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Forms of Capital in Immigrants' Social and Economic Integration

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Abstract

Immigrants' social and economic integration in Canada are explored using the 2001 census, the Longitudinal Survey of Immigrants to Canada (LSIC) and the Longitudinal Immigration Database (IMDB). I analyze how immigrants' ethnicity as well as education level relative to their ethnic group, affect their social tie formation with co-ethnic members. Visible minority groups are more likely to make co-ethnic ties than the white population groups. Additionally, those who have similar or lower levels of education than their group are likely to make intra-ethnic networks two years after arrival. Next, I examine the income trajectories of immigrants by taking into account the impact of education, bonding social ties, and working in an ethnic economy. Education is found to be advantageous. Also, bonding social ties with co-ethnic members are found to have a slightly negative effect, which diminishes over time. Lastly, working in an ethnic economy is detrimental to immigrants' economic outcomes.

Lay Abstract

Immigrants' social and economic integration in Canada are explored using the 2001 census, the Longitudinal Survey of Immigrants to Canada (LSIC) and the Longitudinal Immigration Database (IMDB). I look at whether immigrants' ethnicity and level of education compared to their group are linked to social tie formation with people of the same ethnicity. I found that immigrants who are visible minorities are more likely to form co-ethnic ties. I also found that those who have similar or lower levels of education than their ethnic group are likely to make co-ethnic ties. Next, I analyze how ties with those of the same ethnicity, working in an ethnic economy, and education play a role in immigrants' income. Indeed, education is found to be beneficial for their income. Also, ties with people of the same ethnicity are first found to have a negative effect, which lessens over time. Finally, it is found that working alongside with people of the same ethnic background can be damaging to immigrants' income.

Keywords

immigrants; bonding; social networks; cultural capital; human capital; social capital; ethnic economy; income

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Chapter 1

1 Introduction

1.1 Introduction

Diversity in Canada has increased since immigration policy changes were made, wherein more immigrants from non-traditional source countries, or non-European countries, started arriving in the 90s and early 2000s (Statistics Canada 2010). The growing diversity in Canada has allowed immigrants more opportunities to interact with other individuals of the same ethnic or cultural background as well as with those from diverse backgrounds (Hou 2006). Although immigrants make ties based on similar identity traits such as ethnicity and culture (Neves 2015), other factors such as cultural capital, class, and status play a role in their social network formation as well (Bourdieu 1977). Education captures both human capital and institutionalized cultural capital, and in turn is key in reproducing social status (Bourdieu 1986). Further, education affects not only immigrants' social integration, but also their economic integration. However, education alone does not immediately facilitate labour market success after arrival due to issues surrounding foreign credential recognition and discrimination, and thus immigrants take on different paths to economic success through their social ties with ethnic community (Kazemipur 2006).

The underlying mechanisms of migrant social network formation point to not only their social integration in Canada but also to their social and cultural backgrounds formed in their country of origin. Cultural capital is used by Bourdieu (1986) to understand class reproduction maintained through the educational institution. Cultural capital possessed by individuals determine the position they occupy in the social space, wherein they are more likely to make ties with those who are in proximity with them in social status (Bourdieu 1985). In consequence, people form groups that are similar in class, status, and education (Bourdieu 1977). Consequently, social groups unite not only based on identity characteristics but also on the social structures that have maintained the unequal distribution of social, cultural, and economic resources. The social tie formation among

immigrants thus reveal how larger social forces in their country of origin, as well as in their new society shape their networks.

Further, the two types of social ties people create namely bonding ties, ties that are based on similarity, and bridging ties, ties that extend outside one's immediate social circle, point to the multi-dimensionality of social ties as people bond over certain traits and bridge on others (Putnam 2000). Immigrants form bonding social ties with co-ethnic members based on the likeness of their cultural heritage, language, and nationality (Neves 2015). They engage in bonding ties with co-ethnics as they are able to gain emotional, social, and sometimes economic support, especially when they are faced with challenges in the labour market (Kazemipur 2006). The diversity of immigrants' social networks or lack thereof involve many factors such as their individual traits as well as larger social factors. My study focuses on the role played by ethnicity or culture as well as institutionalized cultural capital, which is also known as education. The varying likelihood to engage in bonding ties among immigrant groups will uncover how ethnicity, cultural, and human capital move and dictate social group formation after they arrive Canada as well as the social position they take on.

The social positions occupied by immigrants in the social space not only influence social network formation, but their economic integration as well. Although many immigrants who enter Canada possess high levels of human capital, they do not see equal returns to their education after they arrive (Picot, Hou, Qiu & 2016). However, education has been found to be economically advantageous in the long-term (Picot et al 2016). In times of economic adversity and issues with foreign credential recognition, immigrants take other alternate ways to reach labour market success. For instance, immigrants draw resources from their ethnic group, wherein the resources found in one's circle, also called social capital, is embedded in these networks (Bourdieu 1986). Although bonding ties have been found to be damaging to people's economic outcomes since they draw in the same resources (Warren 2008), the usefulness of the social capital in one's group also depend on the quality of one's connections (Bourdieu 1986). Hence, if the members of an individual's ethnic network possess good-quality capital, engaging in bonding ties with them would not necessarily be detrimental. Lastly, immigrants who find jobs within an ethnic economy take this path as an alternative to working in the mainstream labour market (Fong and Lee

2007; Logan et al. 2003; Zhou 2004). Much research has shown that there are advantages and disadvantages to ethnic economy participation, but some warn that working in an ethnic economy can lead to a mobility trap (Massey 1995). Thus, the various pathways to labour market success namely education, social networks, and ethnic economies are examined in order to determine how these factors impact immigrants' economic outcomes.

The present study investigates the social and economic integration of immigrants in Canada. Immigrants' social tie formation shed light on how they embed themselves in different networks based on individual and structural forces. Variation in bonding social ties, ties with co-ethnics, across several ethnic and population groups are explored to determine whether certain groups are more likely to bond than others. In addition, the larger social forces namely human and cultural capital that underlie migrant social network formation is examined by testing the impact of immigrants' level of human capital relative to their group on their likelihood to engage in bonding social ties. While the impact of education as an institutionalized form of cultural capital on social ties is analyzed in the first part of the study, the effects of education as a form of human capital on income is examined in the second part of the study. The research project further investigates how the nature of immigrants' social networks, in particular bonding social ties and participation in the ethnic economy, impact their long-term income.

The objective of my thesis is to uncover the factors that move social network formation among immigrants, which reveals the impact of social positioning measured by institutionalized cultural capital. I take a step further and test how connections with one's ethnic group through social ties and ethnic economy participation influences labour market outcomes. Lastly, the impact of education on immigrants' income will be explored in order to shed light on its importance not only as a form of cultural capital but as a form of human capital as well. Through two integrated articles, my study addresses the following questions:

1. Does the likelihood of forming bonding ties vary across immigrant groups?
2. Does institutionalized cultural capital, indicated by education, have an impact on whether or not immigrants will bond?

3. Since education is not only an institutionalized form of cultural capital, but also a form of human capital, how does the highest level of obtained education affect immigrants' income?
4. How does bonding social ties impact income?
5. How does bonding social ties affect income the longer immigrants engage in this type of social tie since landing?
6. Is participation in an ethnic economy damaging to immigrants' economic outcomes?
7. How does ethnic economy participation affect income the longer immigrants remain in the ethnic economy since arrival?

Part 1 of my present study, found in chapter 2, addresses the first two questions. The Longitudinal Survey of Immigrants to Canada (LSIC), which comes in three waves from 2001 to 2005: six months, two years, and four years after arrival, as well as the 2001 census are used to investigate the impact of immigrants' relative human capital on their social network formation, and whether variations are found across groups. Visible minority groups are more likely to bond than the white group in both waves two and three. Additionally, immigrants' education level relative to their group has a significant impact on whether or not immigrants will engage in bonding ties. Those who have the same or lower human capital than their group two years after arrival are likely to bond, which highlights how social position dictates social interactions. However, relative human capital is not found to be impactful on types of social tie formed by immigrants four years after arrival.

Part 2 of my study, included in chapter 3, addresses the last five research questions. I use the Longitudinal Survey of Immigrants in Canada linked to the Longitudinal Immigration Database in order to examine the economic outcomes of immigrants in the long-term. The different pathways to economic integration namely education, bonding ties, and ethnic economy participation are investigated. In line with past literature, education is an advantage to income, especially in the long-term. I also find that bonding social ties is not necessarily damaging to immigrants' income the longer they bond with their group. Lastly, participation in the ethnic economy is damaging to immigrants' economic outcomes,

especially if they remain within the ethnic economy for several years since landing. The findings suggest that first, education is critical in immigrants' labour market success, forming ties with co-ethnics is not disadvantageous, and working within the ethnic economy risks placing immigrants' in a mobility trap.

I expand on the findings in the last chapter where the conclusions, contributions, and limitations of the study are discussed. Theoretical and policy implications of the findings are also further expanded upon in the last chapter, wherein the interconnections of cultural, human, social, and economic capital are discussed. Suggestions for future research on the different forms of capital and their overarching impact on immigrants' social and economic integration are also made in the last chapter.

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Chapter 2

2 Bonding Social Ties: Relative Human Capital

2.1 Introduction

Migration accounts for the increase in population and diversity in Canada every year (Statistics Canada 2013). Many groups have settled and established their roots for generations, while many more individual immigrants and families continue to start their lives in Canada. Social networks play a role throughout the whole process of immigration and settlement, which helps facilitate social and economic integration among migrants (Kazemipur 2006). Due to challenges faced after arrival such as a lack of credential recognition and systemic discrimination, immigrants often find themselves turning to their ethnic communities for emotional and even economic support (Kazemipur 2006). Although ethnic communities provide social, moral, and financial support (Kazemipur 2006), these co-ethnic ties can also have some negative effects on their economic integration (Sanders et al. 2002). Closed, tightly-knit ethnic networks can act as a mobility trap in the labour market and as a barrier to social integration (Kalter and Kogan 2014). On the other hand, having ethnically diverse social groups serve as a sign of good social networking skills (Briggs 2005; Coleman 1988; Granovetter 1973), and as a source of information and opportunities (Putnam 2000). Ultimately, the resources drawn from one's network depend on the quality of their connections (Bourdieu 1895). Thus, in order to delve into whether certain types of social ties benefit immigrants, the underlying mechanisms that move migrant network formation must first be examined.

Immigrants bring with them different perceptions, experiences, and ways of living that were formed in their country of origin, which influences the way they perform and interact with people. Although many immigrants who arrive in Canada share many similar experiences such as adapting to a new environment, searching for a job, and learning a new culture, the social position they occupied before immigration must be used to contextualize how they socially integrate into Canada. The nature of immigrants' social connections can be explained by their social position, which is affected by cultural, social, and educational

institutions. The paper will use the Longitudinal Survey of Immigrants to Canada (LSIC) and the 2001 census to investigate the impact of ethnic background as well as cultural and human capital on social network diversity after arrival.

2.2 Background

2.2.1 Bonding versus Bridging

Social tie formation occurs within homogenous social groups, as well as between different social circles. Social connections that are more diverse and that connect people from outside their immediate social circle are known as bridging, while ties that are more closed off and homogenous are called bonding (Putnam 2000). Bonding ties occur among family and close friends who have similar traits (Neves 2015). Additionally, people can bond based on some characteristics and bridge on others (Putnam 2000). Putnam (2000) gives the example of a black church, where people of the same race and religion congregate despite class disparities. Hence, bonding and bridging ties can occur across multiple dimensions at once. The idea of occupying a position within a social network that opens up diverse relationships echoes back to Robert Burt's 'structural holes' (1992) and Mark Granovetter's 'weak ties' (1973). A structural hole refers to the space between different networks. An individual can connect to different networks by forming a social tie to at least one member of a group in order to gain access to the resources carried by their entire network (Burt 1992). Thus, an individual is able to fill the structural hole between their own group and other external networks by maintaining a relationship with at least one member from other groups. In turn, more resources and information become available to them. The farther an individual's connection reaches, both the quantity and the quality of their resources improve (Lin 2001). Also, Granovetter's (1973) 'weak ties' reflect a similar concept wherein it refers to indirect ties that extend outside of an individual's immediate network.

On the other hand, those who create social ties with exclusive groups based on similar characteristics also reap many benefits such as group loyalty, reciprocity, and social and psychological support (Warren 2008). Immigrants who become part of ethnic networks

gain access to information on business and job opportunities, on accessing credit, and on cultural practices that enable economic integration (Alba and Nee 2003; Light and Gold 2000; Portes and Rumbaut 2006; Waldinger 1996). However, there are also negative consequences to restricting one's social network to co-ethnic members. Intolerance and 'outgroup antagonism' are examples of the negative side of bonding ties (Putnam 2000). Exclusion of members outside the group and the limitation of freedom of more successful members within the group also occur (Portes 1998), which prevents people from obtaining more resources that may be necessary for economic and social integration. Additionally, the expectations and obligations that are formed in close-knit communities limit the individual's freedom, and in turn hinder them from realizing their full potential (Portes 1998). For instance, Sanders and Nee (1987) found that immigrants who find jobs in an open economy rather than an ethnic enclave see higher income. Yet, many immigrants rely on their ethnic communities for moral support and a sense of community especially after arrival (Kazemipur 2006). Thus, understanding the mechanisms involved in social tie formation among immigrants is crucial in order to determine how the nature of immigrants' networks impact their social and economic integration in Canada.

Guliz Akkaymak (2016) examined social network formation among Turkish immigrants and found that they were bonding based on common characteristics. Akkaymak (2016) found that they were likely to form bonding social ties based on nationality and ethnicity, and that they were less likely to make ties with the white population due to the immense difference in culture. Indeed, culture plays a large role in social network formation. In addition, existing power structures may be dividing ethnic groups and influencing migrant social network formation. Ethnic minorities may internalize ways of behaving, thinking, and interacting in accordance to negative stereotypes, which increases in-group solidarity (Bonilla-Silva, Goar, and Emrick 2006). Meanwhile, dominant groups may subscribe to ethnic stereotypes and prejudices, which reproduces social inequality and out-group derogation (Reay 1995). Hence, power dynamics and perceptions of differences affect the social distance between people (Park 1924), wherein some people may identify more closely to those more similar than them compared to other groups.

Thus, immigrants are likely to engage in bonding social ties based on their ethnic or cultural background whether it be due to shared culture or the existing power dynamics between ethnic groups. Bonding ties are similar to how Lin (2001) defines 'strong weak ties', which reflect the concept of homophily - social connections among people who are alike, especially in identity characteristics.

Bonding ties vary among ethnic groups, especially between visible minority groups and European immigrant groups. Bonding ties can be used to leverage some social resources found in one's group when faced with social and economic challenges in the new host country (Kazemipur 2006). Immigrants also turn to their group for social, moral and psychological support (Kazemipur 2006). It has been well-documented that visible minority immigrants experience more economic disadvantages after arrival than European-born migrants due to lack of foreign credential recognition, language proficiency, and work experience (Banerjee 2009). In turn, they turn to their co-ethnic group members for support as social networks serve as another approach to assimilation or integration (Raza, Baujot, Woldemicael 2013). Indeed, some ethnic minority groups are likely to be found clustered together in neighbourhoods while white groups tend to be less concentrated (Balakrishnan T. R., 1982; Balakrishnan, Maxim, and Jurdi, 2005; Kalbach, 1987; Richmond, 1967). As newcomers, ethnic minorities are more likely to network with co-ethnic members in order to gain access to economic and social resources such as services that are culturally sensitive, economic support, and other resources that are difficult to access in the mainstream society (Bloemraad 2005; Guo and Guo 2011; Jurkova 2014). For instance, Chinese and other South Asian groups are more inclined to rely on resources drawn from their ethnic group (Raza et al., 2013). Since the increased movement of Chinese migrants to North America, Chinese enclaves have served as an important source of health and social services, spaces for civic-engagement, and immigrant settlement (Ang 2014; Guo and Guo 2011; Zhou and Lee 2013; Zhou and Lin 2005; Zhou and Logan 1991). Also, culture and familial expectations maintain ethnic networks. For instance, South Asians, especially females, are commonly expected to stay home until marriage (Kataure 2012). Additionally, children in South Asian culture are often raised with the help of extended and immediate family members, which explain why South Asian migrants tend to reside near each other (Kataure 2012). Indeed, ethnic groups, especially ethnic minorities are likely to make

bonding social connections with each other due to several factors such as in-group solidarity, shared culture, and familial expectations (Coleman, 1990; Portes and Schauffler, 1994; Zhou, 1997). Thus, variations in bonding ties will be found across groups, but especially between visible minority and non-visible minority groups.

Bonding social ties within ethnic groups point to how immigrants are able to find support among co-ethnics. However, this notion ignores segmentations and heterogeneity that exist within ethnic groups. Immigrants' experiences, challenges, opportunities, and social relations are under the influence of various interconnecting social factors such as country of origin, social resources, access to services, (Ang 2011; Vertovec 2007), approaches to settlement, and socioeconomic status (Zhou and Lin, 2005). Thus, social ties not only form due to shared culture and ethnicity but also due to larger social forces that have shaped immigrants' migration patterns, networking strategies, and social status (Ryan 2011).

2.2.2 Theory: Human and Cultural Capital

Segmentations within ethnic groups form due to dynamic social factors such as class, education, and cultural resources. Bourdieu (1986) introduced cultural capital in order to explain how the different classes fare in society and how these class segments are reproduced through the educational institution. Cultural capital comes in three forms where one is termed objectified cultural capital signified by the possession of books, instruments, machines, and so on (Bourdieu 1986). Secondly, the embodied state of cultural capital or habitus explains the notion that an individual's social position influences their access and use of capital. Bourdieu's concept of habitus captures the idea wherein people act and react to their social world based on how they were conditioned to by their class status (Bourdieu 2005). Habitus is the "society written into the body" (Bourdieu 1990:63), wherein socialization in a given social group results to unconscious dispositions. People are socialized through the family and the education system in the way they speak, behave, and practice norms (Bourdieu 1986). The experiences and social environment of people results in the "homogenizing of a group of class habitus" (Bourdieu 1990:58), which makes their practices and behaviours correspond to each other without direct or deliberate reference to rules or norms. Thus, the views of an individual will coordinate well with a co-member of

their group or class due to their common habitus. In turn, people become connected to form groups that operate using the same practices and schemas that become normalized and common sense (Bourdieu 1977). In other words, the more similar people are in cultural capital and social status, the more alike they are to each other and the closer they are within the social space (Bourdieu 1985). In contrast, the less people have in common, the farther away they are positioned from each other in society. Immigrants come from various geographical, religious, cultural, political, and social backgrounds. In consequence, they form groups based on the cultural capital they have gained in their country of origin.

Akkaymak's study on Turkish immigrants also shed light on the social tie formation among different groups. Indeed, they formed social relations with co-nationals due to their shared culture and language, but their cultural capital and profession were also found to be impactful as they joined social groups largely based on class. Akkaymak (2016) found that their social network formation was influenced by their social position, which determined whether they would engage in bonding or bridging ties. Professional immigrants were more likely to make connections with the broader society as a consequence of their cultural capital (Akkaymak 2016). On the other hand, non-professional immigrants were less likely to form connections outside of their ethnic group due to long work hours and language barriers (Akkaymak 2016). Immigrants' class shaped the way they perceived their social life as well as with who they interacted with. Consequently, class segmentations, regardless of cultural or ethnic background, are reproduced due to immigrants' position in society. Akkaymak's study shows that those from a higher social background are likely to make ties with those who are similar to them in social status from other groups. Class and cultural capital play a role in how people act and interact with each other, which influences the expanse and diversity of their social network formation, wherein those who come from a lower or similar status within their ethnic group will likely remain within their immediate networks not only due to culture but class as well.

Immigrant groups are made up of individuals with varying characteristics who bring with them different lived experiences and world views. Each immigrant possesses an embodied cultural capital or habitus that is formed in their country of origin, and in turn they are likely to form ties with people who possess a similar habitus as well (Bauder 2005).

People's habitus shaped by cultural capital, education, ethnicity, and other forms of socialization produce and reproduce a system of actions and dispositions that maintain a social group's status in society and that shape the way networks form.

2.2.3 The Role of Human Capital

Cultural capital is gained and reproduced through institutions. Education is a form of cultural capital called institutionalized cultural capital (Bourdieu 1986). The educational system especially is a primary place where cultural capital is gained, accumulated, and refined through training in aesthetic culture like art and music (Dumais 2002), ability to speak knowledgably (Sullivan 2001), and obtainment of qualifications (Bourdieu 1986). Hence, education is an indicator of social status and cultural capital, which is transmitted through educational institutions.

Education is an important signifier of not only cultural capital, but also knowledge and skill. Education is a form of human capital, wherein human capital theorists (Becker 1992) contend that the higher the education, the higher the returns in the labour market. Human capital also indicates the person's lifestyle, social network, environment, and social status (Bourdieu 1986; Becker 1993). Some researchers have argued that those with high human capital are likely to have ties to networks that are more diverse, better-educated, and have more work experience (Boxman, De Graaf, and Flap 1991, Lin 1999). Meanwhile those with less human capital find themselves in smaller and less diverse networks that are also likely to occupy lower social status (Fernandez and Harris 1992, Patterson 1998, Stack 1975, Zippay 1990). Although human capital and cultural capital are two different forms of capital wherein the former is measured by level of education and skills, while the latter is the knowledge of cultural practices (Di Maggio and Mohr 1985), there is an overlap between the two as both signal formal and informal education (Sander and Nee 2001). Thus, immigrants who have high human capital are likely to possess similar social status and occupy similar positions in the social space, which facilitates social networking with people of the same status.

People who hold a certain level of social status occupy a position within the social space where they are in close proximity to those in many dimensions such as age, occupation,

income, and education. The more different people are from each other in multiple dimensions, the more distance there is between them and the less likely they are to form ties (Bourgeois and Friedkin 2001). Structural and positional forces must be recognized in examining social tie formation since individuals occupy varying positions in the social, cultural, and economic realms of society. The unequal distribution of people across the social strata in turn affects the social connections they create (Lin 2001). Those from a certain level of class status are likely to form networks with those who are similar to them in social status. Social status is embedded into people's ways of understanding and conducting oneself in the world, which influences the expanse and diversity of their social network formation. Education is an institutionalized form of capital that indicates class as well as habitus. Although immigrants are likely to form bonding ties with others based on similar ethnic or cultural background, some may also be forming ties based on their social status within the social space, which can be indicated by education level relative to their group. Hence, immigrants who are highly educated are likely to be part of an elite class, and in turn are likely to be a part of social networks of the same social standing and have more potential in accessing better-quality and diverse connections. In contrast immigrants who are of lower or similar social status are likely to engage in bonding ties as they are closer in the social space and have less access to networks farther in the social space compared to those who are higher in social status.

Social ties can be conceived as integration pathways taken by immigrants upon landing, wherein one path involves building ethnic communities and the other involves forming multiple ties with diverse groups. My research will inquire whether or not ethnicity and human and cultural capital are critical in the formation of bonding social networks within the short-term and long-term period after arrival. Thus, my research project will use the Longitudinal Survey of Immigrants in Canada (LSIC) and the 2001 census, which provides information in three waves: six months, two years, and four years after arrival, to investigate the likelihood of making bonding ties among different immigrant groups two years and four years after arrival.

2.3 Hypotheses

The following questions are addressed: “does the likelihood of forming bonding ties vary across immigrant groups?” and “does institutionalized cultural capital indicated by education, have an impact on whether immigrants are more likely to bond?” by testing the following hypotheses:

1. Visible minority groups are more likely to bond compared to the white population throughout both waves.
2. Those who have similar or lower levels of human capital relative to their group human capital in wave one are likely to bond all throughout both waves.

2.4 Data and Measurement

2.4.1 Data

The data are taken from the Longitudinal Survey of Immigrants to Canada (LSIC), which investigates the social and economic integration of landed immigrants and refugees from 2001 to 2005. The survey does include those who landed and applied in Canada. The LSIC was administered in three waves: six months, two years, and four years after arrival in Canada. The LSIC is the most appropriate dataset for this research project as it includes relevant information such as immigrants’ ethnicity, language, education levels, and social networks. The LSIC is a longitudinal survey, and in turn how immigrants’ level of human capital affects their social networks two years and four years after arrival can be tested. The mean years of schooling of each ethnic group is produced in order to capture immigrants’ education level relative to their group, which serves as an indicator of social positioning. Since the first wave of the LSIC starts in 2001, the research project uses the 2001 census to calculate group mean education level of each ethnic and population group by census metropolitan area (CMA). The estimated group averages taken from the census is then linked to the LSIC.

2.4.2 Analytic Sample

The analytic sample is restricted to landed immigrants and refugees aged 25 to 64 years old living in Toronto, Montreal, and Vancouver, the three largest census metropolitan areas and where there is increasing diversity (Statistics Canada 2013). The analytic sample also includes seventeen ethnic and population groups. The ethnic groups are the following: Mandarin-speaking Chinese, Cantonese-speaking Chinese, Filipino, Punjabi-speaking, Gujarati-speaking, Korean, Arab, Urdu-speaking, Persian, Russian, and French groups. The population groups include immigrants who identify as the following: white, black, Latin American, South East Asian, West Asian, and South Asian. All other immigrants who do not identify with these groups were dropped due to their small sample size. Further, since the paper is looking at social network formation, those who did not have family at the time of arrival and did not make any new friends in waves two and three, essentially those who were socially isolated, were dropped. The final sample is made up of 3,500 respondents.

2.4.3 Outcome Variables

Bonding social ties in wave two is the main outcome variable in the first model. Bonding is a binary variable wherein one equals more than half of their new friends since arrival in Canada are from the same ethnic or cultural group since last interview. And zero equals only at least half of their friends are of the same ethnic or cultural group, or they did not make new friends.

Bonding social ties in wave three is the outcome of the second model wherein one equals more than half of their new friends since last interview are from the same ethnic or cultural group, and zero equals only at least half of their friends are of the same ethnic or cultural group, or they did not make new friends.

2.4.4 Independent Variables

Ethnic and population group variables: Since the relative human capital variables were calculated by group, ethnic and population group variables were first created using the

2001 census. Group variables were created using the 2001 census in order to later measure the mean education of each immigrant in the LSIC relative to the mean education level of their overall group in each CMA. Ethnic and population groups taken from the census were captured through their first and second ethnic identity and mother tongue, or through visible minority status. The ethnic and population group variables taken from the 2001 census are defined in Table 2.1. In order to maximize the sample size of each ethnic and population group in the LSIC, several measures were used in order to capture more groups such as ethnic origin, population group, visible minority status, main language of interview, and mother tongue. Broader population groups were measured through population group or visible minority status. Table 2.2 presents the group variables using the LSIC. All groups from both the census and the LSIC are mutually exclusive of each other. Since the study aims to investigate social ties and how ethnicity or culture plays a role, the analytic sample maximizes the number of specified ethnic groups and includes broader population groups not captured by specific ethnicity questions in the data. The ethnic diversity within Canada grew significantly during the 90s due to changes in Canada's immigration policies (Statistics Canada 2010). Many immigrants from Asia, Africa, Caribbean, Central and South America, and the Middle East arrived, and settled mainly in large census metropolitan areas (Statistics Canada 2010). About 70% of Canada's visible minority population was born outside of Canada (Statistics Canada 2010). Thus, the study tries to include as many ethnic and population groups as possible in order to have a representative sample of the increasing diversity in large CMAs and to determine variations in social bonding ties between many different immigrant groups.

Table 2.1 Dichotomous variables for each ethnic and population group (2001 census)

Group	**Dichotomous variable coding**
Mandarin	1= immigrants who identify as Chinese and whose mother tongue is Mandarin
Cantonese	1= immigrants who identify as Chinese and whose mother tongue is Cantonese
Filipino	1= immigrants who identify as Filipino
Punjabi	1= immigrants who identify as Punjabi and whose mother tongue is Punjabi
Gujarati	1= immigrants who identify as Gujarati and whose mother tongue Gujarati

Korean	1= immigrants who identify as Korean and whose mother tongue is Korean
Arab	1= immigrants who identify as Arab and whose mother tongue is Arab
Urdu	1= immigrants whose mother tongue is Urdu
Persian	1= immigrants whose mother tongue is Persian
Russian	1= immigrants who identify as Russian and whose mother tongue is Russian
French	1= immigrants who identify as French and whose mother tongue is French
White population group	1= visible minority status is white
Black population group	1= visible minority status is black
Latin American population group	1= visible minority status is Latin American
Southeast Asian population group	1= visible minority status is Southeast Asian
West Asian population group	1= visible minority status is West Asian
South Asian	1= visible minority status is South Asian

Source: 2001 census

Table 2.2 Dichotomous variables for each ethnic and population group (LSIC)

Group	**Dichotomous variable coding**	**%**
Mandarin	1= main language of interview is Mandarin	15.75%
Cantonese	1= main language of interview Cantonese	3.13%
Filipino	1= population group or visible minority status is Filipino	7.63%
Punjabi	1= main language of interview is Punjabi	1.74%
Gujarati	1= main language of interview is Gujarati	1.97%
Korean	1= population group or visible minority status is Korean, and their mother tongue is Korean	1.97%
Arab	1= ethnic origin or population group or visible minority status is Arab	7.81%
Urdu	1= main language of interview is Urdu	1.88%
Persian	1= main language of interview is Persian	2.83%
Russian	1= main language of interview is Russian	2.97%
French	1= ethnic origin and mother tongue is French	1.35%
White	1= population group is white	16.79%
Black	1= population group is black	3.71%
Latin American	1= population group is Latin American	2.94%

Southeast Asian	1= population group is Southeast Asian	1.36%
West Asian	1= population group is West Asian	1.42%
South Asian	1 = visible minority status is South Asian	21.99%

Source: Longitudinal Survey of Immigrants to Canada (LSIC)

Relative human capital: Relative human capital is calculated by first taking the mean years of schooling of each ethnic or population group. The mean education level was calculated by group and by CMA from the 2001 census. In doing so, the average education among immigrants are estimated relative to their own ethnic or population group within the context of their CMA. The resulting variable was merged onto the LSIC wherein the relative human capital of each individual to their group is estimated. A dummy variable is generated for lower, similar, and higher relative human capital by using the standard deviation of the mean years of schooling of each group. The following dummy variables measure the following:

Higher human capital: years of schooling is at least one standard deviation above the mean years of schooling of their ethnic or population group.

Similar human capital: years of schooling is within one standard deviation of the mean years of schooling of their ethnic or population group.

Lower human capital: years of schooling is at least one standard deviation below the mean years of schooling of their ethnic or population group.

Control variables: Since the research project questions whether social position measured by relative human capital at the time of arrival has an impact on social networking two and four years later, most control variables will be taken from wave one to ensure temporal ordering. Both age, as well as age-squared, are included, and both variables are continuous. Gender is also included as a dummy variable where one equals female. Marital status is categorized as married, common law, widow or widower, separated, divorced, and single, which is the reference category. Religion is included as a control where Catholic, Protestant, Orthodox, Jewish, Muslim, Eastern religion, and no religion are dummy variables. No religion is the reference category. Additionally, the census metropolitan area

(CMA) is considered in the analysis in order to capture the differences in education levels, labour market structure, and ethnic diversity in each CMA. Montreal, Vancouver, and Toronto are the CMAs included where Toronto is the reference. The model also includes those who received Canadian education before migrating to Canada, which capture any advantage Canadian education may have on social network formation. There are also immigrants who upgrade their qualifications after arrival by pursuing further education. A dummy variable that measures whether or not they obtained more schooling is employed in the model. Language proficiency for either English or French has been found to be influential on immigrants' social and labour market integration (Adamuti-Trache 2013). A good level of English proficiency is defined by whether their language most spoken at home or mother tongue is English, or they consider themselves to speak English fairly well, well, or very well. Those whose language most spoken at home or mother tongue is not English or they speak English poorly or cannot speak it are not considered to have good English proficiency. Similarly, a good level of French language proficiency is whether their language most spoken at home or mother tongue is French, or they consider themselves to speak French fairly well, well, or very well. Those whose language most spoken at home or mother tongue is not French, or they speak French poorly or cannot speak it at all do not have a good level of French proficiency. Lastly, their labour force status in wave two is also included, and is the only variable not taken from wave one because a high number of immigrants are not yet employed in wave one, six months after arrival. Many immigrants are in the process of job-hunting within the first six months, and thus wave one labour force status does not properly capture the effects of employment status.

2.4.5 Methods

The outcome variables are the formation of bonding ties in waves two and three, wherein each is a binary outcome. Thus, a logistic regression is a suitable model to employ in order to test whether ethnicity and relative human capital affect the likelihood of forming bonding social ties. The same general logistic model is employed in both waves where the outcome of the first model is bonding in wave two and the outcome of the second model is bonding in wave three.

Wave 2:

$$Pr_{bonding}\ (y_i=1) = \alpha+\beta_1 ethnicity_i+\beta_2 relativeHC_i+e_i$$

Wave 3:

$$Pr_{bonding}\ (y_i=1) = \alpha+\beta_1 ethnicity_i+\beta_2 relativeHC_i+e_i$$

$Pr_{bonding}$, the outcome, is the probability of each individual, i, to form bonding ties. The intercept is represented by α and the β coefficients are the estimated coefficients of the logistic regression model. β_1 represents the coefficient estimated for ethnic or population group and β_2 represents the estimated coefficient for relative human capital. Finally, control variables are included in the model represented by $e_{i.}$

Marginal effects are also produced in order to determine the change in the outcome per unit change of the main predictor. Using marginal effects, the change in the outcome, bonding ties, is summarized while holding all other covariates at their mean except for one main predictor. Hence, the amount of change in the bonding outcome, from 0 to1, is determined when all covariates are at their mean except for the ethnic and population group variables. Next, the marginal effects of relative human capital on bonding ties are produced while holding all other covariates at their mean. By holding all covariates at their mean, the amount of change in the outcome per unit change of relative human capital is determined.

2.5 Results

2.5.1 Sample Distribution

Table 2.1 and Table 2.2 mentioned above present the distribution of the sample's characteristics. The top three largest groups in the sample are the South Asian group at 21.99%, the white group at 16.79%, and the Mandarin-speaking Chinese group at 15.75%. The three groups where there are the least proportions of immigrants are the French, South East Asian, and West Asian.

Table 2.3. Sample distribution across variables, N=3,500

Characteristics	%	Characteristics	%
Relative human capital		**Religion**	
High (ref)	59.87%	No religion (ref)	21.53%
Same=1	7.84%	Catholic=1	18.78%
Low=1	32.29%	Protestant=1	10.54%
Gender		Orthodox=1	8.66%
Male=0	59.24%	Jewish=1	1.02%
Female=1	40.76%	Muslim=1	21.76%
Marital Status		Eastern Religion=1	17.72%
Married=1	86.35%	**English proficiency**	
Common law=1	0.91%	Poor=0	93.53%
Widow/Widower=1	1.05%	Good=1	6.47%
Separated=1	0.59%	**French proficiency**	
Divorced=1	1.08%	Poor=0	97.27%
Single (ref)	10.02%	Good=1	2.73%
Canadian education		**Labour force status**	
No=0	97.47%	Unemployed=0	39.35%
Yes=1	2.53%	Employed=1	60.65%
Further education		**Means**	
No=0	71.05%	Age	36.796
Yes=1	28.95%	Age-squared	1426.5

Source: Longitudinal Survey of Immigrants to Canada (LSIC)

Table 2.3 shows the sample distribution of the remaining variables used in the analysis. The average age of the sample is 36 years old. As well, there are more males than females. Most of the sample, at 64.42%, live in Toronto, followed by Montreal at 18.56% and Vancouver at 17.02%. Most immigrants, 86.35 %, are found to be married. Almost all of the individuals in the sample received all of their education outside of Canada and about 28% pursued further education in Canada after arrival. Also, a majority of the sample do not consider themselves proficient in either of the two official languages in Canada. Many individuals in the sample practice a religion wherein 21.76% are Muslim, 18.78% are Catholic, 17.72% practice an Eastern religion, 10.54% are Protestant, 8.66% are Orthodox, and only 1.02% are Jewish. About 21.5% of the sample do not practice any religion. After two years upon arrival, about 66.7% of the sample have attained employment. Also, more immigrants in the sample have high relative education level at 59.87%, those with low

relative education level are at 32.29%, while only 7.84% are within one standard deviation of their group's level of education.

2.5.2 Bonders vs Non-bonders

Some immigrants bond with their ethnic group more than others. Variations in bonding social ties are presented across groups. Figure 2.1 displays the proportion of bonders among each ethnic and population group in wave two and wave three.

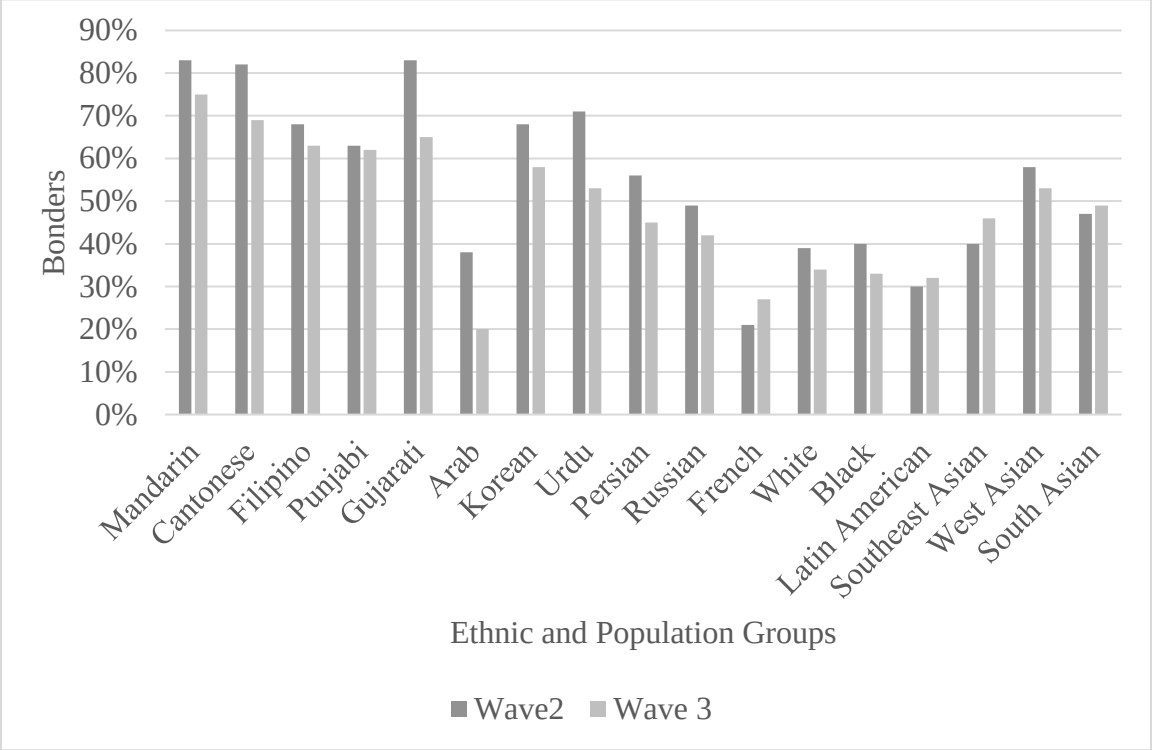

Figure 2.1. Proportion of bonders among each group in wave two and wave three

Source: Longitudinal Survey of Immigrants to Canada (LSIC)

There is quite a variation that exists between the different groups regarding the proportions of bonders. The groups that have the highest proportion of bonders are Mandarin-speaking immigrants and Gujarati-speaking immigrants, both at 83% each. The Cantonese-speaking Chinese immigrants follow closely at 82%. The groups that have the lowest proportion of bonders at 21% is the French group, followed by the Latin American group at 30%. The rest of the groups range between about 40% to 70% wherein ethnic groups such as

Filipinos, Persian-speaking immigrants, Koreans, Urdu-speaking immigrants, and West Asians have a high number of bonders where over half of each group are bonding.

Figure 2.1 also shows the proportion of bonders among each group in wave three. There are slight changes in the proportion of bonding ties among the groups compared to wave two. Both wave two and three show that the Cantonese-speaking, Mandarin-speaking, and the Gujarati-speaking groups, are the groups that have the highest proportions of bonders. In wave three, less immigrants are engaging in bonding ties, especially among the Arab, Korean, Urdu-speaking, and Persian speaking groups where there is about a ten to eighteen percentage-point drop. However, there are some groups where there is an increase of bonders, wherein Southeast Asian and French groups both are found to have a six-percentage point increase of bonders in wave three.

2.5.3 Relative Human Capital and Social Ties

Figure 2.2 displays the proportion of bonders and non-bonders among those who have lower, similar, and higher education than their group during both wave two and wave three.

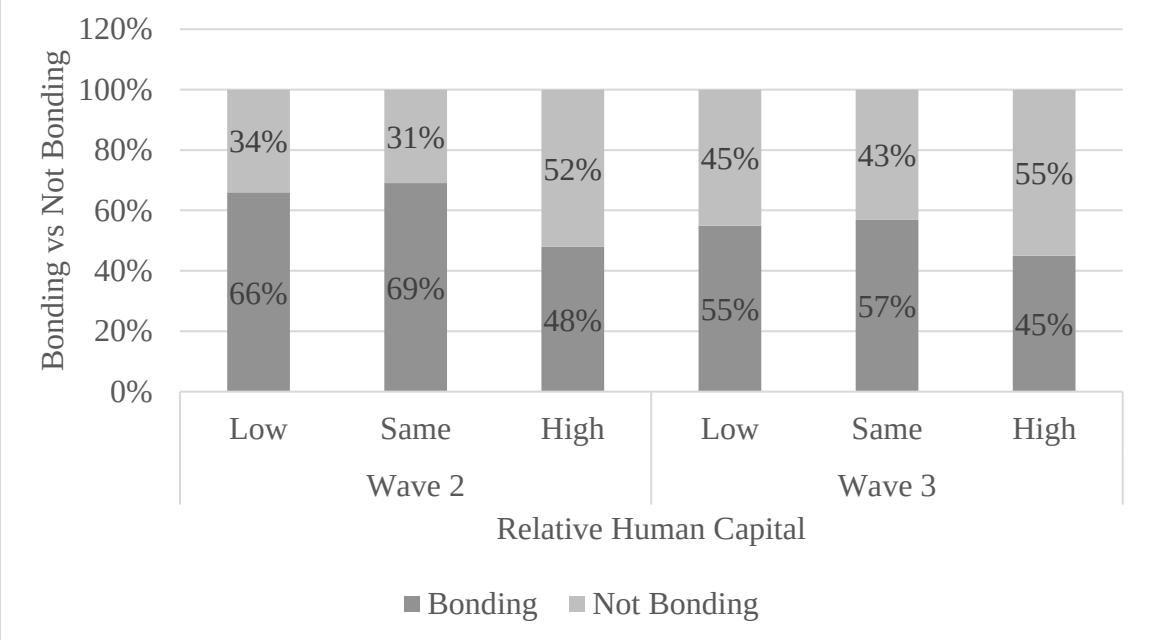

Figure 2.2. Proportion of bonders and non-bonders among those who have low, similar, and high relative human capital in both waves two and three

Source: Longitudinal Survey of Immigrants to Canada (LSIC)

About 66% of those who have lower years of schooling than their group and 69% of those who have similar years of schooling than their group's average years of schooling are engaging in bonding ties in wave two. Meanwhile, there are low rates of bonders among those who have higher human capital than their group at 48%. Figure 2.2 shows that there are smaller proportions of bonders among those who have lower, similar, and higher levels of human capital relative to their group in wave three. Among those who have lower human capital relative to their group, there is still a high proportion of bonders at about 55%. Also, 57% of those of have similar education than their group are bonding. Only about 45% of those who have high relative human capital are bonding in wave three. In both waves, over half of those who have lower and similar education levels than their group are bonding, whereas less than 50% of those with higher education are.

2.5.4 Logistic Regression

In order to test the hypotheses, a logistic regression was first produced. The first hypothesis states that visible minority groups are more likely to bond compared to the white population group. The logistic regression model supports the first hypothesis as visible minority groups are found to be more likely to bond than the white group.

Table 2.4. Odds Ratios predicting likelihood of bonding ties in waves 2 and 3, N=3,500

	(Wave 2)			**(Wave 3)**		
Variables	**Odds Ratios**		**S.E**	**Odds Ratios**		**S.E.**
Groups						
Mandarin	5.412	***	1.075	5.688	***	1.088
Cantonese	4.850	***	1.449	3.979	***	1.044
Filipino	2.687	***	0.540	3.766	***	0.757
Punjabi	1.776		0.583	2.947	**	0.957
Gujarati	5.357	***	2.000	3.391	***	1.062
Arab	0.818		0.161	0.600	*	0.126
Korean	2.876	***	0.624	2.850	***	0.605
Urdu	2.225	*	0.729	1.978	*	0.610
Persian	1.448	**	0.375	1.597		0.416
Russian	0.942		0.220	1.131		0.265
French	1.031		0.538	0.891		0.432

White	Ref.			Ref.		
Black	1.137		0.254	1.362		0.310
Latin American	0.645		0.167	1.045		0.269
Southeast Asian	0.940		0.312	1.857		0.611
West Asian	1.851		0.612	2.374	**	0.780
South Asian	1.130		0.192	1.964	***	0.338
Relative human capital						
High	Ref.			Ref.		
Same	1.476	**	0.227	0.893		0.130
Low	1.334	***	0.126	0.969		0.090
Intercept	2.020		1.420	1.151		0.786

Notes: Control variables are included, *p<0.05, **p<0.01, ***p<0.001

Source: Longitudinal Survey of Immigrants to Canada (LSIC)

The odds ratios are displayed in Table 2.4 wherein Mandarin-speaking Chinese are found to be 5.41 times, the Cantonese-speaking Chinese group 4.85 times, Filipinos 2.69 times, and the Guajarati-speaking group 5.36 times more likely to bond than the white population. As well, the Korean group is 2.88 times, the Urdu-speaking group is 2.23 times, and the Persian-speaking group is 1.45 times more likely to bond compared to the white group. The logistic regression model also supports the second hypothesis, which states that those who have relatively similar or lower levels of human capital to their group are more likely to bond than those who have relatively high levels of human capital. Those who have similar levels of education than their group are 1.476 times more likely to bond than those who have relatively higher levels of education than their group. Additionally, those who have relatively less schooling than their group are 1.334 times more likely to bond than those who are more educated than their group.

A second logistic regression model is produced in order to examine the effects of ethnicity as well as education levels on the likelihood to bond in wave three, four years after arrival, which is also presented in Table 2.2. In wave three, many visible minority groups are found to be more likely to bond compared to the white population group. Some of the same groups in wave two are found to more likely bond than the white group in wave three. Similar to

wave two, the Mandarin-speaking Chinese are 5.69 times, the Cantonese speaking Chinese are 3.979 times, Filipinos are 3.78 times, Gujarati-speaking immigrants are 3.39 times, Urdu-speaking immigrants are 1.98 times, and Koreans are 2.85 times are more likely to bond than the white group. Also, groups namely the Punjabi-speaking immigrants are 2.947 times, the West Asian group is 2.37 times, and the South Asians are 1.95 times more likely to engage in bonding social ties in wave three with reference to the white population. However, the Persian-speaking group is no longer more likely to bond compared to the white group in wave three. Also, the Arab group is found to less likely form bonding ties than the white group in wave three. Lastly, relative human capital no longer has an impact on the likelihood in creating bonding ties. Immigrants with neither similar nor lower levels of schooling than their group are found to be significantly linked to forming bonding social ties four years after arrival.

2.5.5 Marginal Effects

The marginal effects of each main predictor on bonding ties are produced while keeping all other variables at their mean. Since all other variables are held at their mean, how much the outcome, likelihood to bond, changes when taking into account ethnic and population group as well as relative human capital is determined in the analysis. The marginal effects also present a clearer interpretation of the link between the likelihood of engaging in bonding social ties and the main predictors. The marginal effects at the means of each ethnic group and relative human capital during both waves are displayed in Table 2.5.

Table 2.5. Marginal effects of the main independent variables in both waves, N=3,500

	(Wave 2)			(Wave 3)		
Variables	**dy/dx**		**S.E**	**dy/dx**		**S.E**
Groups						
Mandarin	0.350	***	0.040	0.377	***	0.040
Cantonese	0.327	***	0.060	0.30	***	0.056
Filipino	0.205	***	0.040	0.288	***	0.040
Punjabi	0.119		0.070	0.234	**	0.070
Gujarati	0.348	***	0.080	0.265	***	0.070
Arab	-0.040		0.040	-0.111	*	0.050
Korean	0.219	***	0.040	0.227	***	0.050
Urdu	0.166	*	0.070	0.148	*	0.070

Persian	0.077		0.050	0.102		0.060
Russian	-0.010		0.050	0.027		0.050
French	0.006		0.110	-0.025		0.110
White	Ref.					
Black	0.027		0.050	0.067		0.050
Latin American	-0.090		0.050	0.009		0.060
Southeast Asian	-0.010		0.070	0.134		0.070
West Asian	0.127		0.070	0.188	**	0.070
South Asian	0.025		0.040	0.146	***	0.040
Relative human capital						
High	Ref.			Ref.		
Same	0.081	*	0.030	-0.025		0.030
Low	0.060	*	0.020	-0.007		0.020

Notes: *p<0.05, **p<0.01, ***p<0.001

Source: Longitudinal Survey of Immigrants to Canada (LSIC)

In wave two, visible minority groups are shown to more likely bond than the white group, namely the Mandarin-speaking group at 35%, the Cantonese-speaking group at 32.7%, Filipinos at 20.5%, the Gujarati-speaking group at 34.8%, Koreans at 21.9%, and the Urdu-speaking group at 16.6%. In addition, when all other independent variables are held at their mean, those who have similar human capital than their group are 8.1% more likely to bond than those who are more education than their group, while those who have relatively lower levels of human capital than their group are 6% more likely to bond than those with relatively higher human capital than their group.

The marginal effects at the means are also produced for the main independent variables in wave three and is displayed in Table 2.5. The ethnic groups who are more likely to bond than the white group are namely the Mandarin-speaking Chinese at 37.7%, the Cantonese-speaking Chinese at 30.0%, the Filipinos at 28.8%, the Punjabi-speaking immigrants at 23.4%, the Gujarati-speaking immigrants at 26.5%, the Koreans at 22.7%, and the Urdu speaking group at 14.8%. Also, the West Asian and South Asian groups are found to form

bonding ties in wave three at 18.8% and 14.6% respectively. On the other hand, the Arab group is found to less likely engage in bonding ties in wave three by 11.1%.

2.6 Limitations

The study is able to capture the link between ethnic and population groups as well as relative human capital to the probability of immigrants' engaging in bonding ties. However, some limitations must be addressed in the research project. Ethnicity is a highly abstract concept that is difficult to operationalize. The questions regarding ethnicity provided in the LSIC were not specific enough to fully capture many ethnic groups. In turn, main language of interview, visible minority status, and population group were used as measures in order to define different groups. Using population group and visible minority status in particular has some issues as broader groups defined by these characteristics ignore the heterogeneity among these groups. However, in order to capture the diversity of the population and variation of bonding ties across several groups, the study utilized all possible ethnic identity questions in the survey.

Cultural capital is another abstract concept that is difficult to fully capture especially in its embodied form, habitus, as this involves people's dispositions, norms, and ways of living. Also, the data does not provide information on its objectified form such as books, instruments, or machines. Thus, the analysis is only able to measure the institutionalized form of cultural capital through education, which is also known as human capital. Education not only indicates how much human capital the individual has, but it also indicates their class status. However, although years of schooling gives some indication of class, the data does not include the quality or prestige of their schools, which vary by geographical and social context. The study utilizes years of schooling as it is the only indicator of cultural capital. In turn, immigrants' relative human capital to their group is serves as signifier of their cultural and human capital in this study.

A high level of attrition rates is another limitation of the study as those who did not identify with any of the ethnic or population groups were dropped. As well, those who were socially

isolated were not included in the analysis. The resulting attrition rate after all the missing values were dropped as well is about 46%.

2.7 Discussion

Cultural capital not only shapes that way people see, behave, and interact with the world, but it also maintains the distribution of groups across the social space whether it be based on human and cultural capital or ethnicity. This research project aimed to measure immigrants' social position through their obtained human capital at the time of arrival and tested whether or not this influences the nature of their social network. The findings of the research project point to two important things. First, ethnicity or culture appear to have an impact as visible minority groups are more likely to bond than the white group within two years and four years after arrival. Internalized stereotypes and shared experiences may be strengthening in-group solidarity among visible minority groups. However, it cannot be concluded that out-group derogation is occurring here since the model does not test for discrimination. Ethnic groups may also bond over several traits such as common language, nationality, history, and cultural practices. Moreover, many ethnic groups in this project were defined by main language of interview. In consequence, these groups are perhaps more likely to bond due to their language.

Secondly, although bonding ties in both waves are influenced by ethnicity, those who have similar or lower levels of human capital are also found to be more likely to bond two years after arrival. Human capital is used as an indicator of institutionalized cultural capital, wherein the study examines whether immigrants' position relative to their group affects the types of ties they form. Indeed, social position determined by education shape the way immigrants behave and interact with each other. In consequence, immigrants who are of similar social status than their ethnic group are more likely to bond with their group. Thus, segmentations among co-ethnic ties occur not only along lines of ethnicity and culture but also along class lines shaped by their human and cultural capital.

Human and cultural capital only matter within the first two years of arrival in expanding one's social network. In the long term, the institutionalized cultural capital, or level of

education, does not have any significant influence on the diversity of their social connections. This finding suggests that after two years, other ways of forming intra-ethnic social networks matter more than one's human and cultural capital. Additionally, time in Canada may reshape their cultural capital, and in turn their cultural capital formed in their country of origin loses significant impact on their social networks over time, and their re-formed cultural capital may influence their social ties in other ways. More research is needed to examine what factors are involved in re-shaping immigrants' cultural capital over time.

The findings point to the different pathways to social integration in Canadian society. There are immigrants who have high human and cultural capital who may possess a certain habitus that facilitate certain types of social ties. There are also those who may have relatively lower or similar human and cultural capital than their group who are more likely to constrain their social networks within their ethnic community. The short-term effects of immigrants' relative human capital can mean several things. In the long term, some immigrants may accumulate cultural capital deemed fit in Canadian society through further education, occupation, and participation in the wider community, while others remain with the cultural capital perceived to be unsuitable within Canadian society (Erel 2010). Further, immigrants who do not gain 'suitable' cultural capital after arrival in Canada may find that the cultural capital, they arrived with becomes less impactful in building networks within their ethnic group. Thus, immigrants who arrive with certain levels of human and cultural capital are better able to utilize it in their social tie formation within the first two years of arrival. After which, other strategies become more influential in network formation, which can inform future research on how immigrants' gain cultural capital useful in their new society.

2.8 Conclusion

In conclusion, many ethnic groups are likely to bond with other co-ethnic individuals, but their cultural capital or human capital also plays a major role in their social network formation, at least within the first two years. Cultural capital must be considered to contextualize how immigrants view, act, and interact in their new society, and how this

reproduces social hierarchies. Moreover, the study suggests that immigrants who possess a certain habitus, which is formed by higher class status and human capital, are able to extend their social ties to those of similar status. Their level of human capital serves as a benefit to them in their integration, which reproduces the distribution of social groups in society and thereby power dynamics that exist along the lines of class, cultural capital, and human capital. However, it is found that social status measured through human capital formed in the country of origin no longer significantly influences social network formation after four years, which can either suggest that their cultural or human capital may have changed or have adapted to the new host country, or that there are other factors involved in social network formation in the long-term. Therefore, how people are socially conditioned to act and to think create segmentations within groups and unite others, which maintain how different social groups are positioned in society. Thus, immigrants' cultural capital functions in the background to position them in the Canadian social space shortly after they arrive.

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Chapter 3

3 Pathways to Economic Success among Immigrants

3.1 Introduction

Immigrants arriving in Canada have become increasingly diverse and bring with them a variety of skill sets and high levels of education. The rise in diversity began when Canada welcomed more immigrants from Asia, the Caribbean, and Central America, which changed the immigrant composition between the 90s and early 2000s (Hou and Picot, 2016). Additionally, the revised points system set in place in the 2000s has allowed for many well-educated and skilled immigrants to enter Canada as more priority was designated to higher education and official language proficiency (Hou et al 2016). In 2001, more than 40% of newly arrived immigrants had at least a bachelor's degree, which made up 6% of Canada's population who held a university degree (Galarneau and Morrissette 2004). Although immigrants who have high human capital are more likely to integrate into the mainstream labour market, university educated immigrants are found to see lower returns compared to their native-born counterparts (Picot 2004). In consequence, immigrants who face challenges in integrating into the Canadian labour market seek other routes towards economic success. Immigrants who endure challenges in job attainment due to issues in credential recognition and discrimination turn to their social connections, especially their ethnic community (Kazemipur 2006). Immigrants often make co-ethnic ties upon arrival, or bonding ties. Bonding social ties can either deter or facilitate labour market success depending on the quality of the network. The increasing number of immigrants has also led to the development of ethnic economies, which many immigrants take part in (Fong and Lee 2007). There are both advantages and disadvantages to working in the ethnic economy. Indeed, the growing diversity in Canada, especially in large cities such as Toronto, Montreal, and Vancouver, has provided different pathways for immigrants to achieve upward economic mobility. The modernization of the economy as well as the expansion of the knowledge industry have made it imperative to not only attract immigrants with high education and skills but to also have these educated individuals

thriving in Canada in order to remain a strong global economic competitor. Hence, immigrants' successful labour market integration is imperative in not only their economic well-being, but also in the enhancement of Canada's economic global competitiveness.

The economic impact of human capital, types of social ties, and participation in an ethnic economy will shed light on which strategies are necessary for successful labour market integration. The paper will test the basic human capital model in order to see the long-term economic outcomes of immigrants with higher education levels. The effect of co-ethnic social networks on immigrants' income will also be investigated. In addition to social ties, the impact of working in an ethnic economy on income will be examined as well. Thus, analyzing not only how levels of human capital facilitate economic integration, but also social connections and participation in an ethnic economy, can shed some light on how immigrants fare in the long-term depending on which path they take.

3.2 Background

3.2.1 Human Capital

The basic human capital model contends that education, abilities, and skills are investments to one's human capital, just as how financial investment builds economic capital (Mincer 1958; Becker 1992). The human capital model is engrained in Canadian immigration policy, as the points system targets well-educated individuals interested in migrating to Canada. The points system was created with the premise that immigrants with high human capital would be better-equipped to integrate into the Canadian labour market (Picot, Hou, Qiu & 2016). In turn, an increased number of immigrants who possess higher education started arriving in Canada (Statistics Canada 2005).

However, there are income disparities between immigrants and the Canadian-born population despite the rising education levels of each successive immigrant cohort (Picot 2008). Several explanations have been explored by past research such as the undervaluation of foreign credentials, the changing demographic characteristics of immigrant populations, and the general decline of labour market outcomes of recent immigrants (Li and Li 2013). Consequently, many immigrants take on lower-skilled jobs

despite their level of education (Picot et al. 2016). However, those who possess higher education are able to adapt more quickly to the labour market, accumulate more knowledge, and recuperate financially if faced with economic challenges by being able to find new employment or move to new occupations easily compared to those with less education (Picot et al. 2016). In the long-term, immigrants who are highly educated are able to gain upward economic mobility more smoothly (Picot et al. 2016). Thus, although the education possessed by immigrants does not immediately lead them to economic success after arrival, human capital remains as a critical pathway for their upward social mobility in the long run.

3.2.2 Social Capital: Bonding versus Bridging

Immigrants who receive unequal returns to their education may utilize other forms of capital for economic integration. The social ties immigrants form in their new host society can be helpful in establishing a sense of belongingness, improving well-being, and facilitating integration (Kazemipur 2006). Moreover, social connections are integral in immigrants' social capital, which is the accumulation of resources that are embedded in one's network (Bourdieu 1986). Social capital can be measured through network resources, which includes the range, "reachability", variety, and composition of resources, as well as contact resources, such as the wealth, power, and class their contacts possess (Lin 1999). The resources embedded in a network as well as the value of those resources determine how much social capital an individual has access to. Both formal and informal relationships are maintained by symbolic and material exchanges, which are strategies to invest in social relations that can potentially produce opportunities and resources (Bourdieu 1986). These social investments help people access resources embedded in their social networks, which they use to optimize their returns (Lin 2001). Returns to social ties include economic, political, and social capital (Lin 2001). Thus, social capital is instrumental in maintaining and reproducing social hierarchies. Social connections thus serve as a potential resource for the individuals in a given network.

There are two types of social ties, bonding and bridging ties, wherein both types of ties either draw in useful as well as damaging outcomes. Bonding social ties are ties based on

common characteristics such as ethnicity or culture (Neves 2015), while bridging ties are connections that form in more heterogenous networks (Putnam 2000). Much research has investigated the advantages and disadvantages of bonding and bridging ties, wherein one is often found to be more beneficial than the other. Bridging social ties connect people to different types of information and resources since having diverse contacts increases the likelihood of finding more and new resources that can be utilized (Lin 2001). Access to new information through bridging ties are resources that people would not be able to tap into if they constrained their contacts to one homogenous group (Warren 2008). Bridging ties can thus serve to broaden opportunities for immigrants who would otherwise not have access to them within their ethnic circle (Sanders et al. 2002). For instance, those who gain employment outside of the ethnic community become sources of information for other immigrants who desire to move out of the ethnic domain as well (Sanders et al. 2002). Thus, the farther an individual's connection reaches, both the quantity and the quality of their resources improve (Lin 2001).

On the other hand, social ties among people who are similar tend to draw in the same types of resources (Warren 2008). Moreover, social networks that are characterized by tight-knit personal connections can be exclusive and limit members' freedom (Babaei, Ahmad, and Gill 2012). The exclusionary and constraining nature of highly bonded groups can result to limited freedom, high social control, and high expectations in order to maintain group solidarity (Portes 1998). In closed homogenous groups, high social control and strong solidarity can actually be disadvantageous to some members, as it restricts them from accomplishing beyond what the community expects of them (Portes 1998). Lastly, in some instances, community solidarity may be founded on a collective hardship (Portes 1998). In turn, the possibility to overcome their group trials are perceived to be out of reach, which make individual accomplishments a threat to group solidarity (Portes 1998). However, bonding ties can also be positive as it can serve as a support network for those who have low resources and human capital (Babaei, Ahmad, and Gill 2012). Bonding ties can also serve as a starting point for immigrants to form bridging ties later on (Hawkins and Maurer 2010; Lancee 2012; Warren, Thompson, and Saegert 2001; Ryan et al 2008). Hence, the bonding and bridging ties framework allows researchers to study diversity in social networks and examine the different outcomes of the nature of social ties. However, the

benefits drawn from one's social network ultimately depend on the quality of resources embedded in the network (Bourdieu 1986; Huber 2008).

The bonding and bridging binary, where the former is perceived as negative and the latter as positive, can be problematic. The bonding versus bridging framework is too reductionistic especially in the context of inter and intra ethnic networks (Ryan 2011). Although differentiating between bonding and bridging ties serves as a helpful framework to understand how the diversity of social resources embedded in one's network can affect the individual's social and economic well-being, it may also obscure the part played by other structural factors such as class, education, and cultural capital. The social and economic advantages drawn from one's group depends on the quality of the resources possessed by the network (Bourdieu 1986; Kazemipur 2006). A large and diverse network that does not have good-quality resources or useful information would not be able to offer its members any help (Kazemipur 2006). Further, the social position of the individual play an important role since their access to social resources also depends on their reputation, class, and social status (Lin 1999). In turn, groups that hold better resources can benefit from a closed network (Bourdieu 1986).

Due to changes in immigration policy, more immigrants arriving since the early 2000s bring with them higher education and skills (Picot et al 2016), which also indicates the social status and the cultural capital they possess. According to the 2001 census, over 60% of visible minority immigrants aged 25 to 54 had at least a bachelor's degree (Morrissette and Galarneau 2004). As aforementioned, immigrants who are highly educated are likely to succeed in the labour market in the long-run and are able to overcome economic challenges more quickly (Picot et al. 2016). Those who possess higher education will also have better access to information about the mainstream society, and in turn be able to adapt and integrate smoothly (Fong 2002). Table 3.1 shows the proportion of immigrants in the sample taken from the Longitudinal Survey of Immigrants to Canada (LSIC) who have a bachelor's degree or above.

Table 3.1. Immigrants in each group who possess at least bachelor's degree, N=30,000

Groups	%
Chinese	83%

South Asian	73%
Black	60%
Filipino	74%
Latin American	90%
Arab/West Asian	73%
Koreans/other minorities	71%
White	77%

Source: Longitudinal Survey of Immigrants to Canada (LSIC) linked to the Longitudinal Immigration Database (IMDB)

A large majority of immigrants in each group within the sample of the analysis possess a bachelor's degree or higher. In turn, they likely occupy a position that places them at a social and economic advantage. Education is an institutionalized form of cultural capital, wherein those with high levels of education also have high cultural resources (Bourdieu 1985), which is useful in social and economic integration. Additionally, individuals are in closer social distance with people of the same social status as them (Bourdieu 1985), and in turn immigrants who are more educated and come from a higher social status in their country are likely to be connected to people of the same status. Although many educated immigrants are not likely to see equal economic returns to their education immediately after arrival and may be working low-skilled jobs along with their counterparts, those with higher education eventually see increasing economic gains in the long-term (Picot et al 2016). Hence, immigrants who are bonding within their group may face economic disadvantages in the first few years after arrival since they and their counterparts are not yet yielding high income. However, since a high proportion of immigrants in each group is shown to possess high levels of human capital, they and many members in their group are expected to fare well in the labour market. Thus, bonding ties within immigrant groups are not likely to have a large impact on their income trajectories, and in turn bonders and non-bonders are not likely to have a wide income gap. In addition, as time goes on after landing, any negative effect of bonding ties would be expected to diminish as immigrants and their counterparts will likely do better in the economy, and in turn they become better-quality connections for each other.

3.2.3 Ethnic Economies

Many immigrants make social ties with co-ethnics as well as participate in the ethnic economy. An ethnic economy refers to any circumstance where ethnic ties become an advantage whether it be between workers and owners, among owners, or among workers in the same industry or business (Roth, Seidel, Ma and Lo 2012; Logan, Alba, and McNulty 1994). As well, an ethnic economy can be defined as any business where there are patterns and interactions between individuals of the same ethnicity (Waldinger, Aldrich, and Ward 1990). Members of the same ethnic and cultural background who make ties develop ethnic economies, where immigrant or ethnic groups form businesses within a private sector of the labour market (Light and Gold 2000) and where immigrants work with co-ethnic members who are either their employees or employers (Hou 2009). The formation of businesses within ethnic communities is especially prevalent in large metropolitan areas in Canada where there is much diversity (Teixeira 2001).

Immigrants who work in ethnic economies often have lower levels of education and language proficiency (Hou 2009). Many immigrants are able to find job opportunities within their ethnic community, since immigrants are more likely to interact with those who are of the same ethnic or cultural background as them (Hou 2006), especially in larger areas that are more urbanized and diverse (Hou 2009). In turn, ethnic economies have formed over time due to the increasing number of immigrants who arrive in Canada each year. Many immigrants find employment within their ethnic enclave, which serves as an alternative to economic integration for immigrants and even as an economic advancement (Fong and Lee 2007; Logan, et al. 2003; Portes and Jensen 1989; Zhou 2004). Moreover, solidarity within ethnic economies may be the result of economic struggles (Barret et al. 1996). Thus, economies that develop due to common ethnic or cultural background has allowed immigrants with lower resources to gain some economic mobility (Pécoud 2010). Here, immigrants are able to mobilize their ethnic resources such as shared values, knowledge, information, leadership, and loyalty (Light and Bonacich 1988). In addition, solidarity within the ethnic group is used by entrepreneurs to set up businesses similar to those in core monopolistic firms (Portes and Wilson 1980). Thus, ethnic enclaves provide employers with workers who have good work ethic and loyalty (Portes and Wilson 1980).

Working within an ethnic economy both have advantages and disadvantages that need to be examined further in order to understand its long-term impact. For instance, immigrants who participate in ethnic economies can get informal training or apprenticeship, have their credentials recognized by an employer, and work more productively due to shared language with co-workers, which increases productivity (Galster et al. 1999). Ethnic enclaves also foster entrepreneurship and help businesses grow due to group loyalty and expectations (Hum 2001). However, much research also argues that immigrants can become trapped within the ethnic enclave instead of integrating into the mainstream labour market (Massey 1995). Immigrants who are working in an ethnic enclave are likely working in poor conditions and earning low income (Reitz 1990; Sanders and Nee 1987). Also, immigrants participating in the ethnic economy may become constrained within the enclave as they lose the incentive to learn the host country's language and seek employment in the mainstream labour market (Fong and Ooka 1999, Hou 2009). Additionally, immigrants who remain in the ethnic economy may become reliant on ethnic ties and less likely to diversify their connections, which contributes to the segmented trajectory of adaptation"(Nee and Sanders 2001). Segmented trajectory of adaptation occurs when those who depend on ethnic ties for economic integration become more distant from the mainstream labour market and those who invest in human capital have higher chances of integrating into it (Roth et al. 2012). Immigrants who do obtain jobs in the mainstream economy are likely to move upwards even if they start off from the lower segments of the labour market (Bean, Leach, and Lowell 2004). Although participation in the ethnic economy may be beneficial during the initial period after arrival through job training and credential recognition, the ethnic economy can also deter immigrants from fully integrating into the mainstream economy, whereas immigrants who find employment in the mainstream have better chances succeeding economically. Hence, working in an ethnic economy is damaging to immigrants' income especially if they remain there in the long-term.

3.3 Hypotheses

The research project will investigate three paths immigrants take in order to move towards labour market integration: education, bonding social ties, and participation in an ethnic

economy. Bonding social ties and working in an ethnic economy are not confounded in the paper in order to uncover the effects of social networks with co-ethnic members and employment in an ethnic enclave separately. Further, the duration of engaging in bonding ties as well as working in an ethnic economy and their impact on income will be tested. Hence, the following research hypotheses will be addressed:

1. Higher human capital is positively linked to income in the long-term.
2. Bonding social ties among immigrants negatively affect immigrants' income.
3. However, the longer immigrants engage in bonding ties, the negative impact on their income diminishes over time
4. Working in the ethnic economy is a disadvantage to income earned for immigrants in the long-term.
5. The longer immigrants work in an ethnic economy, the more detrimental it is for their economic outcomes.

3.4 Data and Measurement

3.4.1 Data

The data are taken from the Longitudinal Survey of Immigrants to Canada (LSIC) linked to the Longitudinal Immigration Database (IMDB). The LSIC is an immigration panel study that ran in three waves from 2001 to 2005, 6 months after arrival, two years after arrival, and four years after arrival. Those who landed and applied in Canada are not included in the survey. The LSIC not only provides information on immigrants' demographic, employment, and education background, but also on their social networks. Hence, The LSIC is the most suitable data to address the effects of not only education and participation in an ethnic economy, but also of social ties on income. Additionally, the IMDB is utilized in order to investigate the long-term economic outcomes as it includes immigrants' tax file information from the years 1984 to 2015. Immigrants' employment income taken from the years 2001 to 2015 combined with the LSIC provides the most

adequate information necessary to test the hypotheses of the research project. Thus, the LSIC-IMDB file offers the necessary information to capture the effects of education, social networks, and participation in the ethnic economy on immigrants' income trajectory.

3.4.2 Analytic Sample

The analytic sample is restricted to those who are of prime working age and who have accumulated enough human capital to pursue economic success. In turn, landed immigrants and refugees aged 25 to 64 years old who received income between 2001 to 2015 are examined in the analysis. Since the research questions of the project investigate the impact of bonding social ties and working in an ethnic economy, only those living in Toronto, Montreal, and Vancouver, the three largest census metropolitan areas' where there is increasing diversity, are considered in the analysis (Statistics Canada 2013). Additionally, since the analysis examines the effect of social ties, those who did not have family at arrival and those who did not make any new friends were dropped from the sample. Finally, those who were missing or whose income was less than or equal to zero were dropped from the sample since the analysis examines income of immigrants, which accounts for the high rate of attrition. The final analytical sample is 30,000 respondents.

3.4.3 Outcome Variable

The main outcome variable used is the log of employment income taken from the IMDB tax files in order to make the income distribution normalized. The employment income includes any income received from employment or self-employment. The main outcome is a continuous variable and has been adjusted for inflation set to the dollar value in year 2015.

3.4.4 Independent Variables

The *human capital variable* is captured through education and is a dummy variable where one equals highest level of education obtained is a bachelor's degree or above and zero equals highest level of schooling obtained is below a bachelor's degree. In order to test the

effect of the level of education immigrants bring to Canada upon arrival, the human capital variable includes schooling obtained in their country of origin.

Bonding social ties is another main predictor in the analysis. A dummy variable for bonding is created wherein one equals they made new friends where all of them or most of them are from the same ethnic or cultural group. And zero equals among their new friends, half, few, or none are from the same ethnic or cultural group, or they did not make new friends since arrival.

In order to measure whether or not an immigrant is *working in an ethnic economy*, a dummy variable is used where one equals most or all of their co-workers, employees, or clients are of the same ethnic or cultural group and zero equals some or none of their co-workers, employees, or clients are of the same ethnic or cultural group.

Time varying control variables are included in the analysis such as age, age-squared, marital status, number of dependent children, CMA, language proficiency, industrial sector, and obtainment of further training. Both age as well as age-squared are continuous variables. Marital status is also included where dummy variables are created for married, common law, widowed or separated, divorced, and single. Single is the reference category for each wave. The number of dependent children is included as a continuous variable. Additionally, the census metropolitan area (CMA) is considered in order to capture the differences in education levels, labour market structure, and ethnic diversity in each CMA. Toronto, Montreal, and Vancouver are the dummy variables included where Toronto is the reference.

Language proficiency for either English or French has been found to be impactful on immigrants' economic integration and has also been previously used to measure human capital (Adamuti-Trache 2013). A dummy variable for speaking English proficiently is employed where one equals either their language most spoken at home or mother tongue is English, or they consider themselves to speak English fairly well, well, or very well. Zero equals language most spoken at home or mother tongue is not English or they speak English poorly or cannot speak it at all. Similarly, a dummy variable for speaking French proficiently is included where one equals either their language most spoken at home or

mother tongue is French, or they consider themselves to speak French fairly well, well, or very well. Zero equals language most spoken at home or mother tongue is not French, or they speak French poorly or cannot speak it at all. Lastly, another time-varying factor is the obtainment of further training or education in Canada. Two dummy variables capture whether or not they received further education since wave one and since wave two.

Industry is included in the analysis in order to take into account the effects of working in the different sectors in the labour market. Dummy variables are employed for each sector namely agriculture, forestry, fishing, and hunting, mining, utilities, construction, manufacturing, wholesale trade, retail trade, and transportation and warehousing. The industry variable also includes information, real estate, rental, and leasing, and professional, scientific, and technical services. Several different service sectors are also considered in the analysis such as management, administrative support, waste management, and remediation, educational services, art, entertainment, and recreation, accommodation and food, other services, and public administration. Health care and social services is the reference category.

Additionally, control variables that are not time varying are employed in the analysis as well. Immigration categories such as family class, provincial nominees or skilled workers, business immigrants, refugees, and other immigrants or refugees are included where provincial nominee or skilled worker is the reference. Gender is also included as a dummy variable, wherein one equals female and zero equals male. Visible minority groups are used to control for differences between different groups in the sample. Dummy variables are employed for Chinese, South Asian, black, Filipino, Latin American, Arab or West Asian, Korean or other visible minorities, and white groups. The Chinese group is used as the reference category.

3.4.5 Methods

Since the outcome variable is continuous, an Ordinary Least Squares Regression (OLS) model is employed in order to examine the effects of human capital, bonding social ties, and participation in an ethnic economy on income. Next, the predicted mean income of each year is produced while holding all other variables at their mean, with the exception of

the main predictor. In turn, the mean predicted income is produced from 2001 to 2015 for those who have a bachelor's degree or higher versus those who do not, for those who are engaging in bonding social ties versus those who are not, and for those who are working in an ethnic economy versus those who are not. In order to determine whether the effect on income varies the longer people engage in bonding ties and work in an ethnic economy, interaction effects of bonding ties and years since landing as well as ethnic economy participation and years since landing are included in the second model. Additionally, the mean predicted income for the interaction effects are produced in order to track the economic trajectory of bonding and duration as well as ethnic economy participation and duration. The following models are produced for each year from 2001 to 2015:

$$Y_i = \alpha+\beta_1 education_i+\beta_2 bondingties_i+\beta_3 ethniceconomy+e_i ,$$

$$Y_i=\alpha+\beta_1 education_i+\beta_2 bondingties_i+\beta_3 ethniceconomy+\beta_4 bondingties*year+\beta_5 ethnicecono my*year+e_i$$

Where Y_i , the outcome, is the natural log of employment income of each individual, i, in the sample. The intercept is represented by α and the β coefficients are the estimated coefficients of each regression model. Finally, control variables are included in the model represented by e_i.

3.5 Results

3.5.1 Sample Distribution

The sample distribution of time-varying control variables is found in Table 3.2, and the sample distribution across fixed variables are displayed in Table 3.3. Due to confidentiality issues in releasing smaller proportions, the exact proportion of immigrants cannot be released and in turn proportions that are below 1% are indicated by 0% in the table.

Table 3.2. Sample distribution across time-varying control variables

Characteristics	%	Characteristics	%
Bonding ties		**NAIC**	
Yes =1	51%	Agriculture=1	0%

Ethnic economy		Mining=1	0%
Yes =1	25%	Utilities=1	1%
English proficiency		Construction=1	3%
Yes =1	8%	Manufacturing=1	25%
French proficiency		Wholesale Trade=1	7%
Yes =1	2%	Retail Trade=1	6%
CMA		Transportation and Warehousing=1	3%
Toronto (ref)	73%	Information=1	4%
Montreal=1	11%	Finance=1	7%
Vancouver=1	16%	Real Estate Rental and Leasing=1	1%
Further Education (wave 2)		Professional, Scientific, and Technical=1	12%
Yes =1	31%	Management=1	1%
Further Education (wave 3)		Administrative Support=1	8%
Yes=1	28%	Educational Services=1	6%
Means		Health Care and Social Assistance (ref)	6%
Age	41.68	Arts, Entertainment, and Recreation=1	0%
Age squared	1799	Accommodation and Food Services=1	3%
Number of kids	1.34	Other Services=1	2%
		Public Administration=1	4%
		Marital status	
		Single (ref)	6%
		Common law=1	2%
		Widowed/Separated=1	2%
		Divorced=1	1%
		Married=1	89%

Source: Longitudinal Survey of Immigrants to Canada (LSIC) and the Longitudinal Immigration Database (IMDB)

A little over half of the sample, 51%, are engaging in bonding social ties, while 49% are not. In addition, most immigrants in the sample, about 88%, do not work in an ethnic economy. A majority of immigrants are not found to be proficient in either official language where over 90% of immigrants do not consider themselves to be English or French proficient. Additionally, most immigrants in the sample, approximately 73%, reside in Toronto. Meanwhile, only about 11% of the sample reside in Montreal and similarly only 16% live in Vancouver. The proportion of immigrants who attained further education are displayed in the table. Approximately 30% of the sample pursued further education

since wave one and since wave two. Also, the mean age is shown wherein the average age is 41.68 years old and the mean age-squared is 1799 years old. The average number of dependent children is 1.34.

A large proportion of the sample, about 25%, work in manufacturing as well as in professional, scientific, and technical services at about 12%. Within the administration, educational services, healthcare and social assistance, and wholesale trade, approximately 10% of the sample work in each of these sectors. The sectors where there are the least immigrants are in agriculture, mining, utilities, and real estate. Lastly, most people in the sample are married.

Table 3.3. Sample distribution of across fixed variables

Characteristics	**%**
Education	
BA or above=1	76%
Visible minority groups	
Chinese (ref)	19%
South Asians=1	34%
Blacks=1	4%
Filipinos=1	13%
Latin Americans=1	3%
Arabs/West Asians=1	5%
Koreans/other minorities=1	3%
White=1	20%
Gender	
Male=0	66%
Female=1	34%
Immigration status	
Skilled Worker or Nominee (ref)	85%
Family=1	12%
Business=1	2%
Refugee=1	1%
Other=1	1%

Source: Longitudinal Survey of Immigrants to Canada (LSIC) and the Longitudinal Immigration Database (IMDB)

Table 3.3 shows the sample distribution across fixed variables. As seen in past literature, a majority of the sample, about 76%, arrived in Canada with a bachelor's degree or above. Around 70% of the sample are male. Further, a large majority of the sample are either a skilled worker or a provincial nominee. Additionally, the proportion of visible minority groups is displayed where about 19% of the sample are Chinese, 34% are South Asians, 13% are Filipinos, and 20% are white. Those who identified as black, West Asian or Arab, Latin American, and Korean or other minority groups make up small proportions of the sample.

3.5.2 Mean Income

The mean income for each year between those who obtained a bachelor's degree or above before arrival in Canada and those who did not are displayed in Figure 3.1.

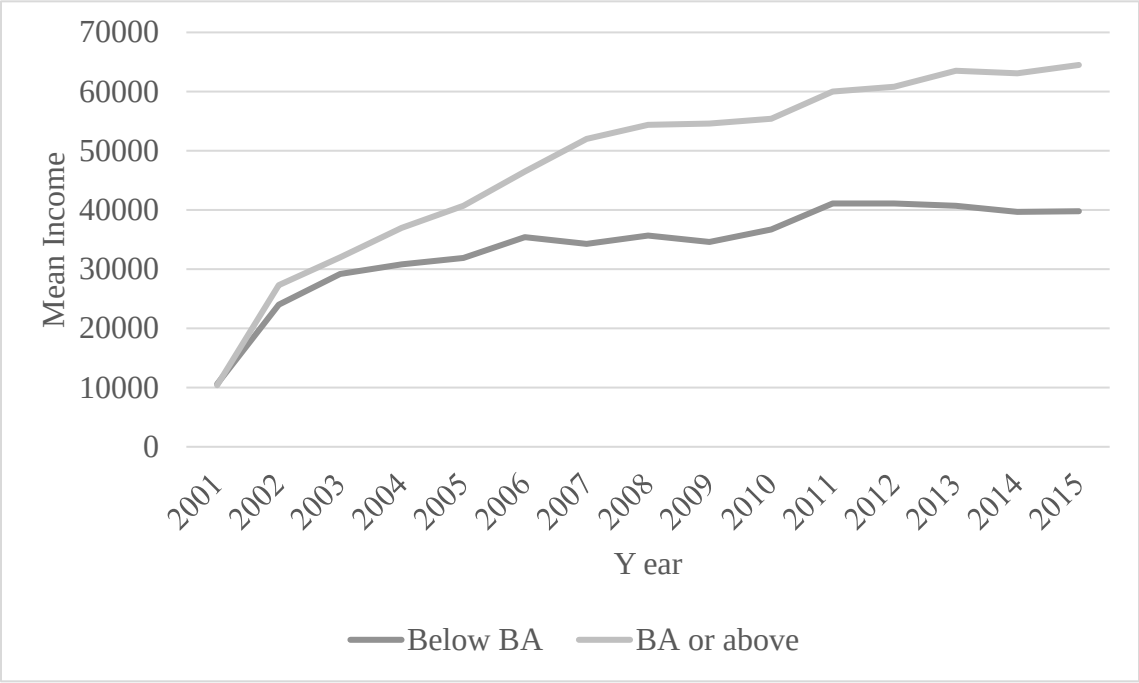


Figure 3.1. Mean income of those who have a bachelor's degree or above and those who do not

Source: Longitudinal Survey of Immigrants to Canada (LSIC) linked to the Longitudinal Immigration Database (IMDB)

In 2001, within the first year after arrival, immigrants start off with lower levels of income and the gap between those with at least a bachelor's degree and those who do not gradually widen each year. After 2005 the disparity grows to about an $11,000 difference in mean income between those who have a bachelor's degree or above and those who do not. The income inequality between the two groups continue to grow wherein there is almost a $25,00 difference in mean income by 2015 between those who have at least a bachelor's degree and those who do not.

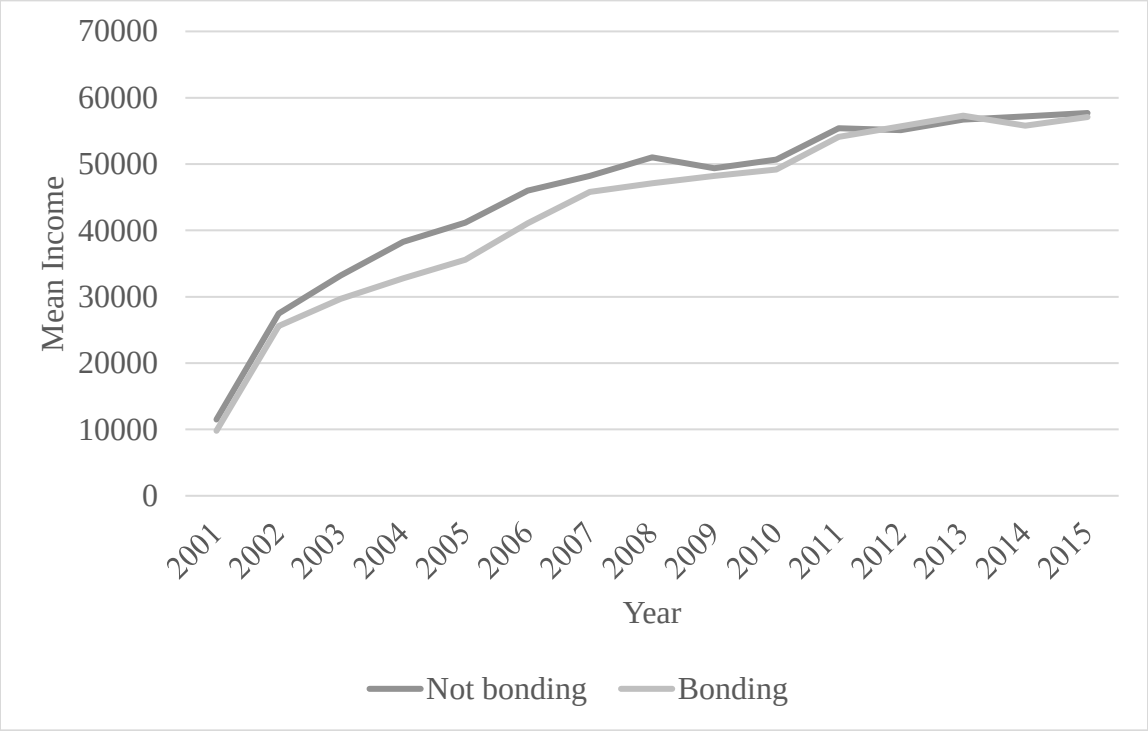


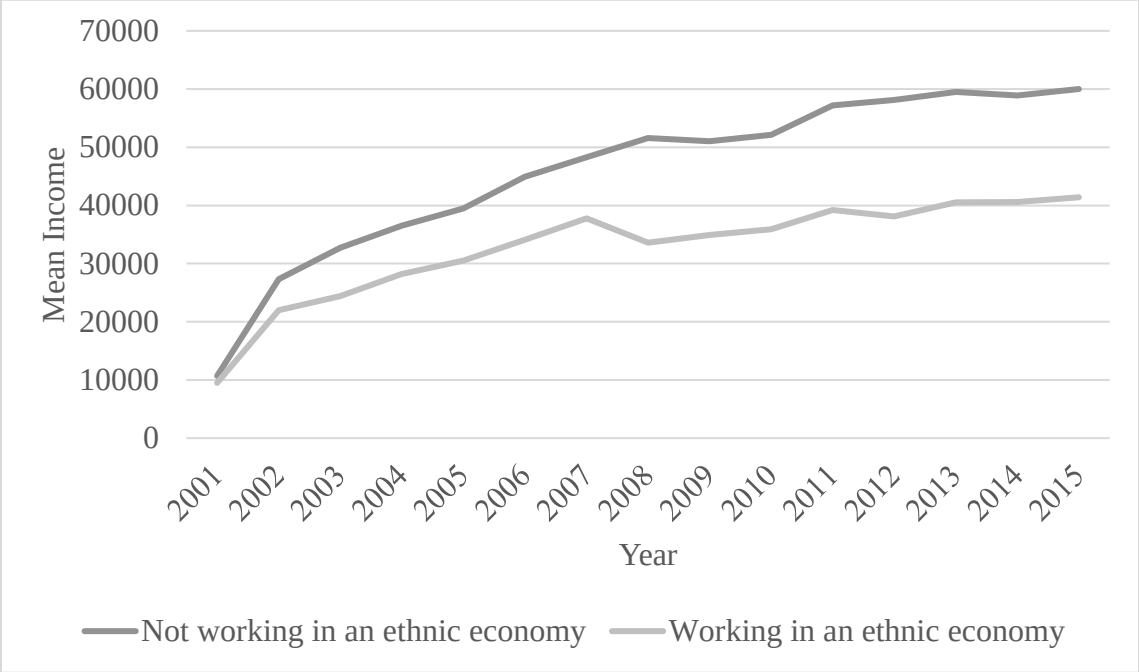
Figure 3.2. Mean income of those bonding versus those bridging

Source: Longitudinal Survey of Immigrants to Canada (LSIC) linked to the Longitudinal Immigration Database (IMDB)

Figure 3.2 shows the mean income for the years 2001 to 2015 of those bonding versus those who are not. In most years, those who are not bonding on average earn more income. The income difference between the groups increase slightly from 2004 to 2008 but the gap declines after 2009. The disparity all throughout the years between those who are bonding

and those who are not is quite small, and those who are bonding in the years 2012 and 2013 are found to earn on average about $600 more than those who are not.

Figure 3.3. Mean income of those working in an ethnic economy and those who are not each year



Source: Longitudinal Survey of Immigrants to Canada (LSIC) linked to the Longitudinal Immigration Database (IMDB)

Finally, the mean income for those working in an ethnic economy and those who are not are shown in Figure 3.3. The income difference between those working in an ethnic economy versus those who are not in the first year is at about $1,200. The income gap widens each year wherein those who are not working in an ethnic economy on average earn over $18,000 more than those who do.

3.5.3 OLS and Predicted Mean Income

An Ordinary Least Squared Regression analysis is employed in order to track the income trajectory of immigrants and to test the aforementioned hypotheses regarding the impact of education, bonding ties, and participation in an ethnic economy.

Table 3.4 Logistic regression predicting income, N=30,000

	(Model 1)			(Model 2)		
Variables	**β**		**S.E.**	**β**		**S.E.**
Education						
Below BA	Ref.			Ref.		
BA or above	0.133	***	0.006	0.133	***	0.006
Bonding						
Not bonding	Ref.			Ref.		
Bonding	-0.06	***	0.003	-0.119	***	0.003
Ethnic Economy						
Not working in ethnic economy	Ref.			Ref.		
Working in ethnic economy	-0.134	***	0.004	-0.107	***	0.005
Years since landing	0.076	***	0.000	0.072	***	0.000
Bonding*Years since landing				0.01	***	0
Ethnic Economy*Years since landing				-0.005	***	0.001
Intercept	7.506	***	0.029	7.562	***	0.029

Notes: Control variables are included, *p<0.05, **p<0.01, ***p<0.001

Source: Longitudinal Survey of Immigrants to Canada (LSIC) linked to the Longitudinal Immigration Database (IMDB)

The first model shown in Table 3.4 supports the first hypothesis, which states that those who possessed at least bachelor's degree will yield higher income. In addition, the second hypothesis finds support in the analysis since those who are engaging in bonding ties are found to be at an economic disadvantage compared to those who are not forming bonding social ties. Moreover, working in an ethnic economy is found to be detrimental to their income. Interaction terms between bonding ties and years since landing as well as working in an ethnic economy and years since landing is also displayed in Table 3.4. Although forming bonding social ties is found to be damaging to income, the negative effect of bonding ties declines the longer people engage in this type of tie. However, the negative impact of working in an ethnic economy on income is found to exacerbate in time. The predicted mean income of the main predictor variables and interaction terms are produced for the years 2001 to 2015 in order to illustrate the consequences of human capital, social ties, and working in an ethnic economy.

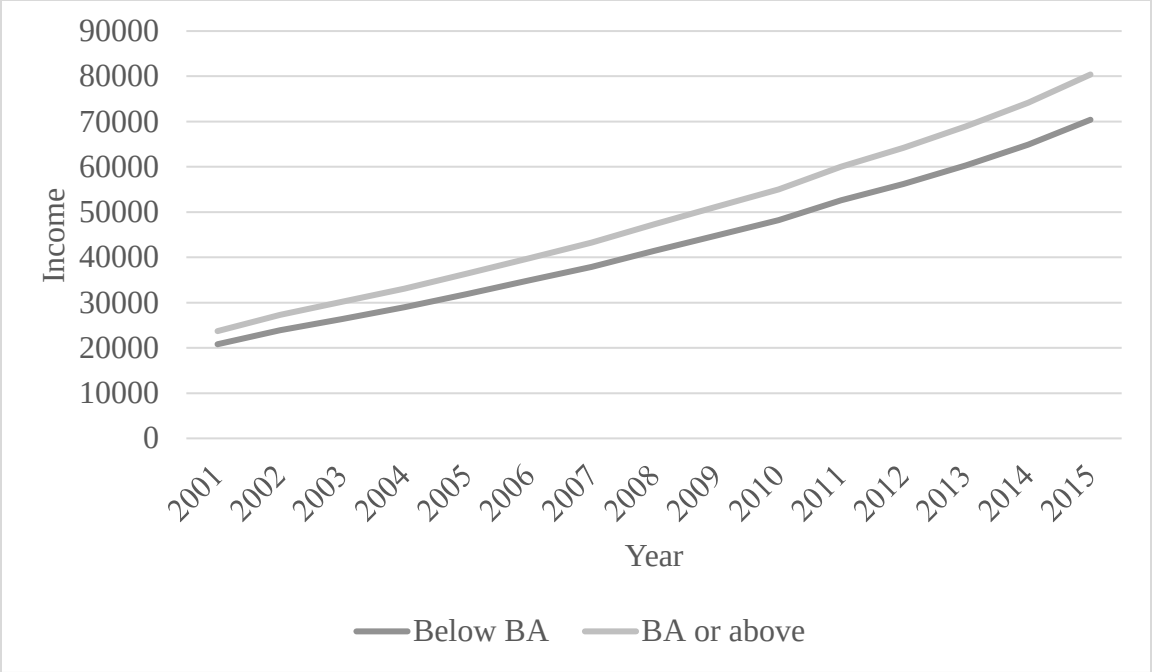


Figure 3.4. Predicted mean income of those with a BA or above and those with below a BA

Source: Longitudinal Survey of Immigrants to Canada (LSIC) linked to the Longitudinal Immigration Database (IMDB)

The predicted mean income of those who possess a bachelor's degree or higher and those who do not is displayed in Figure 3.4. An income disparity between those who have at least a bachelor's degree widens each year. The income gap is only at about $3000 within the first two years after arrival and rises to $10,000 by 2015. Thus, those who arrive with at least a bachelor's degree yield higher income each year after arriving in Canada.

Bonding social ties is found to be disadvantageous to immigrants' income by only about 0.06 logged income, and in turn there are no large income differences between bonders and non-bonders. The predicted mean income of those who are engaging in bonding social ties and those who are not are shown in Figure 3.5.

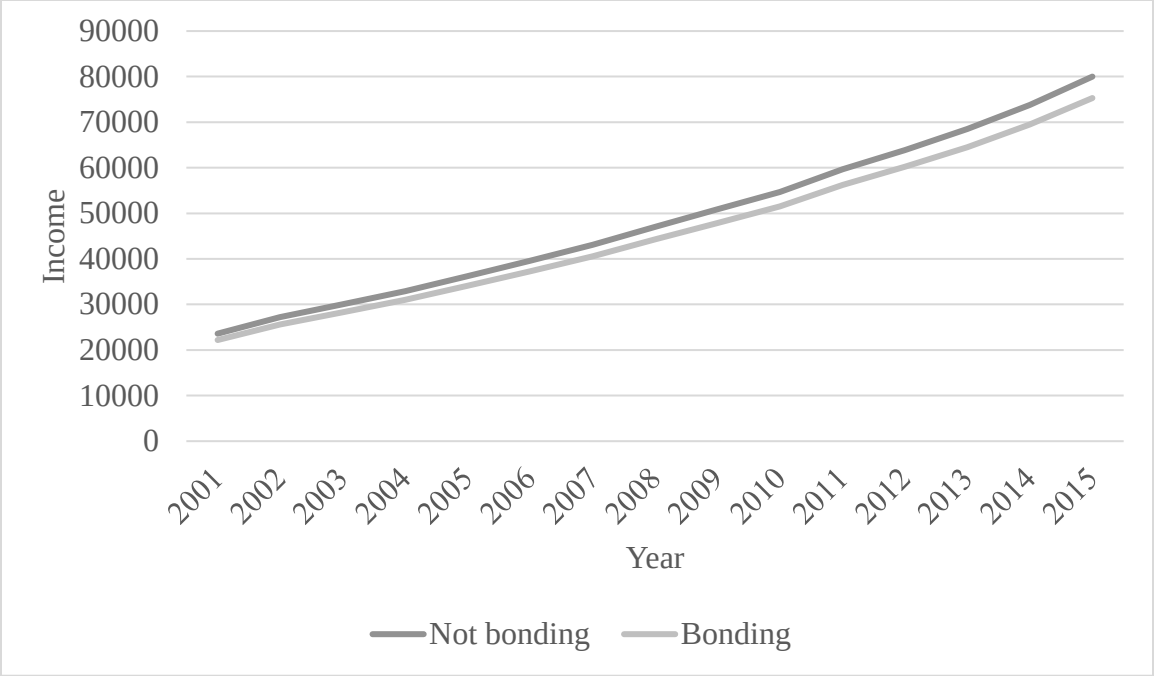


Figure 3.5. Predicted mean income of those bonding versus those who are bridging

Source: Longitudinal Survey of Immigrants to Canada (LSIC) linked to the Longitudinal Immigration Database (IMDB)

Immigrants who are not bonding are earning more income each year than those who are bonding. The income disparity between the two groups remain below $2,000 from 2001 to 2004 and increases slightly up to $4,700 in 2015. The income gap between the two groups remain quite small all throughout 2001 to 2015.Thus, engaging in bonding social ties serve only as a small detriment to immigrants' economic integration.

Lastly, the regression results verify the third hypothesis, which states that participation in an ethnic economy has a negative impact on the economic trajectory of immigrants. The predicted mean income of those working in an ethnic economy and those who are not during each year from 2001 to 2015 are shown in Figure 3.6.

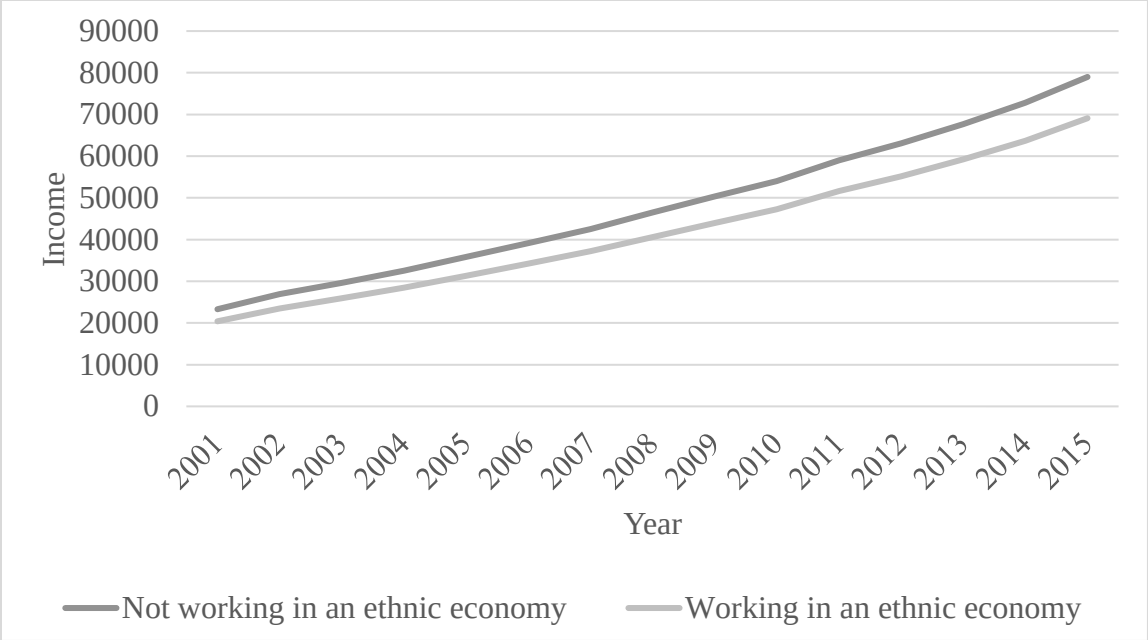


Figure 3.6. Predicted mean income of those working in an ethnic economy and those who are not

Source: Longitudinal Survey of Immigrants to Canada (LSIC) linked to the Longitudinal Immigration Database (IMDB)

The predicted mean income of those working in an ethnic economy versus those who are not show that there is widening economic inequality between them. Within the first few years after arrival, the income gap between immigrants working in an ethnic economy versus those who are not is between $2,000 to $4,000. The disparity rises steadily wherein those who are not working in an ethnic economy are earning more than those who are by $9,000 in 2014 and 2015.

Further, interaction terms are included in the analysis in order to examine the varying effects of bonding ties by years since landing as well as working in an ethnic economy by years since landing. Figure 3.7 shows the predicted mean income trajectory of immigrants the longer they engage in bonding ties.

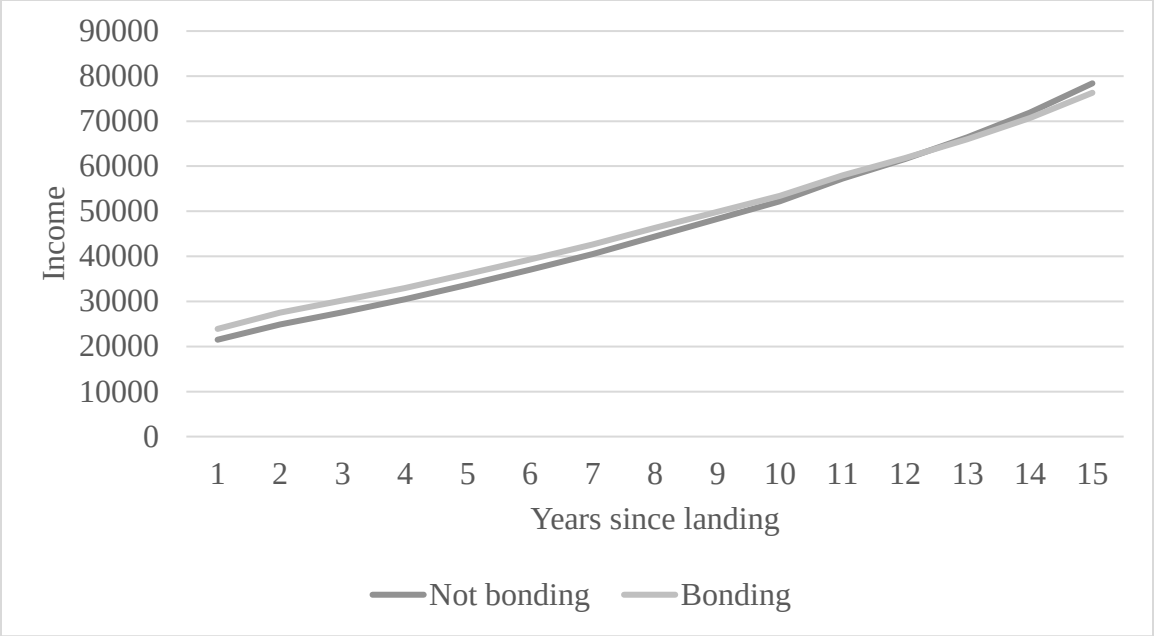


Figure 3.7 Predicted mean income of those non-bonders and bonders by years since landing

Source: Longitudinal Survey of Immigrants to Canada (LSIC) linked to the Longitudinal Immigration Database (IMDB)

Income is not greatly affected by bonding ties when taking into account the duration immigrants' engage in bonding social ties. The longer people participate in bonding ties, the higher their income rises since landing. The predicted income of those who are bonding increases the longer they bond within seven years since landing and the income trajectories of bonders and non-bonders follow closely each year. However, those who have been bonding beyond seven years since landing see a slight income penalty by about $2,100 fifteen years since landing.

On the other hand, the longer immigrants remain in the ethnic economy, the wider the income gap between those who work in the ethnic economy and those who do not. Figure 3.8 shows the income trajectory of immigrants the longer they remain working in an ethnic economy.

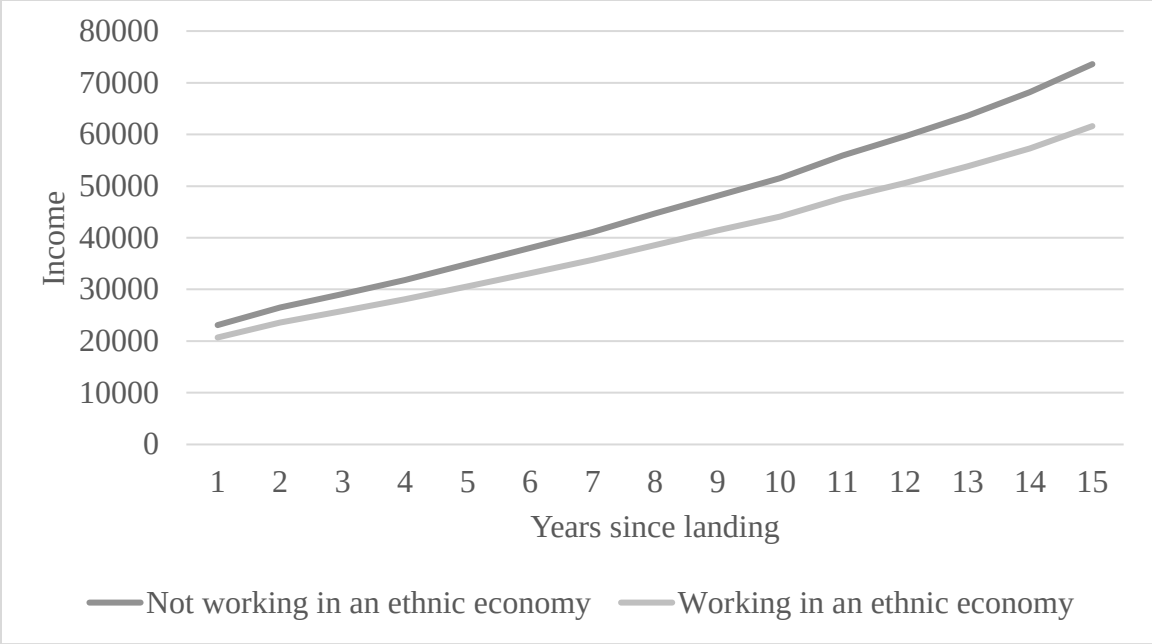


Figure 3.8 Predicted mean income of those working in an ethnic economy and those who are not

Source: Longitudinal Survey of Immigrants to Canada (LSIC) linked to the Longitudinal Immigration Database (IMDB)

The longer immigrants work in an ethnic economy, the less income they earn compared to those who are not working in an ethnic economy. Although the income disparity is quite small after a few years since landing, the inequality between the two groups increases gradually the longer immigrants work in an ethnic economy after five years since landing. After participating in an ethnic economy for fifteen years since arrival, these immigrants earn less than those who do not work in the ethnic economy by $12,000.

3.6 Limitations

Although the LSIC-IMDB are a large dataset, the project uses a small analytic sample due to high attrition rates. Attrition in the project is largely attributed to the dropping of people who did not earn positive employment income in any of the years from 2001 to 2015. In turn, the project is not able to examine how unemployed immigrants during this period are influenced by human and social capital factors considered in the analysis. Although the

research questions focus on individuals who are active in the labour market, future research can investigate how some of the main predictors discussed affect immigrants who experience unemployment and underemployment in Canada. Another limitation is that the project considers only those living in large CMAs namely Toronto, Montreal, and Vancouver. In consequence, smaller CMAs where ethnic communities have formed are not included in the analysis. However, since the project is testing the impact of the diversity or lack thereof of social networks as well as participation in the ethnic economy, the exclusion of smaller and less diverse cities is necessary.

Further, although the project was able to capture bonding social ties by measuring the proportion of their new friends who are of the same ethnic or cultural background, the data does not provide any more information on the other characteristics of these social ties such as the size and nature of their network. Also, the range and ease of access to resources within their networks is not measured in the data, which puts a limitation in the social network analysis of the study.

Lastly, some limitation on the measurement of participation of an ethnic economy should be addressed. The variable measures the proportion of co-workers, employers, or clients who are of the same ethnic or cultural background as the respondent. However, there is no information on the specific business the respondents are working in, and thus the institutional context in which the businesses exist is not measured. Also, there is no data on whether it is located in an ethnic enclave or not. Other characteristics of the composition of the ethnic economy is not captured such as the variation of status, gender, class, and so on. The definition of an ethnic economy used in the analysis is purely descriptive and not analytical, wherein the variable is defined only by common ethnic background (Pécoud 2010). Thus, the shared ethnicity with coworkers, employers, and clients is the only measurement available in the data. Longitudinal data that provides more information on social networks and ethnic economies or qualitative research within ethnic communities can further question how ties to the ethnic enclave impact the economic integration of immigrants. More knowledge on the influence of social networks among co-ethnic members in the ethnic economy would broaden understanding of how ethnic ties operate and affect immigrant economic integration.

3.7 Discussion

Different pathways to labour market integration such as education, bonding social ties, and participation in an ethnic economy can either help immigrants reach economic success or further hinder their upward social mobility. The basic human capital model contends that investing in education will yield to higher income. Indeed, education has been one of the most highlighted routes for successful economic integration, which has shaped the points system set in place to target highly educated and skilled immigrants. In turn, more immigrants are arriving with university degrees. Additionally, there are numerous unmeasured characteristics, such as work ethic, drive, and ambition that may accompany high human capital that predict income but cannot be measured in the analysis. The income gap between those who have below a bachelor's degree and those who have at least a bachelor's degree start off quite small but widen increasingly each year. Indeed, many educated immigrants are found to take low-skilled jobs in the first few years after arrival before they could yield high economic returns (Picot et al. 2016). Education possessed upon arrival thus provides a steady advantage, as the economic trajectory of those with at least a bachelor's degree diverge greatly from their lesser educated counterparts.

Immigrants also turn to other routes towards economic success. Social ties are another avenue taken towards economic integration. Besides the social and moral support gained from social networks, immigrants can tap into their group's resources for job opportunities. The benefits reaped from social networks depend on the quality of these connections and the types of social ties they form. Immigrants arriving in Canada possess high levels of education, which indicates their higher levels of social status and possession of cultural resources. In consequence, bonding ties that occur among immigrant groups may not be necessarily disadvantageous to them. The immigrants in the sample who are engaging in bonding ties only get a small income penalty. Moreover, the longer they bond, the less detrimental it is for them economically. Thus, belonging in a social network made up of friends who are of the same ethnic or cultural background are not found to have any significant impact in immigrants' long-term economic outcomes. The quality of these bonding social networks warrants further investigation as this finding calls into question the significance of quality social ties and how one's ties may change and evolve over time.

Other positive effects of bonding ties such as moral support, emotional support, and sense of belongingness is worth examining.

Participation in the ethnic economy however are found to be detrimental to immigrants' income. The increasing diversity in large CMAs such as Toronto, Montreal, and Vancouver has allowed immigrants to interact with more co-ethnics and form ethnic communities. These ethnic communities in turn develop businesses dominated by members of their own group. Immigrants in the sample who are not working in an ethnic economy are at an advantage long after arrival. There are significant income differences wherein those participating in an ethnic economy are earning less relative to those who are working in the mainstream labour market long after arriving in Canada. Ethnic economies may help immigrants obtain a job quickly and gain Canadian work experience immediately after arrival but the longer immigrants remain within the ethnic economy, the more disadvantaged their position in the labour market. Thus, more opportunities for economic success, especially among educated immigrants, are found within the mainstream labour market, whereas remaining within the ethnic economy can indeed possibly trap them and prevent them from fully realizing their human capital.

3.8 Conclusion

The successful labour market integration of immigrants necessitates realistic paths for them to take towards upward economic mobility. The human capital model, as embedded in the points system, certainly facilitates economic success. However, the issue of immigrants' high education not taking into effect immediately after arrival calls into question the impact of social capital. The benefits reaped from one's social network depend on the quality of those connections (Bourdieu 1986). Both bonding social ties as well as working in an ethnic community are included in the analysis in order to differentiate the impact of friends who are co-ethnic members and working alongside co-ethnic members. Indeed, being friends with those who are of the same ethnic or cultural background is not harmful. However, remaining in the ethnic economy is found to deter upward economic mobility, especially if immigrants' were to stay there long after arrival.

Policies that target how to better recognize or further the human capital possessed by immigrants will indeed bolster their upward economic mobility. Immigrants' transition into the mainstream Canadian market will better ensure higher income in the long-term. Also, further research must investigate what factors contribute to lower earnings among immigrants who work in an ethnic economy. Existing systems of discrimination or barriers in the mainstream labour market may be pushing immigrants to this lower income trajectory in the ethnic economy. Moreover, social ties within immigrant groups must be fostered in order to cultivate not only a sense of belongingness but also quality network formation among immigrants who possess social and cultural resources that can be utilized by others. Immigrants with higher education and those who have found economic success will become useful contacts to those connected with them, which can help facilitate the transition of other less successful immigrants. Human capital can be transformed to economic capital, which contributes to the social capital accumulated within immigrants' network. The integration of immigrants into Canadian labour market is thus crucial in their overall integration in Canadian society. Ultimately, the increasing diversity and a strong sense of belongingness in one's community can boost not only economic competitiveness but can also uphold Canada's values of multiculturalism.

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Chapter 4

4 Conclusions

My thesis explored the social network formation and economic integration of immigrants. In particular, my study aimed to investigate what underlying mechanisms exist in immigrants' social network formation. In addition, the effects of immigrants' education, co-ethnic ties, and participation in the ethnic economy on their income is analyzed. The Longitudinal Survey of Immigrants to Canada (LSIC), the 2001 census, and the Longitudinal Immigration Database (IMDB) were used to investigate immigrants' social networks and economic outcomes, which shed light on the importance of cultural, human, and social capital. Two integrated articles addressed the research questions that inquired whether immigrants' ethnicity and institutionalized cultural capital play a role in their formation of social ties. As well, the economic outcomes of immigrants were explored by analyzing the impact of education, social ties, and ethnic economy participation.

4.1 Summary of Findings

The first paper, found in chapter two, investigated the likelihood to make bonding social ties by taking into account the effects of ethnic or population group identity as well as institutionalized cultural capital. Visible minority groups are more likely to make bonding social ties with co-ethnic members compared to the white population group two years after arrival. The variations in bonding social ties among groups show that some ethnic groups are more inclined to make connections with those who are similar in culture or ethnicity. Due to challenges faced after arrival in employment, discrimination, and credential recognition, ethnic minority groups turn to each other for support (Kazemipur 2006). Through their ethnic communities, immigrants are able to gain access to services that accommodate language and culture (Bloemraad 2005; Guo and Guo 2011; Jurkova 2014), as well as obtain jobs in the ethnic enclave (Light and Gold 2000). Many ethnic groups thus display 'institutional completeness' wherein immigrants' needs can be met by resources and services carried out within the ethnic community, which prevents them from seeking services in the mainstream society (Breton 1964:194).

The social distance between immigrants is a result of perceptions of differences (Park 1924). Social distance is the feeling of closeness to a group of people (Hall 1996) and is influenced by the level of diversity (Goldberg and Kirschenbaum 1989; McCallister and Moore 1991; Netting 1991; Odell et al. 2005). In turn, immigrants are able to identify with their group in relation to different groups (Jackson 2010). Some immigrant groups may thus be bonding based on common language and other identity traits especially when they experience language barriers and other social challenges after arrival**.** Moreover, power dynamics based on racial and ethnic lines, which perpetuate stereotypes that are internalized by people may be creating and strengthening in-group solidarity (Bonilla-Silva, Goar, and Emrick 2006). In turn, a closer social distance may be formed among some immigrant groups, especially among visible minority groups.

Cultural and human capital possessed by individuals shape their perceptions, lifestyles, and social relations, and in turn individuals are likely to make connections with those who are in close proximity to them in social status (Bourdieu 1985). Education is a key indicator of people's social position as people gain cultural capital through the educational institution (Bourdieu 1986). Moreover, cultural capital accumulated through institutions and materials inform individuals' worldviews, lifestyles, and beliefs, which forms their embodied cultural capital or habitus (Bourdieu 1986). In consequence, people who possess the same level of human and cultural capital are more likely to interact with each other and form ties. Indeed, I found that those with the same or lower social position than their ethnic group are likely to bond with co-ethnic members compared to those who are in higher social position than their group two years after they have arrived Canada. The finding also suggests that those who have higher levels of human and cultural capital are likely to make more diverse ties and be able to integrate in groups outside of their own ethnic group. However, immigrants' social position relative to their group was not found to be significantly impactful four years after arrival. Thus, the cultural and human capital brought by immigrants from their country of origin holds some significance shortly after arrival but loses its influence over time. The cultural resources immigrants bring with them from their country of origin are either deemed fit or unfit in their new society (Erel 2010). In turn, immigrants take part in a renegotiation and conversion of their cultural capital to fit in with the national capital (Hage 1998). Migrants assess the value of their cultural

resources through institutions such as professional bodies or schools, and through people (Erel 2010). Although immigrants can accumulate cultural capital valued in their country of origin (Bauder 2003), often times immigrants' cultural resources are undervalued in the new society (Kelly and Lusis, 2006). Cultural capital is gained, accumulated, and reshaped (Bourdieu 1986), which suggests that immigrants reform their cultural capital after living in their new society. The cultural capital that perhaps held more importance in their country of origin loses impact since the distribution of people in the social space in Canadian society may be dictated by other indicators of cultural capital.

The third chapter extended the analysis undertaken by the second chapter of the thesis project, which analyzes several factors that determine immigrants' income using the Longitudinal Survey of Immigrants in Canada linked to the Longitudinal Immigration Database. The three pathways to labour market integration examined are education, ties with co-ethnics, and ethnic economy participation. The paper further investigates the long-term economic outcomes of each path to labour market integration. Consistent with past literature, education is not found to have any significance on immigrants' income in the first few years after arrival. However, immigrants who obtained high levels of education in their country of origin see higher income in the long term compared to those who do not. In both integrated articles, education is shown to be critical as a form of cultural capital as well as a form of human capital to immigrants' social and economic integration. Education not only equips individuals with the cultural resources needed to make connections (Bourdieu 1986), but also with the knowledge and skills necessary to succeed in the labour market (Becker 1992). Thus, education is advantageous to immigrants in several dimensions namely in cultural capital, social ties, and economic outcomes.

In addition, the paper distinguishes between social ties with co-ethnic and ethnic economy participation in order not to confound being friends with co-ethnics and working with co-ethnic members. Forming friendships with those of similar ethnicity or culture is not found to be damaging to immigrants' income. Some economic disadvantage occurs but diminishes over the years. The high levels of education among immigrant groups may indicate that connections made among co-ethnics is of good quality. Benefits drawn from social ties depend on the quality of those ties (Bourdieu 1986), and in turn bonding social

ties with co-ethnic members may not be disadvantageous if members in their group possess high levels of human and cultural capital. Thus, forming social ties with people of the same ethnicity does not place immigrants at an economic risk.

On the other hand, working in an ethnic economy is detrimental to immigrants' labour market outcome, especially if they remain working in the ethnic economy years after landing. Immigrants may see some economic support in ethnic enclaves as their human capital from their country of origin is recognized there, whereas it is undervalued in the mainstream economy (Chiswick and Miller 2002). However, the paper finds that remaining in the ethnic economy hinders them from labour market success. The last finding suggests that obtaining employment within the ethnic economy deter immigrants' upward economic mobility. Indeed, some negative aspects of social capital may be found in ethnic economy participation wherein immigrants become constrained by downward social levelling norms or obligations to the group, which restrict freedom to find other opportunities in the mainstream labour market (Portes 1998). Other research has also shown that although ethnic ties in the labour market can be useful at first, having connections in the mainstream economy can better benefit new immigrants (Wiley 1967; Catanzarite and Aguilera 2002; Kansas, Chiswick, van der Lippe, and van Tubergen 2012).

The papers explored the underlying individual and socio-cultural factors that shape network formation among immigrants. In using cultural, social, and human capital frameworks, my research sheds some light on the linkages between social position, social ties, and economic outcomes. Cultural and human capital, which informs the social position of the individual relative to their group, plays a role in social tie formation. In turn, the networks immigrants create determine what kind of social capital is available to them. Additionally, their social and human capital provide different pathways to economic integration wherein higher education, a form of human and cultural capital, is advantageous in the long-term. Meanwhile, using ethnic ties in the economy risks immigrants to remain in a mobility trap. Thus, the interconnections between an individual's cultural capital, social capital, human capital, and economic capital reveal the complex and dynamic forces moving within the social structures that maintain and reproduce social inequality.

4.2 Contributions

The thesis contributes to the literature of migrant social network formation. In particular, the study contributes to the literature on bonding tie formation among immigrant groups. The thesis project looks at the connection between an immigrant's social position relative to their group and the types of ties they form. Social position is studied using the concepts of institutionalized cultural capital, or education, and embodied cultural capital, or habitus. Using cultural and human capital as the theoretical framework points to the reproduction of social status among immigrants as their social position plays a role in who they interact with in their new society. Much literature that looks at bonding and bridging ties primarily use the social capital framework, which examines the resources immigrants draw from their ethnic groups (Li 1997; Li 2004; Nakhaie and Kazemipur, 2013; Raza et al 2013). Additionally, the bonding versus bridging ties binary has been criticized as an overly simplistic framework especially with regard to migrant social ties (Ryan 2011). Past research has also mainly examined the economic outcomes that result from bonding and bridging ties, and seldom the social and cultural conditions surrounding migrant network formation (Marsden and Campbell 2012). Meanwhile, the present study looked at how immigrants' cultural capital formed in their country of origin and their position relative to their group influence the types of ties they make, which in turn shed light on how social status is maintained and reproduced in the social space. Individuals interact according to their social position relative to those around them, and in consequence social groups form based on status and cultural resources, which maintains existing systems of stratification.

Both papers use longitudinal data, which allows for the analysis to look at immigrants' social ties and economic outcomes over a length of time. Utilizing large data such as the LSIC and the IMDB that specifically target immigrants allow the study to capture a diverse set of immigrant groups. Further, since the study uses income information taken from the Longitudinal Immigration Database, the analysis was able to find long-term income trends among immigrants and how different factors affect their income trajectory over a fifteen-year period. Hence, the thesis also contributes to the literature on immigrants' economic outcomes. Moreover, the second paper examines the different pathways to immigrants' economic integration namely education, social ties with co-ethnic members, and

participation in an ethnic economy. The findings of the paper align with past literature wherein education is advantageous to immigrants (Picot 2004). As well, the paper analyzes social ties with co-ethnics and brings attention to the issue with the bonding and bridging binary, wherein the former is often found to be negative, while the latter to be positive (Lin 2001; Warren 2008). However, Bourdieu (1986) contends that the resources drawn from people's network depends on the quality of those ties. Indeed, there was no large income disparities found between bonders and non-bonders. However, utilizing ethnic ties in the ethnic economy is damaging to immigrants' income. Hence, the thesis contributes to social capital literature by uncovering the income trajectory of immigrants who engage in bonding ties with co-ethnic friends and of those who work with co-ethnic members. My paper shows that the impact of ethnic ties differ depending on the social context, wherein friendships matter less than ethnic ties in the ethnic economy regarding income disparities among migrants.

My thesis also contributes to literature on neocapital theory (Lin 2001), wherein my research considers the forms of capital, social investments, and returns at the individual level rather than at the macro-level. The different forms of capital such as cultural, human, social, and economic capital are discussed and examined at the micro-level in the paper, which allows me to shed light on the interconnections and transformability between these forms of capital. Furthermore, my analysis of the transformability of human and cultural resources to social resources, and in turn economic resources, draws attention to how individuals "intersect with the structure" (Lin, Fu, and Hsung 2001:61). My analysis shows that individual resources such as cultural resources and human capital are transformed into collective goods found in social networks, which in turn is linked to economic returns.

The thesis aims to inform policy wherein some key characteristics such as cultural and human capital are important in immigrants' social and economic integration. Education is used by the study to measure institutionalized cultural capital as well as human capital. Higher education is accompanied by higher-quality cultural resources, and thus a higher social status. Immigrants' social status inform their perceptions, lifestyles, and social relations (Bourdieu 1986), and in turn shape their social tie formation. Indeed, immigrants not only bond due to shared culture but also due to similar social status. Also, the findings

confirm that bringing in educated immigrants is linked to a smoother transition in the labour market and thus integration in the long-run. Thus, immigration policy should consider how immigrants arriving with lower levels of cultural and human capital, and thus lower social status, are more vulnerable to becoming entrapped in groups of the same position and in turn experience challenges to upward economic mobility. Programs and services that are placed for the purpose of enhancing immigrants' cultural and human capital such as education, skills, and language can be beneficial to immigrants who lack ties to good resources. Allowing more access to gain and accumulate human and cultural capital can in turn open up more opportunities for immigrants to form connections with other individuals who are in higher social positions and who possess better-quality resources. Thus, supporting immigrants' human and cultural capital accumulation in their new host society not only prepares them to succeed in the labour market, but to also become more embedded in the social networks in society that will help facilitate both social and economic integration.

4.3 Limitations and Future Directions

Both papers have some limitations that must be addressed to inform future research on immigrants' social network formation and economic integration. Due to data limitations in the LSIC, immigrant groups in the first paper is captured by ethnic groups specified by language and visible minority status questions as well as by broader population group questions in the survey. Additionally, defining groups using language present some issues as some individuals of the same ethnicity may not indicate the same language due to differences in dialects. Also, capturing those who are not specified into an ethnic group through population groups creates an assumption that they are all of the same cultural background, whereas in reality population groups are heterogenous and have cultural differences. In consequence, the study is not able to examine many specific ethnic groups. The analysis captures as many immigrant groups as possible in order to have a representative sample of the population's diversity. Since immigrants who do not identify with the groups used in the analysis were dropped, the first part of the study saw a high attrition rate. Further, Toronto, Vancouver, and Montreal are the three largest CMAs with increasing diversity where immigrants encounter many people of the same ethnic and

cultural background as well as those outside of their ethnic group. In turn, the paper examines only those in the three largest CMAs as these are the places where they have the likelihood to either stay in their ethnic community or bridge outside of it, and in turn the rest of the sample not residing in the three CMAs were dropped.

Additionally, cultural capital is a difficult concept to operationalize. The paper thus uses the institutionalized form of cultural capital, education. Education indicates not only level of human capital but also social status (Bourdieu 1986), which signifies the level of cultural capital an individual has. However, cultural capital also involves cultural resources and materials such as books, musical instruments, and machines as well as ways in perceiving and interacting with the social world, also known as habitus (Bourdieu 1986), which is not asked in the survey and cannot be directly measured. Thus, other aspects of cultural capital remain unmeasured by the analysis.

Furthermore, data limitations in the second paper must also be considered. The analysis examines economic outcomes of immigrants, and in turn the second paper has large attrition rates since respondents who did not earn income above zero dollars in any of the years from 2001 to 2015 were dropped from the sample. In consequence, the labor market integration of those who did not earn any income in any of those years are not examined by the analysis. The paper cannot make any conclusions about immigrants who are not earning wages and how education, social ties, or working in an ethnic economy would affect their economic trajectory. Also, both papers only include those residing in Toronto, Montreal, and Vancouver in the analysis. In turn, migrant network formation as well as respective labour market outcomes that occur in smaller CMAs are not examined. Additionally, bonding ties is defined as ties made with those of the same ethnic or cultural background. However, other characteristics found in immigrants' social ties such as level of education, occupation, or income is not provided in the data. Thus, the quality and accessibility of their social ties is unmeasured. Lastly, the ethnic economy participation variable has a limitation wherein the data has no information on the type of business or industry the immigrants are working in and whether their workplace is located in an ethnic enclave. Other characteristics of the ethnic economy such as class, location, gender, and so on are not found in the data.

The findings as well as the limitations of both the papers point to some suggestions for future research about immigrants' social network formation and their economic integration. For instance, although longitudinal data allowed for the analysis of immigrants' social tie formation and income over a period of time, research that uses data that includes other measures for social networks would provide more insight on the types of social ties and quality of connections immigrants make. For instance, Kazemipur (2006) measures social networks by its size, the resources individuals can potentially bring in, and the willingness of individuals to share their resources. The present study is not able to include any of these aspects due to data limitations. Also, longitudinal data that captures several characteristics found in immigrants' social ties will uncover more information on how social networks affect immigrants' economic outcomes over time. Further, qualitative research would be able to conduct a more in-depth study on immigrants' social networks and delve deeper in investigating how immigrants' cultural capital affect their social ties. Qualitative research is also appropriate for studying social ties among immigrants in smaller cities and communities where quantitative analysis is not able to explore due to the small populations in these areas. Patterns in network formation in smaller areas may be different compared to larger and more diverse cities like Toronto, Vancouver, and Montreal. The size, urbanization, and heterogeneity of the geographical area are some factors future research can examine. Finally, using concepts such as cultural, human, and social capital in studying immigrants' network formation can pave the way for more studies on not only their labour market trends but also on retention rates, mobility, and political participation among immigrants. Understanding how immigrants interact in their new society will shed light on how they can help Canada become a nation that lives up to its ideal of multiculturalism wherein all groups belong and meaningfully participate in Canadian society. Lastly, further research on the link between immigrants' cultural and human capital and the types of ties formed will reveal more about their social and economic integration in Canada, which will better inform immigration policy.

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Appendices

Appendix B: Complete Logistic Regression Models in Chapter 2 (control variables shown)

Table 2.6 Odds Ratios predicting likelihood of bonding ties in waves two and three

	(Wave 1)			(Wave 2)		
Variables	**Odds Ratios**		**S.E**	**Odds Ratios**		**S.E.**
Groups						
Mandarin	4.621	***	0.941	4.124	***	0.800
Cantonese	4.985	***	1.656	6.256	***	2.127
Filipino	2.145	***	0.436	2.180	***	0.432
Punjabi	5.609	***	2.513	7.354	***	3.357
Gujarati	3.874	***	1.456	4.435	***	1.616
Arab	0.869		0.170	0.896		0.173
Korean	2.328	***	0.510	2.351	***	0.506
Urdu	1.561		0.516	1.705		0.551
Persian	2.137	**	0.591	1.630		0.432
Russian	0.914		0.216	1.399		0.343
French	0.721		0.352	0.730		0.324
White	Ref.			Ref.		
Black	1.146		0.254	1.553	*	0.339
Latin American	0.678		0.169	0.947		0.231
Southeast Asian	0.770		0.256	1.270		0.419
West Asian	2.848	**	1.021	1.723		0.580
South Asian	1.079		0.184	1.714	**	0.289
Relative human capital						
High	Ref.			Ref.		
Same	1.542	**	0.244	1.089		0.165
Low	1.572	***	0.154	1.144		0.109
Gender						
Male	Ref.			Ref.		
Female	0.877		0.076	0.771	**	0.065
Marital Status						
Married	1.912	***	0.263	1.700	***	0.226
Common law	2.085		0.944	4.198	**	1.808
Widow/Widower	1.780		0.794	2.146		1.055
Separated	0.453		0.253	0.811		0.396
Divorced	0.840		0.320	0.579		0.217

Single	Ref.			Ref.		
Religion						
No religion	Ref.			Ref.		
Catholic	0.917		0.161	0.848		0.143
Protestant	1.020		0.185	0.719		0.124
Orthodox	1.026		0.203	1.326		0.260
Jewish	1.059		0.410	1.994		0.795
Muslim	0.898		0.174	0.924		0.174
Eastern Religion	1.022		0.201	0.855		0.162
CMA						
Toronto	Ref.			Ref.		
Montreal	0.767	*	0.094	0.965		0.117
Vancouver	0.756	*	0.087	0.856		0.096
Canadian education						
No	Ref.			Ref.		
Yes	0.620		0.160	0.726		0.175
Further education						
No	Ref.			Ref.		
Yes	0.794	**	0.067	0.853		0.071
English proficiency						
Poor	Ref.			Ref.		
Good	0.486	***	0.079	0.507	***	0.081
French proficiency						
Poor	Ref.			Ref.		
Good	0.446	*	0.157	0.626		0.201
Labour force status						
Unemployed	Ref.			Ref.		
Employed	0.707	***	0.061	0.824	*	0.069
Age	0.903	**	0.034	0.957		0.035
Age-squared	1.001	**	0.000	1.001		0.000
Intercept	5.364	*	3.958	1.443		1.050

Notes: *p<0.05, **p<0.01, ***p<0.001

Source: Longitudinal Survey of Immigrants to Canada (LSIC)

Appendix B: Complete OLS Models in Chapter 2 (control variables shown)

Table 3.5 Logistic regression predicting income

	(Model 1)			**(Model 2)**		

Variables	β		S.E.	β		S.E.
Education						
Below BA	Ref.			Ref.		
BA or above	0.133	***	0.006	0.133	***	0.006
Bonding						
Not bonding	Ref.			Ref.		
Bonding	-0.06	***	0.003	-0.119	***	0.003
Ethnic Economy						
Not working in ethnic economy	Ref.			Ref.		
Working in ethnic economy	-0.134	***	0.004	-0.107	***	0.005
Years since landing	0.076	***	0	0.072	***	0
English Proficiency						
No	Ref.			Ref.		
Yes	0.226	***	0.008	0.227	***	0.008
French Proficiency						
No	Ref.			Ref.		
Yes	0.169	***	0.015	0.171	***	0.015
CMA						
Toronto	Ref.			Ref.		
Montreal	-0.187	***	0.008	-0.187	***	0.008
Vancouver	0.019	**	0.006	0.018	**	0.006
Further Education (Wave 2)						
No	Ref.			Ref.		
Yes	-0.033	***	0.005	-0.033	***	0.005
Further Education (Wave 3)						
No	Ref.			Ref.		
Yes	-0.022	***	0.005	-0.022	***	0.005
NAIC						
Agriculture	-0.471	***	0.02	-0.465	***	0.02
Mining	0.499	***	0.024	0.513	***	0.024
Utilities	0.66	***	0.013	0.662	***	0.013
Construction	-0.098	***	0.007	-0.096	***	0.007
Manufacturing	-0.105	***	0.004	-0.105	***	0.004
Wholesale Trade	-0.507	***	0.005	-0.505	***	0.005
Retail Trade	-0.234	***	0.006	-0.235	***	0.006
Transportation and Warehousing	0.002		0.006	0.006		0.006
Information	0.143	***	0.005	0.139	***	0.005
Finance	-0.245	***	0.009	-0.241	***	0.008
Real Estate Rental and Leasing	0.008		0.004	0.007		0.004
Professional, Scientific, and Technical	0.15	***	0.01	0.15	***	0.01

Management	-0.66	***	0.004	-0.657	***	0.004
Administrative Support	-0.071	***	0.006	-0.073	***	0.006
Educational Services	0.122	***	0.006	0.122	***	0.006
Health Care and Social Assistance	Ref.			Ref.		
Arts, Entertainment, and Recreation	-0.388	***	0.015	-0.385	***	0.015
Accommodation and Food Services	-0.652	***	0.006	-0.652	***	0.006
Other Services	-0.344	***	0.007	-0.343	***	0.007
Public Administration	0.112	***	0.007	0.114	***	0.007
Marital Status						
Single	Ref.			Ref.		
Common law	0.121	***	0.005	0.113	***	0.005
Widowed/Separated	0.03		0.009	0.031	**	0.009
Divorced	-0.073	***	0.007	-0.074	***	0.007
Married	0.044	***	0.009	0.036	***	0.009
Visible Minority Groups						
Chinese	Ref.			Ref.		
South Asians	0.131	***	0.007	0.133	***	0.007
Blacks	0.075	***	0.014	0.08	***	0.014
Filipinos	0.261	***	0.008	0.261	***	0.008
Latin Americans	0.418	***	0.015	0.423	***	0.015
Arabs/West Asians	0.162	***	0.012	0.168	***	0.012
Koreans/other minorities	0.053	***	0.014	0.059	***	0.014
White	0.256	***	0.008	0.259	***	0.007
Gender						
Male	Ref.			Ref.		
Female	-0.34	***	0.005	-0.338	***	0.005
Immigration Status						
Skilled Worker or Nominee	Ref.			Ref.		
Family	-0.196	***	0.008	-0.196	***	0.008
Business	-0.139	***	0.019	-0.133	***	0.019
Refugee	-0.246	***	0.021	-0.243	***	0.021
Other	-0.161	***	0.029	-0.157	***	0.029
Age	0.132	***	0.001	0.13	***	0.001
Age squared	-0.002	***	0.000	-0.002	***	0.000
Number of kids	-0.024	***	0.001	-0.024	***	0.001
Bonding*Years since landing				0.01	***	0.000
Ethnic Economy*Years since landing				-0.005	***	0.001
Intercept	7.506	***	0.029	7.562	***	0.029

Notes: Control variables are included, *p<0.05, **p<0.01, ***p<0.001

Source: Longitudinal Survey of Immigrants to Canada (LSIC) linked to the Longitudinal Immigration Database (IMDB)

Curriculum Vitae

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