries with more income than the foreign-born, and the difference between minorities and non-minorities is not pronounced.

DESCRIPTIVE STATISTICS

As table 5 shows, the foreign-born have a higher average age than the native-born by about 6 years: 42.3 years for the former compared with 36.8 years for the latter. The

average age of minorities and non-minorities is approximately the same (37.4 years versus 38.4 years). The income of the native-born is about $1,000 higher on average than that of the foreign-born ($31,024 versus $30,204). The income of non-minorities is about $8,200 higher on average than that of minorities ($31,918 versus $23,673).

Table 5: Descriptive Statistics

	Foreign-Born (n=60566)				Native-Born (n=149066)			
	Min	Mean	Max	Std.Dev	Min	Mean	Max	Std.Dev
Age	15	42.29	85	11.89	15	36.83	85	12.55
Total Income*	-49497	30240	200000	27057	-49602	31024	200000	27682
Hours	0	1436	5200	1030	0	1435	5200	1008
Language	0	0.97	1	0.16	0	0.99	1	0.009
Marriage	0	0.77	1	0.42	0	0.58	1	0.49
Relatives	0	0.62	1	0.48	0	0.63	1	0.48
Minority	0	0.43	1	0.50	0	0.03	1	0.16
Self-employment	0	0.14	1	0.35	0	0.11	1	0.31
Sex	0	0.56	1	0.50	0	0.52	1	0.50
Years of immigration	0	3.04	5	1.44				
Foreign university	0	0.05	1	0.23				
	Minority (n=33920)				Non-Minority (n=175712)			
	Min	Mean	Max	Std.Dev	Min	Mean	Max	Std.Dev
Age	15	37.41	85	11.96	15	38.44	85	12.76
Total Income	-50000	23673	200000	22197	-49602	31918	200000	27,682
Hours	0	1318	5200	1047	0	1462	5200	1008
Language	0	0.95	1	0.22	0	0.996	1	0.0093
Marriage	0	0.67	1	0.47	0	0.62	1	0.493
Relatives	0	0.57	1	0.49	0	0.63	1	0.483
Foreign	0	0.88	1	0.33	0	0.18	1	0.38
Self-employment	0	0.11	1	0.31	0	0.12	1	0.31
Sex	0	0.52	1	0.50	0	0.52	1	0.499
Foreign university	0	0.08	1	0.26	0	0.01	1	0.078

*: When a respondent loses more money than he or she earns for the year, negative values occur. These negative values are removed from the analysis.

The table also shows that more foreign-born people are married (77%) than the native-born (58%). The gap is much smaller between minorities and non-minorities, 67% and 62% respectively. The foreign-born include substantially more minorities (43%) than the native-born (3%). Therefore, minorities include substantially more foreign-born people (88%) than non-minorities (18%). Finally, table 5 shows that 14% of the foreign-born and 11% of the native-born are self-employed and that 11% of the minorities and 12% of the non-minorities are self-employed.

TABLE 7: SELF-EMPLOYMENT PROPENSITY AMONG FOREIGN- AND NATIVE-BORN

INDEPENDENT VARIABLES		FOREIGN-BORN		NATIVE-BORN	
		B	Se	B	Se
Intercept	Intercept	**-4.8372****	0.1669	-8.6652	33.8668
Disadvantage	Foreign University	-0.00978	0.0343		
	Minority	0.0424	0.0500	0.0721	0.0571
Industry	Agriculture	-0.00401	0.0911	**0.7637****	0.1860
	Agriculture*Non-minority	**0.5126****	0.0910	-0.0365	0.1860
	Manufacture	**-1.2255****	0.0408	**-0.7489****	0.1158
	Manufacture*Non-minority	-0.00372	0.0408	**-0.2287***	0.1158
	Construction	**0.8001****	0.0461	**0.7299****	0.1484
	Construction*Non-minority	**-0.1512****	0.0460	0.1585	0.1484
	Retail	**0.3099****	0.0294	**-0.2256****	0.0883
	Retail*Non-minority	**-0.3083****	0.0293	0.1025	0.0883
	Business services	**0.2916****	0.0311	**0.4428****	0.0746
	Business services*Non-minority	0.0577	0.0310	0.0261	0.0746
	Health service	-0.06585	0.0418	-0.0396	0.1090
	Health service*Non-minority	0.0578	0.0417	0.0283	0.1090
	Accommodation	**0.2238****	0.0416	**-0.2692***	0.1283
	Accommodation*Non-minority	**0.0876***	0.0414	-0.00583	0.1282
	(Base) The other industries				
Class Resources	Language	**0.2995****	0.0453	4.3608	33.8667
	Language*Non-minority	**0.2726****	0.0453	0	0
	Less than high school	**-0.1610****	0.0268	**-0.2864****	0.0778
	Less than high school*Non-	-0.0403	0.0252	0.0512	0.0777
	High school	**-0.1046****	0.0209	**-0.3384****	0.0545
	High school*Non-minority	-0.00815	0.0193	0.1043	0.0545
	Bachelor	0.0208	0.0376	-0.0063	0.0666
	Bachelor*Non-minority	**0.0702***	0.0285	0.0422	0.0666
	(Base) Above bachelor				
Family Resources	Marriage	**0.1679****	0.0193	**0.1732****	0.0374
	Marriage*Non-minority	**0.0675****	0.0180	0.0522	0.0368
	Relatives	0.0176	0.0131	-0.0513	0.0356
	Relatives*Non-minority	-0.0147	0.0129	-0.0654	0.0356
Demographic Factors	Age	**0.0925****	0.00707	**0.0835****	0.00438
	Age^2	**-0.00066****	0.000076	**-0.00056***	0.000049
	Sex	**-0.3062****	0.0137	**-0.2575****	0.0365
	Sex*Non-minority	-0.0111	0.0136	-0.0215	0.0365
Geographic Regions	British Columbia	**0.2143****	0.0247	**0.2253****	0.0628
	British Columbia*Non-minority	**-0.0585***	0.0247	-0.0393	0.0628
	Ontario	**-0.1138****	0.0192	0.00634	0.0575
	Ontario*Non-minority	0.0329	0.0192	-0.0700	0.0575
	Prairie	**-0.0608***	0.0292	-0.1258	0.0884

TABLE 8: SELF-EMPLOYMENT PROPENSITY AMONG MINORITIES AND NON-MINORITIES

INDEPENDENT VARIABLES		MINORITY		NON-MINORITY	
		B	Se	B	Se
	Intercept	**-6.0710****		-6.4723	16.5676
Disadvantage	Foreign-Born	**-0.1471***		1.9523	16.5673
	Foreign University	0.0308	0.0471	0.0016	0.0501
Industry	Agriculture	0.1883	0.2018	**0.6071****	0.0482
	Agriculture*Foreign	**-0.6888****	0.2017	**-0.1135***	0.0482
	Manufacture	**-0.8947****	0.1192	**-1.0993****	0.0299
	Manufacture*Foreign	**-0.3428****	0.1192	**-0.1226****	0.0298
	Construction	**0.7450****	0.1543	**0.7725****	0.0260
	Construction*Foreign	0.1946	0.1543	**-0.1135****	0.0259
	Retail	0.1489	0.0905	**-0.0655****	0.0225
	Retail*Foreign	**0.4760****	0.0905	**0.0664****	0.0225
	Business services	**0.3100****	0.0781	**0.4041****	0.0212
	Business services*Foreign	-0.0762	0.0781	**-0.0620****	0.0212
	Health service	-0.1130	0.1127	-0.0124	0.0297
	Health service*Foreign	-0.0164	0.1127	-0.00276	0.0297
	Accommodation	-0.0269	0.1303	0.0241	0.0371
	Accommodation*Foreign	0.1711	0.1302	**0.2950****	0.0370
	(Base) The other industries				
Class Resources	Language	0.0126	0.0420	2.4555	16.5673
	Language*Foreign	0	0	-1.8829	16.5673
	Less than high school	**-0.1747***	0.0803	**-0.2215****	0.0193
	Less than high *Foreign	0.0645	0.0801	0.0162	0.0191
	High school	**-0.2784****	0.0565	**-0.1723****	0.0151
	High school*Foreign	**0.1724****	0.0564	**0.0616****	0.0151
	Bachelor	-0.0645	0.0722	**0.0624***	0.0260
	Bachelor*Foreign	0.0219	0.0720	0.0259	0.0259
	(Base) Above bachelor				
Family Resources	Marriage	**0.1525****	0.0415	**0.1158****	0.0136
	Marriage*Foreign	0.0312	0.0390	-0.0110	0.0129
	Relatives	-0.0530	0.0367	0.0125	0.0098
	Relatives*Foreign	**0.0741***	0.0366	0.00210	0.0096
Demographic Resources	Age	**0.1638****	0.0117	**0.0769****	0.0039
	Age^2	**-0.0014****	0.000131	-	0.000043
	Sex	**-0.2730****	0.0377	**-0.2959****	0.0103
	Sex*Foreign	-0.0310	0.0377	-0.0177	0.0102
Geographic Regions	British Columbia	**0.2704****	0.0645	**0.1710****	0.0203
	British Columbia*Foreign	0.00456	0.0645	-0.0146	0.0203
	Ontario	-0.0299	0.0590	**-0.0732****	0.0141
	Ontario*Foreign	-0.1156	0.0590	-0.00825	0.0141

	Prairie	**-0.1958***	0.0910	-0.00018	0.0205
	Prairie*Foreign	0.1202	0.0910	**-0.0481***	0.0205
	(Base) Quebec				

[TABLE 7]

Foregin-born: -2*log likelihood=49472.482, Native-born: n=60566, -2log=91137.438 n=149066

**** p<0.01, ** p<0.001: p-value indicates the probability that the given or more extreme values can happen just by chance. The closer to 0 p is, the more likely it is that the relation is significant.***

[TABLE8]

Minority: -2log=20949.986 n=33920, Non-minority: -2log=114547.45 n=175712

**** p<0.01, ** p<0.001***

DETERMINANTS OF SELF-EMPLOYMENT

DISADVANTAGE

Foreign-born and minority status have different effects on the self-employment probability depending on industrial sectors. Minorities have higher probabilities to be self-employed than non-minorities in construction and retail among the foreign-born, and in manufacturing among the native-born. In contrast, minorities have lower probabilities to be self-employed in agriculture and accommodation among the foreign-born. Besides, there is no significant difference between minorities and non-minorities in the rest of the industries- manufacturing, business services, health services, and the other industries among the foreign-born and in agriculture, construction, retail, business services, health services, accommodation, and the other industries among the native-born.

On the other hand, the foreign-born have higher probabilities to be self-employed in retail among minorities, and in retail and accommodation among non-minorities. The foreign-born have lower probabilities to be self-employed in agriculture, manufacturing and the other industries among minorities, and in agriculture, manufacturing, construction and business services among non-minorities. There is no significant difference between the foreign-born and native-born in construction, business services, health service and

accommodation among minorities, health service, and the other industries among non-minorities. Foreign university education is not associated with self-employment propensity in the relevant models.

CLASS RESOURCES

In general, people with less than high school and high school education have lower propensity to self-employment than the average of all categories. On the other hand, the mean propensity of university graduates for self-employment is not significantly different from the average of all levels in all but one group. In all groups, people with less than high school and high school education have a lower propensity for self-employment than the averages of each educational level. Besides, the coefficient of less than high school graduates is smaller than that of high school graduates among the foreign-born and non-minority, and it is greater among the native-born and minorities.

Among the foreign-born, native-born, and minorities, the propensity of those with university education for self-employment is not significantly different from the overall average of all educational levels. Among non-minorities, university graduates are more likely to be self-employed than the average of all educational levels. Also, foreign-born high school graduates have a higher propensity for self-employment than native-born

counterparts both among minorities and non-minorities. Among the foreign-born, university graduate non-minorities have a higher self-employment propensity than their minority counterparts.

Language proficiency increases self-employment propensity only among the foreign-born. But it is not significant in the other groups (the native-born, minorities, and non-minorities). Among the foreign-born, the possession of language skills increases non-minorities' self-employment propensity higher than minorities'. This might be because language skills are more important for foreign-born non-minorities who don't have isolated ethnic markets where they can trade in their native language.

FAMILY RESOURCES

In all subgroups, marriage increases the likelihood of being self-employed. Among the foreign-born, the increase in the likelihood is significantly higher for the non-minority than the minority.

Whether a respondent lives with relative(s) in the household is not significantly associated with self-employment involvement. The effect is not significant in all

subgroups. But among minorities, the foreign-born tend to be more self-employed than the native-born if they share the household with their relatives.

CONTROL VARIABLES

The likelihood of the respondents' self-employment varies depending on the place of residence. In the foreign-born and native-born subgroups, British Columbia has a higher likelihood than the average of geographical categories, and Ontario and the Prairies have lower likelihoods in the minority group. Again, compared with the average self-employment propensity, foreign-born non-minorities have a higher likelihood in British Columbia, and not significantly different likelihoods in Ontario, and the Prairies.

Foreign-born and minority status also make a difference in self-employment according to place of residence. In the minority model, compared with the average self-employment propensity, that of the foreign-born is higher in British Columbia, not significantly different in Ontario, and lower in the Prairies. The likelihood pattern according to geographic region is the same between the foreign-born and native minorities. In the non-minority model, the foreign-born have a higher likelihood in British Columbia, not significantly different in the Prairie provinces, and lower in Ontario. The

native-born have higher likelihood in the Prairies, and not significantly different likelihood in British Columbia and Ontario.

The coefficients of age are positive in all models, and those of age-squared are negative in all models. This suggests that age increases the likelihood of someone's self-employment to certain ages (On average, the foreign-born reaches their peak at 71, the native-born at 75, minorities at 68, and non-minorities at 157- this is not meaningful since the survey is conducted on people between 15 and 85 years of age)[2], and decreases it after them. Women have a lower likelihood than men in all models.

[2] The maxima are found by solving the derivatives of the quadratic equations involving the age variable ($0 = 0.0925 - 0.00132Age$ for the foreign-born, $0 = 0.0835 - 0.00112Age$ for the native-born, $0 = 0.1638 - 0.0024Age$ for minorities, and $0 = 0.0769 - 0.00098Age$ for non-minorities.)

TABLE 9: SELF-EMPLOYMENT INCOME AMONG FOREIGN-BORN AND NATIVE- BORN

INDEPENDENT VARIABLES		SELF-EMPLOYED FOREIGN-BORN		SELF-EMPLOYED NATIVE-BORN	
		B	Se	B	Se
Intercept	Intercept	**8.8734****	0.3713	7.0731*	0.1959
Disadvantage	Foreign University	-0.0183	0.1194		
	Minority	**-0.1091***	0.0495	**-0.2878***	0.1141
Industry	Agriculture	-0.2788	0.1502	-0.1014	0.0701
	Manufacture	**0.2477****	0.0909	**0.2479****	0.0635
	Construction	**0.3202****	0.0795	**0.2623****	0.0504
	Retail	-0.0004	0.0662	**0.0997***	0.0464
	Business services	**0.4622****	0.0683	**0.4479****	0.0470
	Health service	**0.5716****	0.0924	**0.2838****	0.0568
	Accommodation	-0.1043	0.0888	-0.0202	0.0868
	(Base) The other				
Class Resources	Language	**0.4080****	0.1281		
	Less than high school	**-0.4132****	0.0801	**-0.9642****	0.0565
	High school	**-0.4544****	0.0703	**-0.7711****	0.0494
	Bachelor	**-0.2788****	0.1042	**-0.4288****	0.0564
	(Base) Above				
Family Resources	Marriage	-0.0153	0.0662	**0.0996****	0.0356
	Relatives	0.0203	0.0456	**-0.0640***	0.0302
Demographic Factors	Age	0.0187	0.0127	**0.0869****	0.0070
	Age^2	-0.00004	0.0001	**-0.0006****	0.00008
	Sex	**-0.4115****	0.0487	**-0.5554****	0.0324
Geographic Region	British Columbia	0.1167	0.0758	0.0719	0.0467
	Ontario	-0.0119	0.0658	0.0139	0.0354
	Prairie	-0.0974	0.0845	**-0.1236***	0.0412
	(Base) Quebec				
	Hours	**0.0003****	0.00002	**0.0004****	0.00001
	Years of Immigration	**0.1559****	0.0190		

Foreign-born: n=8595 R^2=0.1172, Native-born: n=16084 R^2=0.1852

** p<0.01, ** p<0.001*

TABLE 10: SELF-EMPLOYMENT INCOME AMONG FOREIGN-BORN AND NATIVE-BORN

INDEPENDENT VARIABLES		SELF-EMPLOYED MINORITY		SELF-EMPLOYED NON-MINORITY	
		B	Se	B	Se
Intercept	Intercept	**6.7156****	0.5624	**6.9949****	0.1976
Disadvantage	Foreign	-0.0718	0.1521	**-0.1868****	0.0303
	Foreign University	-0.1918	0.1741	**-0.2662***	0.1277
Industry	Agriculture	-0.3619	0.3364	**-0.1267***	0.0642
	Manufacture	0.1468	0.1517	**0.2658****	0.0552
	Construction	**0.5758****	0.1661	**0.2594****	0.0438
	Retail	-0.0243	0.1027	0.0803	0.0410
	Business services	**0.4503****	0.1146	**0.4620****	0.0380
	Health service	**0.6494****	0.1553	**0.3621****	0.0507
	Accommodation	0.0326	0.1355	-0.0903	0.0692
	(Base) The other				
Class Resources	Language	**0.6778****	0.1585	-0.0080	0.2638
	Less than high school	**-0.3561****	0.1359	***-0.8079****	0.0487
	High school	**-0.4515****	0.1177	***-0.6693****	0.0427
	Bachelor	-0.2550	0.1667	**-0.3178****	0.0509
	(Base) Above Bachelor				
Family Resources	Marriage	-0.0173	0.1091	**0.0752***	0.0326
	Relatives	-0.0674	0.0734	0.0437	0.0268
Demographic Factors	Age	**0.0791****	0.0227	**0.0767****	0.0063
	Age^2	**-0.0007****	0.0002	**-0.0005****	0.00007
	Sex	**-0.2553****	0.0780	**-0.5550****	0.0287
Geographic Region	British Columbia	0.1122	0.1270	0.0686	0.0417
	Ontario	-0.0626	0.1184	0.0210	0.0319
	Prairie	-0.0557	0.1496	**-0.1222****	0.0381
	(Base) Quebec				
	Hours	**0.0004****	0.00003	**0.0004****	0.00001

Minority: n=3774 R^2=0.0903, Non-minority: n=20905 R^2=0.1673

** p<0.01, ** p<0.001*

DETERMINANTS OF INCOME OF THE SELF-EMPLOYED

CLASS RESOURCES

Among the foreign-born and minorities, those with knowledge of the official languages (English and French) tend to have higher incomes than those without it. But the difference is not significant among non-minorities, and this might be because of the small number of people that are not proficient in the official languages.

Those with less than high school, high school, and bachelor's education have a lower propensity for self-employment than the average of all educational categories. The coefficient of less than high school graduates is smaller than that of high school graduates among the self-employed native-born and non-minorities, and it is slightly greater among the self-employed foreign-born and minorities. The difference between the mean self-employment propensity of bachelor's degree holders and that of all educational levels is not significant in all but one group. However, the magnitude is smaller than that of less than high school and high school graduates. Among the self-employed non-minorities, the self-employment propensity of bachelor's degree holders is significantly lower than that of all educational categories.

Although the model is not constructed in a way that allows us to test the income differences among people with less than high school, high school, and bachelor

education, the coefficients in the model indicate that those with less than high school and high school education make the least income. University graduates earn a more income than those with less than high school education and high school graduates.

It also needs to be noted that among minorities and the foreign-born, those with below high school education, on average, make more than high school graduates although the difference is not tested. In self-employment, those with below high school education might be better off because of their other trade skills.

FAMILY RESOURCES

The effect of being married on self-employment income varies depending on foreign-born and minority status. Among self-employed minorities and the foreign-born, marriage has no association with self-employment income. On the contrary, among self-employed non-minorities and the native-born, marriage is significantly positively associated with the income of the self-employed.

Living with relatives is not significantly associated with the income of the self-employed in most subgroups, and among the native-born, it is negatively associated with income.

SEGREGATION THEORY

In general, the disadvantaged status of the self-employed, especially their foreign-born and minority status, is negatively associated with the self-employment income. Foreign-born status is associated with a decrease in self-employment income among self-employed non-minorities, but it does not make a significant difference in the income of self-employed minorities. Foreign-university education is not associated with self-employment income except among self-employed non-minorities, where it is associated with a significant decrease in self-employment income. Minority status is negatively associated with self-employment income in both the foreign-born and native-born.

Other things being equal, the average income of the self-employed in Construction, Business Services, Health Services, and Manufacturing tend to be significantly higher than the average of all industrial sectors in all four groups. And the average income in Manufacturing is significantly higher than the average income of all industrial sectors in three of the groups

On the other hand, the average incomes of the self-employed in Agriculture, Accommodation, and Retail are not significantly different from the average of the industrial sectors in most of the groups. However, while the average income in

Agriculture is not significantly different from the average of the industries in three groups, it is significantly lower than the average income of the industries among self-employed non-minorities. The income in Accommodation is not significantly different from the average industrial income in all four groups. And the income in Retail is not significantly different from the average industrial income in three groups. However, among the native-born, the income of Retail is significantly higher than the industrial average since its coefficient is positive.

In tables 6 and 7, it is noticeable that the propensity to self-employment varies depending on foreign-born and minority status, and the native-born tend to have higher self-employment propensities in more profitable industries than the foreign-born. Among non-minorities, in three of the four industries which have significantly higher incomes than that of the base category, the native-born tend to have higher propensities to be self-employed than the foreign-born. But in other groups, this pattern is not so obvious. Among minorities, of the other industries where the native-born are more likely to be self-employed than the foreign-born, two industries (agriculture, and manufacturing) have an average income that is not significantly different from the industrial average, and one industry has significantly lower average income than the industrial income. On the other hand, the income levels of all the

industries where the foreign-born are more likely to be self-employed are not significantly different from the industrial average. But, minorities tend to be more self-employed in the industries where, other factors considered, the average income is relatively high. Of the three industries where minorities tend to be more self-employed than non-minorities, two (manufacturing and construction) have relatively high incomes, and the other one (retail) was less income. On the other hand, non-minorities tend to be more self-employed in industries where the average income of the self-employed is relatively low (agriculture and accommodation).

CONTROL VARIABLES

The number of hours of work is significantly positively associated with the income of the self-employed. And years since immigration are also significantly positively associated with the income of the self-employed. That is, the longer self-employed immigrants are in Canada, the higher their income tends be.

SUMMARY

In this chapter, I examined the effects of disadvantage, family and class resources, and segregation, along with a number of control variables, on the propensity for self-employment and the income of the self-employed of four groups: foreign-born, native-born, minorities and non-minorities, using logistic regression and linear regression. I showed that contrary to the predictions of disadvantage theory, foreign-born and minority status do not increase the respondent's likelihood of self-employment. Concerning class resources theory, those with university and graduate education are more likely to be self-employed than those with less than high school and high school education. The foreign-born with language proficiency have a higher propensity to self-employment than their counterparts without it. Also I found that marriage is associated with an increase in the likelihood of being self-employed. However, residence with relatives is not significantly associated with self-employment involvement.

I also showed that among the self-employed foreign-born and minorities, those with knowledge of Canada's two official languages (English and French) tend to have higher incomes than those without it. The self-employed with more education (bachelor and graduate degrees) tend to earn higher incomes than their counterparts

with less education (high school and less than high school). Among self-employed minorities and the foreign-born, marital status has no association with self-employment income. Conversely, among self-employed non-minorities and the native-born, marriage is significantly positively associated with the income of the self-employed. Residence with relatives is not significantly associated with the income of the self-employed in all but the native-born. Disadvantaged status of the self-employed, namely foreign-born and minority status, is significantly associated with a decrease in the income of the self-employed in all but self-employed minorities. Foreign university education is associated with a significant decrease only in the income of self-employed non-minorities. Finally, the native-born tend to have higher self-employment propensity in industries with more income than the foreign-born, and the difference between minorities and non-minorities is not pronounced.

CHAPTER 4:

CONCLUSION AND DISCUSSION

INTRODUCTION

In this concluding chapter, I first examine whether the hypotheses from chapter two are confirmed. I also examine the implications of the findings for the existing approaches to immigrant self-employment. Finally, I suggest some directions for future research in this area.

In this thesis, I show that disadvantaged groups are not more self-employed than non-disadvantaged groups, despite the disadvantage they face in the general labour market. This is contrary to some of the expectations associated with disadvantage theory. These groups face limited opportunities in the self-employment sector just as they do in the general labour market. As a result, they have difficulty finding both wage employment and self-employment opportunities. Next, I find that there is support for class resources theory in the findings. Those with more class resources tend to have a higher propensity to self-employment and higher incomes. Concerning family resources theory, I show that marriage does not uniquely facilitate immigrants' and minorities' self-employment. Instead, marriage facilitates self-employment in all

four groups. Also, married self-employed minorities and immigrants tend to earn less than their counterparts who are single, while married self-employed non-minorities and Canadian-born respondents tend to earn more than their counterparts who are single. Concerning the contribution of relatives to self-employment, living with relatives does not have a positive effect on self-employment. Although more investigation is needed for this finding, it may be due to the concentration of immigrants' and minorities' small businesses in small-scale, low-profit industries. Immigrants' and minorities' businesses are associated with lower income in self-employment than in general. This seems to support the proposition that immigrants' and minorities' businesses tend to be concentrated in small-scale, low-income industries. They also tend to be more self-employed in low-income industries than the Canadian-born, and non-minorities.

DISADVANTAGE THEORY

The propositions of disadvantage theory are only partially supported. Although the foreign-born(14%) have higher probabilities of self-employment than the native-born(11%), controlling for other demographic factors, the probability varies depending on the industrial sectors. Although the foreign-born are more likely to be

self-employed in some industries, the foreign-born are not uniformly more likely to be self-employed than the native-born in all industrial sectors. The foreign-born have higher probabilities of self-employment than the native-born only in some industries, especially retail, but they have lower probabilities of self-employment in other industries, especially agriculture and manufacturing, and no statistical difference in the rest of the industries, especially health services. Therefore, the foreign-born are not uniformly highly self-employed in all industries. The higher self-employment rate of the foreign-born might result from their overrepresentation and concentration in a small number of niches, especially the retail sector. Likewise, minorities have different probabilities of self-employment depending on the industrial sectors. They have higher probabilities of self-employment than non-minorities in some industries, lower probabilities of self-employment in other industries, and no significant difference in the remaining of the industries, especially business services, health services and the other industries.

My research also finds no evidence that another disadvantage, foreign university education, increases immigrant's self-employment probability. But, this result should be interpreted with caution. This might be because the foreign university

education variable is not a direct observation but a composite variable. Therefore, it may not be an accurate indication of the respondent's foreign university education.

CLASS RESOURCES THEORY

Class resources theory demonstrates relatively consistent results. In general, those with more education tend to be more self-employed than those with less education. People with less than high school and high school education, are less likely to be self-employed than the educational mean. However, the difference in self-employment between the educational mean and university graduates is not significant in the minority, foreign-born, and native-born groups, and among non-minorities, university graduates have a significantly higher likelihood of self-employment than the educational mean.

This seems to support the proposition of class resources theorists that self-employment allows the foreign-born, especially foreign professional degree holders, to realize their human capital, which is undervalued in the general labour market. In both the minority and non-minority groups, foreign-born high school graduates tend to have a stronger propensity to self-employment than native-born high school graduates. This may be because foreign-born high school graduates cannot get well-paid

employment in the general labour market. Besides, only among the foreign-born, those with language skills have a greater likelihood of self-employment than those with no language skills, and having language skills is more important in getting self-employed for foreign-born non-minorities than for foreign-born minorities. Language is not a significant factor in increasing self-employment propensity in the other groups.

In examining the relationship between class resources and income, I find that knowledge of the official languages is, in general, associated with higher income among the self-employed foreign-born and minority. The relationship is not significant among the non-minorities, where knowledge of official languages indeed increases the likelihood of being self-employed. This might be attributed to the extremely small number of people whose first language is not English or French in this group. In all groups, those with less than high school and high school education have lower incomes than the educational average. Among self-employed minorities, people with less than high school and high school education earn less than the educational average, but the difference between university graduates and the educational average is not significant.

Although the difference is not tested, there can be an income differential according to foreign-born and minority status in self-employment, as is the case with

wage labor. Graduate and professional education is not rewarded in self-employment among the minorities and the foreign-born. Although the significance of the difference is not tested, it is possible that disproportionately greater returns on their education for those with below high school education among the foreign-born and minority might act as an attraction to self-employment for those with less than high school education (Portes and Zhou, 1996).

FAMILY RESOURCES THEORY

Contrary to the arguments of family resources theorists, marriage is positively associated with respondents' self-employment propensity in all groups. That is, family resources might not be a unique source of advantage for immigrant and minority entrepreneurs. Members of non-disadvantaged groups (the native-born and non-minorities) also benefit from the fact that they are married when it comes to entering into the small business sector. It may be the case that since the foreign-born include more married people than other groups, it makes them more likely to be self-employed, rather than that the foreign-born have a better ability to utilize their spouses' labour in self-employment.

Although marriage is associated with an increase in self-employment propensity in all four groups (the foreign-born, the native-born, minorities, and non-minorities), it is only among the native-born and non-minorities that marriage is also associated with an increase in income. This may suggest that more investigation into the relationship between marital status and self-employment income is necessary. While marital status is positively associated with 'income' among non-disadvantaged groups such as the native-born and the non-minority, it is not associated with income among minorities and the foreign-born. This casts doubt on the proposition that marriage acts as a resource among the foreign-born and minorities. Although a closer comparison of the size of the effect of marriage between disadvantaged and non-disadvantaged groups is required, it may be that self-employment among the groups that utilize spousal labour tends to be concentrated in small-scale, low-profit businesses.

SEGREGATION THEORY

Disadvantages, such as foreign-born and minority status, are negatively associated with self-employment income. This result indicates that income disadvantage to the foreign-born and minorities exists even in the self-employment sector. They still suffer from income disadvantage in the self-employment sector just

as they do in the employment sector. Therefore, the claim that self-employment shelters disadvantaged groups, such as the foreign-born and minorities, from income disadvantage in the general labour market, cannot be sustained.

Examination of the propensity to self-employment and of the income of the foreign-born and native-born seems to support the propositions of segregation theory. As we can see from tables 8 and 10, the foreign-born have a greater likelihood of being self-employed in industries where the incomes of the self-employed are relatively low (for example, retail trade and accommodation). On the other hand, the industries, except for agriculture, where the native-born tend to be more self-employed are relatively high income industries (such as manufacturing, construction, and business services).[3] There may be a number of reasons why the foreign-born choose to go into industries with less income: There may be less competition in these industries from the native-born and the non-minority, they may be small in size and may require less capitalization. These sectors may in fact provide better remuneration relative to employment that the foreign-born and the minority can be involved in.

[3] But I do not test statistically if the incomes of retail and accommodation are significantly lower than those of manufacturing, construction and business services. I base my judgment on the relative magnitude of difference between the baseline category and corresponding industrial sectors. The coefficients of the retail and accommodation sectors are negative and those of manufacturing, construction and business services are positive.
Therefore, significant income difference in these sectors only indicates the 'possibility' that the industrial sectors with positive coefficients have higher incomes than those with negative coefficients and the need for further investigation.

Finally, there may be relatively loose official language requirements in order to operate these businesses.

But, minorities tend to be more self-employed in the industries where, other factors considered, the average income is relatively high. Of the three industries where minorities tend to be more self-employed than non-minorities, two (manufacturing and construction) have relatively high incomes, and the other one (retail) belongs to an industry with less income. On the other hand, non-minorities tend to be more self-employed in industries where the average income of the self-employed is relatively low (agriculture and accommodation).[4] This result should be interpreted with caution. Even if non-minorities tend to be more self-employed in industries with higher average incomes than minorities, minorities in those industries might not have as high incomes, as a result of occupying low income echelons within each industry. In fact, the average income of minorities is lower than that of non-minorities controlling for other factors, including industrial sectors. Therefore, more research is needed to determine if minorities indeed have a greater likelihood of being self-employed in the industries where they can make higher incomes relative to non-minorities.

[4] The difference is relative to the base category, the other industries.

DISCUSSION

The disadvantaged position of immigrants does not lead to more self-employment in all industrial sectors. The foreign-born have a higher self-employment rate than the native-born, without controlling for other factors. But after controlling for other factors such as age, marital status, education, and other demographic factors, I find that the self-employment rate significantly varies with the kind of industrial sectors.

The proposition of disadvantage theory that self-employment offers a 'potential escape route for frustrated employees' should be applied to only part of the self-employment sector (Loscocco and Robinson, 1991). The shelter from disadvantage in the general labor market is only some particular industrial sectors rather than the self-employment sector as a whole. In fact, in other parts of the self-employment sector, immigrants and minorities are less likely to be self-employed than or just as likely to be self-employed as the native-born and non-minorities possibly because of their lack of capital, business knowledge and networks, and language barriers.

Current research has focused on a narrow line of immigrants' and minorities' self-employment, especially retail, and concentrates only on comparison between the

paid employment and the self-employment sector. My research indicates the limitation of this approach in a sense that minorities and immigrants are also self-employed in other industries than the retail industry, and even within the self-employment sector, the probability of self-employment varies widely. Therefore, we need to broaden our comparison and pay attention to heterogeneity within the self-employment sector. Literature on self-employment needs to pay more attention to how these industrial sectors are different from each other in many respects including profit and size, and why these different probabilities occur.

Middleman minority theory traces the root of foreign-born and minority self-employment to their disadvantaged position. But my findings suggest their disadvantaged condition may be a necessary condition but not a sufficient one, since they may be driven out of employment in the general labor market, but it does not necessarily lead to an increase in all self-employment sectors. They may require proper supply conditions such as sufficient self-employment opportunities, or they may require proper resources to overcome competition in the self-employment sector to produce an increase in self-employment. In conclusion, my findings suggest that minority and foreign-born self-employment is a complex process that involves multiple factors rather than a single factor.

Self-employment provides an opportunity to utilize class resources that might not be recognized in the general labor market because of discrimination or prejudice, for immigrants and minorities with class resources, such as education, language skills, and capital. Therefore, self-employment is an advantage to immigrants and minorities with class resources in the sense that it allows them opportunities to take advantage of their human resources and capital.

Traditionally, the success and prevalence of immigrant and minority business are often attributed to effective utilization of family resources- wife, children, grandparents, and relatives' unpaid and devoted labor. Family resources are viewed as one of the most important factors that distinguish minority and immigrant businesses from, and give advantage over other groups' businesses. But, the ability to utilize family labor is found to be not unique to immigrants and minorities. My findings indicate that native-born and non-minority owned businesses also enjoy benefits of family labor and support. Immigrants enjoy more benefits simply because there are more married people among them.

Family resources may increase the probability for immigrants and minorities to be engaged in self-employment, but the proof that utilization of family resources provides a financial advantage for immigrant and minority business is not found. On

the contrary, marriage among the native-born and non-minorities is associated with higher income. Therefore, family resources provide only limited advantages for immigrants and minorities in allowing them to engage in self-employment, but they do not function as a financial advantage for immigrants and minorities.

Current research focuses only on segregation in the wage labor market, but my findings indicate a need to pay more attention to segregation in the self-employment sector. Self-employment has been viewed as a 'vehicle' that allows immigrants and minorities to achieve upward mobility, and portrayed only a positive impression that, in the self-employment sector, immigrants are given equal footing and opportunity with the native-born. But my findings point to the existence of segregation in the self-employment sector. The findings suggest that the foreign-born are more likely to be self-employed in low-income industries than the native-born. This also suggests the further need to investigate the income distribution of the foreign-born and native-born self-employed.

My research also points to the need for a comparative perspective on immigrant and minority self-employment. By comparing self-employment patterns of the four groups, my research indicates a need to pay attention to segregation in self-employment because the foreign-born in self-employment tend to occupy low-income

segments of business compared to other groups of people. The comparative perspective can help correct traditional mistaken misleading judgments. It also reveals that the contributing role of family resources to self-employment engagement is not unique to immigrant families. Rather, it is universal in all ethnic groups. Thus, the comparative perspective helps refine the findings concerning family resources, and correct the exaggeration in the self-employment literature.

BIBLIOGRAPHY

Baldassare, Mark, ed. 1994 *The Los Angeles Riots: Lessons For The Urban Future*, San Francisco: Westview Press:

Bailey, Thomas., and Waldinger, Roger. 1991 "Primary, Secondary, and Enclave Labor Markets: A Training Systems Approach." *Americal Sociological Review* 56: 432-445

Bates, Timothy. 1994 "Social Resources Generated By Group Support Networks May Not Be Beneficial To Asian Immigrant-Owned Small Businesses." *Social Forces* 72: 671-689

Blacklock, Hurbert. 1967 *Toward A Theory Of Minority-Group Relations*, New York: John Wiley & Sons.

Borjas, George J. 1986 "The Self-Employment Experience of Immigrants" *The Journal of Human Resources* 21: 485-506

Bonacich, Edna. 1972 "A Theory Of Ethnic Antagonism: The Split Labor Market." *American Sociological Review* 37: 547-559

Bonacich, Edna. 1972 "A Theory Of Middleman Minorities." *American Sociological Review* 38: 583-594

Boyd, Robert L. 1990 "Black And Asian Self-Employment In Large Metropolitan Areas: A Comparative Analysis." *Social Problems* 37: 258-272

Evans, M.D.R. 1989 "Immigrant Entrepreneurship: Effects Of Ethnic Market Size and Isolated Labor Pool." *American Sociological Review* 54: 950-962

G. Wong, Morrison. 1982 " The Cost of Being Chinese, Japanese, and Filipino in the United States

1960, 1970, 1976." *Pacific Sociological Review* 25: 59-78

Hong, Jangman. 2000 "Korean Variety Store Owners: Limited Choices And Hard-Working Lives." *Doing Qualitative Research: Proceedings Of The Second Annual Colloquium On Qualitative Research*, McMaster University, Department of Sociology: 29-39

Iacovetta, Franca. 1992 *Such Hardworking People: Italian Immigrant in Postwar Toronto*. McGill-Queen's University Press

Kim, Ill-Soo. 1981 *New Urban Immigrants: The Korean Community In New York*. Princeton: The Princeton University Press

Kim, Kwang Chung., Hurh, Won Moo., and Fernandez, Marilyn. 1989 "Intra-group Differences in Business Participation: Three Asian Immigrant Groups." *International Migration Review* 23: 73-95

Kim, Kwang Chung., and Hurh, Won Moo. 1985 "Ethnic Resources Utilization of Korean Immigrant Entrepreneurs in the Chicago Minority Area." *International Migration Review* : 82-111

Light, Ivan H. 1972 *Ethnic Enterprise In America: Business And Welfare Among Chinese, Japanese, and Blacks. Los Angeles*: The University Of California Press

Light, Ivan., and Bonacich, Edna. 1988 *Immigrant Entreprenuers: Koreans In Los Angeles*, 105-106 Berkeley and Los Angeles: University of California Press.

Light, Ivan., and Bhachu, Parminder. eds. 1993 *Immigration And Entrepreneurship: Culture, Capital, and Ethnic Networks*. London: Transaction Publishers

Li, Peter. 1998 *The Chinese in Canada*. Toronto: Oxford University Press

Li, Peter S. 1996 *The Making of Post-War Canada*. Oxford University Press

Li, Peter S. 2000 "Economic Returns of Immigrants' Self-employment." *Canadian Journal of Sociology* 25: 1-34

Li, Peter S. 2001 "Immigrants' Propensity to Self-Employment: Evidence from Canada" *International Migration Review* 35: 1106-1128

Light, Ivan., and Bonacich, Edna. 1988 *Immigrant Entrepreneurs: Koreans in Los Angeles 1965-1982* University of California Press.

Loscocco, Karyn A. Robinson, Joyce. 1991 "Barriers to Women's Small-Business Success in the United States" *Gender and Society* 5: 512- 153

Maxim, Paul S. 1992 "Immigrants, Visible Minorities, and Self-Employment" *Demography* 29: 194

Mills, C.W. 1951 *White Collar: The American Middle Classes*. New York: Oxford University Press.

Min, Pyong Gap. 1990 "Problems of Korean Immigrant Entrepreneurs." *International Migration Review* 24 : 436-455

Min, Pyong Gap. 1984 "From White-Collar Occupations To Small Business: Korean Immigrants' Occupational Adjustment." *Sociological Quarterly* 25: 333-352

Min, Pyong Gap. 1984 "An Exploratory Study of Kin Ties Among Korean Immigrant Families in Atlanta." *Journal of Comparative Family Studies* 15: 59-75

Min, Pyong Gap. 1996 *Caught In The Middle: Korean Communities In New York And Los Angeles*. California: The University Of California Press.

Min, Pyong Gap., and Jaret, Charles. 1991 "Ethnic Business Success: The Case of Korean Small

Business in Atlanta." *Sociology and Social Research* : 412-435

Ornstein, Michael. 2000 "Ethni-Racial Inequality in the City of Toronto: An Analysis of the 1996 Census." City of Toronto.

Portes, Alejandro. ed. 1995 *The Economic Sociology of Immigration: Essays on Networks, Ethnicity, and Entrepreneurship.* New York: Russel Sage Foundation.

Portes, Alejandro. and Zhou, Min. 1996 "Self-Employment And The Earnings Of Immigrants." *American Sociological Review* 61: 219-230

Portes, Alejandro., and Min, Zhou. 1992 "Gaining The Upper Hand: Economic Mobility Among Immigrant And Domestic Minorities." *Ethnic and Racial Studies* 15: 491-522

Razin, Eran., and Light, Evan. 1998 "Ethnic Entrepreneurs In America's Largest Metropolitan Areas." *Urban Affairs Review* 33: 332-360

Razin, Eran., and Langlois, Andre. 1996 "Metropolitan Characteristics And Entrepreneurship Among Immigrants And Ethnic Groups In Canada." *International Migration Review* 30: 703-727

Razin, Eran., and Langlois, Andre. 1998 "Metropolitan Characteristics And Entrepreneurship Among Immigrants And Ethnic Groups In Canada." *International Migration Review* 30: 703-727

Satzewich, Victor, S. Li, Peter. 1987 "Immigrant Labor in Canada: The Cost and Benefit of Ethnic Origin in the Job Market." *Canadian Journal of Sociology* 12: 229-241

Sanders, Jimmy M., and Nee, Victor. 1996 "Immigrant Self-Employment: The Family as Social Capital and the Value of Human Capital." *American Sociological Review* 61: 240- 241

Sanders, Jimy M., and Nee, Victor. 1987 "Limits Of Ethnic Solidarity In The Enclave Economy"

American Sociological Review 52: 745-773

Tainer, Evelina. 1988 "English Language Proficiency and the Determination of Earnings among Foreign-Born Men." *The Journal of Human Resources* 23: 115- 116

The Korean Times Daily Toronto. 2000 The 2000-2001 Ontario Korean Directory

The Korean Times Daily Toronto 07/17/2000. "Workers In Their 30's Are Leaving Korea."

The Korean Times Daily Toronto 10/27/2000 "The Number Of Korean Retailers In Canada Exceeds 5,000."

U.S. Bureau Of The Census, U.S. Department Of Commerce. 1992 *1990 Census Of Population, General Population Characteristics*: United States. Washington, D.C., Government Printing Office.

Waldinger, Roger. 1989 "Structural Opportunity Or Ethnic Advantage? Immigrant Business Development In New York." *International Migration Review* 23: 48-71

Waldinger, Roger. 1986 "Immigrant Enterprise: A Critique And Reformulation." *Theory and Society* 15: 249-285

Waldinger, Roger. 1989 "Structural Opportunity Or Ethnic Advantage? Immigrant Business Development In New York." *International Migration Review* 23: 48-71

Waldinger, Roger D. 1986 *Through the Eye of the Needle: Immigrants and Enterprise in New York's Garment Trades*. New York University Press.

Wong, Morrison G. 1982 "The Cost Of Living Chinese, Japanese, And Filipino In The United States: 1960, 1970, and 1976" *Pacific Sociological Review* 25: 58-78

Yoon, In-Jin. 1997 *On My Own: Korean Businesses And Race Relations In America.* Chicago: The University Of Chicago Press.

Yoon, In-Jin. 1996 "Self-Employment In Business Among U.S. Ethnic Groups." *Korea Journal Of Population And Development* 25: 123-171

Yoon, In-Jin. 1995 "The Growth of Korean Immigrant Enterpreneurship in Chicago." *Ethnic and Racial Studies* 18: 315-335

Yoon, In-Jin. 1991 "The Changing Significance of Ethnic and Class Resources in Immigrant Business: The Case of Korean Immigrant Businesses in Chicago." *International Migration Review* 25: 328- 329

APPENDIX: ETHNIC ORIGINS

(1).Western European origins:

1. British Isles origins (English, Irish, Scottish, Welsh, British, n.i.e.)
2. French origins (French, Acadian)
3. Dutch (Netherlands) origins (Dutch(Netherlands), Frisian)
4. German origins
5. Other Western European origins (Australian, Belgian, Flemish, Luxembourger, Swiss)

(2).Southern European origins:

1. Greek
2. Italian
3. Portuguese
4. Jewish
5. Spanish

(3).Eastern European origins:

1. Polish
2. Ukrainian
3. Balkan origins
4. Other European origins (Finnish, Danish, Icelandic, Norwegian, Swedish, Scandinavian, n.i.e., Estonian, Latvian, Lithuanian, Byelorussian, Czech, Czechoslovakian, Slovak, Romanian, Russian, Cypriot, Maltese, Basque, Gypsy(Roma), Slav, European, n.i.e.)

(4).African origins (Black, Burundian, East African, Eritrean, Ethiopian, Ghanaian, Kenyan, Mauritian, Nigerian, Rwandan, Somali, South African, Sudanese, Tanzanian, Ugandan, Zairian, African(Black), n.i.e., Other African, n.i.e.)

(5).Arab origins:

1. Lebanese
2. Other Arab origins (Algerian, Berber, Egyptian, Iraqi, Jordanian, Moroccan, Maghrebi, n.i.e., Palestinian, Syrian, Tunisian, Arab, n.i.e.)

(6)West Asian origins (Afghan, Armenian, Iranian, Israeli, Kurd, Turk, West Asian, n.i.e.)

(7).South Asian origins (Bangladeshi, Bengali, East Indian, Goan, Gujarati, Pakistani, Punjabi, Sinhalese, Sri Lankan, Tamil, South Asian, n.i.e.)

(8).East and South East Asian origins:

1. Chinese origins
2. Filipino
3. Vietnamese
4. Other East and Southeast Asian origins (Burmese, Cambodian, Laotian, Thai, Indonesian, Japanese, Korean, Malay, Mongolian, Tibetan, East/Southeast Asian, n.i.e. , Asian, n.i.e.)

(9).Latin origins:

1. Latin, Central and South American origins (Argentinian, Brazilian, Central/South American Indian, Chilean, Colombian, Costa Rican, Ecuadorian, Guatemalan, Hispanic, Honduran, Mexican, Nicaraguan, Panamanian, Paraguayan, Peruvian, Salvadorean, Uruguayan, Venezuelan, Latin/Central/South American, n.i.e.)
2. Caribbean origins (Antiguan, Bahamian, Barbadian, Bermudan, Cuban, Grenadian, Guyanese, Haitian, Jamaican, Kittitian/ Nevisian, St. Lucian, Trinidadian/ Tobagonian, Vincentian/ Grenadinian, West Indian, Caribbean, n.i.e.)

(10).Aboriginal origins (Inuit, Metis, North American Indian)

(11).Canadian

(12)Other single origins (American, Australian, Fijian, New Zcalander, Pacific Islander, n.i.e. , Polynesian, Quebecois)

(13)Other multiple origins