ASSET POVERTY AMONG IMMIGRANTS TO CANADA: ITS PREVALENCE, CHANGES OVER TIME, AND ASSET HOLDING PATTERNS

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Preface

This dissertation is submitted in partial fulfillment of the requirements of the degree of Doctor of Philosophy in Social Work. Findings presented in Chapter 3 were presented at the 2019 International Metropolis Conference: Immigration, Refugees and Citizenship Canada, Ottawa. I, as the lead author, processed and analyzed data, wrote the chapters and made necessary revisions. Dr. David W. Rothwell (co-supervisor) supported my conceptualization of this doctoral project, giving guidance on methods, analysis, and writing. Dr. Jill Hanley (supervisor) has contributed to improving the quality of each chapter of this dissertation by providing constructive feedback on the analysis and writing. Dr. Mónica Ruiz-Casares (external committee member) provided me with valuable insights into the implications of my thesis. No part of this dissertation is of yet published, however, the three articles from Chapters 3, 4, and 5 will soon be submitted for publication. The members of my doctoral committee may contribute to the articles and therefore, will be included as co-authors.

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English Abstract

Relatively recently, social work scholars, poverty researchers, and policymakers have gained interest in the asset-based approach as an anti-poverty strategy and have explored how assets can provide support in times of economic hardship for individual persons, family units and communities. Real and financial assets could be very important when making assessments of who is poor and financially vulnerable. Although several studies have examined the levels, trends, composition and the overall rate of asset poverty in different countries, asset poverty among immigrant groups has not had sufficient attention in the literature (Azpitarte, 2011; Brandolini, Magri, & Smeeding, 2010; Blumenthal, & Rothwell, 2018; Haveman & Wolff, 2004; Rothwell & Robson, 2018; Rothwell, Ottusch, & Finders, 2019). Economic security is one of the most motivating factors of international migration, and assets are considered a vital component of the economic integration of immigrants into the host society. However, some immigrants struggle to accumulate assets, and, therefore, the asset poverty situation could be different for certain immigrant groups. Since a large percentage (21.9%) of Canada's population are immigrants (Statistics Canada, 2017a), it is important to broaden our understanding of the asset situation of immigrants.

However, when considering immigrants to be a homogeneous group, as was the case in previous research, it is difficult to understand which groups of immigrants are more vulnerable to asset poverty. As immigrants are an important part of Canadian society, it is helpful to understand the asset disadvantages faced by certain immigrant groups to address their particular needs. Therefore, this current dissertation is focused on examining the differing levels of assets held by immigrants at the subgroup level. By using Statistics Canada's cross-sectional Survey of Financial Security 1999 and 2012 and the Longitudinal Study of Immigrants in Canada 2007, in

this dissertation, I have examined the prevalence of asset poverty – insufficiency of assets to survive at the low-income cut-off for three months – among immigrant groups and the asset holding patterns of immigrants with a particular focus on homeownership.

Findings suggest that asset poverty rates are higher for immigrant households than their income poverty rates and that asset poverty is most prevalent when defining assets as financial resources. Findings also suggest that some visible minority immigrants experience higher asset poverty rates than others, and the risk for asset poverty is greater for immigrants than Canadian-born households. While not all immigrants are vulnerable to asset poverty, findings suggest that certain groups such as young adults, single person families, those who speak a language other than English or French at home, households with children, and large families are most at risk of being asset poor over time. Although asset holdings such as homeownership reduced the likelihood of being in asset poverty, findings showed that many immigrants – especially those who were born in Africa and in the Middle East, are in their prime working-age, unemployed, single, and earn low income–face more challenges to homeownership over time in Canada.

Social workers who closely work with individuals and families and who are involved with social policy development require careful assessment and knowledge about the nature of ongoing financial struggles and economic discrimination of certain immigrant groups to build assets in Canada. Since this dissertation found that not all immigrant groups are equally successful in overcoming economic insecurity, programs that help families accumulate assets may play an important role in fighting poverty and reducing economic vulnerability. Because a large number of immigrants are experiencing asset poverty, social policies need to consider relevant factors such as age, gender, family status, immigration status, race and ethnicity, and language ability while developing programs to help those who are most in need of support.

French Abstract

Relativement récemment, les chercheurs en travail social, les chercheurs sur la pauvreté et les décideurs politiques se sont intéressés à l'approche fondée sur les actifs en tant que stratégie de lutte contre la pauvreté, explorant comment les actifs peuvent fournir un soutien en temps de difficultés économiques aux personnes individuelles, aux unités familiales et aux communautés. Les actifs réels et financiers peuvent avoir une grande importance lors de l'évaluation des personnes pauvres et financièrement vulnérables. Bien que plusieurs études aient examiné les niveaux, les tendances, la composition et le taux global de pauvreté des actifs dans différents pays, la pauvreté des actifs parmi les groupes d'immigrants n'a pas reçu suffisamment d'attention dans la littérature (Azpitarte, 2011; Brandolini, Magri et Smeeding, 2010; Blumenthal et Rothwell, 2018; Haveman et Wolff, 2004; Rothwell et Robson, 2018; Rothwell, Ottusch et Finders, 2019). La sécurité économique est l'un des facteurs les plus motivants des migrations internationales et les actifs sont considérés comme un élément important de l'intégration économique des immigrants dans la société d'accueil. Cependant, certains immigrants ont du mal à accumuler des actifs et, par conséquent, la situation de pauvreté des actifs pourrait être différente pour certains groupes d'immigrants au Canada. Puisqu'une grande partie (21.9%) de la population du Canada sont des immigrants (Statistique Canada, 2017a), il est important d'élargir notre compréhension de la situation des actifs des immigrants. Cependant, en considérant les immigrants comme un groupe homogène, comme l'ont fait les recherches précédentes, il est difficile de comprendre quels groupes d'immigrants sont plus vulnérables à la pauvreté des actifs. Étant donné que les immigrants sont un élément important de la société canadienne, il est utile de comprendre les désavantages des actifs auxquels sont confrontés certains groupes d'immigrants pour répondre à leurs besoins particuliers. Par conséquent, cette thèse se concentre sur l'examen

des niveaux d'actifs des immigrants au niveau du sous-groupe. En utilisant l'Enquête transversale de Statistique Canada sur la sécurité financière 1999 et 2012 et l'Étude longitudinale des immigrants au Canada 2007, dans cette thèse, j'ai examiné la prévalence de la pauvreté des actifs - insuffisance des actifs pour survivre au seuil de faible revenu pendant trois mois - parmi les groupes d'immigrants et les schémas de détention d'actifs des immigrants avec un accent particulier sur l'accession à la propriété.

Les résultats suggèrent que les taux de pauvreté des actifs sont plus élevés pour les ménages immigrants que leurs taux de pauvreté monétaire et que la pauvreté des actifs est plus fréquente lors de la définition des actifs comme des ressources financières. Les résultats suggèrent également que certains immigrants de minorités visibles connaissent des taux de pauvreté des actifs plus élevés que d'autres et que le risque de pauvreté des actifs est plus élevé pour les immigrants que pour les ménages nés au Canada. Bien que tous les immigrants ne soient pas vulnérables à la pauvreté des actifs, les résultats suggèrent que certains groupes tels que les jeunes adultes, les familles monoparentales, ceux qui parlent une langue autre que l'anglais ou le français à la maison, les ménages avec enfants et les familles nombreuses sont les plus à risque d'être des actifs pauvres au fil du temps. Bien que les avoirs en actifs tels que l'accession à la propriété aient réduit la probabilité d'être dans la pauvreté des actifs, les résultats ont montré que de nombreux immigrants de couleur - en particulier ceux qui sont nés en Afrique et au Moyen-Orient, sont dans leur âge de travailler, chômeurs, célibataires et gagnent peu revenu - font face à plus de défis à l’accès à la propriété au fil du temps au Canada.

Les travailleurs sociaux qui travaillent en étroite collaboration avec les individus et les familles et qui participent à l'élaboration des politiques sociales doiveent se fier d’une évaluation minutieuse et une connaissance de la nature des luttes financières en cours et de la discrimination

économique de certains groupes d'immigrants pour construire des actifs au Canada. Bien que tous les groupes d'immigrants ne parviennent pas à surmonter l'insécurité économique de la même manière, les programmes qui aident les familles à accumuler des actifs peuvent jouer un rôle important dans la lutte contre la pauvreté et la réduction de la vulnérabilité économique. En raison de la diversité des expériences des personnes vivant dans la précarité des actifs, les politiques sociales doivent accorder une attention particulière aux facteurs pertinents tels que l'âge, le sexe, la situation familiale, le statut d'immigration, la race et l'ethnicité, et la préférence linguistique tout en développant des programmes pour aider ceux qui sont le plus besoin de soutien.

Chapter 1

Introduction

Poverty is a broad and complex issue that is difficult to understand from a single perspective. While there is no widespread definition of poverty, lack of access to resources has been frequently considered as an important contributor to poverty. Poverty is not distributed equally across society. Certain groups, such as immigrants, have higher rates than others. However, who is poor and who is not depends on how poverty is measured. There are numerous theories available that explain poverty, inequality, and deprivation. My dissertation is guided by the asset-based approach of social welfare introduced by social work scholar Michael Sherraden (1991). Poverty or inequality is not only about income or consumption, therefore, including assets in poverty measurement provides a different picture of the economic situations of individuals, families, or groups (Haveman & Wolff, 2004). A number of influential studies that have measured asset poverty provide a foundation for my doctoral study (Brandolini, Magri, & Smeeding, 2010; Rothwell & Robson, 2018; Haveman & Wolff, 2004). A household or person is asset poor "if their access to wealth type resources is insufficient to enable them to meet their basic needs for some limited period of time (three months or 25% of a year)" (Haveman & Wolff, 2004, p. 149).

Sherraden first introduced the asset-based theory of social welfare to complement income transfer welfare policies. Sherraden has set out his ideas most fully in his 1991 book, *Assets and the poor: A new American welfare policy*, in which he stated:

> Welfare policy is not working…. After decades of the federal programs, it cannot be demonstrated that means-tested welfare policies permanently change people's lives for the better. … The basic conclusion is that while income transfers have helped to ease

> hardship, they have not reduced the underlying level of poverty. Welfare policy has sustained the weak, but it has not helped to make them strong. (Sherraden, 1991, p. 3)

Asset-based policy is broadly defined as any public policy that encourages and supports individuals to accumulate, hold, or develop assets as a way of promoting economic and social development (Loke & Sherraden, 2009; Sherraden et al., 2016). To describe the benefit of asset-based policies, Sherraden (2005) emphasized that income support policies which are underpinned by the notion of income-as-wellbeing, are, by themselves, unsatisfactory as public policy because income transfers do not enable poor families to develop and escape poverty. However, the asset-building approach neither denies the necessity or the benefits of such income support nor suggests the elimination or decrease of income support. Instead, the asset-building approach considers the income support approach insufficient and argues that asset-based policies have the potential to help overcome the poverty trap through the empowerment of the poor (OECD, 2003). According to Sherraden's analysis,

> The major reason for the proposed policy shift is that income only maintains consumption, but assets change the way people think and interact in the world. With assets, people begin to think in the long term and pursue long- term goals. In other words, while incomes feed people's stomachs, assets change their heads. (1991, p. 6)

Assets themselves are resources that have economic value and include both financial and non-financial resources (Nam, Huang, & Sherraden, 2008). In Sherraden's words, assets are *stocks* of wealth that are more permanent than temporary *flows* of income and stimulate effects that extend beyond deferred consumption (Sherraden et al., 2016; Sherraden, 1991). The 'asset-effect' is central to asset-based welfare. Sherraden describes that asset holding has many positive

effects for individuals and families, including greater long-term thinking and planning for the future, increased participation in the community and investments in self, financial instruments and enterprise for greater returns (2003b, p. 1). For example, a person can use cash in their stocks to fund education and training that could improve their human capital as well as increase the household income (Nam, Lee, McMahon, & Sherraden, 2016; Sherraden, 2018, 2014). Savings can be utilized in business investment to bring long-term financial security and stability.

Several studies have shown that asset holding affects both temporary and lifelong well-being of households and individuals (Brandolini et al., 2010; Haveman & Wolff, 2004; Maroto, 2019; Morillas, 2007; Nam et al., 2016; Rothwell & Han, 2010; Sherraden et al., 2016; Sherraden, 1991). Although several studies worldwide have measured poverty based on asset indicators (Azpitarte, 2011; Brandolini et al., 2010; Blumenthal & Rothwell, 2018; Rothwell, Ottusch, & Finders, 2019; Haveman & Wolff, 2004; Kim & Kim, 2013; Rothwell & Robson, 2018), the asset poverty of immigrants has not had sufficient attention in the literature. Studying asset poverty and asset holding of immigrants is important. This dissertation broadens our understanding on two key issues missing from the poverty research and Canadian social work literature on immigrant economic integration: first, Canada is one of the largest immigrant-receiving countries in the world, and at present, almost twenty-two percent of Canada's population are immigrants (Statistics Canada, 2017a). However, the literature on asset acquisition and asset poverty among immigrants is limited. Secondly, every immigrant group is unique. A previous study that measured the asset poverty of immigrants as an undifferentiated group provided a first understanding of the situation in Canada (Rothwell & Robson, 2018). However, considering immigrants a homogeneous group may not provide an accurate picture of the asset situation of immigrants and within-group disparity because asset disadvantages are

unequally distributed across immigrant groups (Maroto & Aylsworth, 2016). My dissertation contributes to addressing the gap in the literature by examining the prevalence of asset poverty among immigrants (i.e., the insufficiency of assets to survive at the low-income cut-off for three months) and to identify the asset holding patterns of immigrants in Canada, with a particular emphasis on homeownership.

Outline of the Thesis

In my dissertation, in three separate but interrelated studies, I examine which groups of immigrants are more likely to experience asset poverty and face more challenges in asset accumulation over time in Canada. Applying quantitative methods, I used Statistics Canada's cross-sectional Survey of Financial Security 1999 and 2012, and the Longitudinal Study of Immigrants in Canada (2001, 2003, 2005) for my dissertation, consisting of six individual chapters. Chapter 1 is the literature review which first outlines the definitions and roles of assets within three different theories. It also discusses the importance of assets in social work and how the concept of assets was adopted as an anti-poverty strategy in social work. Next, it includes the literature review on asset poverty of immigrants in Canada and the factors that affect asset accumulation among immigrants. Chapter 2 outlines the research questions and overall research design. Chapters 3, 4, and 5 of this dissertation present three individuals, though logically interrelated studies, presented in the format of an academic article. A substantial amount of literature review, methodologies, findings, and discussion are elaborated separately in each of these chapters. The first study (Chapter 3) estimates the prevalence of income and asset poverty of immigrants and Canadian-born households. The second article measures asset poverty among immigrant groups over time in Canada (Chapter 4). The third article examines the asset holdings

of immigrants over time in Canada by focusing on homeownership (Chapter 5). Chapter 6 presents the overall conclusion of the thesis.

Definition of Assets: The Theoretical Perspective

Nam, Huang, and Sherraden (2008) provided three major perspectives on assets: the consumption model, social stratification theory, and an assets-for-development perspective. The following section includes a discussion on how each of these perspectives defines assets and the roles of assets within different approaches.

Assets as a resource for future consumption

According to the consumption model, assets are defined as a storehouse for future consumption (Nam, Huang, & Sherraden, 2008) and is linked to two theories of asset accumulation: the life-cycle hypothesis (LCH) (Ando & Modigliani, 1963; Modigliani & Brumberg, 1954) and the buffer-stock model (Carroll, Hall, & Zeldes, 1992; Hubbard, Skinner, & Zeldes, 1994). Both models perceive savings as balancing the fluctuation of household financial resources for consumption throughout a person's life. These theories are based on Friedman's work on the permanent income hypothesis (PIH): that people make financial decisions to maintain a maximum level of consumption throughout the life span, and thus, a person's consumption is not affected by short-term fluctuations in incomes or just by his/her current income but also by their expected income, that is, the permanent income in future years (Friedman, 1957).

Modigliani and Brumberg established their theory based on two concepts: the life cycle of income and the consumption needs of people at different stages of life (i.e., age) (Modigliani & Brumberg, 1954). People put efforts to smooth the level of consumption over the lifetimes - is

the central assumption of the life-cycle model. Since people's income flows may not be even over the lifetime, savings rates will fluctuate throughout life, for example, during unemployment or after retirement. Therefore, in the life cycle model, to maintain a steady level of consumption before and after retirement, forward-looking individuals accumulate assets during early adult years, especially during the prime working-age when income increases, and use their savings after retirement when income decreases and becomes negative (Ando & Modigliani, 1963; Modigliani, 1986). It results in a "hump-shaped" pattern in which asset accumulation is low during the youth stage (age 20s-30s), rises in the middle age (age 40s- 50s), and again goes back to being low during the 60s and beyond.

The key concept of the buffer stock model is the uncertainty of future income. In this model, people hold assets mainly so that they can shield their consumption against unpredictable fluctuations in income, such as unemployment or sudden medical emergencies (Carroll, 1997). The model emphasizes a precautionary motive for saving - a desire to hold cash that helps to cope effectively with unanticipated events that need cash expense - especially for younger households and households who face greater income challenges to buffer their consumption against unforeseen changes in income. These households are expected to accumulate small stocks of assets (buffer stocks) to smooth consumption during income loss and liquidity constraints (Beverly et al., 2008). In contrast to the life cycle model, the buffer model predicts that assets are expected to remain fairly persistent during the prime working age (roughly until age 45 or 50) when households start saving for retirement (Carroll & Samwick, 1997).

The life cycle and buffer stock models both emphasize asset accumulation and savings to secure future consumption. In particular, in the life cycle model, the role of savings is to serve as a cushion against variations in income during the life cycle (Modigliani & Brumberg, 1954), and

to provide support for retirement or to cover unexpected expenses, while the buffer-stock model illustrates the importance of precautionary motives for saving during person's working years (Carroll, 1997).

Assets as a vehicle for social stratification

Social stratification theory considers assets to be an indicator of class status and the most essential means for transmitting class across generations (Nam et al., 2008). Sociologist Max Weber (1946), strongly influenced by Marx's ideas[1], developed a multidimensional approach to social stratification and argued that class status is the product of three components: wealth, power, and prestige. Weber also introduced the idea of positively and negatively privileged classes based on property ownership and argued that property and lack of property are the basic categories of all class situations (Weber, 1968, p, 927). The positively privileged are those who have great wealth. At the opposite side of the spectrum are those who are negatively privileged: those without wealth or property. Negatively privileged ownership classes are the underprivileged and unfree (Weber, 1964). High-status individuals or families of the upper- class hold most of the assets and are more socially and politically involved, more organized, enjoy better health, education, housing and work conditions, are better able to manage the stress of life, and have a broader perspective regarding their social world than lower status individuals or families (Bendix & Lipset, 1966; Treiman, 1970). In contrast, low-status individuals have very few or no assets and are, therefore, the 'lower class' because of a lack of property ownership.

Stratification theories explain how society and its various systems (e.g. economy, government) force some individuals or groups into poverty and not others, as well as describe

[1] Karl Marx (1848) viewed ownership of the means of production (a category that includes property) as the essence of class division between bourgeoisie and proletariat.

how these structural effects interact with communities and the poor to compound the problems associated with poverty (Wolf, 2007). These theories consider assets as a vital mechanism through which socioeconomic structure (e.g., upper class, middle class, and underclass) is maintained (Nam et al., 2008). In this regard, firstly, property or asset goes beyond income as a measure of social class because it reflects accumulated wealth (e.g., homes, stocks, bonds, savings) in addition to one's earning potential (Nam et al., 2008). Secondly, wealth builds over a lifetime before being passed to the next generation (Shapiro, 2001). Therefore, wealth can be an important measure of inequality because of its relationship to power; it is very significant in the discussion of intergenerational inequality and its long-lasting effects (Oliver & Shapiro, 1995, 2001, 2004).

Assets as a resource for social development

The asset-based theory of social welfare falls within a broader field of social development. The social development approach aims to actively promote human well-being in conjunction with an ongoing process of economic development (Midgley & Tang, 2001). In recent years, the social development approach, defined as a "process of planned social change designed to promote the well-being of the population as a whole in conjunction with the dynamic process of economic development" (Midgley, 1995, p. 25), has attracted attention from many researchers and policymakers. Midgley (1995) proposes three essential elements of social development: economic investment (which impacts one's well-being), social investment (which should bring an economic return), and socio-economic collaboration (linking social and economic investment). From this perspective, assets promote people's capacity to progress economically, socially, psychologically, and politically, and accomplish goals beyond the fulfillment of consumption needs (Sherraden, 1991; Sen, 1999). Further, asset ownership may

affect people's attitudes and behaviors through their expectations for the future and may help to develop other types of assets such as improving human capital (through education and training) (Nam et al., 2016; 2008; Sherraden, 1991). When individuals plan, identify goals, save, and develop financial management skills, they gain control over economic resources, and social development occurs (McKernan & Sherraden, 2008).

Sen's (1999) capability approach, which defined poverty as capability deprivation and strongly emphasized improving the capabilities of the poor, helps understand social development. Formulations of capability have two parts: capabilities to be and do things (functionings) and freedom (Alkire, 2005). Sen explains that functionings are ''the various things a person may value doing or being'' and freedom concerns ''the real opportunity that we have to accomplish what we value'' (1999, pp. 74-75). Here, the asset-based approach of social development is closely linked with the capability approach because assets are more than resources that individuals use to build livelihoods. Instead, assets provide them the capability to be and act (Bebbington, 1999). Therefore, the improvement of assets potentially enhances capabilities (Sherraden, 1991).

Asset owners indirectly generate a set of capabilities that influence various other aspects of individuals, households, and communities. Therefore, the asset-for-development framework suggests that socioeconomically disadvantaged individuals are capable of setting their future goals and reach their destination effectively only if they have adequate socio-economic opportunities (McKernan & Sherraden, 2008; Sen, 1999). A closer integration of economic and social policies, therefore, can enhance the welfare of all (Midgley & Tang, 2001). Given that, the social development approach views social spending or welfare programs that invest in human

and social capital, employment, and individual and community asset accumulation as an essential, wise, and beneficial investment (Midgley & Sherraden, 2000; Midgley & Tang, 2001).

Regarding social work practice, the social development approach and social work approaches have some common concerns because both attempt to overcome the deficit and focus on strengths (whether of individuals, families, groups, or communities) and incorporate a proactive response to social justice, discrimination and oppression. One of the principal strengths of the social development approach is that it is an approach to welfare that encourages participation in the economy and society, endorses government intervention that extends economic opportunities, and stresses investment in human capabilities (Midgley, 2003). Asset-based policies and programs are considered an integral part of an overall social development strategy.

Importance of Assets in Social Work

Assets, as an indicator of well-being and status in society, have been studied in economics and other social science studies (Haveman & Wolff, 2004; Oliver & Shapiro, 1995). While measuring poverty, assets can reveal a distinct form of economic inequality with important implications for a variety of outcomes (Conley, 1999). As a profession, social work distinguishes itself through its own body of literature, values, and ethics (Payne, 2015). Social work's professional boundaries have never been strictly defined since there are many forms of social work and social work deals with diverse and varying problems with people of diverse backgrounds (Hugman, 1996; Payne, 2015). Therefore, it is important to understand how social work perceives assets as a means of economic development and financial security and offers help to those who are economically disadvantaged.

As mentioned earlier, assets are the stock of economic resources that people can possess, own, or hold, and that can be expected to provide future economic assistance (Sherraden et al., 2016, 1999). Several studies have documented the importance of asset holdings and how assets affect both the short-term and long-term well-being of individuals and families (Nam, Lee, McMahon, & Sherraden, 2016; Nam, Lee, Huang, & Kim, 2015; Rothwell & Han, 2010; Sherraden, 2018; Sherraden, 2014, 1999). Assets are essential not only for covering emergencies, unexpected expenses, and helping households cope with financial shocks but also for providing future consumption (Despard et al., 2018; Sherraden, 2018, 1991; Sherraden et al., 2016). Several studies have documented positive relationships between asset holding (e g., financial assets and homeownership) and child well-being in terms of educational attainment and emotional and behavioral outcomes (Elliott & Beverly, 2011; Grinstein-Weiss, Yeo, Irish, & Zhan, 2009; Grinstein-Weiss, Williams Shanks, & Beverly, 2014; Huang, 2013; Huang, Sherraden, Kim, & Clancy, 2014; Kim, Sherraden, Huang & Clancy, 2015; Sherraden et al., 2015). A recent study also shows how parental financial support influences children's chances to receive college and advanced degrees (Nam, 2020). In addition, as demonstrated in research, asset holdings have positive effects on parents' attitudes and behaviours, parental practice, mental health, parental expectations and involvement, which may affect child development (Huang et al., 2014; Yeung & Conley, 2008; Zhan, 2006). Finally, several studies have examined the importance of assets in transmitting class status and social inequality across generations (Despard, Grinstein-Weiss, Guo, Taylor, & Russell, 2018; Huang, 2013; Nam, 2020; Nam, Huang, & Sherraden, 2008; Shapiro, 2004; Spilerman, 2000).

In social work, asset-building approaches have been considered an anti-poverty strategy. Professional social workers work continuously on both the micro (individual) and the macro

(large scale) levels to reduce economic vulnerability and help people overcome some of the most difficult challenges of their lives, such as poverty. Therefore, social work practice requires knowledge and understanding of different dimensions of poverty and its effect on individuals, families, small groups, and local neighborhoods. In the following section, I discuss the social work perspective on assets in fighting poverty and how asset-based interventions could be important in social work practice to address the poverty conditions of low income and low assets households.

Assets in relation to fighting poverty

Throughout its history, social work has had an interest in and concern for the poor and impoverished. Because of the socio-economic consequences, several issues such as urban slums and overcrowding, unemployment, deplorable housing condition, and immigrants and rural migrants' economic well-being received much attention from early social workers (Frey, Sherraden, Birkenmaier, & Callahan, 2017; Jennissen & Lundy, 2011). For example, early social work aimed "to investigate the habits and circumstances of the poor, to suggest plans by which the poor could help themselves, and to encourage the poor to save and economize" (Zastrow, 1989, p. 4). Although early social workers worked regularly and directly with families on their household finances (Stuart, 2016), over time, both in education and practice, social work shifted its focus to the more psychosocial issues of persons and families and placed less emphasis on their economic lives and financial matters or their relation to the macro environment (Specht & Courtney, 1995). Following its historical roots, social work has recently renewed its focus on improving financial capability through savings, homeownership, and other asset accumulation that could bring long-term development among individuals, families, and communities (Frey et al., 2017). However, only a few social work educators and researchers have focused on asset

building and financial capabilities of low- to moderate-income individuals and families, improving financial security, as well as asset-based strategies as a tool for poverty reduction and economic well-being (Lightfoot, McCleary, & Lum, 2014).

The asset-based approach can be a useful tool in reducing poverty and inequality because it increases capacities at individual and household levels, as well as at the community level (OECD, 2003; Paxton, 2001; Sherraden, 2018, 2014, 1991; Sen, 1999; Weber & Smith 2003). Since assets are essential to moving forward toward the long-term development of low-income households (Sherraden, 1991), accumulating assets can improve livelihoods and boost economic security. To ensure that the poor can create sustainable improvements in their lives, they must be able to develop and maintain their stock of assets (Sherraden, 1991). In the context of social policy, stocks of assets are "usually in the form of financial assets (e.g., subsidies for retirement accounts or educational savings accounts) or tangible assets (e.g., subsidies for homeownership)" (Nam et al., 2008, p. 2). These assets provide various options to the poor related to their income decisions, as they can rely on their assets to generate more income, and information about individual and household assets may provide a broader picture about several dimensions of economic hardship of the poor (Nam et al., 2016).

Social work is a profession that has direct contact with financially vulnerable populations. However, relatively recently, social work scholars, poverty researchers, and policymakers have gained an interest in the extent to which assets establish a household's economic security and provide support in times of economic hardship for individual persons, family units, and communities as described in the consumption framework. In this framework, assets are valuable because they are the primary source of liquidity during financial hardship, such as unemployment, sudden job loss, or sickness. Besides, assets can play a role in lifting the

poor out of poverty. For example, assets improve people's economic condition by allowing them to invest in education and training, homes, small businesses, and other opportunities to facilitate long-term development (Paxton, 2001; Sherraden, 2018, 2014, 1991). Social work scholar Sherraden (1991) emphasizes the reality of the situation of the poor or low-income households and argues that people living in poverty tend to be more short-term focused in their thinking and behaviour, not so much because of their values as because they are forced by the environment within which they must make decisions. Living in poverty might influence decision-making in a range of domains and create barriers for individuals or households to escape poverty both at present and throughout life. Therefore, Sherraden suggested that through a targeted asset acquisition, poor or low-income individuals will have the opportunity to interact with financial institutions that could increase their financial literacy, reduce the stigma associated with poverty, and facilitate access to beneficial financial resources and services (Sherraden, 2013).

Addressing assets in social work intervention

From the very beginning of the profession, social workers have been profoundly concerned about the poor and poverty and committed to taking social action on behalf of the poor. As such, measuring poverty based on currently held assets instead of household income may help social workers to understand another perspective of poverty and may change their approach towards poverty. A focus on assets could lead to new advocacy goals and strategies for the vulnerable groups since the social work profession acknowledges that poverty, oppression, and ongoing discrimination place certain groups such as racial and ethnic minorities, people of color, women, and individuals with disabilities in disadvantaged situations (Galabuzi, 2006; Oliver & Shapiro, 2006). Therefore, scholars suggest that, in order to assist the poor and underprivileged groups effectively, social workers need to understand that poverty and financial

difficulties are the consequences of social structures, institutional oppression, and power and resource distribution issue, not the result of these groups' bad choices (Huang et al., 2020).

As a helping profession, social workers frequently attend to clients' financial problems (Frey, Sherraden, Birkenmaier, & Callahan, 2017). Given the fact that, for long-term financial security and development, people need to have sufficient knowledge of handling a family budget, make appropriate financial decisions, and have savings for emergencies (Sherraden, Birkenmaier, McClendon, & Rochelle, 2017), social work practice could involve financial practice dimensions with a goal to enhance financial capability and build assets in households (Birkenmaier, Sherraden, & Curley, 2013; Huang, Nam, & Sherraden, 2013; Sherraden et al., 2017). By focusing on financial programs and services that facilitate asset accumulation and financial capability to fight poverty and inequality, social workers can help those who experience economic vulnerability. Because social workers conduct applied research, contribute to policy, design and implement practice innovations, and organize communities at the macro level, it would be beneficial for social workers to build their knowledge about asset inequality, the socio-economic and psychological effects of asset holdings, how people save, invest and develop assets. However, building financial capability and assets for all is one of social work's 12 Grand Challenges in the twenty-first century (Sherraden et al., 2015). Several scholars have documented that voluntary asset-building programs often fail to be universal and exclude the most economically vulnerable families (Sherraden, Huang, & Zou, 2019). However, as social work scholar Sherraden and others have shown, much asset accumulation occurs because social policies facilitate and subsidize it (Beverly et al., 2008; Sherraden et al., 2018; Sherraden, 1991, 2014).

Although social workers directly deal with the financial crises of individuals and families, Birkenmaier, Sherraden, and Curley (2013) describe how social workers and other helping professionals who assist their clients in tackling the complex financial problems are often poorly educated, lack preparation, skills, and knowledge on financial and economic issues since the social work curriculum provides little to no attention, training or preparation in financial concepts, issues and practice (Despard & Chowa, 2010; Frey et al., 2017; Fenge, 2012; Gillen & Loeffler, 2012). In responding to this challenge, several social work educators and researchers in recent years are advocating to include curricula on economic justice in social work program (Birkenmaier, Kennedy, Kunz, Sander, & Horwitz, 2013; Frey et al., 2017; Huang at al., 2020; Sherraden, Frey, & Birkenmaier, 2016). As a result of their efforts, some social work deans and directors have already included, and others are close to adding "financial social work" and "economic content" to their curriculum (Frey et al., 2017; Gates, Koza, & Akabas, 2017; Huang et al., 2020). For example, recently, the University of Maryland, Baltimore, School of Social Work, included a Financial Social Work certificate program (Huang et al., 2020).

Factors Affecting Asset Accumulation among Immigrants in Canada

Assets are unevenly distributed in Canada (Sarlo, 2017). According to the Canadian Centre for Policy Alternatives, Canada's wealthiest 87 families owned 4,448 times more assets than the average Canadian household, and they collectively hold the equal amount as the lowest-earning 12 million Canadians (Macdonald, 2018). While examining changes in the wealth of Canadian families over time, a study by Statistics Canada found that between 1999 and 2012, the percentage of the total wealth held by families in the upper-income quintile has increased from 45% to 47%, however, this percentage has decreased for certain groups including immigrants, specifically those who have migrated recently (Uppal & LaRochelle-Cote, 2015). Intending to

improve immigrants' economic outcomes, Canada implemented immigration policies that were very selective during the 2000s, allowing only highly skilled and highly educated immigrants to enter Canada through the economic streams (Hou & Pocot, 2016). However, many immigrants in Canada continue to face challenges in income and asset accumulation for several reasons (Maroto, 2016; Maroto & Aylsworth, 2016). Based on the literature, immigrants' asset accumulation is affected by several socioeconomic status and demographic characteristics. The following section discusses the factors that are associated with asset accumulation of immigrants.

Earning and employment

The economic security of individuals and families depends on both income and ownership of assets. Empirically, income and employment are positively associated with assets accumulation (Brady, Finnigan, Kohler, & Legewie, 2020; Bricker et al., 2014; Chawla, 2004; Keister & Moller, 2000; Maroto, 2016). Families with less income and less stable jobs may face difficulties to save, buy properties, or invest for future returns. The yearly and weekly incomes for both men and women are lower among the immigrant population than among Canadian-born (Houle, 2019). Numerous studies have documented economic polarization, inequality, and a sharp deterioration in the relative and entry earnings in the last forty years for many immigrants, especially for recent immigrant groups (Aydemir & Skuterud, 2005; Banerjee & Lee, 2015; Boudarbat & Lemieux, 2014; Green & Worswick, 2010; Picot & Hou, 2014; Picot & Hou, 2003). A large amount of research showed that the average earnings of immigrants in the first year after arrival fell by over 20% in the 1980s (Bloom, Grenier, & Gunderson, 1995; Grant, 1999; Reitz, 2001); the drop in entry earnings for recent immigrants in the 1990s was even bigger than those of the 1980s (Aydemir & Skuterud, 2005; Li, 2003; Sweetman & Warman, 2008). Similarly, Green and Worswick (2010) found that a large decline in entry earnings over

the 1980s was followed by even larger declines in the 1990s and early 2000s for immigrants just after arrival. Entry earning rates continued to deteriorate in the 2000s (Picot, Hou, & Coulombe, 2007). Another study showed that new immigrants were more likely than other groups to remain at the bottom of the income distribution in both 2000 and 2010 (Picot & Hou, 2014). It has been documented in the literature that recent immigrants experienced a greater earnings disadvantage in the years immediately following their arrival than the cohort that arrived five years earlier (Lightman & Gingrich, 2018; Picot & Lu, 2017; Picot & Hou, 2014), with the average earnings of some university-educated recent immigrants being similar to those of Canadian-born high school graduates (Bonikowska, Hou, & Picot, 2011). Several empirical studies showed that the earnings of immigrants and visible minorities were not converging over time with those of the native-born or non-racialized, indicating long-term economic disadvantage (Aydemir & Skuterud, 2005; Galabuzi & Teelucksingh, 2010; Javdani & Pendakur, 2014; Lightman & Gingrich, 2018; Teelucksingh & Galabuzi, 2005). This tendency towards rising rates of low-income among immigrants and falling rates among the Canadian-born was evident in many studies (Picot, Lu, & Hou, 2009). For example, one recent study by Statistics Canada found that the chronic low-income rate was 2.6 times greater among immigrants (for both who are in Canada for 5 -10 years and for 26-20 years) compared to the Canadian-born in 2000, and 3.3 times greater in 2012 (Picot & Lu, 2017). The effects of income inequality is most pronounced in the three largest immigrant-receiving cities, such as Montréal, Toronto, and Vancouver (Picot & Lu, 2017; Picot & Hou, 2014). Immigrant-related literature suggests that several other factors explain the low earning of immigrants, such as a shift in receiving immigrants from the traditional source countries to developing countries[2], weak language skills, low economic

[2] Because immigrants from traditional source countries, such as United States, Europe earn more in the Canadian labour market than those from developing countries (Hou & Picot, 2016).

recognition of foreign education and work experience, length of time in Canada, and the high-tech bust of the early 2000s (Aydemir & Skuterud, 2005; Banerjee & Lee, 2015; Green & Worswick, 2010; Hou & Picot, 2014; Ostrovsky, 2008; Picot & Sweetman, 2012).

Given the desire to improve earnings among new immigrants, immigration selection policies changed significantly during the 1990s and 2000s. For example, the 2002 Immigration and Refugee Protection Act (IRPA) legislation modified the selection of immigrants under the Federal Skilled Worker Program (FSWP). The IRPA moved away from an emphasis on family-class immigrants to a focus on an economic class of immigrants who were expected to respond successfully in the face of labour-market change and perform well in the long run (Hou & Picot, 2016). Despite these changes, Canada does not show satisfactory results in the economic and social outcomes of skilled immigrants (Kaushik & Drolet, 2018). For example, the entry earnings of immigrants immediately after landing did not rise throughout the 1990s and 2000s, remaining, in fact, more or less constant (Hou & Picot, 2016). The changes in immigrant characteristics brought about by IRPA improved economic outcomes for immigrants at the middle and upper of the income distribution yet had little positive effect at the bottom of the income distribution (Picot, 2008). For example, immigrants were found to have higher rates of involuntary part-time work, be more often overqualified compared to the Canadian-born, and have poor access to high-wage jobs in the Canadian labour market (Gilmore, 2009; Pendakur & Woodcock, 2010). A report of the Quebec Human Rights Commission documented that “many recent immigrants are forced to hold more than one job in order to provide for their families’ needs, and these jobs are often poorly paid and characterized by long workdays and exhausting night shifts.” (Eid, Magloire, & Turenne, 2011, p. 18).

Asset inequality by race/country of origin

Country of origin coincides with differences in race and ethnicity that can further affect asset accumulation (Maroto & Aylsworth, 2016). Several Canadian studies have shown that racial minorities and immigrants are less likely to own homes and tend to hold fewer assets than their white and native-born counterparts (Lightman & Gingrich, 2018; Morissette, 2019; Maroto & Aylsworth, 2016; Morissette, Zhang, & Drolet, 2002; Osili & Paulson, 2009; Shamsuddin & DeVoretz, 1998; Zhang 2003). In his book, *Canada's economic apartheid: The social exclusion of racialized groups in the new century,* Galabuzi (2006) pointed out systematic racial discrimination as a key determinant of access to opportunity and livelihood for racialized group members, as demonstrated by their overrepresentation in low-paying occupations and low-income sectors, underrepresentation in high-income sectors and occupations, and their negative experiences with higher unemployment, poverty, and social marginalization. In terms of asset holding, immigrants from outside of Europe and North America, who are more likely to be non-white, experienced larger disparities in homeownership and net worth (Maroto & Aylsworth, 2016). For example, while comparing net worth and homeownership rates between native-born and immigrants, Maroto and Aylsworth (2016) found no significant difference between immigrant families from North America, Europe, or Oceania and Canadian-born families. However, homeownership rates were 22 percentage points lower for immigrant families from South or Central America, 33 percentage points lower for immigrants from African or Middle Eastern countries, and 10 percentage points lower for immigrants from Asia or other countries compared to similar native-born families (Maroto & Aylsworth, 2016). In terms of net worth, immigrant families from African or Middle Eastern countries and Asia and other countries held 35 and 26 percentage points lower net worth, respectively, compared to similar Canadian-born

families. Another study showed that homeownership rates are very low for immigrants who identify as black (Haan, 2007).

Asset inequality by years of residency

Asset ownership varies greatly with the length of time since immigration. An earlier study by Shamsuddin and DeVoretz (1998) found that immigrant families residing in Canada less than eight years had asset levels that were approximately half that of similar Canadian-born households. Morissette, Zhang, and Drolet (2002) have documented the evolution of asset inequality in Canada between 1984 and 1999. They found that both real median assets and real average assets increased among foreign-born family units who resided in Canada for twenty years or more, however, decreased for those who lived in Canada for less than ten years. Other studies demonstrated that years of residency in Canada since immigration is associated with the probability of being a homeowner, and more established immigrants have higher asset levels and less debt than recent immigrants (Chawla & Uppal, 2012; Maroto & Aylsworth, 2016; Turcotte, 2008).

Also, in Canada, besides recent immigrants, many young immigrants face greater challenges in the housing market and are less likely to be homeowners compared to the native-born and other immigrant groups (Edmonston, 2016; Haan, 2012). For example, one study by Statistics Canada found that while almost two-thirds of Canadian-born young adults (aged 25 to 39) are homeowners, less than half of their counterparts who had immigrated five to nine years earlier, and only twenty percent of young immigrants who had come in the preceding five years, are homeowners (Turcotte, 2008). Studies showed that, although homeownership rates have remained low, especially in the more recent immigration cohorts, immigrant households are

able to grow their assets over time (Haan, 2012, 2007; Maroto & Aylsworth, 2016; Ray & Moore, 1991).

Asset inequality and human capital depreciation

Higher levels of education are related to better earnings (Finnie, 2001; Chiswick & Miller, 2002; Allen, Harris, & Butlin, 2003; Morissette, Ostrovsky, & Picot, 2004), and income is an important factor to asset accumulation. As noted by Hou (2010) and Brown and Lafrance (2013), asset ownership rates increased disproportionately among higher-income households who are near the top of the income distribution. Households with sufficient assets for a standard down payment and higher permanent income are more likely to be homeowners (Lafrance & LaRochelle-Côté, 2012). Again, Maroto (2016) showed that households with adult immigrants, people with disabilities, and those with less education held less in net worth. Assets are more apparent in households when major income earners have university degrees (Morissette, Zhang, & Drolet, 2002; Maroto, 2016). Households with higher education levels and higher income enjoy more comfortable access to credit markets and increased asset accumulation (Chawla & Uppal, 2012).

Most principal applicant immigrants who arrived recently in Canada under the point system had at least a bachelor's degree (Oreopoulos, 2011). However, a large number of studies show that devaluation of foreign education and non-recognition of credentials are important causal factors in relegating immigrants to lower labour market performance and wage-earning (Bauder, 2003; Worswick, 2004; Ferrer & Riddell, 2008; Picot & Sweetman, 2012; Sweetman & Warman, 2013), which can also be reflected in the relationship between income and assets (Brady, Finnigan, Kohler, & Legewie, 2020; Maroto & Aylsworth, 2016).

Work experiences obtained outside of Canada are also not easily recognized in the Canadian labour market (Buzdugan & Halli, 2009; Bauder, 2003; Ku, Bhuyan, Sakamoto, Jeyapal, & Fang, 2019). In exploring why skilled immigrants who enter Canada under a point system have poor outcomes in the labour market, Oreopoulos (2011) found that job experience obtained in a foreign country plays a significant role. Oreopoulos provided further evidence that the call-back rate for a job interview for both male and female immigrants with job experience from India, China, or Pakistan drops 2.5 percentage points compared to resumés with Canadian experience, but British experience does not generate any significant fall compared to Canadian resumes (Oreopoulos, 2011). Racial profiling and discrimination persist in many sectors in Canada impose numerous challenges for immigrants in the lobour and housing market (Eid, Magloire, & Turenne, 2011). In many regulated occupations, hiring is based on the employer's decision that the candidate has the ability and an acceptable combination of education and experience to do the job (Zietsma, 2010). Consequently, many immigrants are forced to switch careers, accept work for low wages in occupations outside of their formal training, and work in jobs for which they are overqualified (Li, Gervais, & Duval, 2006). Labour market discrimination can limit immigrants' ability to build assets.

Finally, for new immigrants to Canada, knowledge of one of the official languages is closely tied to their economic and social success (Statistics Canada, 2005). Several studies showed that the earnings disadvantage and inequality of immigrants have a strong relationship with a lack of language proficiency (Chiswick & Miller, 2002; Hatami & Weber, 2013; Ostrovsky, 2008). Immigrants who speak an official language at home earn 12% more than those who do not use an official language at home (Chiswick & Miller, 2002). In the labour market, non-native speakers face discrimination in employment, are denied access to services, and

experience unfavorable treatment on the basis language characteristics such as lack of fluency, the accent of speech, and differences from the language standard of the dominant group (Guo, 2009; Li, 2001; Scassa, 1994). Due to these barriers, many immigrants face continuous disadvantages when attempting to grow their assets.

Limitations of Previous Research

A large number of studies have identified recent immigrants to Canada as most likely to experience persistent poverty (Aydemir & Skuterud, 2008; Employment & Social Development Canada, 2013; Green & Worswick, 2010; Government of Canada, 2016; Hatfield, 2004; Kazemipur & Halli, 2001; Picot & Hou, 2003; Statistics Canada, 2009). Besides recent immigrants, immigrants who are seniors, unattached, or lone parents are most vulnerable to chronic poverty (low-income) (Picot & Lu, 2017). However, most of the studies measuring immigrant poverty rates in Canada are based on the low-income cut-off (LICO) published by Statistics Canada (Statistics Canada, 2011). Although the Government of Canada announced the Market Basket Measure (MBM) as Canada's official poverty line, LICOs have been extensively used as "poverty lines" in Canadian literature despite Statistics Canada's frequent disclaimers. The studies based on LICO income thresholds do not include assets, which is an important indicator of financial security and economic well-being while measuring poverty.

Both US and Canadian studies have demonstrated that the prevalence of asset poverty far exceeds than the prevalence of income poverty and that asset poverty varies according to demographic and socioeconomic characteristics (Haveman & Wolff, 2005; Rothwell & Robson, 2018). However, the asset poverty of immigrants has not had sufficient attention in the literature. Only one empirical study has measured asset poverty among Canadian immigrants (Rohwell & Robson, 2018). Rothwell and Robson (2018) showed that immigrants have higher income

poverty risk (22.3% compared to 12.1%) and higher net worth poverty (30.9% compared to 28.5%) than Canadian-born. Regarding financial assets, they found that being born outside Canada places individuals at no higher risk for financial asset poverty than people born in Canada, however, the study combined all immigrants into a single category, so did not distinguish between different groups of immigrants (Rothwell & Robson, 2018). To the best of my knowledge, no studies have examined how the risk for asset poverty is unequally distributed among immigrants, across different ethnic groups. Since a large number of Canada's population (almost 22%) are immigrants and different groups of immigrants may experience different levels of asset poverty, it is important to understand which groups of immigrants are more likely to experience the economic vulnerability in terms of assets so that their needs can be addressed more precisely. Given this, in this dissertation, an examination of asset poverty and asset holding patterns among immigrant groups provides a new perspective on the economic security of immigrant families. Understanding the asset situation of immigrants is important because an unequal distribution of assets has implications for social cohesion and welfare (Haveman & Wolff, 2005; Kerstetter, 2002).

Chapter 2

Overall Research Design

Many researchers, social workers, and policymakers recently have focused on the asset-based approach to promoting economic well-being and how assets can provide support and financial security when individuals and families face economic challenges. Although we know much about the relationship between asset holdings and child well-being, social and economic well-being, physical health and psychological well-being of the low- income (Despard et al., 2018; Grinstein-Weiss, Williams Shanks, & Beverly, 2014; Huang et al., 2014; Nam, 2020; Sherraden, 2018, 2014, 1991; Nam et al., 2016), we know very little about asset poverty or asset holdings of immigrants across demographic and socioeconomic characteristics. Measuring poverty based on assets may provide important information on economically vulnerable immigrants. Understanding people's asset situation is important to fighting poverty, formulating policies for those who are most in need of support, and assessing the effectiveness of the poverty reduction policies. Following previous studies that examine asset poverty (Brandolini, Magri, & Smeeding, 2010; Haveman & Wolff, 2004; Rothwell & Robson, 2018), I have used quantitative data in my dissertation to examine whether there is a relationship between different variables and the asset poverty and asset ownership of various immigrant groups. In this chapter, I have discussed the methodological approaches used in those studies.

Methods

Research questions

This dissertation aims to examine the prevalence of asset poverty among immigrant groups and the asset holding patterns of immigrants over time with a particular focus on

homeownership. Based on these objectives, Chapter 3 (Study 1) focuses on the *prevalence* of asset poverty, seeking to answer the following questions:

(a) What is the prevalence of asset poverty among immigrants in Canada?

(b) How does the prevalence of asset poverty compare to the prevalence of income poverty for immigrant households?

(c) Who are the most and least likely to fall into asset poverty among immigrants?

The incidence of asset poverty is far higher than the incidence of income poverty (Haveman & Wolff, 2005; Rothwell & Robson, 2018). Based on previous studies (Despard, Grinstein-Weiss, Guo, Taylor, & Russell, 2018; Maroto & Aylsworth, 2016; Rothwell & Robson, 2018; Sherraden & Morrow-Howell, 2015), it is anticipated that the asset poverty could be higher compared to the income poverty for some groups of immigrants, and immigrants could be more vulnerable to asset poverty than the Canadian- born.

To estimate the *rate* of asset poverty among immigrants *over time*, and to understand whether the *factors* affecting asset poverty of immigrant households change *over time*, Chapter 4 (Study 2) addresses the following questions:

(a) What is the composition of different categories of assets held by immigrant households?

(b) How does the rate of asset poverty change over time for Canadian immigrants?

(c) What is the rate of immigrants asset poverty over time across demographic groups?

(d) Which socioeconomic characteristics have a larger impact on the probability of being an asset-poor for Canadian immigrants?

With the passage of time, immigrants may improve their qualifications and skills, increase proficiency in the official languages, and develop their understanding of Canadian financial

institutions and resources that reduce economic insecurity. Hence, long- term immigrant households are expected to decrease the asset poverty rates as they integrated into the host society.

Chapter 5 (Study 3) examines the *asset holdings* among different immigrant groups at *different points of time* after they arrived in Canada by addressing the following questions:

(a) How does the homeownership rates of immigrant households change over time as they integrate into Canadian society?

(b) How does the homeownership of immigrants vary based on the demographic and socioeconomic characteristics in different time periods after arrival?

(c) What is the impact of socioeconomic factors on the homeownership of immigrants?

For immigrants, homeownership is a vital indicator of integration into the host country and an effective means of growing assets (Darden, 2015; Ives, Hanley, Walsh, & Este, 2014; Murdie & Teixeira, 2003). Since many immigrants share the desire to live in owner-occupied housing (Haan, 2012; Ray & Moore, 1991), it is anticipated that asset holdings such as homeownership will increase over time for immigrants as they integrate into the host society.

Data

The primary sources of data used to address the objectives of this dissertation are the Survey of Financial Security (SFS) 1999 and 2012 and the Longitudinal Survey of Immigrants to Canada (LSIC) 2007. For this dissertation, master files of these data sets was accessed from the Research Data Centres (RDC) at the University of Windsor (a branch of the Western Research Data Centre) under the project titled “Asset poverty among immigrants to Canada” (Project no. 16-SSH-WIND-4999). The SFS provided information from a sample of Canadian families on their assets, debts, employment, income, and education. The SFS covered about 98% of the

population in 1999 and 2012 in the ten provinces, with 23,000 and 20,000 dwelling, respectively, sample size that is therefore sufficient to estimate the asset poverty of immigrants. The individual files of the SFS provide data on the characteristics of the respondents. It contains information on geographic location (e.g., provinces/territories and metropolitan areas) and demographic characteristics of the respondents. The family file provides information on the wealth of the households. After linking the economic family file with the individual file based on the primary reference person, 2,766 households in 1999 and 2,303 households in 2012 were identified as immigrant households.

Besides SFS, this dissertation used the LSIC that collected information on immigrants at three stages after arrival in Canada: about six months (wave 1), about two years (wave 2), and about four years (wave 3) after landing. The population of interest is those immigrants of the LSIC cohort who still reside in Canada at the time of the third interview; 7716 immigrants were surveyed four years after arrival.

Specific methods for each study

A number of asset variables and demographic and socioeconomic variables were included in the analysis of Study 1 and 2. Two asset poverty thresholds were created based on financial assets and net worth for both studies. Immigrant households were coded as asset poor and non-asset poor based on financial assets and net worth. A mix of descriptive and multivariate methods was utilized in the three studies. Similar to previous studies (Azpitarte, 2011; Rothwell & Robson, 2018), in both studies 1 and 2, multivariate logistic regression models were employed to understand the relationship of various household characteristics to asset poverty. Two main reasons justify the use of multivariate logistic regression. *First,* logistic regression is utilized to predict a single outcome (dependent variable) based on multiple factors (Abu-Bader, 2010). In

this study, the multivariate logistic models predict financial asset poverty and net worth poverty based on country of birth, gender, age, length of residency, marital status, number of children, homeownership status, employment status, language, level of education and region of residency. *Second*, the logistic model is most appropriate to use when the dependent variable is dichotomous, where "the probability of an observation being in a particular category is expressed as a nonlinear function of a set of predictors" (Breen, Karlson, & Holm, 2018, p. 40). In this study, the dependent variable 'asset poverty status', is of such a dichotomous nature and expresses as 1 or 0. Before conducting the regression analysis, chi-square tests were utilized to examine the bivariate relationship between asset poverty and each factor.

In Study 3, besides descriptive analysis, multivariate logistic regression models were used to understand the factors that are associated with homeownership of immigrants. Several time-invariant and time-variant characteristics could influence asset accumulation (e.g., homeownership) of immigrants over time. In Study 3, I examined the homeownership of working-age immigrants over time in Canada. Further details on data, measurement of the explanatory variables, and methodology are provided in each analytical chapter.

To understand the asset poverty of immigrants in-depth, it is important to consider the disparity in asset poverty across different immigrant groups. The literature suggests that some immigrants are struggling economically while others are very well-off (Boudarbat & Lemieux, 2014). As such, the measurement of the prevalence of immigrant asset poverty according to these two groups may provide important information on which immigrant groups need more support to reduce economic vulnerability and help them towards successful economic integration to Canadian society. Considering immigrants as a whole, the study of Rothwell and Robson found that immigrants have higher income poverty risk than non-immigrants (22% compared to 12%); however, they (immigrants) are not at a higher risk for financial asset poverty than Canadian-born. Guided by the asset-based approach of social welfare introduced by social work scholar Michael Sherraden (1991), and building on previous empirical studies (Haveman & Wolff, 2004; Rothwell & Robson, 2018), I examined the prevalence of asset poverty of immigrant across groups and compared to Canadian-born, including which immigrant groups are more vulnerable to asset poverty compared to other immigrant groups and the Canadian- born.

Chapter 3

Study 1: The Prevalence of Asset Poverty among Immigrants in Canada

Abstract

This study examines the prevalence of asset poverty among immigrants in Canada using the 2012 Survey of Financial Security, with the primary goal of revealing which groups of immigrants are more likely to experience asset poverty in Canada. A household is 'asset poor' if it does not have sufficient assets to survive at the low-income cut-off for three months. In this study, two indicators of assets (financial assets and net worth) were used. Findings show that the financial asset poverty rate of immigrant households was 2.33 times greater than their income poverty rate. In addition, the study provides new insight into the economic insecurity of immigrants by showing that some immigrant groups are facing greater financial and net worth poverty rates compared to both Canadian-born and other immigrant groups. The country of origin was significantly associated with the asset poverty of immigrants. People from Latin American and Caribbean (OR = 1.92), South Asian (OR = 1.70), and Sub-Saharan African (OR = 1.47) countries are more likely to experience financial asset poverty in comparison to their North American counterparts. Immigrants from South Asia (OR = 3.16) are at the highest risk of net worth poverty among immigrant groups. The findings suggest that while not all immigrant groups in Canada are equally successful in overcoming economic insecurity, programs that help families accumulate assets can play an important role in increasing the economic security of disadvantaged immigrant families. Further research is needed to understand the duration of asset poverty of immigrants and whether the factors that are associated with asset poverty change over time.

Reducing poverty is a top priority for the federal government of Canada. Very recently, the Government of Canada launched "Opportunity for All - Canada's First Poverty Reduction Strategy," which is a plan for a concerted, coordinated fight against poverty on multiple fronts. The Strategy targets a 20% reduction in poverty by 2020 and a fifty percent reduction in poverty by 2030 (Government of Canada, 2018). Several specific groups of Canadians are at higher risk of experiencing poverty than others. These groups are lone parents, unattached individuals, recent immigrants, people with disabilities, and aboriginal Canadians (Employment and Social Development Canada, 2013). Since a large percentage (21.9%) of Canada's population are immigrants, the poverty and economic integration of immigrants have been well-documented in the Canadian context. Existing studies of immigrant economic integration mostly focus on the earnings gap between recent immigrants and Canadian-born citizens, emerging income or wage inequalities, labour market outcomes or experience (Bonikowska, Hou, & Picot, 2015; Boudarbat & Lemieux, 2014; Hou & Picot, 2016; Buzdugan & Halli, 2009; Ferrer & Riddell, 2008; Gilmore, 2009; Green & Worswick, 2010; Li, 2000; Picot & Lu, 2017; Sweetman & Warman, 2013). Until recently, most poverty studies on immigrants in Canada have been based mostly on income measures. However, experts argue that using income as a proxy for total family resources or well-being may not provide a household's true economic condition (Haveman & Mullikin, 1999). There is widespread criticism of the income-based approach, arguing that examining income alone fails to capture important dimensions of poverty (Atkinson, 2003; Townsend, 1979; Sen, 1979). Other elements, such as available assets (e.g., savings or property), may have a determining influence on the socio-economic condition of individuals and families (Nam et al., 2016; Nam et al., 2008).

In response, the first study of this dissertation examines the prevalence of asset poverty among immigrants in Canada using the 2012 Survey of Financial Security (SFS). The study estimates the differences between the rates of income and asset poverty of immigrant and Canadian-born households, as well as across ethnic groups. Also, this study reveals which groups of immigrants are the most and least likely to experience asset poverty in Canada. The study contributes to our understanding of the patterns of immigrant poverty from an asset-based perspective, and how the risk for asset poverty is unequally distributed across different immigrant groups in Canada. Measuring poverty accurately is important to fighting poverty, formulating policies for those who are most in need of support, and assessing the effectiveness of the poverty reduction policies.

Importance of Assets

The importance of assets and how asset holding affects both temporary and lifelong well-being of households and individuals is well documented in the literature (Nam, Lee, McMahon, & Sherraden, 2016; Nam, Lee, Huang, & Kim, 2015; Rothwell & Han, 2010; Sherraden et al., 2016; Sherraden, 2018). Sherraden (1991) described nine benefits of asset holding.[3] Lerman and McKernan (2008) conducted a systematic review of empirical studies on the effects of asset-holding and asset accumulation on individuals and families. They highlighted important and mostly positive relationships between asset holding and: economic well-being (e.g., income, assets, and consumption); child well-being (e.g., education attainment, behavioral outcomes, and future asset building); social well-being and civic engagement (e.g., household stability, social

[3] (1) improves household stability; (2) creates an orientation towards the future; (3) stimulates the development of human capital and other assets; (4) enables focus and specialization; (5) provides a foundation for risk-taking; (6) increases personal efficacy; (7) increases social influence; (8) increases political participation; (9) enhances the welfare of dependents.

capital, and political interest**);** and health and psychological well-being (seeking appropriate diagnosis and treatment, satisfaction and a sense of efficacy, security).

As demonstrated in the literature, assets are important to individuals and families for several reasons. *First,* asset holding might be an effective way to pull people with low incomes out of poverty because assets can increase capacities at individual and household levels (Paxton 2001; Sherraden, 2018, 2014, 1991; Sen 1999). Since assets are required to get ahead in the long-term (Sherraden, 1991), accumulating assets can improve livelihoods and help people to boost economic security.

Second, assets are essential to cover emergencies or unexpected expenses (Azpitarte, 2011; Loke & Sherraden, 2009; Modigliani, 1986; Sherraden, 2018, 1999). For example, during a family crisis such as medical emergencies, job loss, natural disasters, major home repairs or replacements, owning assets can assist as an economic shield. Families with assets encounter less financial strain and stress during financial hardship (Rothwell & Han, 2010). In contrast, households with little to no asset may experience extreme difficulty in times of financial stress (Keister & Borell, 2015).

Third, assets are more permanent than temporary flows of income (Sherraden, 2018; 1991). Therefore, assets provide for future consumption (Despard et al., 2018; Sherraden, 2018, 1991; Sherraden et al., 2016). Households that hold sufficient assets can take risks like starting a business, quitting a job to search for a more desirable one, or pursuing education or training to improve their position in the labour market (Azpitarte, 2011; Nam et al., 2016; Sherraden, 2018, 2014).

Fourth, assets are essential for a healthy retirement because people are living longer than ever before. Individuals who accumulate enough assets can expect their future financial situation

to be more stable. Retirement with a large number of assets also diminishes the risk of relying on government transfers for retirement consumption (Zhang, 2003).

Fifth, assets play a crucial role in transmitting class status and social inequality across generations (Despard et al., 2018; Nam et al., 2008; Nam, 2020; Shapiro, 2004). One study showed that children who grow up with parents in the top asset quintile were likely to be in the same asset quintile as adults (Pfeffer & Killewald, 2015).

Sixth, a large number of studies have documented positive relationships between asset holding (e g., financial assets and homeownership) and educational attainment and emotional and behavioral outcomes of children (Elliott & Beverly, 2011; Grinstein-Weiss et al., 2009; Grinstein-Weiss, Williams Shanks, & Beverly, 2014, Huang et al., 2014; Huang, 2013; Kim et al., 2015; Sherraden et al., 2015, Williams Shanks & Robinson, 2013). It has been demonstrated empirically that parental assets influence children's chances to receive advanced degrees and predict a lower likelihood of repeating a grade, higher rates of college enrollment, and higher likelihood of college graduation (Elliott III, Kim, Jung, & Zhan, 2010; Grinstein-Weiss et al., 2014, 2009; Kim, Sherraden, & Clancy, 2013; Nam, 2020).

Lastly, asset holdings have positive effects on parents' attitudes and behaviours, mental health, expectations, and parental involvement and practice, which may affect child development (Huang, Sherraden, Kim, & Clancy, 2014; Kim, Sherraden, Huang, & Clancy, 2015; Yeung, & Conley, 2008; Zhan, 2006). Asset holdings reduce parental stress and improve parental well-being and interactions with children that may decrease children's stress levels (Williams Shanks & Robinson, 2013).

However, despite these benefits, some researchers question whether assets are the best means of achieving the desired policy outcomes (Brady, Finnigan, Kohler, & Legewie, 2020;

Gregory, 2014, Prabhakar, 2019). They argued that the causal association of asset-building initiatives contributing to the positive effects is weak; rather, other contributing factors such as income, employment or education may explain these positive outcomes (Gregory, 2014, Köppe, 2015; Searle & Köppe, 2014). Since asset-based welfare focuses mainly on small amounts of financial wealth (Gregory, 2016), studies showed that asset-based programs (such as Individual Development Accounts (IDAs)) have a minimal impact on the tendency to hold a retirement account, account balance, or the adequacy of retirement balances to meet retirement expenses (Grinstein-Weiss et al., 2015). Other studies found very little evidence of IDA participants' abilities to achieve one of the three primary purposes of IDA programs (e.g., homeownership, post-secondary education, and microenterprise) (Grinstein-Weiss et al., 2013; Richards & Thyer, 2011). Also, Mills et al. (2008) showed that IDAs had almost no distinguishable effect on promoting assets, overall wealth, or dropping poverty rates. In terms of reducing poverty, Feldman (2018) argued that the potentiality of IDA programs and asset building has overrated and premature. Gamble and Prabhakar (2005) pointed out that the asset-based welfare could only be a complement to income-replacement strategies and welfare services, however, assets on their own are not sufficient to reduce poverty.

Also, homeownership as a means of accumulating assets has created scholarly debate as researchers raised concerns about the effectiveness of homeownership for low-income earning families (Holupka & Newman, 2012; Hajer, 2009; Newman & Holupka, 2015). They argue that the higher costs of housing (down payment, mortgage, higher utility costs accompanying with the costs of maintenance) may impose additional financial burdens on homeowners compared to tenants (Herbert, McCue, & Sanchez-Moyano, 2013; Hajer, 2009; Li & Fang, 2010). Others have raised doubts about the extent to which housing assets could be considered a financial

reservoir during a time of need (Dewilde & Raeymaeckers, 2008). Since each home has a specific meaning to its owner with emotional attachment, family ties, and inheritance considerations, it may prevent many from consuming housing assets for welfare purposes (such as retirement) or sometimes stop homeowners from moving to other places to search for better options (employment) (O'Mahony & Overton, 2015).

Importance of assets for immigrants

Assets are important for immigrants, especially when they try to integrate into a new society. For financial security and stability, an immigrant's ability to access or attain saving accounts, homes, or businesses, are necessary. Previous research has shown that assets play a vital role in the overall economic well-being that directly influences immigrants' ability to integrate successfully into the new society (Cobb-Clark & Hildebrand, 2006; Zhang, 2003). Asset ownership, such as savings, has numerous benefits, including covering initial expenses to settle into a new country and facilitating access to education or training to enter the competitive labour market. These actions and options are particularly necessary for new immigrants. Since several studies showed that Canadian experience had been widely used to exclude immigrants from the labour market (Ku, Bhuyan, Sakamoto, Jeyapal, & Fang, 2019; Sakamoto et al., 2018; Sakamoto et al., 2013) and the devaluation of international education and non-recognition of credentials are prominent reasons for the low earning of immigrants in Canada (Buzdugan & Halli, 2009; Ferrer & Riddell, 2008; Kaushik & Drolet, 2018; Picot & Sweetman, 2012; Worswick, 2004). Since many immigrants have limited access to formal credit, they are more likely to be discouraged from applying for a bank loan due to fear of rejection (Nam, Sherraden, Huang, Lee, & Keovisai, 2019), owning an asset that can be used as collateral can expand access to financial markets. Also, recent scholarship suggests that studying assets may provide unique

insights into immigrant stratification and how immigrants are economically integrating into the society (Akresh, 2011; Lingxin, 2007; Painter II, Holmes, & Bateman, 2016). Owning a moderate amount of assets can help guard the children of immigrants against downward assimilation (Keister & Moller, 2000; Telles & Ortiz, 2008).

Asset inequality of immigrants in Canada

Economic resources are unevenly distributed within Canada (Sarlo, 2017). Several studies have documented that asset gains in recent years have primarily gone to the top of the distribution (Maroto, 2016; Macdonald, 2014; Brzozowski et al., 2010). The percentage of the total assets held by Canadian families in the top income quintile increased (from 45% to 47%) between 1999 and 2012, however, this percentage decreased (from 5 percent to 4 percent) for the families in the bottom income quintile: mostly younger families, the recently immigrated, lone-parent families and unattached individuals (Uppal & LaRochelle-Cote, 2015).[4]

Some Canadian studies examined the asset holding of immigrants regarding homeownership and educational savings for their children, demonstrating that asset holding is not equal across immigrant groups, and there is a significant asset gap between immigrants and the Canadian-born (Hou, 2010; Maroto, 2016; Milligan, 2005; Preston et al., 2009; Sweet, Anisef, & Walters, 2010). Many immigrant families struggle to build assets in Canada, yet certain groups face greater difficulties than others (Maroto & Aylsworth, 2016). For example, Maroto and Aylsworth (2016) found that immigrant families from African, Asian, and Middle Eastern countries experienced the largest asset disparities. While measuring the asset position of immigrant households in Canada, Zhang (2003) found that among married families, immigrants

[4] An unattached individual is a person living either alone or with others to whom he or she is unrelated, such as roommates or a lodger.

have higher assets than their Canadian-born counterparts. However, recent immigrants (first five years after arrival) hold fewer assets than other immigrant groups and Canadian-born families (Maroto & Aylsworth, 2016; Zhang, 2003). Regarding savings, immigrant families have a higher savings rate than Canadian-born families (Zhang, 2003). For example, immigrants are more likely than Canadians to save into a Registered Education Savings Plan (RESP) (Bonikowska & Frenette, 2020; Milligan, 2005), although the average amount of savings is small (Milligan, 2005). However, not all immigrants are able to save. Many recent immigrants are in the low-income category and therefore find savings difficult (Sweet et al., 2010).

Asset holdings such as homeownership is considered an important indicator of integration of immigrants into the host society (Darden, 2015; Gellatly & Morissette, 2019; Ives et al., 2014; Murdie & Teixeira, 2003). Besides, homeownership has traditionally been an important means to build assets in a new country (Murdie, 2008). However, a recent study shows that immigrant homeowners own proportionately fewer single-detached houses than Canadian-born in Toronto (50% compared to 60%) and Vancouver (39% compared to 48%) (Gellatly & Morissette, 2019). In addition to Montreal, these are the two largest Census Metropolitan Areas (CMAs) with the highest percentage of immigrants. The most recently available studies that examine settlement and housing experiences of immigrants documented that many recent immigrants are less likely to be homeowners compared to the native-born and other immigrant groups (Edmonston, 2016; Haan, 2012; Hiebert & CMHC, 2006; Maroto & Aylsworth, 2016; Mendez, Hiebert, & Wyly, 2006; Preston et al., 2009). Other studies have documented a meager homeownership rate among recent immigrants (Hiebert & CMHC, 2006; Preston et al., 2009). Also, several studies have found considerable differences among immigrant groups when examining immigrant's homeownership by ethnic and racial categories

(Balakrishnan & Wu, 1992; Haan, 2012; Maroto & Aylsworth, 2016; Ray & Moore, 1991). Many immigrants continue to experience unfairness because of their skin colour (Teixeira, 2014). For example, homeownership rates have remained low, especially among recent black immigrants and other visible minorities (Haan, 2007; Mendez et al., 2006; Teixeira, 2008).

Factors that relate to asset inequality of immigrants

As discussed in Chapter 1, a number of factors are associated with asset inequality between immigrants and Canadian-born, as well as among immigrant groups. Several studies showed that how the country of birth, and race and ethnicity explain the variability of asset holdings between immigrants and native-born, and racial minorities and white (Haan, 2007; Maroto & Aylsworth, 2016; Morissette, Zhang, & Drolet, 2002; Osili & Paulson, 2009; Shamsuddin & DeVoretz, 1998; Zhang, 2003). Several studies have documented that asset holdings of immigrants increases as the years of residency increases in the host society (Chawla & Uppal, 2012; Haan, 2012, 2007; Morissette, 2019; Maroto & Aylsworth, 2016; Ray & Moore, 1991; Turcotte, 2008). As such, recent immigrants face greater difficulties in asset accumulation than more established immigrants. A higher level of education (university degree) is positively associate with asset accumulation of immigrants. Since higher levels of education are related to better earnings (Allen, Harris, & Butlin, 2003; Finnie, 2001; Chiswick & Miller, 2002), and income is an important factor to asset accumulation (Chawla, 2004; Maroto, 2016). However, devaluation of foreign education and work experience, non-recognition of credentials, and lack of language proficiency limit labour market participation of immigrants (Buzdugan & Halli, 2009; Ferrer & Riddell, 2008; Hatami & Weber, 2013; Lightman & Gingrich, 2018; Ostrovsky, 2008; Picot & Sweetman, 2012; Sweetman & Warman, 2013), which may hinder some immigrants to accumulate assets.

As discussed before in this article, several studies have documented asset holdings of immigrants in terms of savings and homeownership, yet there remain many gaps in the research on asset inequality within the Canadian context. Studies on asset disparities and asset poverty across immigrant groups are also minimal, however, several US studies showed that asset ownership could vary across ethnicity by asset type (Kim, Chatterjee, & Cho, 2012; Nam, Huang, & Lee, 2016). For example, compared to Korean immigrants and other ethnic groups, older Chinese immigrants are more likely to have a bank account and long-term savings (Nam et al., 2016). However, despite the increasing size of the immigrant population in Canada, there has been relatively little research to date on immigrants financial conditions and long-term economic security and other important aspects of financial situations, such as savings accounts, stocks and bonds, investment, business, and asset ownership of immigrants. Individuals and families with low assets may increase the risk of being asset poor, and these financial and non-financial asset holdings of immigrants may influence the asset poverty rates.

Theoretical Background of Economic Measurement of Poverty

This section begins by describing the measurement of income poverty. Due to the limitations of existing income poverty measurement, discussed in more detail below, asset measures have emerged as new methods in poverty research. The section then describes the theoretical framework for asset poverty measures and empirical evidence of asset poverty in Canada. Finally, the section focuses on asset poverty research on the Canadian immigrant population.

Income poverty measurement

How poverty is understood has a profound influence on how poverty is addressed. The most common methods for measuring poverty in rich countries are focused on income and consumption (expenditures) (Brandolini et al., 2010). Many empirical studies in Canada define poverty as the insufficiency of income to meet basic needs (Chen & Corak, 2008; Fonseca, lee, Zamarro, & Zissimopoulos, 2011; Fosu, 2010; Niemietz, 2010; Picot, Hou, & Coulombe, 2008; Raïq, Van den Berg, & Bernard, 2011; Smeeding, Rainwater, & Gray, 2001; Worts, Sacker, & McDonough, 2010). The income insufficiency approach has been considered an effective approach to guide policy action and raise public concern for poverty (Brandolini et al., 2010). The purpose of this approach is to identify those households that do not have sufficient annual cash income to meet their annual basic needs. In this sense, income is a good proxy for poverty as it is the main way to access the goods and services required to meet basic needs. The income method has the advantage of providing a metric of numerical distances from the poverty line, in terms of income short-falls (Sen, 1979, p. 291).

However, several limitations of income poverty measurement are discussed in the literature (Brandolini et al., 2010; Brady, 2003; Lichter, 1997; Sen, 1979). Although the current cash income numerator of the poverty ratio may reflect the extent to which the family has cash income available to meet its immediate needs, it indicates little about the medium and long-term level of consumption spending potentially available to the family (Haveman & Wolff, 2004). Scholars have argued that income measures alone cannot capture the multidimensional nature of poverty, which includes a lack or difficult access to food, health, education, human rights, and security (Atkinson, 2003; Townsend, 1979; Sen, 1979). Similarly, income-based measurement struggles to accurately capture true cash income, especially those components deriving from

public transfers and in-kind benefits (e.g., Food Stamps, Medicaid), tax credits, and income from assets (Haveman & Mullikin, 1999). Since information on these incomes or yearly cash income could be poorly reported or not fully disclosed to the survey interviewer. Hence, Haveman and Wolff stated that by relying solely on annual cash income as the indicator of resources, income poverty measures neglect many potential sources of utility or welfare (e.g., social inclusion, or security, free health care, public education, social housing) that may be weakly tied to cash income (2004, p. 147). Income measures also ignore the long-term dynamics of household well-being (Sherraden, 1991). Many scholars have, therefore, raised questions as to whether income alone can capture the real dimensions of hardship and deprivation.

Asset poverty measurement

Existing measures of assets and asset poverty, as advanced by Haveman and Wolff (2004, 2005), are based on the consumption model that considers assets to be a storehouse for future consumption (Nam et al., 2016, 2008). In the consumption model, assets are mostly measured by net worth and asset liquidity. The Haveman-Wolff measure of asset poverty defined a household or person as asset poor "if their access to wealth type resources is insufficient to enable them to meet their basic needs for some limited period of time" (Haveman & Wolff, 2004, p. 149). There are two requirements for such a measure: (i) a precise definition of economic resources, and (ii) the establishment of a minimally acceptable level of economic resources needed to achieve well-being or needs (Haveman & Wolff, 2004). To measure basic needs, in their US study, Haveman and Wolff used the family-size conditioned poverty thresholds proposed by a National Academy of Science panel.[5] They choose three months (25%

[5] The family size-conditioned poverty thresholds represent a dollar amount for food, clothing, shelter (including utilities), and a small additional amount to allow for other common, everyday needs, such as household supplies, personal care, and non-work-related transportation (Haveman & Wolff, 2004).

of a year) as the period of time over which assets should be expected to cushion income losses. Haveman and Wolff used net worth and liquid assets concepts to measure economic hardship. While net worth was the difference in value between total marketable assets and total liabilities and is seen as an indicator of "the long-run economic security of families," liquid assets were defined as "cash or financial assets that can be easily monetized" and are an indicator of "emergency fund availability" (Haveman & Wolff, 2004, p 151).

The asset poverty measure based on the consumption model expands the notion of poverty to include "how much and how readily a household can maintain the consumption standard" during a financial crisis or if the family loses its income (Nam et al., 2008, p. 1). In the consumption model, liquid assets, particularly savings, is a resource to balance the instability of household financial resources for consumption across an individual's life (Nam et al., 2016; Nam et al., 2008). Programs that assist individuals and families in accumulating assets can play an important role in increasing their financial security further.

Measuring asset poverty in Canada

While several studies worldwide have used asset indicators to provide a better understanding of who the poor are (Azpitarte, 2011; Brandolini, Magri, & Smeeding, 2010; Blumenthal & Rothwell, 2018; Caner & Wolff, 2004; Haveman & Wolff, 2004; Kim & Kim, 2013; Rothwell, Ottusch, & Finders, 2019; Rothwell & Robson, 2018), measuring poverty based on assets is very new in Canada. Using data from the Luxembourg Income Study (years 1999-2002), Brandolini et al. (2010) found that for Canada in 1999, 33.8% of households were poor measured by net worth, and 56.5% were poor measured by financial assets.[6] Brandolini et al.'s study (2010) showed that Canada had the highest asset poverty rate based on financial assets and

[6] Brandolini et al. (2010) used a relative measure based on 50% of the national median income.

second-highest based on net worth (total assets minus total debts) among OECD countries. Focusing on the measurement of asset poverty among Canadian children, Blumenthal and Rothwell (2018) found that asset poverty rates are two or three times higher than rates of income poverty. The first published research on asset poverty in Canada by Rothwell and Robson (2018) showed that asset poverty rates are approximately two to four times higher than corresponding low-income rates in Canada. By using a relative measure (Low-Income Measure (LIM)), Rothwell and Robson estimated that 54% and 49% of working-age Canadian were financial asset poor in 1999 and 2012, respectively. They also found that net worth poverty fell from 31.3% to 28.4% across years. The results of this study also exhibited that certain demographic groups have much higher rates of financial asset poverty than their corresponding income poverty rates, for example, younger adults and parents of children.

Asset poverty of immigrants in Canada

Until recently, the studies that measured immigrant poverty in Canada have been overwhelmingly based on the LICO income threshold and did not provide any indication of the asset or asset situation of immigrant groups. Some Canadian literature has examined asset holding and asset inequality of immigrants, although not asset poverty. To date, scholars who have studied asset poverty have provided details on the levels, trends, composition, and overall rate of asset poverty in different countries but directed little research attention towards the asset poverty of immigrants.

To the best of my knowledge, only two studies included “immigrant” or “non-citizen” as a variable while measuring asset poverty. Rothwell and Haveman’s study (2013) demonstrated that for both Canadian citizens and non-Canadian citizens, the prevalence of asset poverty far exceeds the prevalence of income poverty in Canada. They documented LICO (33.4 %),

financial assets (58.5 %), and net worth (42.8 %) poverty rates for non-Canadians. However, the citizenship status variable is not able to provide accurate information about immigrants. While most of the non-citizens living in Canada are immigrants, there are, however, some who are not immigrants (e.g., international students, temporary workers). Again, the citizen category includes both Canadian-born and foreign-born persons. In another study, Rothwell and Robson (2018) showed that immigrants have higher income poverty risk than non-immigrants (22% compared to 12%). Regarding financial assets, they found that being born outside Canada places individuals at no higher risk for financial asset poverty than people born in Canada.

From the findings of the literature on immigrants, it appeared that immigrants are divided into two groups - immigrants who struggle economically and those who are very well-off (Boudarbat & Lemieux, 2014). The first group faces discrimination in the labour market, earn lower wages, struggle to be employed, and hold no or fewer assets. The second group of immigrants experiences a great deal of economic security in terms of income and assets. Consequently, there could be a large financial gap among immigrant groups that could affect asset poverty rates. However, it has yet been unexamined which immigrant groups are more likely to be asset poor compared to other immigrant groups.

Limitations of previous research

Existing literature on asset poverty contributes to understanding the condition of asset poverty of Canadian immigrants. However, it is insufficient to understand the asset dimension of poverty between different immigrant groups. To date, two Canadian studies (Rothwell & Haveman 2013; Rothwell & Robson, 2018) have measured the asset poverty of non-citizen or immigrants. However, the authors of these studies referred to immigrants as a group and did not provide information on within-group inequality. Therefore, little is known about asset poverty

across ethnic groups. Since a large percentage (21.9%) of Canada's population are immigrants, it is important to broaden our understanding of the asset vulnerability of immigrants. However, when considering immigrants to be a homogeneous group, as did a previous study (Rothwell & Robson, 2018), it is difficult to understand which groups of immigrants are more vulnerable to asset poverty. As immigrants are an important part of Canadian society, it is helpful to understand the asset disadvantages faced by certain immigrant groups to address their particular needs. Also, given Canada's large immigrant population, the growing proportion of new immigrants with low or no assets could be a major policy concern. The present study addresses this gap and offers additional insight by describing the pattern of immigrants' poverty from an asset-based perspective. By measuring poverty based on assets, this study broadens our understanding of the critical issues missing from the poverty research and Canadian social work literature on immigrant economic integration.

Research questions

Three broad research questions were addressed in this manuscript: (a) What is the prevalence of asset poverty among immigrants in Canada, and how do the asset poverty rates of immigrants compare to the asset poverty rates of the Canadian-born? (b) How does the prevalence of asset poverty compare to the prevalence of income poverty for immigrant households? (c) Among immigrants, who are the most and least likely to fall into asset poverty? This study hypothesizes that immigrant asset poverty rates are higher than income poverty, and that immigrant households have higher rates of poverty than Canadian-born households. The study further hypothesizes that certain socioeconomic and demographic characteristics of the household head are related with higher rates of immigrant asset poverty.

Methods

Source of data

This study used data from the nationally representative cross-sectional Survey of Financial Security (SFS) 2012. The strengths of the SFS include its comprehensive look at assets, debts, employment, income, and educational information from a sample of Canadian families (12,003 cases). The sample households of the SFS 2012 drawn mostly from the Labour Force Survey (LFS) sampling frame (Statistics Canada, 2015a). The LFS area frame strata were grouped into urban and rural strata within each province. The sample included all the families residing in the selected dwellings. Data was collected through interview with the family member most knowledgeable of the family's financial situation. The individual files of the SFS provide data on the characteristics of the respondents. It contains information on geographic location (e.g., provinces/territories and metropolitan areas) and demographic characteristics of the respondents. The family file provides information on household assets. The assets and debts were collected for the family unit as a whole, and not for each person in the family. The term "family unit" included both unattached individuals and families of two or more. Families of two or more were also referred to as economic families, defined as a “group of two or more persons who live in the same dwelling and were related to each other by blood, marriage, common law, or adoption” (Statistics Canada, 2015a, p. 11). The SFS covered the population living in the ten provinces, which represent approximately 98% of the population. People living on reserves and other Aboriginal settlements in the provinces, official representatives of foreign countries living in Canada and their families, members of religious and other communal colonies, members of the Canadian Forces living on military bases or in military camps and institutionalized persons were excluded from the survey (Statistics Canada, 2015a).

For this study, data was accessed from the Research Data Centres (RDC) at the University of Windsor (a branch of the Western Research Data Centre) under the project titled "Asset poverty among immigrants to Canada" (Project no. 16-SSH-WIND-4999).[7]

Measurement

In the present study, the asset poverty of immigrants was measured with the consumption approach. Similar to Rothwell and Robson's study (2018), financial asset poverty and net worth poverty thresholds were created. The basis for creating asset poverty thresholds followed Haveman and Wolff (2004). Financial assets included all checking and savings accounts, term deposits, investments in mutual funds, bonds, stocks, registered savings plans, and other durable assets. However, the measure excluded retirement and pension savings, since except for a few exceptions, they can't be easily cashed to repay family debts.[8] Net worth was calculated as the total value of all financial assets, non-financial assets, and equity in business minus total liabilities. Non-financial assets included principal residence, other real estate assets, and vehicles. Total debts included mortgage debts on a principal residence and other real estates; outstanding balances on credit cards, deferred payment, and installment plans; student loans; vehicle loans; lines of credit; and other money owed. This study included both financial and net worth constructs because these two indicators provide very different pictures of families' economic well-being. For example, net worth is an indicator of the "long-run economic security

[7] The RDCs are part of an initiative by Statistics Canada, the Social Sciences and Humanities Research Council (SSHRC) and university consortia to help strengthen Canada's social research capacity and to support the policy research community (Statistics Canada, 2016, p. 1).

[8] For example, one can borrow from his Registered Retirement Savings Plans (RRSP) tax free to buy the first home or pay for the education. However, if the contributor wants to take money out of his RRSP before retiring - for example, to cover an emergency, he/she has to pay an immediate tax on the money he takes out, and possibly more at tax time. Also, he/she will permanently lose the contribution room, he originally used to make the contribution.

of families", and financial assets are an indicator of "emergency fund availability" since these immediately available assets can be easily monetized (Haveman & Wolff, 2004, p. 151).

The SFS provided information on the 2011 LICO after-tax based on family size and community size.[9] Therefore, it was rational to use the family size adjusted for the 2011 LICO as the income reference. There were several reasons to choose the LICO approach: *first*, the LICOs are the most common poverty measures used in the poverty-related literature across Canada (Aldridge, 2017; Picot & Hou, 2019; Sarlo, 2014). Previous studies that measured immigrants' poverty rates in Canada are based mostly on the LICO income threshold (Kazemipur & Halli, 2001; Picot & Hou, 2014; Picot, Lu, & Hou, 2009; Picot & Hou, 2003; Statistics Canada, 2008a). *Second*, Statistics Canada's LICO is calculated based on location and family size (seven family sizes and five community sizes) (Andrews, 2015). The literature showed that immigrants tend to live mostly in urban areas (Gellatly & Morissette, 2019; Teixeira & Drolet, 2018; Vézina & Houle, 2017). Therefore, using the LICO approach as an income reference was appropriate in this study because it allowed identifying an immigrant poverty rate based on geographic location.[10] As well, larger households require more assets to escape poverty. Similar to previous studies (Rothwell & Robson, 2018; Blumenthal & Rothwell, 2018), this study used equivalence scales that account for different asset requirements based on different family sizes. In other words, to calculate asset poverty, this study equivalized assets using a common equivalence scale, the square root scale, which divided household assets by the square root of the household size.

[9] After-tax income refers to total income from all sources minus federal, provincial and territorial income taxes paid for 2010.

[10] For example, in 2011 the LICO after-tax poverty threshold for a family of 4 (two adults and two children) living an urban area with over 500,000 inhabitants was $ 36,504. Therefore, a family of 4 would be coded as asset poor if its reported financial asset holdings totaled less than 25 percent of the LICO poverty line ($9,126 = .25 * 36,504). Similarly, a family would be asset poor if its net worth is calculated less than 25 percent of the LICO poverty line for families of their size and composition.

This study used the definition of 'immigrant' provided by Statistics Canada.[11] Based on the literature review, it was anticipated that the asset poverty of immigrants might be affected by several factors. As such, several relevant socio-demographic variables were included in the analysis. The continuous variable age was converted into five categories: (i) Age less than 25, (ii) Age 25-34, (iii) Age 35-49, (iv) Age 50-65, (v) Age 66 or more.[12] The variable 'length of residency' was created based on the year the respondents came to Canada to live, divided into seven groups: (i) less than 5 years, (ii) 5 to 10 years, (iii) 11 to 15 years, (iv) 16 to 20 years, (v) 21 to 25 years, (vi) 25 to 30 years, and (vii) more than 30 years. Seven different groups of 'country of origin' variable were generated based on 163 countries, and the groups were: (i) South Asia, (ii) the Middle East & North Africa, (iii) North America, (iv) East Asia & Pacific, (v) Europe & Central Asia, (vi) Sub-Saharan Africa, and (vii) Latin America & Caribbean. The above categories followed the "World Bank country classification" (see appendix A).

SFS 2012 did not provide information on the number of children in the family units, instead containing information on the number of persons in the family unit of age 0-4, 5-9, 10-14, 15-17, and so on. This information was considered to create the "number of children" variable, assuming that all members in a house aged 0 to 17 were children of that household unit.

[11] The foreign-born population is also referred to as the immigrant population. Immigrant is a person who is or has ever been a landed immigrant/permanent resident. This person has been granted the right to live in Canada permanently by immigration authorities. Immigrants are either Canadian citizens by naturalization (the citizenship process) or permanent residents (landed immigrants) under Canadian legislation (Statistics Canada, 2013c, p.4).

[12] In this study, asset poverty was measured with the consumption approach, which is linked to the life-cycle hypothesis (Ando & Modigliani, 1963; Modigliani & Brumberg, 1954). Since people's income flows may not be even over the lifetime, savings rates will fluctuate throughout life, which may then affect asset poverty rates. The life cycle model describes a hump-shaped pattern in which income and asset accumulation is low during the young adult stage (age 20s-30s), rises in middle age (age 40s -50s), and again goes back to being low during the 60s and beyond. Therefore, it was meaningful to code the age variable in groups that allowed to examine the level of asset poverty of immigrants living at different life stages. Several previous studies that measured asset poverty (Azpitarte, 2011; Kim & Kim, 2013; Rothwell & Robson, 2018) also treated age as a categorical variable. However, it is important to note that changing the age categories may influence the results and interpretation.

However, it is possible that households included children of older than the age of 17 or that individuals younger than 18 might be children of other people. The analysis only included 'minors' of the households and based on the number of minor children in the households; five different groups were created: (i) no children, (ii) one child, (iii) two children, (iv) three children, (v) four or more children. In Canada, while the definition of a minor child varies according to the province, in this study, a person under the age of 18 was considered to be a "minor child." Other variables of interest were grouped as 'family size' (1 to 6 or more); language: (i) language English, (ii) language French, (iii) language other; marital status: (i) married, (ii) single (single included never married, and divorced/widowed/separated); employment status: (i) employed, (ii) unemployed; level of education: (i) less than high school, (ii) high school diploma, (iii) some college, (iv) university degree; homeownership status: (i) homeowner, (ii) not-homeowner.

Procedure

The data analysis involved two steps. *First*, descriptive analyses were used to estimate the prevalence of asset poverty among immigrants and to compare the rates of income poverty and asset poverty of immigrant and Canadian-born households. To understand the asset poverty across demographic groups of immigrants, it was necessary to link the economic family file to an individual-level file based on the primary reference person in the survey. Headcount ratios (i.e., the percentage of the population below the specified poverty line) were computed for the Canadian-born and immigrants and across demographic groups. *Second,* multivariate logistic regression models were employed to understand the relationship of various household characteristics to asset poverty.

This paper is the extension of the study by Rothwell and Robson (2018) and used the same methods measuring asset poverty of immigrants. However, the current study was different

from the previous study in two ways: *First,* the current study is focused on immigrants. For this study, the whole sample of SFS was divided into foreign-born and Canadian-born based on the place of birth of the primary reference person. In this study, a family was referred to as an immigrant family if the respondent was a foreign-born person. In the SFS, an unattached individual was also viewed as a family unit and if he/she was born outside Canada, was considered as an immigrant family. *Second,* Rothwell and Robson (2018) showed immigrants as a group. To better understand the income and asset poverty of immigrants, this study widened the investigation of immigrants at the sub-group level. Several new variables such as country of origin, length of residency, the language most spoken at home were used in this study. SFS provided detailed information on household financial and non-financial assets and debt that allowed to construct the asset poverty thresholds. Statistics Canada imputed the missing values for the income, assets, and debts. The nearest-neighbour techniques were employed for all missing components of income and net worth (SFS, 2012). However, not all variables on the SFS database were imputed for non-response. In some cases, I excluded observations with missing data (which occurs in language, employment, education level, marital status). Before excluding the observations, I examined the impact of missing values on the overall representativeness of the data. Very few missing data were found for the variables of interest.

Only weighted results were requested for disclosure from the RDC. To account for the sample design of the survey, bootstrap procedures were employed to calculate confidence intervals and coefficients of variation, and to test the statistical significance of difference.[13] A significance level of $p<0.05$ is applied in all cases.

[13] Consultation with staff at the RDC ensured that the acceptable sample sizes were derived from each variable and that appropriate weighting and bootstrapping procedures were applied to the data.

Results

In the following section, I report the findings of this study using descriptive analysis and multivariate logistic regression models. The findings are presented in tabular form under the following sub-headings: Demographic profile of the sample; Asset distribution; Income and asset poverty rates; Income and asset poverty of immigrant and Canadian-born by socio-demographic categories; and Factors associated with financial and net worth poverty of immigrants.

Demographic profile of the sample

The demographic profiles of the sample are exhibited in Table 1. After linking the economic family file with the individual file based on the primary reference person, 2303 households were identified as immigrant households, and 9700 households were identified as Canadian-born households. Household characteristics showed that a large portion of immigrants and Canadian-born sample were in single-person families. For immigrant households, a family size that contained four to six or more members were nearly double (30.71%) in comparison to the Canadian-born households (18.40%), indicating that immigrants have a relatively larger family size than that of the Canadian-born. A higher percentage of immigrants were younger and were in the prime working age (ages 25 to 49) than the Canadian-born. For both immigrants and Canadian-born, being married was more common than being single (single included never married and divorced/widowed/separated), however, compared to the Canadian-born, more immigrants were part of married families.

The sample table showed that more immigrants were unemployed than the Canadian-born. In 2012, the percentage of immigrants holding university degrees were 12 percentage point higher than Canadian-born. However, the foreign-born had lower rates of high school diploma and some college degree than the Canadian-born. Residents of Ontario represented the biggest

share of immigrants and Canadian-born in the sample. Regarding the length of residency in Canada, the largest portion of immigrants were residing in Canada for more than thirty years. For immigrants, the most common language spoken at home was a language other than English or French. Regarding country of origin, while Europe & Central Asia were the primary sources of immigration in Canada, the least number of immigrants came from North America and Sub-Saharan Africa.

Table 1

Demographic profile of the sample

Variables	Immigrant (n=2303)		Canadian-born (n=9700)		Total sample (n=12003)	
	Freq.	%	Freq.	%	Freq.	%
Number of family members						
Family size 1	687	29.82	3548	36.57	4,179	34.82
Family size 2	572	24.84	3264	33.65	3,764	31.36
Family size 3	337	14.64	1104	11.38	1,468	12.23
Family size 4	371	16.09	1190	12.26	1,591	13.26
Family size 5	186	8.08	432	4.46	648	5.40
Family size 6 or more	151	6.54	163	1.68	353	2.94
Age						
Age less than 25	163	7.07	502	5.18	680	5.67
Age 25-34	281	12.20	1694	17.47	1933	16.10
Age 35-49	768	33.36	2459	25.35	3293	27.43
Age 50-65	695	30.16	3135	32.32	3812	31.76
Age 66 or more	396	17.21	1909	19.68	2285	19.04
Marital status						
Single	894	38.80	4405	45.41	5245	43.70
Married	1409	61.20	5295	54.59	6758	56.30
Employment status						
Unemployed	805	34.94	3279	33.80	4093	34.10
Employed	1498	65.06	6421	66.20	7910	65.90
Level of education						
Less than high school	300	13.01	1744	17.98	2004	16.69
High school diploma	535	23.22	2551	26.30	3061	25.50
Some college	686	29.79	3237	33.37	3894	32.44
University degree	782	33.97	2168	22.35	3045	25.37

Homeownership status						
Not homeowner	998	43.31	3435	35.41	4497	37.46
Homeowner	1305	56.69	6265	64.59	7506	62.54
Gender						
Male	1309	56.85	4966	51.20	6321	52.66
Female	994	43.15	4734	48.80	5682	47.34
Region						
Atlantic	38	1.66	874	9.01	852	7.10
Quebec	399	17.31	2628	27.10	2948	24.56
Ontario	1125	48.86	3235	33.35	4486	37.37
Prairies	352	15.27	1753	18.08	2082	17.35
British Columbia	389	16.91	1210	12.47	1635	13.62
Number of children in the family						
No children	1568	68.06	7419	76.48	8918	74.30
One child	345	14.96	948	9.77	1335	11.12
Two children	243	10.55	953	9.82	1202	10.01
Three children	104	4.51	293	3.02	409	3.41
Four children or more	44	1.91	87	0.90	139	1.16
Length of residency in Canada						
Less than 5 years	339	14.82				
5-10 years	311	13.58				
11-15 years	235	10.25				
16-20 years	209	9.13				
21-25 years	243	10.59				
26-30 years	122	5.32				
More than 30 years	831	36.30				
Language spoken at home						
Language English	1047	45.49				
Language French	166	7.20				
Language other	1089	47.31				

Country of origin		
South Asia	286	12.44
Middle East & North Africa	214	9.33
North America	91	3.97
East Asia & Pacific	561	24.43
Europe & Central Asia	766	33.32
Sub-Saharan Africa	106	4.61
Latin America & Caribbean	273	11.90

Note: Author's calculations using economic family restricted data files from the 2012 Statistics Canada Survey of Financial Security. All estimates (percentages) in the table have been survey weighted. Atlantic region included Newfoundland and Labrador, Prince Edward Island, Nova Scotia, and New Brunswick; and Prairie region included Manitoba, Saskatchewan, and Alberta.

Asset distribution

Table 2 reports the distributions of financial assets (non-pension) and net worth of immigrant and Canadian-born households in 2012. The results showed sufficient statistical evidence ($p = 0.03$) that, on average, Canadian-born households have more financial assets than immigrant households. Also, the 25th, median, and 75th percentile of these two groups showed that the financial assets gap of the lower half of immigrants are larger than the Canadian-born.[14] However, the difference in household net worth between these two groups was not statistically significant ($P = 0.08$). Regarding net worth, the median was lower for immigrants compared to the Canadian-born households.

[14] No top coding was applied to calculate the percentile. Zero coding was used to treat the negative values. The wealth gap at each point of the distribution was simply calculated as the difference in wealth between immigrants and Canadian-born families at different percentiles. Graphical techniques such as histograms, scatter plots and boxplots were used to identify the outliers. These tools provided enough information to find unusual data points for further investigation. I also performed the analysis with and without these outlier observations to explore differences in results. For immigrants, one outlier for financial assets and three for net worth was found. For Canadian-born, two outliers for financial assts and a few for net worth was found. No outliers were removed to show the asset distribution.

Table 2

Distribution of financial assets and net worth of immigrants and Canadian-born, 2012(in Canadian $)

Variables	Immigrants	Canadian-born	Gap	Significance level (*p*)
2012 Financial asset (non-pension)				
Mean	41,477	54,352	-12,875	0.03
25%	816	866	-50	0.99
Median	5,657	5,196	461	0.94
75%	22,923	27,500	-4,577	0.46
2012 Net worth				
Mean	264,582	290,623	-26041	0.08
25%	6,897	16,599	-9,702	0.51
Median	103,450	118,000	-14,550	0.32
75%	333,754	325,500	8,254	0.58

Note: Author's calculations using economic family restricted data files from the 2012 Statistics Canada Survey of Financial Security. Only weighted results are shown in the table.

Income and asset poverty rates

The headcount poverty rates for income, financial asset poverty, and net worth poverty of immigrants and Canadian-born for 2012 are presented in Table 3. In 2012, the overall income poverty, financial asset poverty, and net worth poverty rates in Canada was 15.42%, 51.28%, and 18.92%, respectively. For immigrant households, the income poverty rate was 22.86 %, the financial asset poverty rate was 53.27%, and the net worth poverty rate was 24.70% in 2012. Using the financial asset poverty threshold, the poverty rate of immigrants in 2012 was 2.33 times greater than the established LICO rate, and the net worth poverty rate was 1.84 percentage points greater than the LICO rate.

Table 3 also reported 12.81% LICO rate, 50.59% financial asset poverty rate, and 16.90% net worth poverty rate of Canadian-born households. The result showed that the poverty rate was highest in both samples with the financial assets definition. While across measures, the

headcount poverty rates were higher for immigrants than the Canadian-born, the financial asset poverty gap between these two groups was quite small. For example, compared to their Canadian-born counterparts, the income poverty rate of immigrants was almost double (1.8 times), financial asset poverty was nearly equal (1.05), and net worth poverty was 1.5 times greater. The asset ratio columns in table 3 showed that, despite experiencing higher income and asset poverty than their Canadian-born counterparts, the tendency of holding liquid and real assets is higher for immigrants compared to their Canadian counterparts.

Variation in poverty rates by household size is also shown in Table 3. Results showed that the 2012 LICO rate drops considerably when the household size increases, for example, 43.78 for single-person households to 14.35 in two-person households. This pattern of income poverty did not match for financial asset poverty. The 2012 financial asset poverty rate for two-person households of immigrants was 41.42, which was nearly three times (2.88) higher than the LICO rate for similar households. However, the variation in the net worth poverty rate was only 3.64 percentage points larger than the same household size LICO rate.

Table 3

Low income and asset poverty rates by family size, 2012 (results are in percent)

	LICO			Financial assets			Net worth		
Variable	Immigrants households	Canadian households	LICO ratio	Immigrants households	Canadian households	FAP ratio	Immigrants households	Canadian households	NWP ratio
All	22.86	12.81	1.78	53.27	50.59	1.05	24.70	16.90	1.46
Family size 1	43.78	27.78	1.58	54.33	55.73	0.97	39.71	27.43	1.44
Family size 2	14.35	4.79	2.99	41.42	40.33	1.02	17.99	10.54	1.70
Family size 3	17.42	3.36	5.08	54.81	56.43	0.97	18.91	13.25	1.42
Family size 4	11.54	3.73	3.09	52.22	53.96	0.96	15.45	8.56	1.80
Family size 5	12.61	3.54	3.56	69.21	58.06	1.19	21.47	11.95	1.79
Family size >=6	12.57	2.48	5.06	72.85	60.23	2.00	21.40	13.60	1.57

Note: Headcount poverty rates. Author's calculations using economic family restricted data files from the 2012 Statistics Canada Survey of Financial Security. Only weighted results are shown in the table. FAP = Financial asset poverty, NWP = Net worth poverty.

Income and asset poverty of immigrant and Canadian-born by socio-demographic categories

Table 4 describes how income and asset poverty rates varied across socio-demographic groups in the year 2012. Consistent with previous studies, the results of this study showed the highest rates of income and asset poverty for both immigrant and Canadian-born households headed by younger adults (age less than 25 years) and the poverty rates decreased with higher ages (Azpitarte, 2011; Rothwell & Robson, 2017). In both groups, regarding marital status, single households experienced higher levels of poverty across measures than did married households. Consistent with previous findings, the income poverty rate was higher for immigrants who had a high school diploma, some college, and university degrees compared to immigrants without high school degrees (Bonikowska, Hou, & Picot, 2011; Li, 2001). However, it should be noted here that the percentage of immigrants without high school diplomas was 13% within the total immigrant sample. Immigrants with university degrees experienced lower asset poverty compared to immigrants who had lower levels of education.

Table 4

Income, financial assets, and net worth poverty rates of immigrant and Canadian-born by socio-demographic categories

	Immigrant households				Canadian-born households			
Variable	n=2303(%)	Income (LICO) poor (%)	Financial asset poor (%)	Net worth poor (%)	n=9700(%)	Income (LICO) poor (%)	Financial asset poor (%)	Net-worth poor (%)
Overall		22.86	53.27	24.70		12.81	50.59	16.90
Age (in years)								
Age < 25	163(7)	67.26	71.49	57.62	502 (5)	42.73	71.52	47.25
Age 25-34	281(12)	31.28	65.88	40.90	1694(17)	13.55	66.35	30.42
Age 35-49	768(33)	18.20	58.52	25.99	2459(25)	8.93	57.82	15.03
Age 50-65	695(30)	21.52	49.51	17.80	3135(32)	14.21	45.01	11.64
Age 66 or more	396(17)	10.03	33.22	9.25	1909(20)	6.97	30.93	7.98
Marital status								
Single	894(39)	37.8	58.99	39.43	4405(45)	25.17	58.11	28.12
Married	1409(61)	13.4	49.64	15.35	5295(55)	2.52	44.33	7.57
Employment status								
Unemployed	805(35)	38.6	52.63	26.56	3279(34)	22.14	46.1	18.75
Employed	1498(65)	14.42	53.61	23.70	6421(66)	8.05	52.88	15.95
Level of education								
Less than high school	300(13)	17.14	48.75	23.02	1744(18)	22.22	60.44	26.18
High school diploma	535(23)	29.69	61.44	31.16	2551(26)	14.17	57.4	19.29
Some college	686(30)	21.69	57.30	26.34	3237(33)	11.17	51.77	13.96
University degree	782(34)	21.42	45.87	19.48	2168(22)	6.09	32.89	11.02
Homeownership status								
Not homeowner	998(43)	42.71	73.21	55.64	3435(35)	30.06	69.91	45.09
Homeowner	1305(57)	7.70	38.03	1.05	6265(65)	3.35	40.00	1.44
Gender								
Male	1309(57)	23.05	54.66	26.65	4966(51)	11.21	48.78	14.63
Female	994(43)	22.62	51.43	22.12	4734(49)	14.49	52.49	19.29

Region								
Atlantic	38(2)	14.29	34.52	9.07	874(9)	10.63	60.24	17.68
Quebec	399(17)	37.61	58.65	33.64	2628(27)	14.09	53.07	13.58
Ontario	1125(49)	20.05	54.65	26.01	3235(33)	12.93	51.16	19.27
Prairies	352(15)	15.41	53.08	21.14	1753(18)	10.65	44.93	15.66
British Columbia	389(17)	23.49	45.77	16.49	1210(12)	14.42	44.91	19.03
Number of children in the family								
No children	1568(68)	25.69	47.62	25.58	7419(76)	14.79	47.58	17.23
One child	345(15)	17.76	65.06	20.92	948(10)	7.11	60.95	18.37
Two children	243(10)	13.99	60.71	20.53	953(10)	5.25	59.57	12.42
Three children	104(5)	11.36	72.40	26.19	293(3)	7.58	63.22	16.17
Four children or more	44(2)	38.37	75.93	42.20	87(1)	6.65	53.31	24.72

Note: Headcount poverty rates. The proportion of the sample made up for each group are reported in parentheses. Author's calculations using economic family restricted data files from the 2012 Statistics Canada Survey of Financial Security. All estimates (income and asset poverty rates) in the table for both immigrants and Canadian-born households have been survey weighted. .

Higher rates of income poverty and net worth poverty were observed for unemployed immigrant households than their Canadian-born counterparts. Interestingly, for both immigrants and Canadian-born households, those employed experienced higher financial asset poverty compared to other measures. For both groups across measures, the poverty rates were very low for homeowners. Results showed that regardless of the poverty measures, immigrant households with four or more children experienced much higher poverty compared to their Canadian-born counterparts. However, it should be noted here that four or more children only made up 2% of immigrants, and 1% of total non-immigrants sample. A similar pattern was observed for families with one child or two children. Also, interestingly, both income and asset poverty rates were higher for immigrant men than immigrant women, but across measures, the Canadian-born women had higher poverty rates than the Canadian-born men. However, it should be noted here that, in the SFS, assets were collected for the family as a whole, and it was not possible to determine the household asset ownership based on gender. In terms of regional differences, the results of this study showed that immigrant income and asset poverty rates were higher in Quebec and were lower in the Atlantic region than in any other part, however, only 2% of the total immigrant sample was living in the Atlantic region.

Table 5 describes the income and asset poverty of immigrant households by their country of origin, length of residency in Canada, and the language that immigrants speak at home. A large income and asset poverty gap were found among immigrants based on country of origin. Regardless of measures, the poverty rates were higher for immigrants who came from the Middle East & North Africa and Sub-Saharan Africa than for other groups. Immigrants from North America and Europe & Central Asia experienced lower poverty rates compared to other groups.

For each group, financial asset poverty was far higher than the income poverty and net worth poverty.

Regarding the length of residency, recent immigrants (less than five years) experienced the highest rate of income and asset poverty among immigrant groups. In contrast, across measures, the rates of poverty decrease considerably among those residing in Canada for more than thirty years, and a large difference was observed between earlier and recent immigrants regarding their income poverty rates (13.38 compared to 54.03), financial asset poverty rates (37.83 compared to 71.32), and net worth poverty rates (14.34 compared to 48.39). The income poverty of immigrants dropped with the length of stay in Canada (5 to 10 years, 11 to 15 years, and in later years). These results are consistent with a previous study on poverty by Picot, Hou, and Coulombe (2008). The pattern of income poverty also matched that of asset poverty, although the drops in financial asset poverty were not as large as in income poverty. For example, in 2012, the financial and net worth poverty rates of immigrant households who were in Canada for 5 to 10 years dropped by 5 and 21 percentage points, respectively, compared to the asset poverty rates of the immigrants who were in Canada for less than five years. Speaking in another language at home rather than English also showed higher income and asset poverty rates of immigrants.

Table 5

Income, financial assets, and net worth poverty rates of immigrants by country of origin, length of residency and language

		Immigrant households		
Variable	n=2303(%)	Income poor (%)	Financial asset poor (%)	Net worth poor (%)
Overall rate		22.86	53.27	24.7
Country of origin				
South Asia	286(12)	24.48	67.83	31.46
Middle East and North Africa	214(9)	31.13	72.29	43.38
North America	91(4)	13.00	42.03	16.08
East Asia and Pacific	561(24)	24.09	46.47	21.03
Europe and Central Asia	766(33)	19.48	40.01	15.53
Sub-Saharan Africa	106(5)	29.52	69.81	43.55
Latin America and Caribbean	273(12)	22.64	71.54	32.04
Length of residency in Canada				
Less than 5 years	339(15)	54.03	71.32	48.39
5-10 years	311(14)	21.77	65.84	27.64
11-15 years	235(10)	16.31	63.12	27.98
16-20 years	209(9)	24.10	50.09	21.02
21-25 years	243(11)	19.34	55.75	26.90
26-30 years	122(5)	21.53	55.58	15.70
More than 30 years	831(36)	13.38	37.83	14.34
Language spoken at home				
Language English	1047(45)	18.04	48.35	22.33
Language French	166(7)	26.22	58.71	39.39
Language other	1089(47)	27.01	57.19	24.75

Note: Headcount poverty rates. The proportion of the sample made up for each group are reported in parentheses. Author's calculations using economic family restricted data files from the 2012 Statistics Canada Survey of Financial Security. All estimates in the table (income and asset poverty rates) have been survey weighted.

Factors associated with financial and net worth poverty of immigrants

Table 6 presents results from the multivariate logistic regression models that predicted financial asset poverty, and net worth poverty of immigrants in 2012. Controlling for other factors, the number of children in the household statistically significantly increased the odds of being both financial asset poor and net worth poor (OR = 1.55 and 1.51, respectively). Regardless of asset poverty measure, compared to the reference group of age 66 and over, all other age groups were more likely to be asset poor. In particular, net worth poverty was considerably higher for all age groups. The results suggest that economic vulnerability in the earlier stages of the life cycle was significantly higher for immigrants.

Country of origin variable reports within-group inequality among immigrants across measures. Immigrants from the Middle East & North Africa were more likely at risk of being financial asset poor (OR = 2.11) in comparison to immigrants from North America. Also, South Asian (OR = 1.70), Sub-Saharan African (OR = 1.47), and Latin American & Caribbean (OR = 1.92) immigrants were more likely to be in financial asset poverty in comparison to their North American counterparts. However, immigrants born in East Asia & Pacific (OR = .71) and Europe & Central Asia (OR = .81) were at less risk of being financial asset poor. Regarding net worth poverty, compared to the reference group North America, immigrants from every regional category besides Europe & Central Asia were at risk of poverty. Immigrants from South Asia (OR = 3.16) were at the highest risk of net worth poverty compared to any other group.

Whatever asset poverty thresholds were used, living in a married family reduced the chances of being poor. Homeownership significantly reduced the risk of being financial and net worth poor. Length of residency played a much stronger role in explaining financial asset poverty than in net worth poverty, specifically for the immigrants who were residing in Canada

for less than 15 years. Immigrant households whose head had low education were more likely to be financial asset-poor while having a university degree reduced the chance of being financial asset poor (OR = .49). Contrary to general expectation, being a woman and unemployed were not statistically significant predictors of asset poverty experience.

Table 6
Logistic regression models predicting asset poverty of immigrants

	Model 1 Financial assets		Model 2 Net worth	
Variables	Odds Ratio (SE)		Odds Ratio (SE)	
Gender (ref: male)				
Female	0.858	(0.120)	0.597*	(0.131)
Language (ref: English)				
Language French	0.865	(0.289)	1.335	(0.566)
Language other	1.168	(0.196)	0.987	(0.267)
Age (ref: 66 or more)				
Age less than 25 years	1.081	(0.409)	3.677*	(1.868)
Age 25-34 years	1.412	(0.488)	3.743**	(1.860)
Age 35-49 years	1.408	(0.394)	3.217*	(1.504)
Age 50-65 years	1.772**	(0.384)	2.466*	(0.962)
Country of origin (ref: North America)				
South Asia	1.702	(0.564)	3.156*	(1.708)
Middle East & North Africa	2.109*	(0.734)	1.950	(1.007)
East Asia & Pacific	0.708	(0.220)	1.182	(0.582)
Europe & Central Asia	0.817	(0.225)	0.947	(0.430)
Sub-Saharan Africa	1.467	(0.533)	1.667	(0.909)
Latin America & Caribbean	1.922*	(0.625)	1.073	(0.545)
Region (ref: Ontario)				
Atlantic	0.676	(0.221)	0.333	(0.193)
Quebec	0.757	(0.203)	0.558	(0.190)
Prairies	0.903	(0.162)	0.723	(0.210)
British Columbia	0.758	(0.128)	0.455**	(0.139)
Marital status	0.723*	(0.117)	0.365***	(0.092)
Number of children	1.545***	(0.130)	1.509**	(0.216)
Length of residency (>30 years)				
Less than 5 years of residency	1.793	(0.546)	0.618	(0.262)
5-10 years of residency	2.163**	(0.587)	0.514	(0.228)
11-15 years of residency	2.136**	(0.586)	1.032	(0.486)
16-20 years of residency	1.023	(0.293)	0.640	(0.321)
21-25 years of residency	1.181	(0.333)	0.809	(0.337)
26-30 years of residency	1.608	(0.518)	1.062	(0.520)
Level of education (ref: < high school)				
High school diploma	1.157	(0.294)	0.965	(0.415)
Some college	1.004	(0.245)	0.952	(0.422)
University degree	0.493**	(0.125)	0.733	(0.337)
Employment status (ref: Unemployed)	0.744	(0.129)	0.801	(0.202)
Home ownership status (ref: not homeowner)	0.265***	(0.046)	0.008***	(0.003)

Note: Standard errors in parentheses. * $p<0.05$, ** $p<0.01$, *** $p<0.001$. Author's calculations using economic family restricted data files from the 2012 Statistics Canada Survey of Financial Security. Only weighted results are reported.

Discussion

The current study sought to address the lack of research on asset poverty among immigrant groups and build upon knowledge from previous asset poverty research in Canada. The study compared the prevalence of asset poverty among immigrants versus native-born Canadian and examined which groups of immigrants are more likely to experience asset poverty in Canada. Identification of these households is an important issue for welfare policy design (Azpitarte, 2011) because it allows the recognition of households more likely at risk of economic vulnerability.

The study found asset poverty rates that were higher than income poverty rates for both immigrants and native-born Canadians. This result is consistent with previous research that suggests the asset poverty rate, when applying financial assets, is higher than the net worth poverty rate in Canada (Rothwell & Haveman 2013; Rothwell & Robson, 2018). More than 50% of immigrants and Canadian-born households are estimated to be in financial asset poverty. Although many families from both groups are struggling economically, immigrants seem to be more vulnerable. Across measures, poverty rates are higher for immigrants compared to the native-born Canadian. Considering immigrants as a group, findings from previous research has showed that compared to the Canadian-born, immigrants tend to be income and net worth poor, but not likely to be financial asset poor (Rothwell & Robson, 2018). However, by focusing on immigrant families based on their country of origin, this study is telling a different story. Since asset disadvantages are unequally distributed across immigrant groups (Maroto & Aylsworth, 2016), dividing immigrants into various groups provided a different picture of immigrants'

financial asset poverty. The approach taken in this study is different from that taken by Rothwell and Robson (2018) who did not distinguish between different immigrant groups, leading to new findings. This study's findings suggest higher financial asset poverty rates for some immigrant groups in comparison to Canadian-born and other immigrant groups. Also, the different sample sizes, differences in the number of variables included, and the way the variables were measured in the studies (current study and Rothwell & Robson's study (2018) could lead to different results.

Some groups are significantly more at risk of financial and net worth poverty compared to other immigrant groups. For example, between-group estimations show that immigrants from the Middle East & North Africa, South Asia, Sub-Saharan Africa, and Latin America & Caribbean are more at risk among the financial asset poor. However, immigrants from North America, and Europe & Central Asia have lower poverty rates. These findings are consistent with a previous study that showed that recent immigrants and those from countries outside of Western Europe and North America experience the greatest disparities in growing their assets (Maroto & Aylsworth, 2016). Specifically, in Canada, institutional barriers, legal status, language skills, and discrimination in labor markets may block racial minorities (many of them are visible minority immigrants) from achieving higher social status and a high level of asset accumulation (Banerjee & Lee, 2015; Green & Worswick, 2012; Lightman & Good Gingrich, 2018; Oreopoulos, 2011).[15] This study indicates that many visible minority immigrant groups are at risk of experiencing economic vulnerabilities compared to non-visible immigrants. These findings raise the question of to what extent racial discrimination can explain the asset poverty gap among immigrant groups. Economic and social integration into Canadian society is slower

[15] Examples of labour market discrimination are unemployment, low wages, lower status occupation, devaluation of work experience and education credentials, and biased recruitment procedures.

for racial minority immigrants than it is for immigrants of European origin, partly because of their sense of exclusion represented by perceived discrimination (Reitz & Banerjee, 2007).

Based on previous research, it was anticipated that a lack of human capital would help explain the asset poverty risk. Across measures, Canadian-born households headed by individuals with low education experience high rates of poverty. While Rothwell and Robson (2018) showed that the risks for all three measures of poverty declined as levels of education increased, the findings are somewhat different for certain groups in the current study. For example, findings of this study indicate that having a university degree decreases the likelihood of being asset poor. However, immigrants who have a high school diploma and some college degree are at risk of financial asset poverty while comparing to the immigrants without high school degrees. The results suggest that the asset accumulation process of some groups of immigrants could be more challenging compared to Canadian-born, even with similar socio-demographic characteristics.

As expected, speaking in another language at home rather than English or French is found to be important for increasing the probability of being financial asset poor. It has been widely documented that immigrants' earning disadvantages commonly originate from a lack of language proficiency in one of the official languages (Chiswick & Miller, 2002; Hatami & Weber, 2013; Lightman & Good Gingrich, 2018; Ostrovsky, 2008). Language skills may also result in credit constraints, which limit immigrants' access to the financial markets (Osili & Paulson, 2004). As such, speaking in another language may affect the asset accumulation of immigrants.

Turning to family situations, for both immigrant and Canadian-born, the 2012 income poverty rate dropped considerably when the household size increased. Government income

transfers (cash benefits received from federal, provincial, territorial or municipal governments through child benefits, employment insurance, benefits to seniors, and social assistance etc.) and tax credits for lower-income individuals and families could be a possible explanation for the reduced rate of income poverty. A previous study documented that taxes and government transfers play an important role in increasing income, and consequently reduce the income inequality of the bottom half of the income distribution (Milligan, 2013). However, the pattern of income poverty does not match financial asset poverty. Marital status may play an important role in asset accumulation. Previous research demonstrates an upward trend in homeownership for married couples with or without children (Rossi & Sierminska, 2018). Both immigrant and Canadian-born married families experience lower income and asset poverty than single households. Also, married immigrant families have significantly less risk of being net worth poor than individual households. Consistent with previous findings (Rothwell & Robson, 2018), homeownership decreases the likelihood of being asset poor, however, immigrants are less often homeowners than the Canadian-born.

The number of dependent children in the household raises the probability of being both financial and net worth poor. Canadian families have grown more demographically diverse than before and a large percentage of them are immigrants who are coming from different backgrounds (Statistics Canada, 2018a). While economic disadvantages have been observed among immigrants based on place of birth, visible minority status, race and ethnicity (Kaida, 2015; Maroto & Aylsworth, 2016; Picot & Lu, 2017), many of immigrant households with children may have fewer resources available for obtaining assets or paying down debts, potentially contributing to an increased asset inequality (Gibson-Davis & Percheski, 2018). However, reducing child poverty has been an important aspect of social policy in Canada, and

several initiatives are taken by governments to achieve this goal, such as the Ontario Child Benefit or Quebec Family Allowance.[16] However, this study found that regardless of the poverty measures, immigrant households with children experienced much higher income and asset poverty compared to their Canadian-born counterparts. Of course, these social policies are important, and the liberal leader Trudeau's increased Child Benefit have shown major impacts on child poverty rates, however, more needs to be done to reach the marginalized groups. Asset poverty among child households is worrisome because assets are related to child development, particularly human capital attainment and emotional and behavioral outcomes (Grinstein-Weiss, Williams Shanks, & Beverly, 2014, Huang, Sherraden, Kim, & Clancy, 2014; Kim, Sherraden, Huang, & Clancy, 2015; Nam, 2020; Kim, Sherraden, & Clancy, 2013; Sherraden et al., 2015) Children living in poverty have long-term consequences in their life and Canadian society.

The life cycle hypothesis of savings explains that position in the life-cycle heavily determines the nature of asset holding, predicting that elderly households will have higher assets than households headed by young adults (Ando & Modigliani, 1986). The findings for age are consistent with life-cycle models of savings and previous research on asset poverty (Azpitarte, 2011; Kim & Kim, 2013; Rothwell & Robson, 2018). The results suggest that for immigrants, a certain period is required to accumulate assets. They may generate assets over time as they integrate into society. So, the risk of asset poverty for the middle to older age immigrants might reduce after living in Canada for a few years. However, the risk for net worth poverty is far

[16] The Ontario Child Benefit provides direct financial support to low to moderate income families, whether they are working or not, to help parents with the cost of raising their children. It provides a maximum payment of $1,403 per child per year (Ontario Ministry of Children and Youth Services, 2019). Québec is more generous, with the Québec Family Allowance offers a maximum yearly amount of $2,472 for a two-parent family's first child and $3,339 for the first child in a single parent family. The yearly amount increases based on the number of children in the family (Retraite Québec, 2019).

greater than for financial asset poverty among immigrants who are very young (less than 25 years old) to adults in prime working years.

Time spent in the host country appears to be an important factor that plays a vital role in a sharp reduction of income poverty rates. It is certain that immigrants who spent several years in the host country can obtain a local diploma, which is often preferable and greatly valued than a foreign degree. Language proficiency in one of the official languages can be enhanced. Information that they collect over time in the society, particularly on the labour market and financial services (e.g., banking services, credit markets), can be very beneficial to improving their economic circumstances. While the length of time immigrants spent in their host country was expected to contribute to the asset accumulation, the study suggested that this pattern does not hold for financial asset poverty. Although financial asset poverty risk reduces in later years, the risk remains high and is not eliminated for immigrants who have been living in Canada for thirty years or more.

In summary, this study found that asset poverty rates of immigrants in Canada are remarkably high, in contrast to rates of income poverty. Findings also demonstrate that certain groups of immigrants experience a higher level of income and asset poverty rates compared to both Canadian-born and other immigrant groups, contradicting somewhat previous research on immigrants' asset poverty. In addition, this study found that significant asset poverty risk exists between immigrant groups, as immigrants who came recently and from non-traditional source countries, young adults, single people, and those who speak a language other than English or French at home, have children or a large family size are more likely to experience income and asset poverty.

Policy implications

The findings of the current study are relevant to policies that aim to reduce economic vulnerability, improve welfare, and elevate the financial condition of people living in poverty. While over one-fifth of Canada's total population are immigrants (Statistics Canada, 2017), a high level of income and asset poverty within this group raises concerns about the unequal distribution of economic resources in Canada. Governments at all levels have made efforts to reduce poverty in Canada. Several initiatives have been undertaken to support vulnerable groups such as children, seniors, people with disabilities, and First Nations, Inuit and Métis communities.[17] Governments acknowledge that poverty impacts individuals and diverse groups (visible minorities, recent immigrants) in different ways and to different degrees (Government of Canada, 2017), which should be addressed differently. Since 21.9% of the Canadian population is immigrant, policymakers must consider the diversity of needs of immigrants experiencing income and asset poverty. When particular groups face obstacles to accumulating assets, this can affect the economic well-being of families for generations to come (Maroto & Aylsworth, 2016).

Immigrants are not in the same position to establish credit and are less active in taking initiatives for credit card debt, auto loan debt, and other forms of debt than the Canadian-born (Maroto & Aylsworth, 2016; Ralph, 2010). Programs that focus on asset buildings could target disadvantaged immigrants to provides basic financial training and assist newcomers in understanding the Canadian financial system. Savings policies could target financial literacy that

[17] For example, to support indigenous people, who are 4.9% of the total population (Statistics Canada, 2017b), the Government will be investing $8.4 billion over five years to take comprehensive action to improve the socioeconomic conditions of indigenous people and help address some of the root causes of poverty. These actions include improving child welfare services and primary and secondary education on reserves and ensuring decent housing and community health services, among other things (Government of Canada, 2017).

addresses credit, debts, investment, mortgages or loans, cash-flow management, and other related issues that are important for asset accumulation.

This study suggests that the income poverty of immigrants is more extensive than that of the Canadian-born. Stable jobs and better earning are associated with asset accumulation (Chawla, 2004; Maroto, 2016). Although immigration policies are designed principally according to the needs of the Canadian labour market, over the past four decades the labour market outcomes of immigrants have declined and continue to be low due to several barriers (Banerjee & Lee, 2015; Maroto & Aylsworth, 2016; Picot & Sweetman, 2012). While the labour market plays the most crucial role in the distribution of income in society, government initiatives are required for eliminating or diminishing existing labour market barriers and discriminations. It is important to create an environment in which immigrants can increase their labour market participation and ensure stable income, thereby helping them to save and build assets.

This study finds that immigrants who owned homes are less likely to experience asset poverty. For immigrants, homeownership is a path to improve social status and economic security. However, visible minorities and recent immigrants are less likely to be homeowners (Hiebert & CMHC, 2006; Maroto & Aylsworth, 2016; Mendez et al., 2006; Preston et al., 2009). Recent immigrants spend a large share of income on rent and other basic needs, which prevents them from saving for homeownership (Wachsmuth, 2008). In recent years, getting into the housing market has been an enormous challenge for many low- and middle-income families due to the high price of housing. Also, rejection from obtaining personal or business loans due to a lack of credit history causes significant barriers for many immigrants to homeownership, business investments, and other asset-generating activities (Wayland, 2011). By improving

access to credit markets and affordable housings, policymakers can encourage asset accumulation of immigrants (Maroto & Aylsworth, 2016).

Although Quebec has historically been the most ambitious of the Canadian provinces in terms of poverty reduction, the results of this study indicated that income and asset poverty rates of immigrants are higher in Quebec than in other regions. Different approaches to social policy among different provinces produced different outcomes, particularly with respect to poverty rates (Van den Berg et al., 2017). For example, provincial priorities towards asset accumulation such as homeownership may produce different homeownership rates across provinces, which may affect net worth poverty rates. At present, the 2017-2023 Quebec Action Plan to 'Foster Economic Inclusion and Social Participation' includes close to 3 billion dollars for implementing 43 new or significantly enhanced measures, supporting four objectives[18] (Government of Quebec, 2018). For example, to enable businesses to meet their growing labour needs, one measure encourages the hiring and retention of individuals who encounter barriers to employment (immigrants, people with disabilities, sexual minorities, etc.) (Government of Quebec, 2018). Government action to create conditions that encourage people (who are struggling with limitations on their ability to participate fully in the labour market) to find a job and remain employed may affect the income and asset poverty rates of immigrants in Quebec in the coming years. However, the poverty reduction action plans across provinces mostly focus on the income, consumption, and expenditure dimensions. These strategies do not consider other important aspects of poverty and economic well-being, such as minimal asset ownership

[18] *(i)* Lift over 100,000 people out of poverty and increase the incomes of people in poverty, *(ii)* invest to improve social housing, *(iii)* encourage the social participation of low-income individuals and families and mobilize communities, *(iv)* research and assessment: make government action to combat poverty and social exclusion more effective (Government of Quebec, 2018).

(Rothwell & Haveman, 2013). Policies should consider both the income and assets to determine eligibility for public programs.

Research limitations

This study has several limitations. *First,* the study used LICO as a basic needs threshold. The LICO has been criticized for not adequately capturing differences in the cost of living across the region (Noel, 2012). Using the market-basket measure (MBM) for interprovincial comparisons could be an alternative threshold for basic needs.

Second, this study identified the asset poor as below or above the asset poverty line using the headcount ratio. Although headcount approach is simple and tells us how many people are considered poor, it has serious limitations stemming from its inability to differentiate among the poor (Brady, 2003; Sen, 1976). To address this concern, future research could measure the intensity of poverty among the poor as the average distance of poor households from the poverty threshold.

Third, this study used a cross-sectional approach to estimate asset poverty of immigrants (Spector, 2019). However, this approach cannot tell us about the persistence of asset poverty. For example, in using a cross-sectional approach to asset poverty, this study cannot sufficiently explain whether the currently poor are likely to remain poor, or whether the currently non-poor are likely to maintain their situation, or whether any events or conditions have an impact on asset poverty (Carter & Barrett, 2006; Green & Hulme, 2005; Leonard & Di, 2014).

Fourth, there are several asset-building policies available in Canada (see appendix C). For example, the goal of the RESP is to build savings for higher education that targets children aged birth to 17. However, this study did not examine the impact of these policies on the asset poverty of immigrants. Also, this study did not determine whether government transfers or

subsidies for retirement and education savings has any effect on asset poverty, which could be a potential area for future research.

Fifth, this study was unable to examine how other important factors such as culture, remittance, and assets at the home country are associated with asset poverty of immigrant households because SFS did not include questions on these issues. Immigrants from different countries may behave differently in the asset accumulation process. Cultural influences and social norms in the home country influence immigrants' post-migration savings behavior that may affect asset poverty rates (Bauer, Cobb-Clark, Hildebrand, & Sinning, 2011; Cobb-Clark & Hildebrand, 2006). Also, individual characteristics (e. g, self-control, attitudes towards uncertainty, family ties) could influence asset holdings. The economic situation of immigrants who brought savings from their home countries at the time of their arrival could be very different compared to those who did not bring savings. Immigrants with entry assets might be able to buy homes immediately after arrival (Haan, 2012), which could affect asset poverty. However, SFS data did not provide this information.

Sixth, since this is a one-time measurement of exposure and outcome, it is difficult to derive causal relationships from cross-sectional analysis. Also, reverse causation is a well-known concern in cross-sectional studies. Using cross-sectional data, it is difficult to determine whether the exposure or outcome came first (Asiamah, Mends-Brew, & Boison, 2019). The analyses in this study did not take account of reverse causality (Remler & Van Ryzin, 2015). Additionally, because of the limitations of including the (above mentioned) unmeasured variables in the analyses, the results of this study may suffer from omitted variable bias (Remler & Van Ryzin, 2015).

Future directions

While the results of this study determine the differences in asset poverty rates among groups, how asset poverty rates among immigrants change over time becomes a pressing question. Further research is needed to understand the duration of asset poverty among immigrant groups and whether the factors that are associated with asset poverty change over time. By comparing the groups in different time frames, we will able to assess whether the same immigrant groups are struggling economically over time.

Next, since the empirical evidence suggests that the disadvantages of being asset poor are not equal for all immigrants, several issues remain important topics for future research. For example, the financial costs of settling down in a new country impose many added limitations on consumption and savings, as well as directly affect an immigrant's ability to accumulate assets, at least in the first few years after arrival (Carroll, Rhee, & Rhee, 1994; Robson-Haddow & Ladner, 2005; Shamsuddin & DeVoretz, 1998), that may influence asset poverty rates of recent immigrants. Future research could examine how assets of immigrants at home or in Canada at the time of arrival affect asset poverty rates among immigrant groups.

Lastly, future research may examine whether remittances play a role of being in asset poverty of immigrants since remittance has a negative effect on homeownership among Canadian immigrants over time (Kuuire, Arku, Luginaah, Abada, & Buzzelli, 2016). Remittances also could create a significant burden on the saving capacity of immigrants. These factors may assist in explaining the intergroup differences in asset poverty.

In Study 1, I examined the prevalence of asset poverty of immigrants in Canada across immigrant groups. Findings suggest that the immigrants from non-traditional source countries, young adults, single persons, and those who speak a language other than English or French at home, have children or a large family size are more likely to experience income and asset poverty compared to other immigrant groups and native-born Canadian. The high levels of asset poverty among immigrants in Canada have implications for immigrant integration, economic well-being, and the psychosocial welfare of Canadian immigrants.

Based on the findings of Study 1, the following study examined whether (or not) the same immigrant groups are struggling economically over time in Canada and which socioeconomic and demographic characteristics of immigrants explain the pattern of asset poverty over time. I assumed that with more time spent in Canada, immigrants would improve their qualifications and skills, learn the language, and develop their understanding of Canadian financial institutions and resources that reduce economic insecurity. Hence, long- term immigrant households are expected to decrease the asset poverty rates as they have been integrated into Canadian society. In Study 2 below, two asset poverty thresholds were created, based on financial assets and net worth. I have coded immigrant households as asset poor and not-asset poor based on financial assets and net worth. I equivalized financial assets and net worth using the square root scale. I then have examined more precisely the socioeconomic and demographic characteristics that have a larger impact on the probability of being asset-poor over time. Comparing immigrant groups in different time frames based on several characteristics may improve the understanding of researchers, service providers, and policymakers about the economic vulnerability of certain groups who are needed to be prioritized while developing programs.

Chapter 4

Study 2: Economic Vulnerability of Immigrants over Time in Canada: Asset-Based Measurement

Abstract

This study examines the asset poverty of immigrants over time in Canada using the 1999 and 2012 Survey of Financial Security. The main goal of this study is to provide an estimate of the asset poverty of different immigrant groups and reveal which groups of immigrants are more likely to experience poverty over time. This study follows Haveman and Wolff's framework for poverty measurement, investigating measures of poverty that rely on indicators of household financial assets and net worth. A household is 'asset poor' if it does not have sufficient assets to survive at the low-income cut-off for three months. The findings of the empirical analysis provide new insight into the economic insecurity of immigrants by showing that: (a) there are differences in ownership of the various types of assets among immigrant households over the years; (b) some immigrant groups are facing greater financial and net worth poverty compared to other immigrant groups; (c) despite declining over the period of study, financial asset poverty rates of immigrants remain consistently two to three times higher than income poverty rates; (d) young adults, recent immigrants, and households with children are the most at risk of being asset poor over time; (e) the probability of incurring asset poverty decreased with homeownership, living in a married family, and a higher level of education. Findings suggest that there is a need to address these concerns and help those who are most in need of support. Future research is needed to understand the asset holding pattern of immigrants using longitudinal data.

Canada's immigration regime aims to "support the development of a strong and prosperous Canadian economy", with the positive spin-offs of immigration being felt across all regions of the country (Government of Canada, 2020, p. 2). Immigration, Refugees and Citizenship Canada (IRCC) has the mandate to select immigrants who "will best contribute to the country's economic and social well-being" (IRCC, 2018, p. 5). However, many immigrants find it difficult to participate and contribute to Canadian society, experiencing economic vulnerability due to a variety of reasons, such as the devaluation of foreign education, non-recognition of credentials, and lack of proficiency in the host-country language (Buzdugan & Halli, 2009; Hou & Picot 2014; Hatami & Weber, 2013; Kaushik & Drolet, 2018; Ostrovsky, 2008; Picot & Sweetman, 2012).

Some major changes occurred in Canada's immigration selection policies during the 1990s and 2000s, and one of the reasons for these was the government's contention that these changes would improve the economic outcomes of immigrants shortly after their arrival (Hou & Picot, 2016). However, numerous studies have documented that racialized groups and immigrants experience several disadvantages, such as higher levels of poverty, higher than average unemployment, overrepresentation in lower-paying and lower-status jobs, increasing racial and economic concentration in urban areas in Canada, differential access to housing and asset ownership, and disproportionate contact with the criminal justice system (Maroto & Aylsworth, 2016; Maroto, 2016; Ornstein, 2000; Pendakur, 2000, Reitz, 2001; Raphael, 2011). Economic disadvantages among immigrants have also been observed based on place of birth, visible minority status, and ethnicity (Galabuzi, 2005; Hogan & Berry, 2011; Haan, 2007; Kaida, 2015; Maroto & Aylsworth, 2016; Osili & Paulson, 2009; Picot & Lu, 2017). Immigrants in Canada, many of whom are people of color, possess fewer assets than Canadian-born (Haan,

2012; Osili & Paulson, 2009; Maroto & Aylsworth, 2016; Morissette, Zhang, & Drolet, 2002; Zhang, 2003). However, assets are especially important for low-income individuals and families because they can limit the likelihood of material hardships, secure future consumption, improve livelihoods, and help people to boost economic security (Despard et al., 2018; Sherraden, 2018, 1991; Sherraden et al., 2016). As discussed in Chapter 3, a large number of studies have demonstrated the importance of asset holdings and how assets affect both the short-term and long-term well-being of individuals and families (Nam, Lee, McMahon, & Sherraden, 2016; Nam, Lee, Huang, & Kim, 2015; Sherraden, 2014, 1999; Rothwell & Han, 2010; Sherraden, 2018).

For immigrants, therefore, assets are important for financial well-being and economic integration, as well as increasing immigrants' consumption and encouraging future savings (Cobb-Clark & Hildebrand, 2006; Darden, 2015; Kim, Chatterjee, & Cho, 2012; Painter II, Holmes, & Bateman, 2016; Sherraden & Morrow-Howell, 2015). However, using cross-sectional data (Spector, 2019), the results from Chapter 3 (Study 1) of this dissertation showed that both income and asset poverty rates are higher for some immigrant groups compared to both Canadian-born and other immigrant groups. Following up on the previous findings, examining asset poverty among immigrants over time could provide important insight into both trends and patterns of immigrants' financial assets, non-financial assets, and debt, as well as the immigrant economic integration in Canada. In this study, I assumed that with more time spent in Canada, immigrants would improve their qualifications and skills, increase proficiency in the official languages, and develop their understanding of Canadian financial institutions and resources that reduce economic insecurity. Hence, long-term immigrant households are expected to decrease the asset poverty rates as they have been integrated into Canadian society.

The objective of this study is to examine the prevalence of asset poverty of immigrants over time using the 1999 and 2012 Survey of Financial Security (SFS). The study estimates the rates of income and asset poverty among immigrant groups at different points in time as well as tracking changes in asset poverty rates by comparing the results from two household surveys. While the empirical evidence from the previous chapter suggests that the disadvantage of being asset poor is not equal for all immigrants, this study analyzes how the composition of asset poor immigrant groups changes over time. By comparing the groups in different time frames, we can assess the extent to which the same immigrant groups are struggling economically over time and which demographic characteristics of immigrants explain the pattern of asset poverty. In addition, monitoring asset poverty rates of immigrants over time can contribute to increasing the understanding of researchers, service providers, and policymakers about the economic vulnerability of certain groups who are most in need of support.

The paper proceeds as follows. The next section provides a discussion on the Canadian context over the study period (1999 to 2012) and the level of assets of immigrants over time in Canada. Afterward, the methodology and estimated results of this study are presented. Lastly, the discussion, limitations, and policy implications are included.

Literature Review on the Canadian Context Over the Study Period (1999-2012)

Several changes took place in Canadian federal and provincial policies and programs, economy, and demographic conditions during the study period. In this section, I discuss these changes and how the changes influence the poverty situation of low-income families in general and immigrants in particular.

Changes in poverty reduction policies and programs

In Canada, there are numerous government programs in place that are intended to help those living below the poverty line. These programs specifically target children, seniors, low-wage workers, and other vulnerable Canadians. During the study period (1999-2012), the low income cut off (LICO) rate has declined from 15.2 percent in 1996 to 9.7 percent in 2013 at a steady rate (Lammam & MacIntyre, 2016). The introduction of the federally funded Canada Child Tax Benefit (CCTB)/ National Child Benefit (NCB) in 1998 partially explains declining income poverty rates for families with minor children during this time frame (Weaver, Habibov, & Fan, 2010). The annual maximum CCTB (including the NCBS) for the July 2011 to June 2012 benefit year for families with net incomes below $24,183 in 2011 was $290.41 per month ($3,485 per year) for the first child (Government of Canada, 2017). Despite decreasing overall rates of income poverty, there are still high rates of income poverty for unattached individuals, children in female-headed households, aboriginal Canadians, and recent immigrants (Government of Canada, 2016, 2018b). Although the federal government called for the elimination of child poverty in Canada by the year 2020, several studies demonstrate that child poverty changed little in the two decades after the declaration in 1998 for its elimination (Curtis, 2011; Myles & Picot, 2000; Murphy, Zhang & Dionne, 2012; Phipps, 1999; Statistics Canada, 2020). Canadian children are experiencing not only high rates of income poverty but also of asset poverty. For example, while focusing on the measurement of asset poverty among Canadian children, in a recent study, Blumenthal and Rothwell (2018) found that asset poverty rates are two or three times higher than rates of income poverty.

Over the study period, some retrenchment in the Canadian welfare state has occurred, specifically at the federal level. For example, in 1996, the Canada Assistance Plan

(CAP) was replaced by the Canada Health and Social Transfer (CHST). This reform led to a significant reduction in federally funded social assistance programs and limited federal influence over the size and nature of provincial social policy (Beland & Daigneault, 2015). Therefore, social assistance programs began to diverge cross-provincially, as provincial governments were afforded more flexibility to shape their programs and were no longer subject to federal standards (Beland & Daigneault, 2015). In the first two years following the creation of the CHST, federal government contributions to provincial health, education, and social-service programs decreased by 15% (Graham, 2008). During this period, most provinces chose to make reductions to their provincial child benefits and to simultaneously lower overall social assistance benefit levels (Milligan & Stabile, 2007).

A few years later, in 2006, the federal government introduced the Universal Child Care Benefit (UCCB), a monthly $100 cash payment benefit to families with children under the age of six years. However, the UCCB was heavily criticized for its effectiveness. Some argued that the UCCB was "a waste of time," far below addressing the real cost of daycare, and that having universal daycare would be more beneficial (Bezanson, 2010). Also, the Working Income Tax Benefit (WITB) was introduced in the 2007 federal government budget as a refundable tax credit that intended to offer tax relief for eligible low-income individuals and families in the workforce and to motivate other Canadians to enter the job market. Also, over the same period, at the federal level, reforms to Canada's Employment Insurance (EI) program made the program more restrictive, excluding many unemployed from eligibility for EI benefits (Grey, 2002; Richards, 2007). As a consequence, after the late 1990s, less than half of the unemployed receive unemployment benefits, compared to over 80% of the unemployed who received benefits in the period from 1988 to 1990 (Hay, 2009; Richards, 2007).

At the provincial level, Quebec was the pioneer in introducing its Poverty Reduction Strategy (PRS) Action Plan in 2004. All other provinces and territories also engaged in PRS processes within a few years (except British Columbia), and in some provinces, the PRS led to the creation of new social policies (Notten & Laforest, 2016). However, the rules for eligibility and the amount given to people with little or no income vary widely between the provinces, therefore producing different outcomes, particularly with respect to poverty rates (Van den Berg et al., 2017).

As an anti-poverty strategy, several asset-based initiatives have been implemented in Canada since the 1990s.[19] These programs are designed according to the premise that assets are better able to promote long-term financial well-being than income for low-income families (Sherraden, 1991). These asset-based social programs were in effect during the study period (Appendix C). However, low-income individuals and families may not benefit enough from these programs. For example, government incentives through RRSPs or RESPs are heavily concentrated among high-income, high-asset, and high parental education households (Arrowsmith & Pignal, 2010; Côté, Mazer, & Weisstub, 2019; Frenette, 2017; Milligan, 2005; Maroto, 2019; Townson, 2009). However, people who are in the lower tax bracket do not benefit much from any tax deductions (Côté et al., 2019; Murphy et al., 2015; Milligan, 2005; Robson, 2006). Since many immigrants earn less, have fewer assets, and are less familiar with the financial system and institutions than Canadian-born, they face difficulties in accessing the opportunities of some government initiatives towards asset building.

[19] e.g., Canada and Quebec Pension Plans (CPP and QPP), Registered Retirement Savings Plan (RRSP), Registered Education Savings Plan (RESP), Registered Disability Savings Plans (RDSP), Tax-Free Savings Accounts (TFSA), and homeownership subsidies (various federal and provincial homeownership assistance programs).

Fiscal and labour market changes in Canada from the late 1990s to 2012

Canada has experienced many economic changes since the late 1990s. The country faced chronic fiscal deficits and alarmingly high debt at the beginning of the 1990s (Traclet, 2004; Vujicic & Evans, 2005). The rising government spending and debt were undermining growth and creating financial instability. To hold the spending growth, the Canadian government cut defense, unemployment insurance, transportation, business subsidies, and aid to provincial governments (Edwards, 2013). The fiscal and economic reforms affected the provincial social policy landscape. For example, due to reduced federal funding for social programs, several provinces reduced their provincial child benefits and social assistance programs assistance eligibility became increasingly restrictive (Boychuk, 2015; Milligan & Stabile, 2007).

However, in the same time period, Canada experienced noticeable economic growth within the context of globalization and technological change (Beach, Finnie, & Gray, 2005). These changes directed to a restructuring of the Canadian economy that has had significant impacts on the labour market (Procyk, 2014). For example, due to the information technology (IT) boom during the late 1990s, a strong emphasis was placed on selecting IT professionals and engineers (Picot & Hou, 2009). From 1900 to 2000, far more engineering, IT, and computer science graduates entered Canada through immigration than graduated from the Canadian university system (Picot & Hou, 2016). A large number of jobs in traditional industries (e.g., manufacturing, construction, natural resources, transportation and warehousing), which used to have high wages and full-time hours, have been victims of technological change (Bartlett & Tapp, 2012). Between 1998 and 2008, high-paying unionized manufacturing jobs were lost at twice the rate of non-unionized jobs (Bernard, 2009). These lost jobs were replaced with service-sector jobs that were mainly short-term, contract-based, part-time, and temporary (Noack &

Vosko, 2011; Procyk, 2014), and many temporary foreign workers have filled the low-skilled positions (Worswick, 2013). Meanwhile, the Canadian job market shifted towards a knowledge-based economy. On average, the proportion of workers with at least a university degree was higher in services than in manufacturing, suggesting that jobs were becoming more skills and knowledge-intensive.

The current study period includes both before and after the economic context of the 2008-2009 recession. In the 2000s, a few years before the recession, job growth in non-traditional industries was relatively strong. For example, from 2004 to 2008, over 1.5 million jobs were created, with a growth of 11% (Bernard, 2009). The employment and labour force participation rates jumped to record level (63.5% in 2007 and 67.7% in 2008), while the unemployment rate hit an all-time low of 6.1% in 2008, the lowest in the past 30 years, immediately before the recession (Bernard, 2009; Usalcas, 2009; Yssaad, 2012).

The global financial crisis hit in 2008, consequently, Canada experienced another recession in 2008-2009. The GDP fell 1.4% in the fourth quarter of 2008, which was its largest decline since early 1991 (Statistics Canada, 2009). After the recession, employment growth in Canada followed an unsteady upward trend until 2012 (Bernard & Usalcas, 2014). The recession impacted vulnerable populations lacked the financial resources to mitigate the effects (Parks-Yancy, DiTomaso, & Post, 2007; Sharpe, 2008). Young and older adults, children, single parents, and immigrants were the groups most affected by the 2008-2009 recession (LaRochelle-Côté & Gilmore, 2009; Lai, 2011). For example, during the recession, immigrants' unemployment rate increased to 9.6%, up 2.8 percentage points from 2008 (Yssaad, 2012). After the recession, from 2010 to 2011, employment among core-aged immigrants (aged 25 to 54) rose by 4.3%, however, in 2011, the lowest employment rate and the highest unemployment rate were

documented for recent immigrants (who were living in Canada for more than 5 to 10 years) (Yssaad, 2012). Despite the 4.6% increase between 2008 to 2011, immigrants' employment rate remained 1.8 percentage points lower than in 2008 (Yssaad, 2012).

Changing demographics in Canada

The population in Canada has increased substantially over recent years, going from 30.7 million in 2000 to 33.5 million in 2011 (Statistics Canada, 2010, 2012). Recent demographic changes in Canada impact the age structure, diversity, and population share. Individuals who are 65 years old and over represent Canada's fastest-growing age group, and this trend is expected to continue for decades (Government of Canada, 2014). While the share of seniors is increasing, children and young people comprise a decreasing portion of the Canadian population. For example, between 2001 and 2011, the Canadian population aged 65 or older increased from 13.0% to 14.8%. However, the working-age population (15 to 64) increased only 0.5%, and children aged 14 and under decreased from 19.1% to 16.8% (Statistics Canada, 2012b). There has also been a notable increase in the number of lone-parent families with children over the years, and the share of children living with a lone-parent was the highest on record in 2011 (15.2% in 1991 compared to 21.5% in 2011) (Statistics Canada, 2018, 2015).

Canada has also experienced some recent changes in provincial and territorial population growth. Since 2007, Ontario has not been at the top for population growth; rather, Alberta, Saskatchewan, and Manitoba are the provinces where the population has increased since 2007 (Martel, 2015). Population growth in different provinces has mostly been as a result of immigration, including a higher proportion of immigrants who are racialized. For example, of immigrants who arrived between 2001 to 2006 and 2006 to 2011, 58.3% and 56.9% came from Asia (including the Middle East), respectively (Statistics Canada, 2007b, 2013d). Both the 2001

and 2011 censuses showed that nearly one-half of recently arrived immigrants in Canada (arrived up to five years earlier to a given census year) migrated during their working years (median age is 31.7 years) and another one-third of recently arrived immigrants are children and youth (Edmonston, 2016; Government of Canada, 2014). Over the study period, most recently arrived immigrants are married or cohabiting couples.

The census metropolitan area (CMA) of Toronto was the major gateway for immigrants in Canada during the study period, and they had a major impact on the metropolitan area's workforce (Chui, Tran, & Maheux, 2007). Apart from Toronto, immigrants tended to live in other big cities such as Vancouver and Montréal, however, because of the Provincial Nominee Program, many immigrants began settling in the Prairies and the Atlantic provinces. Also, the birthplace of newly arrived immigrants has shifted in recent decades. The proportion of immigrants from Europe and the United States in Canada has declined, from 27% in 1991 to 16% in 2011 (Edmonston, 2016). The proportion of recently arrived immigrants from South Asia has steadily increased, growing from 9% in 1991 to 17% in 2011. Also, immigrants from East Asia, Africa, and Caribbean countries have significantly increased over the study period.

Levels of assets of immigrants over the study period

Between 1999 and 2005, the median net worth increased in Canada, however, not all cohorts of families gained equally (Chawla, 2008). While examining changes in the wealth of Canadian families over time, Uppal and LaRochelle-Côté (2015) found that Canadian families in the upper and bottom income quintiles have grown their average wealth (net worth) by 80% and 38%, respectively between 1999 and 2012. It was mentioned earlier that through the 2000s up to 2008, a time of relative economic growth in the Canadian economy, market income inequality remained high but flat, and from 2009 to 2010, the market income slightly increased (Heisz &

Murphy, 2015). Since income and employment are positively associated with asset accumulation (Bricker, Kennickell, Moore, & Sabelhaus, 2012; Bricker et al., 2014; Keister & Moller, 2000; Maroto, 2016), the increase or decrease in market income may affect asset accumulation during these years. Immigrants who face disadvantages in terms of income and employment, therefore, may have greater difficulties in asset accumulation.

Immigrant asset inequality over time in Canada, however, has not been extensively studied. Morissette, Zhang, and Drolet (2002) documented the evolution of wealth inequality in Canada and found that wealth inequality in Canada has increased between 1984 and 1999 for young couples with children, family units whose primary income earners is aged 25-34, and recent immigrants. Their findings showed that between 1994 and 1999, average wealth increased for immigrant families who were living in Canada for twenty years or more, however, the study documented a 25% drop in the median wealth of recent immigrants residing in the country for less than ten years. Later, from 1999 to 2016, most of the wealth growth of immigrant families were due to an increase in housing equity (Morissette, 2019). Maroto and Aylsworth (2016) demonstrated that, even though many immigrant households transitioned into homeownership and grew their wealth over time, certain first-generation, skilled immigrant groups continue to experience an asset gap many years after immigration.

Multiple factors are associated with the asset inequality of immigrants, such as country of origin, years since migration, differences in human capital, and immigrant status (Haan, 2007; Maroto & Aylsworth, 2016; Morissette, Zhang, & Drolet, 2002; Maroto, 2016; Osili & Paulson, 2009). Some Canadian studies have examined immigrants' asset accumulation in terms of homeownership and savings, demonstrating that asset holding is unequal across immigrant groups and that there is a significant gap in asset holding between immigrants and Canadian-born

(Hou, 2010; Milligan, 2005; Preston et al., 2009; Sweet, Anisef, & Walters, 2010). For example, one study by Statistics Canada (2007) showed that homeownership rates declined among immigrant households from 1981 to 2001, from 52% to 42% in Montreal and from 65% to 61% in Toronto. While analyzing changes in homeownership rates over time, Haan (2005) showed that, in 1981, immigrants surpassed the homeownership rates of Canadian-born by a wide margin but have been rapidly losing their advantage since then, and that age, income, education, family type, and several immigrant characteristics contributed these changes. Over the years, visible minorities (many of whom are immigrants) were generally less likely to be homeowners (Mendez et al., 2006), resulting in lack of access to its benefits, such as long- term economic development or providing a cushion for postretirement consumption through a reverse mortgage (Kutty, 1998; Nam et al., 2016). Since assets enable people to invest for future returns (Paxton, 2001; Sherraden, 2018, 2014, 1991), immigrant households who face challenges in building assets (i.e., savings or homeownership) face increased rates of asset poverty over time.

In summary, the above discussion shows that throughout the study period, Canada has experienced several changes in social policies, as well as economic and demographic changes that contributed to the financial outcomes of individuals and families. During this period, government redistribution through the tax-and-transfer system declined, market income inequality and unemployment remained high, and asset accumulation remained challenging for many immigrants, including recent arrivals, women, individuals identified as Black, South Asian and Arab (Lightman & Good Gingrich, 2018; Maroto & Aylsworth, 2016). Despite several policies and programs meant to improve the condition of individuals living in low-income, many immigrants have not performed well in the Canadian labour market, which may contribute immigrants' income and asset poverty over time.

Immigrant asset poverty over time in Canada

Measuring poverty based on assets is very new in Canada. Brandolini, Magri, & Smeeding (2010) used data from the Luxembourg Income Study (years 1999-2002) to compare asset poverty rates in several OECD countries and found that Canada had the highest relative asset poverty rate based on financial assets (assets that can be easily cashed) (56.5%) and second-highest based on net worth (total assets minus liabilities) (33.8%). However, to date, few Canadian studies have examined asset poverty in Canada (see, as exceptions, Blumenthal & Rothwell, 2018; Rothwell & Haveman, 2013; Rothwell & Robson, 2018).

To the best of my knowledge, only the study by Rothwell and Robson (2018) included "immigrant" as a variable while measuring asset poverty over time in Canada. However, the study referred to immigrants as an undifferentiated group and did not provide information on within-group inequality across measures. In their study, Rothwell & Robson (2018) estimated higher income poverty rates but lower financial asset poverty for immigrant households than for non-immigrant households. Since immigrants are required to have substantial financial assets as a condition of entry, Rothwell and Robson (2018) suggested that it might explain why newcomers are at a significantly lower risk of financial asset poverty. The authors in the study also found that, between the years of 1999 and 2012, income poverty rates increased (18.8% compared to 22.3%), while financial asset poverty rates (50.3% compared to 48.8%) and net worth poverty rates (31.7% compared to 30.9%) decreased for immigrant-headed households. However, they showed that, over that period, both income and asset poverty rates decreased for the Canadian-born. The authors also found that the 2012 income poverty rate disparity between immigrants (22%) compared with the Canadian- born (12%) was large (Rothwell & Robson, 2018).

Limitations of the previous literature

While previous studies have measured asset poverty over time in Canada, the authors of these studies treated immigrants or non-citizens as a homogeneous group and did not examine the intra-group differences while measuring asset poverty (Rothwell & Haveman, 2013; Rothwell & Robson, 2018). Findings of Study 1 (Chapter 3) of this dissertation showed that income and asset poverty of immigrants are affected by several factors.[20] However, the long-term effects of these factors on the asset accumulation of immigrants is as of yet undocumented in the literature. In response, this study examines how socio-demographic factors are associated with an increase or decrease in the asset poverty rates of immigrant households over time. The results provide a better understanding how the risk of asset poverty is unequally distributed over time across immigrants groups as they have been integrating into Canadian society.

Research questions

Four research questions were addressed in this manuscript: (a) What is the composition of different categories of assets held by immigrant households? (b) How does the rate of asset poverty change over time for Canadian immigrants? (c) What is the rate of immigrants' asset poverty over time across demographic groups? (d) Which socioeconomic characteristics have a larger impact on the probability of being an asset-poor for Canadian immigrants?

[20] For example, findings of Chapter 3 showed that recent and young immigrants, single-person families, families with children, immigrants who came from non-traditional source countries and speak a language other than English or French at home are more likely at risk income and asset poverty compared to both Canadian-born and other immigrant groups.

Method

Sources of data

This study used data from the nationally representative cross-sectional Survey of Financial Security (SFS) 1999 and 2012.[21] The SFS was carried out in all ten provinces (the territories were not included) and covered about 98% of the population. People living on reserves and other aboriginal settlements in the provinces, official representatives of foreign countries living in Canada and their families, members of religious and other communal colonies, members of the Canadian Forces living on military bases or in military camps, and institutionalized persons were excluded from the surveys (Statistics Canada, 2015a).

The SFS contained two different kinds of files. The individual files of the SFS provided information on demographics (age, sex, marital status), geographic location, education, current employment, income of the respondents. The family file delivered information on household financial and non-financial assets, equity in business, and debts. Respondents reported the market value of their asset at the time of the survey. The interview was conducted with a family member (aged 15 and older) who is most knowledgeable of the family's financial situation on behalf of all the members in the household. The information on assets and debts were collected for the family as a whole, because they are often not assigned to a singular family member. The term "family unit" included both unattached individuals and families of two or more. Unattached individuals were defined as an individual living either alone or with unrelated persons, such as roommates or a lodger. Families of two or more were also referred to as economic families,

[21] For this study, data were accessed through the Research Data Centre (RDC) at the University of Windsor (a branch of the Western RDC) under the project titled “Asset poverty among immigrants to Canada” (Project no. 16-SSH-WIND-4999).

defined as “a group of two or more persons who live in the same dwelling and were related to each other by blood, marriage, common law or adoption” (Statistics Canada, 2015a, p. 11).

Measurement

Two asset poverty thresholds were created, based on financial assets and net worth. Financial assets are those that can be easily monetized and are an indicator of “emergency fund availability” (e.g., job loss, car fix, unexpected home repairs, medical emergency), while net worth, the total marketable assets minus liabilities, is seen as an indicator of the “long-run economic security of families” (Haveman & Wolff, 2004, p. 151). The basis for creating asset poverty thresholds followed Haveman and Wolff (2004); a household or person is asset poor, "if their access to wealth type resources is insufficient to enable them to meet their basic needs for some limited period of time" (p. 149). The SFS provides detailed information on household assets and debt (liabilities) that enable the construction of an asset poverty threshold.[22] Financial assets included all checking and savings accounts, term deposits, investments in mutual funds, bonds, stocks, registered savings plans, and other durable assets. Net worth was calculated as the total value of all financial assets, non-financial assets, and equity in business minus total debts. Non-financial assets included principal residence, other real estate assets, and vehicles. The liabilities included mortgage debts on a principal residence and other real estate assets; outstanding balances on credit cards, deferred payment, and installment plans; student loans; vehicle loans; lines of credit; and other money owed.

[22] For example, in 2011 the LICO after-tax poverty threshold for a family of 4 (two adults and two children) living an urban area with over 500,000 inhabitants was $ 36,504. Therefore, a family of 4 would be coded as asset poor if its reported financial asset holdings totaled less than 25 percent of the LICO threshold ($9,126 = .25 * 36,504). Similarly, a family would be asset poor if its net worth is calculated less than 25 percent of the LICO threshold for families of their size and composition.

The family size adjusted after-tax LICO was used as basic needs thresholds for both 1999 and 2012. This study chose to use the LICO approach because, in Canadian poverty-related literature, the LICOs are the most commonly applied poverty measures (Aldridge, 2017; Picot & Hou, 2019; Sarlo, 2014). Several studies that measured immigrants' poverty rates in Canada are based mostly on the LICO income threshold (Kazemipur & Halli, 2001; Picot & Hou, 2014; Picot, Lu, & Hou, 2009; Picot & Hou, 2003; Statistics Canada, 2008a). Since immigrants tend to live mostly in urban areas (Gellatly & Morissette, 2019; Teixeira & Drolet, 2018; Vézina & Houle, 2017), using the LICO approach was appropriate in this study because it allowed identifying an immigrant poverty rate based on geographic location. In estimation of the asset-poverty incidence, similar to previous studies, three months (25 percent of one year) reference period was used as it is suggested that a financially secure household should own sufficient assets to meet their basic needs for three months (Brandolini et al., 2010; Haveman & Wolff, 2005, Rothwell & Haveman, 2013). Therefore, a family or individual was coded as financial asset poor or net worth poor if its reported financial asset holdings or net worth holdings totaled less than 25 percent of the LICO poverty line.

Based on the literature review, it was anticipated that the asset poverty of immigrants over time might be affected by a number of factors. As such, several relevant socio-demographic variables were included in the analysis. The continuous variable 'age' was converted into five categories[23]: (i) age less than 25, (ii) age 25-34, (iii) age 35-49, (iv) age 50-65, (v) age 66 or

[23] Similar to study 1, in this study, asset poverty was measured with the consumption approach, which is linked to the life-cycle hypothesis (Ando & Modigliani, 1963; Modigliani & Brumberg, 1954). The life cycle model describes a hump-shaped pattern in which income and asset accumulation is low during the young adult stage (age 20s-30s), rises in middle age (age 40s- 50s), and again goes back to being low during the 60s and beyond. Therefore, it was meaningful to code the age variable in groups that allowed to examine the level of asset poverty of immigrants living at different life stages. Several previous studies that measured asset poverty (Rothwell & Robson, 2018; Kim

more. The variable 'length of residency' was divided into seven groups: (i) less than 5 years, (ii) 5 to 10 years, (iii) 11 to 15 years, (iv) 16 to 20 years, (v) 21 to 25 years, (vi) 25 to 30 years, and (vii) more than 30 years. As mentioned in Chapter 3 (Study 1), SFS did not provide information on the number of children in the family units, instead containing information on the number of persons in the family unit of age 0-4, 5-9, 10-14, 15-17, and so on. This information was considered to create the 'number of children' variable. The analysis only included 'minors' of the households, and based on the number of minor children in the households, four groups were created: (i) no children, (ii) one child, (iii) two children, (iv) three children or more. Other variables of interest were grouped as 'family size' (1 to 6 or more); 'language' mostly spoken at home: (i) language English, (ii) language French, (iii) language other; 'marital status': (i) married, (ii) single (single included never married, and divorced/ widowed/ separated); 'employment status': (i) employed, (ii) unemployed; 'level of education': (i) less than high school, (ii) high school diploma, (iii) some college, (iv) university degree; 'homeownership status': (i) homeowner, (ii) not-homeowner.

Procedure

Households of immigrants were coded as asset poor and not-asset poor based on financial asset and net worth. To calculate the asset poverty, similar to previous studies, equivalent household assets are calculated for each household by dividing household assets by its adjusted size, that is, the square root of the number of persons in the household (Blumenthal & Rothwell, 2018; Rothwell & Robson, 2018). Data analysis followed two steps: *First*, descriptive analyses

& Kim, 2013; Azpitarte, 2011) also treated age as a categorical variable. However, it is important to note that changing the age categories may influence the results and interpretation.

were used (a) to examine the composition of different types of assets owned by immigrant households and its share in total assets, (b) to compute the headcount ratios (i.e., the percentage of the population below the specified poverty line), and (c) to estimate the prevalence of asset poverty among immigrant groups and to compare the rates of income poverty and asset poverty. *Second,* two separate multiple logistic regression models for 1999 and 2012 were used to identify more precisely the socioeconomic characteristics that have a larger impact on the probability of being asset-poor over time.[24]

Only weighted results were requested for disclosure from the RDC. To account for the sample design of the survey, bootstrap procedures were employed to calculate confidence intervals and coefficients of variation, and to test the statistical significance of difference. A significance level of $p<0.05$ was applied in all cases.

Results

The following section presents the findings of this study using descriptive analysis and multivariate logistic regression models. The findings are presented in tabular forms under the following sub-headings: Demographic profile of the sample for the year 1999 and 2012; Asset portfolio composition of immigrant households over time; Immigrants' income and asset poverty rates over time; Income and asset poverty rates of immigrants over time across socio-demographic groups; and Factors associated with financial and net worth poverty of immigrants in 1999 and 2012.

[24] Statistics Canada imputed the missing values for the income, assets, and debts. The nearest-neighbour techniques were employed for all missing components of income and net worth (SFS, 2012). However, not all variables on the SFS database were imputed for non-response. In some cases, I excluded observations with missing data (which occurs in language, employment, education level, marital status). Before excluding the observations, I examined the impact of missing values on the overall representativeness of the data. Very few missing data were found for the variables of interest.

Demographic profile of the sample for the year 1999 and 2012

Tables 1 provides the demographic profile of the sample for 1999 and 2012. After linking the economic family file with the individual file based on the primary reference person, 2,766 immigrant households in 1999 and 2,303 households in 2012 were identified as immigrant households.

Table 1

The demographic profiles of the immigrant sample, 1999 and 2012

	1999 (n =2766)		2012 (n =2303)	
Variables	Freq.	Percent	Freq.	Percent
Number of family members				
Family size 1	651	23.54	687	29.82
Family size 2	694	25.08	572	24.84
Family size 3	513	18.56	337	14.64
Family size 4	538	19.44	371	16.09
Family size 5	257	9.28	186	8.08
Family size 6 or more	113	4.10	150	6.54
Age				
Age less than 25	51	1.84	163	7.07
Age 25-34	392	14.16	281	12.2
Age 35-49	979	35.39	768	33.36
Age 50-65	795	28.74	695	30.16
Age 66 or more	550	19.87	396	17.21
Length of residency in Canada				
Less than 5 years	244	8.89	339	14.82
5-10 years	478	17.38	311	13.58
11-15 years	217	7.88	235	10.25
16-20 years	260	9.47	209	9.13
21-25 years	279	10.14	243	10.59
26-30 years	288	10.49	122	5.32
More than 30 years	983	35.75	831	36.3
Language spoken at home				
Language English	785	28.45	1047	45.49
Language French	101	3.66	166	7.2
Language other	1874	67.89	1089	47.31
Marital status				
Single	949	34.32	894	38.8
Married	1817	65.68	1409	61.2
Employment status				
Unemployed	1045	37.78	805	34.94
Employed	1721	62.22	1498	65.06
Level of education				
Less than high school	673	24.32	300	13.01
High school diploma	594	21.46	535	23.22

Some college	745	26.92	686	29.79
University degree	755	27.30	782	33.97
Home ownership status				
Not homeowner	1078	38.99	998	43.31
Homeowner	1688	61.01	1305	56.69
Gender				
Male	1757	63.52	1309	56.85
Female	1009	36.48	994	43.15
Region				
Atlantic	34	1.23	38	1.66
Quebec	411	14.86	399	17.31
Ontario	1495	54.05	1125	48.86
Prairies	328	11.87	352	15.27
British Columbia	498	18.00	389	16.91
Number of children in the family				
No children	1742	63.00	1568	68.06
One child	487	17.61	345	14.96
Two children	371	13.42	243	10.55
Three children or more	165	5.97	148	6.42

Note: Author's calculations using economic family restricted data files from the 1999 and 2012 Statistics Canada Survey of Financial Security. All estimates (percentages) in the table have been survey weighted. Atlantic region included Newfoundland and Labrador, Prince Edward Island, Nova Scotia, and New Brunswick; and Prairie region included Manitoba, Saskatchewan, and Alberta.

The age profile of the sample showed that between 1999 and 2012, the percentage of young immigrants (age less than 25 years) increased (1.84% to 7.07%). Compared to 1999, by 2012, more immigrants spoke English at home (28.45% compared to 45.49%), female immigrants increased by 7 percentage points, and the percentage of immigrants with a higher level of education also increased. In both years, the largest portion of respondents were living in Ontario, however, the rate has declined by 6 percentage points in 1999.

Asset portfolio composition of immigrant households over time

Table 2 presents the asset portfolio of immigrant households over time. The first column of the table shows the percentage of households owning a particular asset, and the second

column shows the proportion of this asset in relation to total assets for the year 1999. A similar calculation is presented for 2012. The results highlight important differences in portfolio composition. For example, more than 50% of immigrants were homeowners in both years, and the principal residence was the largest portion of the total asset holding in the real assets (non-financial) category, which has increased by 5 percentage points in 2012. However, between years, homeownership rates (principal residence) decreased for immigrants in Canada (61% compared to 57%). Not only homeownership but also other assets, such as business equity, other real estate, and vehicle ownership, dropped for immigrants over time. However, foreign real estate or property ownership among immigrants improved by 4 percentage points. Besides real estate assets, vehicles, and business equity, immigrants hold a large percentage of other non-financial assets (the value of the contents of the respondent's principal residence, recreational vehicles including motor homes, aircraft and watercraft, valuables and collectibles, copyrights and patents, etc.), which has decreased by 9 percentage points in 2012.

Table 2 also shows that immigrant families hold a large share of their assets in checking and savings accounts. For example, in both years, most of the immigrant families reported owning checking and savings accounts, 89% in 1999, and 92% in 2012. Regarding financial assets, in the proportion of immigrants with a Registered Educational Savings Plans (RESP) doubled (9% to 18%) between years. The real and financial asset compositions in Table 2 shows that immigrants are more likely to hold liquid assets than housing assets. Between years, the largest difference was in the percentage of households in possession of ‘other financial assets’(includes homeownership savings plan, money held in trust, money owed to the respondent and other miscellaneous financial assets, shares of privately held companies, deferred profit-sharing plan, mortgage-backed securities, etc.) which was six times greater in 2012 than in

1999 (6% compared to 37%).[25] However, the rate of ownership in several financial assets (such as mutual funds and other investments, Guaranteed Income Certificates (GICc) and Treasury Bills, and bonds and stocks) has decreased over time for immigrants.

In addition, Table 2 reports the percentage of households' particular type of debt and the proportion of these debts in relation to total liabilities for the years 1999 and 1212. Regarding mortgage on principal residence and mortgage on real estate debt, the rates were similar between years. However, mortgage debt on real estate outside Canada and credit card loans were higher in 2012 than the figure obtained in 1999. Student loans, vehicle loans, and other debts were slightly increased in 2012 compared to 1999 for immigrant households.

[25] A list of "other financial assets" is included as an appendix.

Table 2

Asset portfolio composition of immigrants in Canada 1999, 2012

	1999		2012	
	% of owners	% of total assets	% of owners	% of total assets
Real assets				
Principal residence	61.01	35.75	56.69	41.44
Other real estate	11.62	3.55	10.72	4.04
Foreign real estate/property	8.26	3.03	11.98	5.63
Vehicles	75.09	8.72	70.81	9.69
Business equity	19.55	2.91	17.97	2.11
Other non-financial assets	100.00	46.04	100	37.10
Total		100.00		100.00
Financial assets				
Checking and savings accounts	89.39	66.45	91.82	63.83
GICs and Treasury Bills	18.02	10.28	9.72	4.41
Mutual funds and other investments, non-RRSP	13.87	7.24	8.79	4.21
Bonds and Stocks	20.13	8.56	13.28	5.09
RESP funds	8.75	4.03	17.76	8.28
Shares	1.47	0.67	1.67	0.60
Other financial assets	5.84	2.76	37.46	13.59
Total		100.00		100.00
	% of owners	% of total debt	% of owners	% of total debts
Debts				
Mortgage on principle residence	32.08	42.64	31.49	38.58
Mortgage on real estate Canadian	5.65	6.09	6.01	5.43
Mortgages on real estate outside Canada	0.65	0.56	1.62	1.37
Credit cards loan	31.10	14.64	33.79	17.27
Student loans	12.10	9.62	13.89	10.51
Vehicle loan	15.02	9.11	19.14	9.36
Other debts	29.67	17.34	30.34	17.44
Total		100.00		99.96

Note: Author's calculations using economic family restricted data files from the 1999 and 2012 Statistics Canada Survey of Financial Security. Only weighted results are shown in the table.

Immigrants' income and asset poverty rates over time

Table 3 presents the headcount rates of income poverty (LICO), financial asset poverty, and net worth poverty of immigrants for 1999 and 2012. The income poverty rate of immigrant households was 20.06% in 1999. Using financial asset poverty threshold, the rate of poverty of immigrants in 1999 was 59.83% which was 2.98 times greater than the established LICO rate (59.83 compared to 20.06). The poverty rate based on net worth was 17.58% in 1999, which was 2.48% lower than the LICO rate. Table 3 also reports the income poverty and asset poverty rates in 2012 for immigrant households. The results showed a 22.86% LICO rate, 53.27% financial asset poverty rate, and 24.70% net worth poverty rate in 2012. While the financial asset poverty rate fell by 6.56 percentage points between 1999 and 2012, the income poverty and net worth poverty rate increased for immigrant households by 2.80 percentage points and 7.12 percentage points, respectively.

Family structure and size have important socioeconomic and policy implications. Families of different sizes need different levels of economic resources (Haveman, 2009), therefore, family size may affect asset poverty rates. Given this, Table 3 reports the variation in poverty rates by household size between years. Compared to 1999, the 2012 LICO rate for single-person and two-person households of immigrants was higher. However, between years, income poverty rates greatly decreased for large families (from three-person households to households with six persons or more). This pattern did not match for net worth poverty. Between years, the rate of net worth poverty increased for one-person households to five-person households, however, the rate dropped for larger families (family size six or more). Over the period from 1999 to 2012, the rate of financial asset poverty dropped regardless of household size.

Table 3

Low income and asset poverty rates of immigrants by family size 1999, 2012 (all rates are in percentage)

Variable	Income poverty			Financial asset poverty			Net worth poverty		
	1999	2012	Change in percentage points	1999	2012	Change in percentage points	1999	2012	Change in percentage points
Overall	20.06	22.86	2.80	59.83	53.27	-6.56	17.58	24.70	7.12
Family size 1	35.28	43.78	8.50	56.74	54.33	-2.41	29.09	39.71	10.62
Family size 2	10.37	14.35	3.98	45.76	41.42	-4.34	11.30	17.99	6.69
Family size 3	18.89	17.42	-1.47	63.07	54.81	-8.26	14.71	18.91	4.20
Family size 4	15.56	11.54	-4.02	68.90	52.22	-16.68	13.27	15.45	2.18
Family size 5	19.19	12.61	-6.58	72.21	69.21	-3.00	16.98	21.47	4.49
Family size 6 or more	20.59	12.57	-8.02	78.00	72.85	-5.15	24.71	21.40	-3.31

Note: Headcount poverty rates. Author's calculations using economic family restricted data files from 1999 and 2012 Statistics Canada Survey of Financial Security. Only weighted results are shown in the table.

Income and asset poverty rates of immigrants over time across socio-demographic groups

Table 4 presents how income and asset poverty rates varied across socio-demographic groups of immigrants for 1999 and 2012. In both years, the highest rates of income and asset poverty were observed in households headed by younger adults (age less than 35 years); poverty rates decreased with higher ages. Although between 1999 and 2012, the financial asset poverty rate declined among young adults (those who were less than 25 years), they experienced higher income poverty rates over time (53.31% compared to 67.26%). And while the financial asset poverty rate dropped for all age groups, the net worth poverty rate increased for all groups over time.

Regarding the length of residency, in both years, recent immigrants (less than five years) experienced the highest rate of income poverty, financial asset poverty, and net worth poverty compared to cohorts in Canada for longer. Across measures, the rates of poverty decreased considerably among those residing in Canada for more than thirty years. The results showed that the financial asset poverty rate dropped, the net worth poverty rate increased, and the income poverty rate remained the same for recent immigrants over time. Both SFS years' results show that the income poverty of immigrants dropped with the length of stay in Canada (5 to 10 years, 11 to 15 years). However, compared to 1999, income poverty rates in 2012 increased for immigrants in Canada for 16 to more than 30 years. Over time, financial asset poverty decreased for immigrants, regardless of their number of years in Canada. However, this pattern did not match with net worth poverty. For example, over time, the net worth poverty for immigrants in Canada for 16 to more than 30 years was higher compared to immigrants in Canada for 5 to 15 years. In both years, speaking another language than English at home showed higher income and asset poverty rates of immigrants.

Compared to married households, single households experienced higher levels of poverty over time across measures. Although financial asset poverty rates dropped over the years for single immigrant households, the income and net worth poverty rates increased between years for those households. The income and financial asset poverty dropped over time for households with children (from one child to three children or more), however, net worth poverty increased slightly for such households. In both years, regardless of the poverty measures, immigrant households with three or more children experienced much higher poverty rates than one or two children households. Regarding gender, in 1999, immigrant women had higher income and asset poverty rates than immigrant men. However, opposite results were found in 2012. As mentioned in Chapter 3, in the SFS, assets were collected for the family as a whole, and it was not possible to determine the ownership of household assets based on gender.

The results show that over time, the financial asset poverty rate decreased, while income and net worth poverty increased for immigrants, regardless of their level of education (low to a high level of education). In both years, immigrants with university degrees experienced lower asset poverty compared to immigrants who had a low level of education. However, in 2012, immigrants who had a high school diploma, college, and university degrees experienced higher income poverty rates than immigrants without high school degrees. Compared to 1999, in 2012, income poverty was higher for unemployed immigrant households, however, regarding employment status, the net worth poverty increased over time for both households with or without a job. Interestingly, for both years, those who were employed experienced higher financial asset poverty compared to income and net worth poverty. Across measures, poverty rates were very low for homeowners. Also, a very large difference in poverty rates were found between homeowners and non-homeowners in both 1999 and 2012. In terms of regional

differences, in both years, immigrant income poverty and asset poverty rates were higher in Quebec than in any other region. Over time, income poverty and net worth poverty increased in every region except the Atlantic. However, only net worth poverty declined in the Atlantic region; income poverty nearly doubled over time.

Table 4

Income, financial assets, and net worth poverty rates of immigrants by socio-demographic categories 1999, 2012

Variable	Immigrant households 1999				Immigrant households 2012			
	n=2766 (%)	Income poor (LICO) (%)	financial asset poor (%)	Net worth poor (%)	n=2303 (%)	Income poor (LICO) (%)	financial asset poor (%)	Net worth poor (%)
Overall		20.06	59.83	17.58		22.86	53.27	24.70
Age								
Age less Than 25	51(2)	53.31	89.94	57.31	163(7)	67.26	71.49	57.62
Age 25-34	392 (14)	30.79	74.27	34.87	281(12)	31.28	65.88	40.90
Age 35-49	979(35)	21.52	70.30	20.19	768(33)	18.20	58.52	25.99
Age 50-65	795(29)	14.40	52.45	9.04	695(30)	21.52	49.51	17.80
Age 66 or More	550(20)	14.95	38.79	9.30	396(17)	10.03	33.22	9.25
Length of residency in Canada								
Less than 5 years	244(9)	54.02	76.91	44.22	339(15)	54.03	71.32	48.39
5-10 years	478(17)	33.90	75.82	32.24	311(14)	21.77	65.84	27.64
11-15 years	217(8)	21.21	77.29	31.51	235(10)	16.31	63.12	27.98
16-20 years	260(9)	19.00	70.84	16.36	209(9)	24.10	50.09	21.02
21-25 years	279(10)	14.15	65.17	12.22	243(11)	19.34	55.75	26.90
26-30 years	288(10)	9.08	56.37	5.65	122(5)	21.53	55.58	15.70
More than 30 years	983(36)	9.82	40.46	6.10	831(36)	13.38	37.83	14.34
Language spoken at home								
Language English	785(28)	11.41	54.07	12.33	1047(45)	18.04	48.35	22.33
Language French	101(4)	28.32	72.33	18.35	166(7)	26.22	58.71	39.39
Language other	1874(68)	23.28	61.52	19.77	1089(47)	27.01	57.19	24.75
Marital status								
Single	949(34)	32.39	62.20	28.64	894(39)	37.80	58.99	39.43
Married	1817(66)	13.63	58.59	11.80	1409(61)	13.40	49.64	15.35
Employment status								
Unemployed	1045(38)	28.24	53.51	21.34	805(35)	38.60	52.63	26.56

Employed	1721(62)	15.10	63.67	15.30	1498(65)	14.42	53.61	23.70
Level of education								
Less than high school	673(24)	21.70	58.18	18.38	300(13)	17.14	48.75	23.02
High school diploma	594(21)	24.96	64.24	19.22	535(23)	29.69	61.44	31.16
Some college	745(27)	17.64	62.57	17.94	686(30)	21.69	57.30	26.34
University degree	755(27)	17.15	55.14	15.22	782(34)	21.42	45.87	19.48
Homeownership status								
Not homeowner	1078(39)	38.71	75.37	43.58	998(43)	42.71	73.21	55.64
Homeowner	1688(61)	8.15	49.91	0.97	1305(57)	7.70	38.03	1.05
Gender								
Male	1757(64)	16.89	57.69	15.92	1309(57)	23.05	54.66	26.65
Female	1009(36)	25.60	63.56	20.48	994(43)	22.62	51.43	22.12
Region								
Atlantic	34(1)	8.77	53.94	10.06	38(2)	14.29	34.52	9.07
Quebec	411(15)	32.41	64.46	26.23	399(17)	37.61	58.65	33.64
Ontario	1495(54)	16.46	60.85	17.51	1125(49)	20.05	54.65	26.01
Prairies	328(12)	18.45	56.96	12.98	352(15)	15.41	53.08	21.14
British Columbia	498(18)	22.53	55.24	14.21	389(17)	23.49	45.77	16.49
Number of children in the family								
No children	1742(63)	17.80	51.42	15.53	1568(63)	25.69	47.62	25.58
One child	487(18)	21.89	70.12	18.96	345(18)	17.76	65.06	20.92
Two children	371(13)	22.82	74.11	19.75	243(13)	13.99	60.71	20.53
Three children or more	165(6)	32.39	86.12	30.23	148(6)	19.39	73.45	30.95

Note: Headcount poverty rates. The proportion of the sample made up for each group are reported in parentheses. Author's calculations using economic family restricted data files from the 1999 and 2012 Statistics Canada Survey of Financial Security. All estimates in the table (income and asset poverty rates) have been survey weighted. SFS captured the socioeconomic characteristics of the major income earner of a family unit, and the wealth information is collected at the family level. The sociodemographic variables that are included in this table are for the major income earner in the family unit.

Factors associated with financial and net worth poverty of immigrants in 1999 and 2012

Tables 5 and 6 present the results of four multivariate logistic regression models that predicted financial asset poverty and net worth poverty of immigrants in 1999 and 2012. Model 1 and Model 2 in Table 5 estimate the financial asset poverty of immigrants in 1999 and 2012. Results show that in both years, the number of children in the household statistically significantly increased the risk of being financial asset poor (OR = 1.52 and 1.67, respectively). The length of residency played a statistically significant role in describing the financial asset poverty of immigrants in both years. Regarding age, the risk for financial asset poverty was far greater in 1999 compared to that of 2012 for immigrants who were very young (age less than 25 years). In both years, compared to the reference group of age 66 and over, all other age groups (age 50 to 65 years, 35 to 49 years, 25 to 34 years) were more likely to be financial asset poor. However, the risk of being financial asset poor declined between years based on the duration of stay in Canada.

Table 5

Multivariate logistic regression models predicting financial asset poverty of immigrants 1999 and 2012

	Model 1 FINAPOV (1999)		Model 2 FINAPOV (2012)	
Variables	Odds Ratio (SE)		Odds Ratio (SE)	
Gender (ref: male)	1.151	(0.132)	0.779	(0.106)
Language (ref: English)				
language French	1.818	(0.636)	0.848	(0.279)
Language other	1.059	(0.125)	1.067	(0.163)
Age (ref: 66 or more)				
Age less than 25 years	4.628**	(2.546)	1.140	(0.430)
Age 25-34 years	1.765*	(0.434)	1.491	(0.508)
Age 35-49 years	1.809**	(0.369)	1.404	(0.399)
Age 50-65 years	1.708**	(0.286)	1.831**	(0.403)
Region (ref: Ontario)				
Atlantic	1.142	(0.297)	0.570	(0.188)
Quebec	1.085	(0.198)	0.868	(0.228)
Prairies	0.911	(0.119)	0.849	(0.149)
British Columbia	0.872	(0.110)	0.679*	(0.114)
Marital status (ref: single)	0.932	(0.118)	0.739	(0.121)
Number of children	1.522***	(0.105)	1.671***	(0.150)
Length of residency (ref: >30 years)				
Less than 5 years	2.340***	(0.597)	1.994*	(0.611)
5-10 years	2.560***	(0.452)	2.405**	(0.647)
11-15 years	3.013***	(0.718)	2.492**	(0.697)
16-20 years	2.524***	(0.523)	1.208	(0.352)
21-25 years	2.024***	(0.386)	1.319	(0.345)
26-30 years	1.621**	(0.289)	1.862*	(0.590)
Level of education (ref: < high school)				
High school diploma	0.823	(0.128)	1.223	(0.317)
Some college	0.790	(0.119)	1.018	(0.225)
University degree	0.464***	(0.072)	0.531*	(0.137)
Employment status	0.924	(0.127)	0.757	(0.130)
Home ownership status	0.426***	(0.054)	0.249***	(0.043)
N	2744		2289	

Note. FINAPOV = Financial asset poverty. Standard errors in parentheses. *$p<0.05$, **$p<0.01$, ***$p<0.001$.
Author's calculations using economic family restricted data files from the 1999 and 2012 Statistics Canada Survey of Financial Security. Only weighted results are reported.

For example, immigrants who had been in Canada for less than 30 years in 1999 were at much higher risk of being financial asset poor than the immigrants in Canada less than 30 years in 2012. Immigrants who were employed and were living in a married family had lower chances of being financial asset poor in both years compared to immigrants who were single and unemployed. Homeownership significantly reduced the risk of being financial asset poor in both years. Immigrant households whose head had a higher level of education were less likely to be financial asset poor. However, this pattern did not match with 2012 because immigrants who had a high school diploma or some college degree were more at risk of financial asset poverty compared to those with less than a high school education in 2012. Having a university degree reduced the chance of being financial asset poor in both years (OR = .46 and OR = .53, respectively). Speaking in languages other than English at home increased the chance of being financial and net worth poor in both years. Women were at higher risk of being financial asset poor (OR = 1.15) than men in 1999, but gender (OR = 0.77) did not influence the asset poverty of immigrants in 2012. Immigrants who were living in Atlantic and Quebec were at higher risk of being financial asset poverty than those in other regions in 1999, however, not in the year 2012.

Table 6 shows estimated odds-ratios (OR) from two logistic regression models (3 and 4) of net worth poverty of immigrants in 1999 and 2012. The results were somewhat similar in both years. For example, in both 1999 and 2012, young households, especially those who were less than 25 years old, were the most vulnerable to net worth poverty. The probability of being net worth poor decreased with age, however, the risk of being net worth poor remained high over time for all age groups. The head of the household's socioeconomic characteristics, such as

homeownership, being employed and married, and having a university degree were significantly negatively associated with immigrant net worth poverty in both years.

Table 6

Multivariate logistic regression models predicting net worth poverty of immigrants 1999 and 2012

	Model 3 NWPOV 1999		Model 4 NWPOV 2012	
Variables	Odds Ratio (SE)		Odds Ratio (SE)	
Gender (ref: male)	0.753	(0.142)	0.546**	(0.120)
Language (ref: English)				
language French	0.471	(0.245)	1.473	(0.628)
Language other	1.357	(0.288)	1.085	(0.282)
Age (ref: 66 or more)				
Age less than 25 years	6.112***	(3.170)	4.321**	(2.238)
Age 25-34 years	3.569***	(1.248)	4.048**	(2.009)
Age 35-49 years	2.525**	(0.835)	3.568**	(1.680)
Age 50-65 years	2.513**	(0.735)	2.579*	(0.997)
Region (ref: Ontario)				
Atlantic	1.154	(0.656)	0.290*	(0.170)
Quebec	1.439	(0.339)	0.521	(0.175)
Prairies	0.863	(0.206)	0.699	(0.200)
British Columbia	0.866	(0.200)	0.444**	(0.134)
Marital status (ref: single)	0.415***	(0.085)	0.411***	(0.109)
Number of children	1.309**	(0.128)	1.539**	(0.249)
Length of residency (ref: >30 years)				
Less than 5 years	2.774**	(0.931)	0.760	(0.314)
5-10 years	3.505***	(1.029)	0.736	(0.325)
11-15 years	3.251***	(1.115)	1.309	(0.604)
16-20 years	1.702	(0.617)	0.790	(0.400)
21-25 years	1.187	(0.405)	0.880	(0.358)
26-30 years	0.644	(0.263)	1.110	(0.577)
Level of education (ref: < high school)				
High school diploma	0.609	(0.159)	0.946	(0.433)
Some college	0.873	(0.222)	0.925	(0.424)
University degree	0.437**	(0.119)	0.746	(0.359)
Employment status	0.420***	(0.088)	0.807	(0.206)
Home ownership status	0.021***	(0.006)	0.009***	(0.003)
N	2744		2289	

Note. NWPOV = Net worth poverty. Standard errors in parentheses. * *p<0.05,* ** *p<0.01,* *** *p<0.001.* Author's calculations using economic family restricted data files from the 1999 and 2012 Statistics Canada Survey of Financial Security. Only weighted results are reported.

Higher numbers of children in the households increased the risk of being net worth poor (OR = 1.30 in 1999, OR = 1.53 in 2012). Immigrants who were in Canada less than 15 years were the most vulnerable to net worth poverty in 1999, however, recent immigrants had a much lower risk for net worth poverty in 2012. More time spent in Canada statistically significantly reduced the risk of being net worth poor in 1999; however, in 2012, immigrants who were in Canada for 11 to 15 years, and 26 to 30 years were more likely to be net worth poor.

Discussion

Using SFS 1999 and 2012, I examined the prevalence of asset poverty among immigrant groups over time. This study contributes to identifying asset poor households of immigrants and provides evidence that can inform policymakers and future researchers on the long-term economic conditions of specific immigrant groups.

The findings of this study highlight important differences in poverty rates across measures. By estimating the prevalence of asset poverty among Canadian immigrants for 1999 and 2012, this study provides evidence that asset poverty rates of immigrants are remarkably high, in comparison to rates of income poverty. More than 50% of immigrant households are estimated to be in financial asset poverty over time in Canada. In 1999, 59.83% of immigrants were estimated to be in financial asset poverty. Despite the decline to 53.27% in 2012, the condition of financial asset poverty of immigrants remains very high. While almost 7.5 million people are immigrants in Canada, according to the latest census estimates, this suggests that likely 1 million immigrant families, based on an average family of four, are financial asset poor. The findings tell us that many immigrant families in Canada are financially insecure and do not have sufficient assets to maintain a basic level of consumption during a period of economic hardship. One explanation is that many immigrants may be struggling in the labour market or

may occupy lower-paying jobs that do not allow them to save (Sweet et al., 2010). Also, less familiarity with the financial system of the host country, lack of information on relevant government programs, lack of access to the financial programs, and obligation to send remittance to the home country may hinder some immigrants to save. Monitoring asset poverty rates of immigrant groups at different points of time may improve the understanding of researchers, service providers, and policymakers of the economic vulnerability of certain groups. Besides, tracking asset poverty rates over time provides useful information to policymakers on how social policies relate to changes in asset poverty rates of different immigrant groups.

Although it remains high, financial asset poverty rates have gone down over the years. During the study period, some major changes occurred in Canadian immigrant selection policy, which intended to improved immigrant economic outcomes (Ferrer, Picot, & Riddell, 2014). At the same time, Canada experienced noticeable economic growth, and low-income rates fell somewhat among immigrants and for the population as a whole (Picot & Hou, 2019; Picot & Lu, 2017). Although many immigrants experienced several ups and downs regarding income and employment during the 2008-2009 recession, after the recession (from 2010 to 2011), employment among core-aged immigrants (aged 25 to 54) rose by 4.3% (Yssaad, 2012), perhaps explaining the lower financial asset poverty among immigrants in 2012. Also, the uncertainty of the labour market could motivate immigrants to build financial assets, although savings is difficult for many of them. In addition, it has been documented in the literature that immigrants are more likely to save for post-secondary education and Registered Education Savings Plans (RESP) (Bonikowska & Frenette, 2020; Milligan, 2005; Sweet, Anisef, & Walters, 2010). Consistent with previous studies, the asset portfolio analysis of this study found that immigrants

are saving more in RESP over the years. The savings behavior of immigrants may influence financial asset poverty rates.

Similar to previous studies (Haveman & Wolff, 2004; Rothwell & Robson, 2018), this study found that the rates of net worth poverty (24.70% in 2012) are lower than the corresponding figures for financial asset poverty (53.27% in 2012) of immigrants in Canada. This may be due to the homeownership of immigrant families, since more than 50% of immigrant households own their main residence in both years, as the asset portfolio composition of Table 2 reported. For immigrants, homeownership is considered a key indicator of integration into the host society and an effective means of building assets after the migration (Darden, 2015; Ives, Hanley, Walsh, & Este, 2014; Murdie & Teixeira, 2003). Despite the lower rates compared to financial asset poverty, net worth poverty rates remain high for Canadian immigrants over the years.

While the financial asset poverty rate dropped for all age groups, the net worth poverty rate increased for all groups over time. These results are in line with others, suggesting that asset accumulation is challenging for some immigrants for many reasons, such as the increased price of homes since the beginning of the 2000s, discrimination in the housing market, limited access to lending and credit markets, rejection from obtaining personal or business loans due to lack of credit history, tendency to live in expensive cities, lack of financial resources to invest in a house, business or other real estate assets, and a commitment to transnational investment activities in the country of origin (Firang, 2018; Kirby, 2008; Maroto & Aylsworth, 2016; Nam, Sherraden, Huang, Lee, & Keovisai, 2019; Sweet et al., 2010). Consistent with a previous study (Rothwell & Robson, 2018), this study shows that homeownership decreases the likelihood of being asset poor in both years. However, the asset portfolio composition showed that the

homeownership and other real estate assets of immigrants decreased over time (Table 2), whereas, the tendency of having checking and savings accounts, and other financial asset holdings increased. Besides net worth poverty, this study also found that, compared to 1999, overall income poverty rates were higher in 2012, consistent with the Rothwell and Robson study (2018). This economic decline for immigrants is disturbing because it occurred while immigrants to Canada were increasingly better educated and better trained.

However, economic vulnerability is not equal for all immigrants. By differentiating among immigrant families in a way that previous studies did not, this study found that some immigrant groups – such as young adults, single-person families, those who speak a language other than English or French at home, those who have children, and large families – are more likely to experience high asset poverty over the years, compared to other immigrant groups. Having a university degree decreases the likelihood of being asset poor. While Rothwell and Robson (2018) showed that the risks for all three measures of poverty declined as levels of education increased, the current study found that the rate of financial asset poverty decreased over time regardless of level of education. In both years, however, immigrants who have a high school diploma and some college degree experience have higher financial asset poverty compared to immigrants without high school diplomas. In terms of net worth, the poverty rate increased for immigrant households over time regardless of level of education.

In both years, households headed by a young person (age less than 25 years) were the most vulnerable group, and even adults in prime working years remained at significant risk for asset poverty. The chance of being asset-poor reduces as age increases, consistent with life-cycle models of savings and asset accumulation (Modigliani, 1986). The findings for age are consistent with previous research on asset poverty (Azpitarte, 2011; Kim & Kim, 2013; Rothwell &

Robson, 2018). However, despite the decline, the risk of net worth poverty remained high over the years for all age groups. The risk of financial and net worth poverty declined over time with the time spent in Canada. It was anticipated that for immigrants, a certain period may be required to accumulate assets and that it may take time to generate these assets as they integrated into society. However, even though financial asset poverty risk reduces in later years, both 1999 and 2012 findings demonstrated that the risk remains high for immigrants who have been living in Canada for thirty years.

Turning to family structure, in both years, the income poverty rates of immigrants dropped with increasing family size. As discussed in Chapter 3, government transfer income and tax credits for lower-income families could be a possible explanation for the reduced rate of income poverty. However, the pattern of income poverty does not match with financial asset poverty in both years. Marital status may play an important role in the asset accumulation of immigrants. Living in a married family significantly reduces the risk of asset poverty, and over the years, single immigrant households with only one adult experience higher income and asset poverty than married immigrant households. Low earnings usually affect single households and, consequently, these households are likely to have more difficulties to save. Empirical results of one previous study found that while couples save on the equivalent of about one-third of their total expenditures through shared and joint consumption of goods, singles need to spend between one half to three-fourths as much as couples to attain the same standard of living by themselves (Browning, Chiappori, & Lewbel, 2013).

The number of dependent children in the household raises the probability of being both financial and net worth poor. Although income and financial asset poverty rates declined between years for immigrant households with children, net worth poverty increased overtime for

those households. One of the key aspects of social policy in Canada is reducing the child poverty, and several initiatives are taken by governments to achieve this goal. For example, as discussed in the previous chapter, the Ontario Child Benefit and Québec Family Allowance provide direct financial support to low- to moderate-income families, whether they are working or not, to help parents with the cost of raising their children. However, despite these initiatives, this study found that financial asset poverty remained very high for immigrant families with children in both years. The income support initiatives are important to lift families with children out of income poverty, however, it may not be enough to reduce the risk of asset poverty. Therefore, more needs to be done to reach the marginalized groups with a focus on mitigating uncertainty and economic hardship across lifetimes and across generations (Loke & Sherraden, 2009; Sherraden, 1991). Child asset poverty is worrisome because assets have been positively related to child well-being, such as educational attainment and emotional and behavioral outcomes (Blumenthal & Rothwell, 2018; Grinstein-Weiss, Williams Shanks, & Beverly, 2014; Huang, Sherraden, Kim, & Clancy, 2014; Kim, Sherraden, Huang, & Clancy, 2015; Nam, 2020; Sherraden et al., 2015). Asset poverty can follow children into adulthood and growing up poor can carry long-term physical and mental health implications (Lerman & McKernan, 2008; Pfeffer & Killewald, 2015). As such, Sherraden (2003) stated that asset holding might make the most sense in the case of children.

Policy implications

Measuring poverty based on assets provides the important information that many immigrant households in Canada are experiencing persistent poverty, which means that these families do not have enough asset holdings to sustain them during a period of economic hardship. Without easily accessible financial assets to draw upon, these households are

vulnerable to income shocks, would be unable to maintain their consumption needs, and are more likely to experience economic deprivation in times of crisis like the COVID 19 pandemic at the time of writing. Immigrant households those who hold some cash savings, could use their savings to overcome the crisis; however, asset accumulation is not entirely the result of individual saving behavior. Social work scholar Sherraden and others have demonstrated that much asset accumulation occurs because social policies facilitate and subsidize it (Beverly et al., 2008; Sherraden et al., 2018; Sherraden, 1991, 2014). Households with children eagerly want to save when they are provided structured opportunities such as policies and programs that encourage savings (Grinstein-Weiss et al., 2006).

With a strong desire to reduce poverty, the Canadian government at various levels has introduced several key social policies to support vulnerable groups. Besides income support, several asset-based government policies (mostly tax-based measures such as RRSPs, RESPs, TFSAs, and homeownership subsidies) have been undertaken to facilitate asset accumulations among low-income families since the 1990s (Williams, 2006). However, the findings from this study indicate that the risk for asset poverty is unequally distributed within immigrant groups, and certain groups such as young adults, single-person families, recent immigrants who have stayed in Canada for less than 15 years, and households with children are more disadvantaged than others. Programs that help families accumulate assets can play an important role in fighting poverty. However, the same asset-building approach may not work for every population or group. Since a large share of the Canadian population (21.9%) is immigrants (Statistics Canada, 2017a), policymakers must consider the diversity of needs of immigrants experiencing income and asset poverty and remove barriers that hinder asset accumulation. While the socio-economic factors such as age, family structure (married vs. single), number of children in households, and

length of residency explain differences in the poverty risk of immigrants and are significantly associated with asset poverty over time, asset-based interventions may need to be more innovative, exploring opportunities that include culturally-specific services, and target specific groups.

Research limitations

This study used SFS data and followed the same method as Study 1, which examined the prevalence of asset poverty among immigrants and Canadian born. Therefore, the current study has similar limitations to those listed in the previous chapter of this dissertation. For example, using LICO as a basic needs thresholds, using a repeated cross-sectional approach to estimate asset poverty over time, and not being able to examine the effects of other factors on asset poverty, such as remittances or assets in the home country (Asiamah, Mends-Brew, & Boison, 2019; Remler & Van Ryzin, 2015). To avoid repetition, those limitations are not detailed here.

In addition to those mentioned in the last study, this study has three other limitations: *First*, this study used SFS 1999 and 2012 to examine asset poverty of immigrants over time in Canada. This study could have been more beneficial if the data from 2016 were used, however, SFS 2016 was released after the analysis of this study was complete. *Second,* this study used repeated cross-sectional data to examine the asset poverty of immigrants over time, measuring different participants at different points in time. Therefore, it was not possible to examine changes in the poverty status of the same individuals or households. Also, performing repeated cross-sectional analyses alone may not be sufficient to understand asset poverty trends. Future research could use longitudinal surveys to better understand the change over time because it may help to make a link between the current circumstances of individuals and families and future outcomes (e.g., asset poverty). *Third,* using SFS 2012, Chapter 3 (Study 1) of this dissertation

showed that country of origin is statistically significantly associated with the asset poverty of immigrants. However, SFS 1999 did not provide information on respondents' country of origin. Therefore, this study was not able to estimate how asset poverty change over time based on country of origin. Future research is necessary to understand the extent to which country of origin or racial discrimination can explain the asset poverty gap among immigrant groups.

In addition, the post-migration savings behavior in the destination country could be affected by the cultural influences and social norms in the home country (Bauer, Cobb-Clark, Hildebrand, & Sinning, 2011; Cobb-Clark, & Hildebrand, 2006), which may relate to asset poverty. Also, individual characteristics (e. g, willingness to save or invest, attitudes towards uncertainty, consumption behaviour, family ties) could influence asset holdings. Financial resources upon arrival may influence asset poverty rates; for example, immigrants with entry assets might be able to buy homes immediately after arrival (Haan, 2012), which could affect net worth poverty. Besides, an obligation to send remittances home or a preference for owning a home in the country of origin may influence both financial and net worth poverty. However, SFS data did not provide this information.

The findings of Study 1 suggested that some immigrant groups are more vulnerable to income and asset poverty in comparison to other immigrant groups and the Canadian-born. In Study 2, I examined which groups of immigrants are more likely to experience financial and net worth poverty over time in Canada. Findings of Study 2 suggested that despite an overall decline, the financial asset *poverty rates of immigrants remain consistently two to three times higher than income poverty rates. Young adults, recent immigrants, and households with children are the most at risk of being asset poor over time. However, the likelihood of experiencing asset poverty decreased with homeownership, living in a married family, and higher level of education.*

As such, using the data from the Longitudinal Study of Immigrants in Canada (LSIC), in Study 3, I examined the asset holdings of immigrants over time in Canada by focusing on homeownership. This study helped us understand to what extent time-variant and time-invariant characteristics impact asset holdings (i.e., homeownership) of immigrants. Since the asset-based literature demonstrates that assets have a determining influence on households' socioeconomic conditions, financial well-being, and economic incorporation, the findings of Study 3 allow us to deepen our understanding of the homeownership patterns of immigrant groups over time in Canada. In addition, this study provided a clear picture of the homeownership rates of immigrant households at different points of time after they arrived in Canada, as well as examining what factors are important in contributing to homeownership among immigrants.

Chapter 5

Study 3: Disparities in Home Ownership among Immigrants in Canada: The Role of Socioeconomic Characteristics Over Time

Abstract

Asset holdings such as homeownership have numerous positive effects on individuals and families since homeownership provides a variety of life opportunities, psychological benefits, stability and stake-holding, financial security, social integration, and economic well-being. The objective of this paper is to examine the asset holdings of immigrants over time in Canada by focusing on homeownership. Using data from Longitudinal Study of Immigrants in Canada, this study aims to examine to what extent the socioeconomic characteristics impact homeownership of immigrants. Two analytical strategies were included. *First,* descriptive analyses were used to examine the change in homeownership rates over time and to report homeownership of immigrants by time-variant and time-invariant characteristics. *Second,* I estimated the odds ratios of homeownership at six months, two years, and four years after arrival, using a series of cross-sectional multivariate logistic regression models (Spector, 2019). Findings showed that (a) there are disparities in homeownership among immigrant groups, (b) many immigrants especially those who were born in Africa and in the Middle East, earn a low income, have inadequate cash to meet basic needs, are unemployed or do not have sufficient savings – are facing more challenges to homeownership over time; (c) some immigrant groups made speedy and notable gains in homeownership in the first five years after arrival. While income, employment, savings, and stable financial situations contribute to homeownership, policymakers might take initiatives to expand access to economic opportunities and financial security for disadvantaged groups to facilitate asset accumulation such as homeownership.

A growing body of literature has shown that asset holding, such as property, savings or investments, has numerous positive personal and social effects on people's lives, especially on those who are economically vulnerable (Despard et al., 2018; Grinstein-Weiss, Williams Shanks, & Beverly, 2014; Kim, Sherraden, Huang, & Clancy, 2015; Nam, 2020; Nam, Lee, McMahon, & Sherraden, 2016; Paxton, 2001; Sherraden et al., 2016; Sherraden, 2018, 2014, 1991). Accumulating assets can improve livelihoods and help people to boost economic security. For immigrants, assets play a vital role in the overall economic well-being that directly influences immigrants' ability to integrate successfully into the new society (Cobb-Clark & Hildebrand, 2006; Darden, 2015; Zhang, 2003). Recent scholarship suggests that studying asset holding may provide unique insights into immigrant stratification and on how immigrants are economically integrating into the society (Akresh, 2011; Lingxin, 2007; Painter II, Holmes, & Bateman, 2016).[26] Owning a small amount of assets such as savings, home equity, or assets from a business can provide advantages for both immigrants and their children (Agius Vallejo & Keister, 2019; Agius Vallejo & Canizales, 2016; Valdez, 2011), and assist them to maintain or move up to a middle- or upper-class status (Bates, 1997; Keister & Borelli, 2015). For financial security and stability, an immigrant's ability to accumulate different assets is essential.

As one of the key drivers of asset accumulation, the effects of homeownership have been documented in the literature. In addition to consumption-related benefits (Ioannides & Rosenthal, 1994), homeownership promotes long-term economic development (Grinstein-Weiss et al., 2008; Nam, Lee, McMahon, & Sherraden, 2016). Homeownership offers an opportunity

[26] Stratification is about differential life chances (opportunities) - who gets what and why - and migration is about improving life chances - getting more of the opportunities to improve their (immigrants') quality of life (Jasso, 2011). Racial and ethnic stratification is a system of inequality in which some fixed group membership, such as race, religion, or national origin is a key criterion for ranking social positions and accessing opportunities, often (but not always) intersecting with immigration.

for households to build assets, as well as help families to gain social status, a sense of control, and the ability to become more involved in their communities (Johnson & Sherraden, 1992; Lerman & McKernan, 2008; Nam et al., 2016). Also, homeownership may provide a variety of life opportunities, along with the psychological benefits of stability and stake-holding, comfort and satisfaction, financial security, social integration, political stability on a social level, and economic well-being (Johnson & Sherraden, 1992; Nam et al., 2008; Shapiro, 2004; Rohe & Lindblad, 2014). Using longitudinal surveys, several empirical studies have demonstrated that parents' homeownership improves their children's educational achievement and emotional and behavioural well-being (Aaronson, 2000; Boyle, 2002; Grinstein-Weiss, Williams Shanks, & Beverly, 2014; Haurin, Parcel, & Haurin, 2002).

However, in Canada, many visible minorities and recent immigrants face difficulty in the housing market and are less likely to be homeowners compared to the native-born and other immigrant groups (Haan, 2012; Hiebert & CMHC, 2006; Mendez et al., 2006; Preston et al., 2009). Recent immigrants spend a large share of income on rent and other basic needs, which prevents them from saving for homeownership (AMSSA, 2016; Preston et al., 2009; Wachsmuth, 2008). Recent findings suggest that immigrants find access to housing more challenging than anticipated, mostly because of remarkably high prices and unfamiliarity with the Canadian housing system, including lack of access to services or relevant programs, limited financial resources, and language barriers (Teixeira & Drolet, 2018; Teixeira, 2014). Several studies recognize that race and ethnicity are one of the crucial obstacles that block many from receiving equal treatment in Canada's housing markets (Darden & Teixeira, 2016; Haan, 2012; Mensah, 2005). Also, rejection from obtaining personal or business loans due to a lack of credit history causes significant barriers for many immigrants looking for homeownership, business investments, and other asset-generating activities (Wayland, 2011).

Empirically, income and employment are positively associated with asset accumulation (Bricker et al., 2014; Chawla, 2004; Maroto, 2016). Since many immigrants face disadvantages in the labour market (Banerjee & Lee, 2015; Eid, Magloire, & Turenne, 2011; Kaushik & Drolet, 2018; Picot & Lu, 2017; Picot & Hou, 2014), they may also face difficulties to save, buy properties, or invest for future returns.

In this study, I examine the asset holdings of immigrants over time in Canada by focusing on homeownership of working-age immigrants (under age 65).[27] Since both Studies 1 and 2 (Chapters 3 & 4) of this dissertation showed that, compared to older immigrants, households headed by a young person (age less than 25 years) are the most vulnerable group, and even adults in their prime working years remained at significant risk for asset poverty. This paper provides a clear picture of the homeownership rates of immigrant households at different points of time after they arrived in Canada, as well as examining what factors are important for homeownership among immigrants. Since assets have a determining influence on households' socioeconomic condition, financial well-being, and economic incorporation (Nam, Lee, Huang, & Kim, 2015; Nam et al., 2016, 2008), understanding homeownership patterns of immigrant groups provides valuable insight into trends in both asset ownership and immigrant integration.

Background

The literature review section briefly discusses the housing policies and strategies in Canada and the changes in the housing market over the study period as well as the debate around the homeownership of low-income households. The discussion then includes the challenges and

[27] Statistics Canada uses the term immigrant to refer "to a person who is, or who has ever been, a landed immigrant or permanent resident. Such a person has been granted the right to live in Canada permanently by immigration authorities. Immigrants who have obtained Canadian citizenship by naturalization are included in this group." (Statistics Canada, 2017a)

insecurity of immigrants in the housing market and homeownership situation of immigrants in Canada.

Policies towards homeownership in Canada

To increase housing supply and affordability, every level of Canada's government (federal, provincial, and local) has made a commitment to assist those who are in need of affordable housing. In 1971, the Canada Mortgage and Housing Corporation (CMHC) introduced the Assisted Home Ownership Program (AHOP) to assist first-time buyers, energize the housing market, and support people with low incomes attain homeownership (CMHC, 2014). The Canadian government housing policy's focus on ownership means that, over the years, Canadian homeowners have been benefited by various subsidy programs provided by the federal government, such as the Canadian Homeownership Stimulation Plan (CHSP), the Registered Homeownership Savings Plan (RHSP), the Mortgage Rate Protection Program (MRPP), First-Time Home Buyers' (FTHB) Tax Credit, the Home Renovation Tax Credit (HRTC), and the Home Buyers' Plan (HBP) (Hulchanski, 2006). With CMHC mortgage insurance of bank loans, a prospective homebuyer needs a five percent down payment in order to buy a home. Eligible purchasers who are first-time buyers and who are also buying a new home are also eligible for a Land Transfer Tax rebate.

Both federal and provincial governments in Canada are in favour of homeownership, and the federal government, through CMHC, has developed a partnership with provincial and territorial partners to support strong growth in the housing sector (CMHC, 2019; Darden & Kamel, 2000; Hulchanski, 2006). However, in order to manage the growing deficit and debt and to save money at the federal level, during the late 1990s, the federal government transferred the social-housing programs to provinces and territories (Hulchansli, 2007, 2006). With this policy

decision, some retrenchment occurred at the federal level, and some provinces took on a more active participation in the housing programs (Pomeroy, 1995). Provinces and territories have designed their affordable housing programs to reflect provincial priorities and political ideology (Pomeroy, 1995). Since housing policies and provincial contributions to housing varied by province, it may explain different homeownership rates across provinces. Also, the nature and complexity of rent control regulations vary across provinces (Mendonça-Vieira, 2018), which may have effects on household's decision to buy versus rent. Finally, differences in shelter cost (the mortgage payment, electricity costs, heat, water and other municipal services, property taxes and condominium fees) between owner and tenant households across census metropolitan areas (CMAs) contribute to homebuying decisions (Statistics Canada, 2013d). For example, compared to other CMAs in Canada, Toronto (in Ontario) has the highest ($1,366), and Trois-Rivières (in Quebec) has the lowest ($697) average monthly shelter cost (Statistics Canada, 2013d). These factors may produce variations in homeownership rates across provinces.

The price of homes has increased on average 75% since the beginning of 2000 (Kirby, 2008). High-priced housing is beyond the reach of a large and growing proportion of younger Canadians and newcomers to the country (Kershaw & Minh, 2016). The 2016 census showed that Canada-wide, compared to 2011, the overall median value of dwelling has increased by $61,004 in 2016, and homeownership declined from 69.0% to 67.8% between these years (Statistics Canada, 2017b). The recent census also revealed that people younger than 65 were less likely to own their homes in 2016 than in 2006. High housing prices required young Canadians to work nearly seven years more than in 1976-1980 to save for a down payment, and an extra month per year to pay the mortgage (Kershaw & Minh, 2016). Although governments at every level have introduced housing policies and strategies intended to increase affordable

housing opportunities, activists against poverty and homelessness argue that these efforts are not sufficient, efficient, or sustainable (Gaetz, 2010; Hulchanski, 2017; Phillips, 2017). Hulchanski has stated that "although there is only one housing market, Canada's housing system has two pools of housing consumers with dramatically different incomes and assets" (2006, p. 7).

Despite several policies and programs meant to improve homeownership, many of these policies could be less beneficial for immigrants. For example, to help with the down payment and costs associated with the purchase of a first home, the Home Buyers' Plan allow first-time homebuyers to withdraw a maximum of $35,000 from their Registered Retirement Savings Plan (RRSP) to purchase or build a home, without having to pay tax on the withdrawal (Government of Canada, 2019). However, recent immigrants are unlikely to benefit from the program because they probably have not had an opportunity to build RRSPs in Canada (Haan, 2012).

Debate on homeownership of low-income households

Despite government encouragement of homeownership, the advantages and disadvantages of homeownership, especially for low-income households, remain debated in the literature. Some researchers argue that homeownership may not be the best solution for low-income earning families, because the higher costs of housing, down payment, mortgage, higher utility costs, along with the costs of maintenance may create greater financial burdens after purchase (Herbert, McCue, & Sanchez-Moyano, 2013; Hajer, 2009; Li & Fang, 2010). Some studies found that children's cognitive performance suffers in households with very high housing cost burdens, and there is little evidence that homeownership in itself has any positive effect on child well-being (Holupka & Newman, 2012; Newman & Holupka, 2015). Low-income families without savings and less access to credit are more vulnerable to sudden income shocks. Financial hardship can lead to a family being unable to pay the mortgage, which can lead to a significant

loss of capital and negatively affect the family credit rating; consequently, the family may lose the home (Belsky, Resinas, & Duda, 2005). Since many immigrants are vulnerable to income and financial asset poverty (Chapter 3 and 4) and have poor access in the Canadian labour market (Gilmore, 2009; Lightman & Gingrich, 2018; Picot & Hou, 2014; Pendakur & Woodcock, 2010), homeownership may create additional financial burdens to their families.

Immigrants and homeownership in Canada

Immigrants in Canada come from different socio-economic and cultural backgrounds, with varying levels of resources (Study 1 & 2 of this dissertation). However, research has long shown that most immigrants share the desire to live in owner-occupied housing (Ray & Moore, 1991). As stated above, homeownership is an important indicator of integration into the host society and an effective means of building assets after migration (Darden, 2015; Ives, Hanley, Walsh, & Este, 2014; Murdie & Teixeira, 2003). Although many immigrant families transition into homeownership and grow their assets over time, certain first-generation immigrant groups continue to experience asset disparities many years after their arrival to Canada (Maroto & Aylsworth, 2016). Several studies have found considerable differences among immigrant groups when examining immigrant homeownership by ethnic and racial categories (Balakrishnan & Wu, 1992; Haan, 2012; Ray & Moore, 1991). Homeownership rates have remained low, especially among recent black immigrants and other visible minorities (Hiebert, 2009; Haan, 2007; Mendez et al., 2006; Teixeira, 2008). In their studies, Darden and Kamel (2000), and Skaburskis (1996) found that Canadians who identified as black are less likely to be homeowners, even when they have the same socioeconomic and demographic characteristics as whites. Based on their findings, Darden and Kamel (2000) argued that race has a strong effect on the likelihood of homeownership and recommends that housing audits could be an important tool for examining

racial discrimination in housing.[28] Also, recent immigrants, as well as immigrant families from Africa, Asia, and Middle East countries, experience the enormous discrepancies in terms of acquiring homes (Maroto & Aylsworth, 2016).

Home affordability varied considerably among Census Metropolitan Areas (CMAs) (Murdie, Preston, Ghosh, & Chevalier, 2006). Immigrants tend to live in big cities, however, the two largest CMAs with the highest percentage of immigrants have seen a decline in homeownership rates among immigrant households from 1981 to 2001: from 52% to 42% in Montreal and from 65% to 61% in Toronto (Statistics Canada, 2007a). Furthermore, studies have documented very low homeownership rates among recent immigrants, and those who live in CMAs like Toronto, Montreal, and Vancouver are especially unlikely to own homes (Hiebert & CMHC, 2006; Preston et al., 2009). Again, immigrants who live in big cities may be forced to buy a home prematurely due to the unavailability of low-cost rental houses (Hiebert, 2009). Although they manage to attain ownership, they may face high financial stress and could be at higher risk of losing their homes, mainly when income and employment are not very stable for many immigrants in Canada.

Differences also exist between immigrants and those who are native-born. Only about one-third of recently arrived immigrants (who arrived within the last five years) in Canada own their home, compared to more than two-thirds of non-immigrants (Edmonston, 2016). Another study showed that while almost two-thirds of Canadian-born young adults (aged 25 to 39) are

[28] Darden and Kamel (2000) argued that housing audit (known as paired testing) should be done in Canada to effectively detect the extent of racial discrimination in housing. Auditing is a methodology to test whether and in what form discrimination exists. In paired testing, two individuals are matched with equivalent social and economic characteristics except the one presumed to lead to discrimination (in terms of the characteristic being tested for discrimination, such as race, disability status, or marital status). Each person then applies for the same job, housing, mortgage loan, or credit card. The differential treatment they receive provides a measure of discrimination (Michael & Raymond, 1993).

homeowners, less than half of their counterparts who have immigrated five to nine years earlier, and only 20% of immigrants who have come in the preceding five years, were homeowners (Turcotte, 2008). Similarly, immigrants tend to have a lower homeownership rate in the prime working-age groups (aged 35 to 54) (Hou, 2010). One recent study by Statistics Canada showed that immigrant homeowners own proportionately fewer single-detached houses than Canadian-born in Toronto (50% compared to 60%) and Vancouver (39% compared to 48%) (Gellatly & Morissette, 2019). However, these results have varied across studies. For example, the rate of homeownership among Indian-born low-income earners was higher than the Canadian average for the same income group and significantly higher than among immigrants in general (Gozalie, 2002). Other studies have shown that, although initial homeownership rates are lower for most immigrants, the gap declines over time as the immigrants time spent in the host country increases (Haan 2007; Osili & Paulson, 2009; Ray & Moore, 1991). Some studies have shown immigrants to overtake native-born in homeownership within two decades, some groups even faster (Kim & Boyd, 2009; Haan, 2007).

There is a wide variation in housing experiences among immigrant groups that can be correlated with immigration class, country of origin, immigrant pre-migration human capital, financial situation (such as assets) at arrival, savings in the home country, and income received from inside and outside of Canada. These factors may influence an immigrant household's residential purchase decision or the time of their purchase (Haan, 2012). For example, the immigrant population in Canada is larger and more diverse than before because of the changes in immigration regulations since 1967, which facilitate the immigration of skilled workers from around the world (Green & Green, 2004). Each immigration category arrives in Canada with its own set of requirements. Many economic immigrants arrive in Canada with considerable assets,

while others do not, leading to diverse outcomes and generating challenges for the housing market and urban planners (Carter, 2005). For example, under federal regulations, immigrants in the skilled worker category must demonstrate that they hold adequate liquid assets to support themselves and their dependents for six months after arrival in Canada (Government of Canada, 2019b). Applicants under the Immigrant Investor Program (business immigration) must establish a legally obtained net worth of at least CAD$800,000. As such, immigrants' class of entry may affect asset accumulation.

Finally, family networks are one of the crucial factors of settlement in a new society, and newcomers benefit from the already established pathways of their family and friends (Massey et al., 1993). Previous studies have documented that family class immigrants have higher a propensity for homeownership than any other group (Hiebert, 2009; Haan, 2012). Again, immigrants who bring financial assets from their home country may have fewer difficulties in investing in housing in Canada. Following studies 1 and 2 of this dissertation, it is important to determine the extent to which financial assets such as savings in the home country, savings upon arrival facilitate asset accumulation of immigrants, e.g., homeownership. However, previous studies on immigrant homeownership in Canada have directed little attention to these issues (Balakrishnan & Wu, 1992; Darden & Kamel, 2000; Haan, 2012, 2005; Hiebert, 2009; Maroto & Aylsworth, 2016; Ray & Moore, 1991). To address the gaps in the literature, the current study examines to what extent economic and sociodemographic characteristics impact homeownership of immigrants. These factors can explain the housing outcomes of immigrants and provide a better understanding of how the homeownership varies across groups.

Research questions

Three research questions were addressed in this manuscript: (a) How does the homeownership rates of immigrant households change over time as they integrate into Canadian society? (b) How does the homeownership of immigrants vary based on the demographic and socioeconomic characteristics in different time periods after arrival? (c) What is the impact of socio-economic factors on homeownership of immigrants?

Methods

Data

This study used data from the Longitudinal Survey of Immigrants to Canada (LSIC), a nationally-representative survey of immigrants arriving in Canada between October 1, 2000 and September 30, 2001, aged 15 and over.[29] The respondents were interviewed at three stages after arrival in Canada: about six months (Wave 1), about two years (Wave 2), and about four years (Wave 3). Individuals who applied as immigrants and landed from within Canada and refugees claiming asylum from within Canada were excluded from the survey. A total of 12,040 immigrants were selected for the Wave 1 interview, however, the population of interest of this study was those immigrants of the LSIC cohort who still resided in Canada at the time of the third interview (LSIC, 2007). This study, therefore, used the data file for Wave 3 of LSIC, which contains data from the three collection waves of the survey, including all records relating to the 7,716 respondents who were traced and agreed to respond to all three waves. This study purposefully focused on working-age immigrants, and the analysis included only immigrants who were under 65 years of age in all waves.

[29] For this study, data was accessed following the approval of a doctoral proposal to the Social Sciences and Humanities Research Council of Canada (SSHRC) and Statistics Canada. Data was accessed from the Research Data Centres (RDC) at the University of Windsor (a branch of the Western Research Data Centre).

Measurement

To analyze the asset holdings of immigrants over time in Canada, the dependent binary variable was respondent homeownership status: whether he or she was a homeowner at the time of each wave of interviews. The purpose of this analysis was to examine the differences in homeownership status over the first few years of an immigrant's economic integration in Canada and how much of the pattern of homeownership was described by socioeconomic factors and the demographic characteristics of immigrants.

A number of independent variables were included in the analysis and were re-coded using Stata 14 to reduce the number of categories. The continuous variable of age was grouped into five categories: (i) 15-24 years, (ii) 25-34 years, (iii) 35-44 years, (iv) 45-54 years, and (v) 55-64 years. Eight different groups of the 'place of birth' variable were[30]: (i) Asia, (ii) Middle East, (iii) North America, (iv) Caribbean and Guyana, (v) Europe, (vi) Africa, (vii) Oceania and Australia, and (viii) South and Central America. The number of children was categorized as: (i) no children, (ii) one child, (iii) two children, (iv) three children, (v) four children or more. The education variable was recoded to reduce the number of categories from the original 14 in LSIC to 4: (i) less than high school, (ii) high school graduate, (iii) some post-secondary degree, and (iv) post-secondary graduate. The regions where education was obtained prior to coming to Canada were categorized as (i) United States, (ii) United Kingdom, (iii) Central or South America, (ix) Australia or New Zealand, and (v) Other countries. Respondents' current income from inside outside Canada was logged to reduce the influence of extreme values. Employment status was grouped as (i) employed (includes full time and part-time) (ii) unemployed; financial situation (ability to meet their basic needs) as (i) more than enough money, (ii) just enough

[30] Place of birth categories are taken from LSIC.

money, and (iii) not enough money. The LSIC savings variable provides information on the respondent's personal savings in home country was grouped as (i) no savings, (ii) $1 to $ 5,000, (iii) $5,001 to $ 10,000, (iv) $10,001 $ 15,000, (v) $15,001 to $ 20,000, and (vi) $20,000 or more.

Other variables of interest were grouped as: 'family size' (1 to 5 or more); language mostly spoken at home: (i) English, (ii) French, (iii) other; gender: (i) male, (ii) female; marital status: (i) married (included married and Common-law partners), (ii) single (included never married, and divorced/widowed/separated); immigration category: (i) family class,[31] (ii) economic class,[32] (iii) refugees; visible minority status[33]: (i) visible minority, (ii) not a visible minority; visible minority group[34]: (i) Chinese, (ii) South Asian, (iii) Black, (iv) Filipino, (v) Latin American, (vi) South East Asian, (vii) Arab, (viii) West Asian, (ix) Korean, (x) Japanese, and (xi) White; family structure: (i) married couple without children, (ii) married couple with children, and (iii) lone-parent with children; region of destination (Atlantic, Quebec, Ontario, Prairies, and British Columbia).

Analytic strategy

I first described the difference in the rate of homeownership of immigrants over time. Descriptive analyses were used to understand the socio-economic demographic characteristics of immigrants by homeownership in different time periods. I have separated the time-invariant and time-variant characteristics of immigrants and presented the results in separate tables with three

[31] Family class immigrants are sponsored by close relatives or family members already living in Canada.
[32] Economic class immigrants are selected for their skills or other assets that will contribute to the Canadian economy (includes skilled workers, investors, entrepreneurs, and self-employed persons).
[33] According to LSIC, visible minority refers to "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour" (LSIC, 2007, P. 13).
[34] The visible minority groups were taken from LSIC.

columns for three waves. I then estimated odds ratios of homeownership in Canada, six months, two years, and four years after arrival, using a series of cross-sectional multivariate logistic regression models to examine the association between homeownership and selected characteristics that are known to influence homeownership. In the Longitudinal Survey of Immigrants to Canada (LSIC), Statistics Canada used imputation techniques to replace a missing or inconsistent value that ensured a complete data set of variables (LSIC, 2007). Missing values of the quantitative variable (income, savings) and socio-demographic information were imputed by the nearest-neighbour method (LSIC. 2007).

The LSIC is based upon a complex sample design with stratification. For survey estimates and analyses to be free from bias that can inherent from such complex surveys, the survey weights provided by Statistics Canada were used.[35] The regression results presented (with the estimation of standard errors) are those using bootstrap weights provided by Statistics Canada. In this study, a significance level of $p<0.05$ is applied in all cases.

Results

In the following section, I report the findings of this study using based upon the descriptive analysis and multivariate logistic regression models. The findings are presented in tabular forms under the following sub-headings: Sample characteristics; Homeownership rates; Bivariate analyses (homeownership by time-variant and time-invariant characteristics); Cross-sectional analyses (results by waves) (the association between homeownership and relevant factors).

[35] Consultation with staff at the RDC ensured that acceptable sample sizes (following the guidelines from Statistics Canada) were derived from each variable and that appropriate weighting and bootstrapping procedures were applied to the data.

Sample characteristics and homeownership rates

Tables 1 and 2 provide weighted descriptive statistics on selected sample characteristics. Table 1 included the variables that do not change over time. The male-to-female ratio of the sample was almost equal. The largest share of immigrants chose Ontario as their region of destination. Regarding country of birth, most of the immigrants came from Asia, followed by Europe. More than 50% of immigrants held a post-secondary degree and commonly spoke "other" languages at home other than the official languages. Most immigrants arrived in Canada under the economic class and belonged to a visible minority group. Three-fourths of the immigrants brought savings at arrival, and 20% had savings in their home country at the time of migration.

Table 1

Composition of the overall sample during arrival based on time-invariant variables

	Total sample n = 23,148	
Variables	Freq.	Percent
Gender		
Male	11,456	49.49
Female	11,692	50.51
Place of birth		
North America	260	1.12
Europe	3,530	15.26
Asia	14,777	63.89
Middle East	902	3.90
Africa	2,136	9.24
Caribbean and Guyana	712	3.08
South and Central America	691	2.99
Oceania and Australia	123	0.53
Immigration Category		
Family class	6,262	27.19
Economic class	15,340	66.60
Refugees	1,432	6.21
Visible minority status		
Visible minority	18,411	79.62
Not a visible minority	4,713	20.38
Visible minority groups		
Chinese	4,878	21.31
South Asian	5,973	26.09
Black	1,112	4.86
Filipino	1,683	7.35
Latin American	632	2.76
South East Asian	299	1.31
Arab	1,416	6.19
West Asian	1,137	4.97
Korean	926	4.05
Japanese	118	0.52
White	4,717	20.61
Highest level of education (before migration)		
Less than high school	3,257	14.08
High school graduation	3,648	15.77
Some post-secondary degree	3,709	16.04
Post-secondary graduate	12,513	54.11
Region where education obtained		
United States	640	2.81

United Kingdom	1,020	4.48
Central or South America	319	1.40
Australia or New Zealand	113	0.50
Other countries	20,672	90.81
Region of destination		
Atlantic	184	0.79
Quebec	3565	15.40
Ontario	12876	55.62
Prairies	2501	10.81
British Columbia	4022	17.38
Brought savings during arrival		
Yes	17,060	73.70
No	6,088	26.30
Have savings in another country		
Yes	4,828	20.86
No	18,320	79.14

Note: Authors' calculations using Longitudinal Survey of Immigrants to Canada (LSIC) provided by Statistics Canada through the Research Data Centre. All estimates (percentages) in the table have been survey weighted.

Table 2 provides information on sample characteristics at six months, two years, and four years upon arrival. Most immigrants came to Canada as married families, and after four years, there was a 4 percentage points increase in immigrants living with a spouse. There was a 10 percentage points increase of married immigrants living with children, a 10 percentage points decrease of married couples without children, and 1 percentage point increase of lone-parent with children over time. A large majority of immigrants (68%) were between the age of 25 to 44 years at arrival. While most immigrants enter Canada as economic immigrants (immigrants selected for their skills or other assets that will contribute to the Canadian economy), 53% reported being unemployed six months after arrival. Six months after arrival, 47% of immigrants were already receiving new education and training to enter the Canadian labour market. Four years after arrival, the percentage of immigrants reporting unemployed decreased dramatically to 29%. Also, the rate of immigrants reporting not having enough money to make ends meet decreased from 35% to 19% within four years.

Table 2
Socio-demographic changes of the sample over the years, 2001, 2003, 2005

	2001		2003		2005	
Variables	Freq.	%	Freq.	%	Freq.	%
Marital status						
Single	1,756	23.35	1,606	21.49	1,470	19.80
Married	5,764	76.65	5,867	78.51	5,951	80.20
Age						
15-24 years	1,271	16.91	1,022	13.68	814	10.97
25-34 years	3,084	41.01	2,761	36.95	2,315	31.20
35-44 years	2,056	27.34	2,391	32.00	2,754	37.11
45-54 years	765	10.17	929	12.43	1,126	15.17
55-64 years	344	4.58	369	4.94	412	5.56
Language spoken at home						
English	1,153	14.94	1,171	15.18	1,138	14.75
French	340	4.41	357	4.62	372	4.82
Other	6,223	80.65	6,188	80.20	6,206	80.43
Received new education and training						
Yes	3,515	46.74	2,264	29.34	1,872	24.27
No	4,006	53.26	5,452	70.66	5,844	75.73
Employment status						
Unemployed	4,013	53.36	2,916	39.02	2,154	29.03
Employed	3,508	46.64	4,557	60.98	5,267	70.97
Financial situation						
More than enough money	657	8.78	1,234	16.51	1,240	16.71
Just enough money	4,208	56.26	4,664	62.41	4,763	64.19
Not enough money	2,615	34.96	1,575	21.08	1,418	19.11

Household size						
Family size 1	541	7.19	481	6.44	471	6.34
Family size 2	1,565	20.81	1,311	17.54	1,081	14.56
Family size 3	1,924	25.58	2,078	27.81	2,094	28.22
Family size 4	1,759	23.38	1,944	26.01	2,134	28.76
Family size 5 or more	1,733	23.04	1,660	22.21	1,641	22.12
Children (<18 years)						
No children	3,994	53.11	3,743	48.51	3,455	44.77
One child	1,868	24.83	2,150	27.87	2,185	28.32
Two children	1,209	16.07	1,348	17.47	1,580	20.48
Three children	339	4.50	373	4.83	388	5.03
Four children or more	111	1.48	102	1.32	109	1.41
Family structure						
Married couple without children	1,792	27.01	1,559	22.67	1,119	16.58
Married couple with children	4,514	68.04	4,975	72.33	5,269	78.06
Lone-parent with children	328	4.95	344	4.99	361	5.35

Note: Authors' calculations using Longitudinal Survey of Immigrants to Canada (LSIC) provided by Statistics Canada through the Research Data Centre. All estimates in the table (percentages) have been survey weighted.

Table 3 shows that the overall homeownership rate of immigrants in Canada increased by 16.31 percentage points in the first two years and 14.01 percentage points between two and four years after arrival. Although homeownership rates increased over the years, more than 50% of immigrants were not living in owner-occupied accommodations.

Table 3

Homeownership status of immigrants over time in Canada

Year	Homeowner	
	Number of immigrants	Percentage
2001	1,322	17.76
2003	2,528	34.07
2005	3,547	48.08

Note: Authors calculations using Longitudinal Survey of Immigrants to Canada (LSIC). All estimates in the table (percentages) have been survey weighted.

Bivariate analyses: Homeownership by time-variant and time-invariant characteristics

Table 4 provides weighted statistics on selected time-invariant sample characteristics by immigrants' homeownership six months, two years, and four years after arrival. Interestingly, more female immigrants owned homes than males. Regarding country of birth, immigrants from North America, Oceania and Australia had the highest homeownership rates at entry, and they were able to maintain and enhance that rate across the four years. African immigrants had the lowest rates of homeownership across all waves. Immigrants from Europe and South & Central America entered Canada with low homeownership rates; however, they quickly became homeowners (from 19% to 52%, and from 19% to 53%, respectively). Immigrants from the Middle East, Asia, and the Caribbean & Guyana had the lowest homeownership rates in all three waves, but Asian immigrants were able to catch up faster in the fourth year compared to the other two groups.

Homeownership varies by visible minority status. Korean, Filipino, South Asian, and South East Asian immigrants, along with Whites, experienced rising homeownership rates over the four years compared to other immigrant groups such as Arab, Black, and West Asian. Immigrants with post-secondary degrees have had the lowest homeownership rates at entry and continued after two years after arrival. After four years, their homeownership rate increased, yet remained lower than the immigrants who have some post-secondary degrees. Immigrants who chose Quebec as the region of destination had the lowest rates of homeownership after arrival and continued throughout the observation period. Immigrants who brought savings at entry and had savings in their home country experience higher homeownership rates compared to those who did not arrive with savings and did not have savings somewhere else.

Table 5 provides weighted statistics on selected time-variant sample characteristics by immigrants' homeownership throughout the observation period. Single and married immigrants had equal homeownership rates shortly after arrival (six months). However, between two to four years, there was a 14 percentage points increase in homeownership for immigrants living with a spouse. Although married couples with children experienced the lowest homeownership rates at arrival (17%), their homeownership rates raised by 37 percentage points after four years in Canada. In contrast, lone parents with children had the lowest rates throughout the observation period. Immigrants also tend to have higher homeownership as household size increases. Regarding age, the highest rates of homeownership were observed among older immigrants (over 45). Unsurprisingly, there was a large gap in homeownership that existed between immigrants who do not have sufficient money to meet their basic needs and well-off immigrants.

Table 4

Homeownership rates of immigrants by sociodemographic variables (time-invariant characteristics)

	2001		2003		2005	
Variables	Homeowner	%	Homeowner	%	Homeowner	%
Overall homeownership rate		17.76		34.07		48.08
Gender						
Male	550	14.80	1159	31.32	1700	46.12
Female	772	20.72	1369	36.81	1847	50.04
Place of birth						
North America	47	59.75	56	73.72	61	80.57
Europe	219	19.28	416	36.74	580	51.52
Asia	834	17.54	1644	34.79	2348	49.99
Middle East	36	12.72	67	22.88	104	35.48
Africa	70	10.06	154	22.08	217	31.31
Caribbean and Guayana	57	25.39	78	34.67	90	40.77
South and Central America	44	19.32	90	39.82	122	53.40
Oceania and Australia	15	39.71	23	56.76	26	65.48
Immigration Category						
Family class	679	37.62	834	46.61	924	53.00
Economic class	626	12.21	1653	32.33	2521	49.24
Refugees	14	2.85	30	6.28	85	17.86
Visible minority status						
Visible minority	989	16.69	1946	32.95	2760	47.00
Not a visible minority	331	21.84	579	38.43	784	52.39
Visible minority groups						
Chinese	255	16.38	491	31.65	680	44.04
South Asian	391	20.46	722	37.83	1041	54.95
Black	38	10.71	95	25.72	118	32.15
Filipino	99	18.60	187	35.72	288	55.48
Latin American	34	16.06	74	35.17	106	49.77
South East Asian	22	23.07	39	41.19	47	50.80

Arab	23	4.93	58	12.33	101	21.63
West Asian	40	10.88	86	23.47	133	36.64
Korean	54	17.49	142	47.84	183	60.46
Japanese	10	26.27	19	47.89	20	50.67
White	331	21.84	579	38.43	785	52.39
Highest level of education						
Less than high school	240	26.26	345	36.65	407	43.41
High school graduation	285	24.67	427	36.92	539	47.46
Some post-secondary degree	251	20.87	477	39.87	606	51.22
Post-secondary graduate	545	13.20	1277	31.02	1990	48.39
Region of study						
United States	75	36.09	118	57.81	139	68.74
United Kingdom	97	29.40	171	52.08	203	61.75
Central or South America	30	30.12	49	50.39	56	58.47
Australia or New Zealand	11	29.70	25	64.46	29	76.50
Other countries	1089	16.31	2136	32.07	3086	46.59
Region of destination						
Atlantic	13	23.32	23	39.91	33	57.11
Quebec	71	6.02	161	13.67	267	22.79
Ontario	718	17.43	1428	34.69	2074	50.75
Prairies	228	28.31	421	52.73	546	68.00
British Columbia	292	22.68	496	38.96	627	49.85
Brought savings during arrival						
Yes	830	14.88	1878	33.84	2753	49.72
No	492	26.39	649	34.77	794	43.15
Have savings in another country						
Yes	357	23.06	738	48.23	937	61.51
No	965	16.37	1789	30.39	2610	44.59

Note: Authors' calculations using Longitudinal Survey of Immigrants to Canada (LSIC) provided by Statistics Canada through the Research Data Centre. All estimates in the table (percentages) have been survey weighted.

Table 5

Homeownership rates of immigrants over time by time-variant sociodemographic variables (2001, 2003, 2005)

	Homeownership of immigrants (%)		
Variables	2001	2003	2005
Overall homeownership rate	17.76	34.07	48.08
Marital status			
Single	17.91	30.29	37.45
Married	17.72	35.10	50.68
Age			
15-24 years	23.60	38.67	46.35
25-34 years	11.42	27.15	44.98
35-44 years	15.75	33.95	46.76
45-54 years	24.48	41.31	55.34
55-64 years	52.17	56.63	58.06
Language spoken at home			
Language English	*32.83	*52.76	*63.88
Language French	9.96	20.50	32.83
Language other	17.01	32.75	47.11
New education and training			
Yes	*14.40	*30.52	*47.47
No	23.00	37.19	49.36
Employment status			
Unemployed	*20.17	*34.48	40.51
Employed	17.74	35.73	51.18
Financial situation			
More than enough money	*37.95	49.69	59.64
Just enough money	21.54	34.51	49.74
Not enough money	9.91	20.54	32.45
Household size			
Family size 1	*7.85	*9.41	13.08
Family size 2	15.73	27.38	36.90
Family size 3	11.63	29.01	46.64
Family size 4	18.16	39.40	55.24
Family size 5 or more	34.30	51.07	58.17
Children (<18 years)			
No children	21.65	*36.10	*45.71
One child	10.70	32.07	49.28
Two children	15.79	37.90	55.56
Three children	19.49	36.33	50.32

Four children or more	15.03	34.92	45.56
Family structure			
Married couple without children	*26.24	*39.44	*48.32
Married couple with children	16.69	36.75	53.62
Lone parent with children	17.74	32.20	36.66

Note: Authors' calculations using Longitudinal Survey of Immigrants to Canada (LSIC) provided by Statistics Canada through the Research Data Centre. Only weighted results are shown in the table. The numbers with an asterisk in front (*) are without dropping the age "65 and more" from the sample. After dropping the age category 65 and more, results of those variables categories were not releasable from RDC due to the residual disclosure issues. Since the residual differences were minimal before and after dropping the age category, there would not be a large difference in the overall proportions.

Cross-sectional analyses (results by waves): The association between homeownership and relevant factors

Table 6 shows estimated odds ratios (OR) from multivariate logistic regression models of homeownership of immigrants in Canada six months (Models 1), two years (Model 2), and four years after arrival (Models 3). Each model represents the predictors of homeownership at a single point in time while controlling for other factors. These regression models include several time-variant and time-invariant characteristics of immigrants to examine whether the bivariate differences observed above hold after accounting for explanatory factors. It is possible that some of these characteristics – such as income, savings, age, marital status, number of children, receiving Canadian education & training, language proficiency, employment status, and economic situation– to differ for a respondent across waves. However, the variables, such as gender, country of origin, level of education at arrival (before migration), and immigration status do not change over time.

Multivariate analyses revealed that for age, throughout the waves, the likelihood of not owning a principal residence was far greater for adults aged 25–54. The results were consistent with a previous study that showed that immigrants tended to have a lower homeownership rate in the prime working-age groups (aged 35 to 54) than the Canadian-born (Hou, 2010). However,

results for age 15-24 at wave 3 that showed a positive association to homeownership changed little from wave 1 and 2. Regarding country of origin, results indicated that almost all immigrant groups have statistically significantly lower homeownership propensities than the reference group of North American immigrants throughout the four-year period. As expected, immigrants who do not speak English or French at home were less likely to be homeowners throughout the observation period. Also, immigrants who choose Ontario, Quebec, and British Columbia as their destination during arrival were less likely to be homeowners than other regions.

In terms of labour market outcomes, employment was negatively related at wave 1. However, results showed that employment was significantly positively associated with homeownership at wave 1 and wave 2. The positive effects of income on homeownership remained steady throughout the study period. As expected from the literature, the indicator of resource (money) availability for basic needs was significantly positively associated with homeownership. Also, several significant differences across amount of savings in their home country were evident, with higher savings holders positioned with higher homeownership rates than those with no savings back home. Although the chances were low during their first six months after arriving, those who lived with their spouse had increased their likelihood of being a homeowner in the following two to four years. Interestingly, the results showed that women were more likely to be a homeowner. Also, the presence of children in households was a strong positive predictor of immigrant homeownership. After controlling for other factors, family class immigrants had the highest probability of buying home. This result was somewhat expected since these immigrants already have established family members or close relatives who have been in Canada for the past several years.

Turning to human capital, immigrants who had a post-secondary degree were less likely to be homeowners in the first two years after arrival compared to those with less than high school education (reference group). However, four years after arrival, a higher level of education (post-secondary graduate degree) increased the likelihood of owning a home. For many highly educated immigrants who came with low- assets, job security and job mobility could be important factors that may cause delays in buying a home. Shortly after coming to Canada (six months and two years), receiving new education and training was positively associated with purchasing a home, however, it only seems to have short term effects on homeownership.

Table 6

Cross sectional logistic regression models predicting homeownership of immigrants, 2001, 2003, 2005

	Model 1 Homeowner (2001)		Model 2 Homeowner (2003)		Model 3 Homeowner (2005)	
Homeowner	Odds ratio	(SE)	Odds ratio	(SE)	Odds ratio	(SE)
Gender (ref: male)	1.244***	(-0.021)	1.232***	(-0.016)	1.248***	(-0.015)
Country of origin (Ref: North America)						
Europe	0.558***	(-0.037)	0.637***	(-0.044)	0.603***	(-0.046)
Asia	0.448***	(-0.029)	0.547***	(-0.038)	0.570***	(-0.043)
Middle East	0.409***	(-0.032)	0.329***	(-0.025)	0.349***	(-0.028)
Africa	0.312***	(-0.022)	0.434***	(-0.031)	0.356***	(-0.028)
Caribbean and Guayana	0.310***	(-0.023)	0.356***	(-0.027)	0.326***	(-0.027)
South and Central America	0.644***	(-0.05)	0.936	(-0.071)	0.905	(-0.074)
Oceania and Australia	0.339***	(-0.035)	0.615***	(-0.062)	0.518***	(-0.056)
Level of education (ref: < high school)						
High school graduation	1.090**	(-0.031)	1.03	(-0.025)	1.152***	(-0.028)
Some post-secondary degree	1.106***	(-0.034)	1.279***	(-0.034)	1.331***	(-0.035)
Post-secondary graduate	0.784***	(-0.022)	0.888***	(-0.022)	1.063*	(-0.026)
Immigration status (ref: economic class)						
Family class	3.408***	(-0.072)	1.544***	(-0.026)	1.097***	(-0.018)
Refugees	0.259***	(-0.017)	0.145***	(-0.007)	0.242***	(-0.008)
Log income	1.014***	(-0.003)	1.074***	(-0.005)	1.249***	(-0.008)
Savings in home country (ref: no savings)						
$1 to $ 5,000	0.667***	(-0.027)	1.161***	(-0.035)	1.135***	(-0.041)
$5,001 to $ 10,000	1.210***	(-0.056)	1.081	(-0.046)	0.877**	(-0.04)
$10,001 $ 15,000	1.247**	(-0.105)	0.726***	(-0.049)	1.611***	(-0.135)
$15,001 to $ 20,000	1.141	(-0.078)	1.009	(-0.056)	0.986	(-0.065)
> $20,000	1.820***	(-0.052)	1.652***	(-0.053)	1.817***	(-0.069)

Age (ref: 55 to 64 years)						
15-24 years	0.464***	(-0.017)	0.976	(-0.035)	1.253***	(-0.045)
25-34 years	0.262***	(-0.009)	0.441***	(-0.014)	0.630***	(-0.019)
35-44 years	0.484***	(-0.017)	0.566***	(-0.018)	0.595***	(-0.018)
45-54 years	0.549***	(-0.02)	0.673***	(-0.023)	0.776***	(-0.025)
Married (ref: Single)	0.987	(-0.024)	1.238***	(-0.026)	1.442***	(-0.03)
Language (ref: English)						
Language French	1.177**	(-0.068)	0.797***	(-0.034)	1.043	(-0.039)
Language other	0.471***	(-0.011)	0.488***	(-0.009)	0.590***	(-0.011)
Receive new education & training (ref: no E&T)	1.149***	(-0.021)	1.017	(-0.014)	0.932***	(-0.013)
Employed (ref: unemployed)	0.906***	(-0.016)	1.016	(-0.014)	1.316***	(-0.019)
Financial situation (ref: not enough money)						
More than enough money	3.927***	(-0.115)	2.911***	(-0.064)	2.106***	(-0.045)
Just enough money	1.924***	(-0.038)	1.708***	(-0.03)	1.674***	(-0.027)
Region of destination (ref. Atlantic)						
Quebec	0.229***	(-0.021)	0.305***	(-0.023)	0.224***	(-0.016)
Ontario	0.752***	(-0.063)	0.875	(-0.063)	0.721***	(-0.049)
Prairies	1.329***	(-0.113)	1.983***	(-0.146)	1.648***	(-0.116)
British Columbia	0.892	(-0.076)	0.932	(-0.068)	0.662***	(-0.046)
Number of children	1.063***	(-0.01)	1.241***	(-0.009)	1.352***	(-0.009)

Note: Standard errors in parentheses. *$p<0.05$, **$p<0.01$, ***$p<0.001$. Author's calculations using Longitudinal Survey of Immigrants to Canada (LSIC) provided by Statistics Canada through the Research Data Centre. Only weighted results are shown in the table.

Discussion

Homeownership is one of the most important and unique tools for building assets that has the potential to increase the financial security of immigrants in the new society. By focusing on homeownership, this study found significant differences in asset accumulation between immigrant groups. The differences in homeownership trajectories that emerge among immigrant groups immediately after arrival are likely to continue for a long time and may affect the economic well-being of individuals and families (Haan, 2012, 2007; Skaburskis, 1996). By examining the homeownership pattern of immigrants, this study provides several findings to understand the disparities in asset accumulation at the sub-group level.

Although the owned home is the most prevalent type of asset among immigrants as reported in Study 2 (Chapter 4) of this dissertation, the current study found that the homeownership rates are not consistent across immigrant groups. Although overall homeownership rates increased for all immigrant groups over the years, many immigrants are struggling to own their homes. It seems that, for some immigrants, the housing market provides ample opportunities for investment; however, for others, it is more challenging. For example, homeownership rates are lower for Arab, Black, and West Asian immigrants compared to other immigrant ethno-racial groups. In focusing on immigrants based on their country of origin, the study found that North America, Oceania & Australia, South & Central America, and Europe are the front runners in homeownership. However, immigrants from Africa and the Middle East are the most vulnerable groups. These findings are consistent with previous studies that showed that several groups such as Black and immigrants from countries outside of Western Europe and North America experience the most important disparities in growing their assets in Canada (Haan, 2007; Maroto & Aylsworth, 2016).

The respondents of the current study arrived in Canada between October 2000 and September 2001, when the largest CMAs were experiencing declining homeownership rates among immigrants (Statistics Canada, 2007a). However, during this time, Canada experienced the highest rate of homeownership since 1971 (according to the 2006 census), and the overall homeownership rate was 68.4% (Statistics Canada, 2017c). In 2006, 75.3% of the Canadian-born population living in a dwelling owned by a household member (Statistics Canada, 2008b). However, this study found that less than 50% of immigrant households owned their home, and immigrants in Quebec experience lower homeownership rates over time compared to the immigrants who are living in other provinces. However, it should be noted here that Quebec has homeownership rates below the national average. Homeownership has historically been low in Quebec (likely related to Quebec's strong tenant protections) (Uppal, 2019), and according to the 2016 census, Quebec has the lowest homeownership rate among the provinces (Statistics Canada, 2017b). The cost differences between owning and renting among provinces and rent control regulation among provinces could be correlated with homeownership (Uppal, 2019; Haan, 2012). Since immigrants continue to be drawn to major urban areas (Teixeira & Drolet, 2018), immigrants who pay high rent may have more difficulty saving funds to buy a home.

Results from a series of cross-sectional multivariate logistic regression models showed strong positive associations between homeownership and income, employment, and stable financial situation to meet basic needs. The results of this study suggest that immigrants who face disadvantages in earnings and employment may have greater difficulties in becoming homeowners (Maroto & Aylsworth, 2016). Asset accumulation is most directly related to income. Therefore, immigrants who experience unemployment or underemployment, low earnings, and fewer occupational opportunities (Hou & Picot, 2014; Nakhaie, 2006; Picot &

Sweetman, 2012; Reitz, 2007), might have trouble accumulating assets. The probability of homeownership is higher for immigrants who have financial assets such as savings in the home country, especially when the savings are substantial (more than $20,000). Since owning a home is an important means to integration into the host society and building assets after the migration (Darden, 2015; Ives, Hanley, Walsh, & Este, 2014; Murdie & Teixeira, 2003), immigrants may transfer their assets to Canada to invest in housing. The results suggest that some immigrants may be able to purchase a home despite facing challenges in labour market (Hiebert, 2009). However, as the results revealed, it may not be the case for all immigrants who have savings at home. It may be unusual for some immigrants (who have fewer savings) to bring savings from home and invest in housings in Canada, or maybe the savings at home are being held for more precautionary motives than the purchase a home. Another explanation could be that when the savings at home are converted to Canadian dollars, many immigrants from different countries may find it inadequate to invest in the housing market. Also, immigrants who have strong ties with their country of origin may invest savings in the homeland instead of buying a home in Canada.

Immigrants of the late 1990s and early 2000s were increasingly selected based on education, training, existing assets, and several other criteria (Picot, 2008). In the early 2000s, the Immigration and Refugee Protection Act (IRPA) legislation significantly modified the selection of immigrants under the Federal Skilled Worker Program (FSWP), and consequently, immigrants enter Canada via economic streams (Ferrer, Picot, & Riddell, 2014; Hou & Picot, 2016). However, consistent with previous studies, immigration status shows that compared to economic class immigrants, family class migrants significantly increase their likelihood of homeownership across the study period. Unsurprisingly, the refugee category – the group that

most likely enters Canada with zero financial resources – is negatively associated with homeownership. These results are consistent with previous findings (Kuuire et al., 2015). Despite having higher levels of human capital under new immigration policy, many immigrants with post-secondary degree struggle to move towards homeownership in the first few years after arrival. However, they increase the likelihood to be homeowners within four years of migration. Unsurprisingly, because of the discrimination in the workforce, homeownership is much lower when the region of where their degree was obtained is "other countries" than United States, United Kingdom, and Australia or New Zealand as well as speaking languages other than English and French. Several studies have documented that proficiency in official languages and a local degree is often preferable and more greatly valued by employers than a foreign degree for economic performance in the Canadian labour market in terms of earnings (Adamuti-Trache & Sweet, 2005; Ferrer & Riddell, 2008; Hatami & Weber, 2013; Ostrovsky, 2008).

In terms of gender, while controlling for other factors, interestingly, women-headed households are outpacing men-headed households when it comes to homeownership. One possible explanation is that women may think homeownership is a secured and long-term investment. Also, being married was found to be positively associated with homeownership. Regarding children, the finding of this study is consistent with a previous study showing that the addition of a child encourages households to buy a home, suggesting that children are a strong determinant of household's residential purchase decision (Haan, 2012).

Policy implications

Homeownership is an important component of the settlement experience and contributes to better socio-economic integration of immigrants, as well as homeownership has traditionally been an important means to build assets in a new country (Murdie, 2008; Ives, Hanley, Walsh, &

Este, 2014). A majority of immigrant groups express a strong desire to live in owner-occupied housing (Haan, 2012; Ray & Moore, 1991). This paper identifies disparities in homeownership among immigrant groups. For example, some immigrant groups made rapid and remarkable gains in homeownership in the first five years after arrival (from 18% to 48% increase). However, on the other end, many low-income immigrants encounter obstacles in the housing market and are restricted to inadequate, and often expensive private rental apartments (Haan, 2012; Murdie, 2002; Murdie & Teixeira, 2003). Galabuzi (2006) pointed out systemic racial discrimination as a key determinant of access to opportunity for racialized group members. Many immigrants in Canada continue to experience discrimination based on their skin color or ethno-racial backgrounds, and this discrimination may be worsened by tight labour and housing markets (Ray & Preston, 2009; Teixeira & Li, 2009).

Despite government homeownership subsidies, many immigrants experience disadvantages in terms of homeownership over time. African immigrants, along with immigrant households whose head earns less income, are financially insolvent to meet the basic needs, unemployed, and do not have enough savings (less than $20,000) are in the disadvantaged group. These immigrant groups may have limited access to programs that facilitate homeownership. Immigrants who face challenges in the credit and mortgage market may have greater difficulties in asset accumulation. Also, most immigrants prefer to settle in major metropolitan cities like Toronto, Vancouver, and Montreal; yet in each metropolitan center, immigrants confront a locally-specific set of housing opportunities and challenges (Hieber et al., 2006). The overpriced housing markets in the three most common destinations of the immigrant in Canada (Montreal, Vancouver, and Toronto) make homeownership difficult (Simone & Newbold, 2014). While homeownership is negatively associated with asset poverty - being unable to maintain well-being

at a low-income threshold for 3 months - and economic vulnerability (Rothwell & Robson, 2018; Study 1 and 2 of this dissertation), by addressing these issues and improving access to credit markets, policymakers can encourage asset accumulation (e.g., homeownership) of immigrants (Maroto & Aylsworth, 2016; Rothwell & Robson, 2018). Policies may help to expand access to the opportunity to homeownership for low-income households, households of color, and the groups who face additional hurdles in the Canadian housing market.

Several studies have suggested that native-born and immigrants may have different motives and incentives to save, and also the involvement of immigrants and Canadian-born households in the housing market might differ (Amuedo-Dorantes, 2002; Cobb-Clark & Hildebrand, 2009; Gellatly & Morissette, 2019) that may also influence homeownership. Zhang (2003) found that low-asset immigrant families behave differently than low-asset Canadian-born families in their asset accumulation processes (Zhang, 2003), and their needs could be very different. For example, visible minority immigrant groups might hold different belief systems, thereby engaging them differently to gather the necessary resources (e.g., savings) to purchase a home (Haan, 2012). To increase the homeownership opportunities for immigrants, it is essential to recognize, understand, and address their needs more precisely. It is hoped that the findings of this study may contribute to an understanding of the diversity of experience and needs of other vulnerable groups.

Research limitations

There are some limitations with the LSIC. For example, there was, of course, some attrition in the LSIC. In the first wave, a total of 12,040 individuals were interviewed, 9,322 at wave two and 7,716 participants remained at the third wave. However, Statistics Canada designed a weighting method that was used to ensure that data at the second and third wave was

representative of the respondent population in wave one in order to adjust for attrition. Some questions were only asked in the first wave of LSIC, but not in the later years. Another important limitation is that, although the LSIC provides information on the savings of immigrants in their home countries, the data does not have information on savings in Canada, which is an important indicator of financial assets and can affect home purchase decisions. Owning a home takes financial preparation, such as building up savings and developing creditworthiness (Maroto & Aylsworth, 2016). Studies showed a positive association between financial assets such as savings and housing assets that suggest that homeowners maybe twice as advantaged because homeowners accumulate housing assets and additionally are more likely to accumulate other types of assets (Haan, 2012; Lersch & Dewilde, 2019). However, saving the money for a down payment is the biggest obstacle to homeownership. Many newcomers in Canada are under financial pressure and could diminish their savings, given the high ratio of rent to income, which might affect ownership (Hiebert, 2009). Future research can highlight how the financial assets of immigrants in Canada affect homeownership. Also, using cross-sectional analyses to understand the asset ownership pattern of immigrants, this study was unable to control the unobserved heterogeneity across individuals. Since several unobserved individual characteristics may influence the home purchase decision, using more advanced analysis might be a potential area of future research.

The survey does not allow comparing immigrants to the Canadian population. It would be interesting to examine how differences between immigrants and Canadian-born regarding homeownership play out longitudinally. The LSIC provides extensive longitudinal information on new immigrants in Canada. However, the LSIC data was collected within a short time span; it

started in 2001 and did not continue after 2005. Despite limitations, LSIC provides enough information to estimate the relationship between homeownership and various relevant factors.

Chapter 6

Overall Discussion and Conclusion

Since the beginning of its professional history, social work has had an interest in and concern for the poor and disadvantaged. For social work, poverty is a social justice issue, and social workers at every level (micro, mezzo, macro) are committed to improving the quality of life of individuals and families living in poverty and struggling economically. As an anti-poverty strategy, some social work scholars, poverty researchers, and policymakers have relatively recently gained interest in the concept of the asset-based approach and how assets can provide support in times of economic hardship for individual persons, family units and communities. Building financial capability and assets for all is considered to be one of the 12 Grand Challenges for Social Work for the twenty-first century (Sherraden et al., 2015; Uehara et al., 2014).

In this dissertation, I have discussed the concept and roles of assets within the different theoretical perspective and why asset-based measurement and the asset-based approach of social welfare has gained importance among poverty and social work scholars. Since immigrants' assets have been a neglected dimension of social science measurement of immigrant poverty, I have examined the prevalence of asset poverty among immigrant groups and the asset holding patterns of immigrants with a particular emphasis on homeownership. My work has been guided by the asset-based approach of social welfare introduced by social work scholar Michael Sherraden (1991) and based upon several influential studies (Brandolini et al., 2010; Haveman & Wolff, 2004; Rothwell & Robson, 2018). To the best of my knowledge, this is one of the first empirical studies to estimate asset poverty, defined as the insufficiency of assets to survive at the low-income cut-off for 3 months, of immigrants across groups.

The main purpose of the dissertation was to describe which groups of immigrants are more likely to experience asset poverty and face more challenges in asset accumulation over time in Canada. This dissertation combined three interrelated studies to contribute existing knowledge of asset poverty and the asset holding patterns of immigrants in Canada using data from the Survey of Financial Security (SFS) 1999 and 2012 and the Longitudinal Survey of Immigrants to Canada (LSIC) 2007 collected by Statistics Canada. Each study included a literature review, methods, findings, and discussion. In this chapter, I provide a summary of findings, overall policy and practice implications of the findings, limitations, and directions for future research.

Summary of key findings across studies

This dissertation is one is the first to examine the prevalence of asset poverty of immigrants in Canada at the subgroup level (Chapter 3, Study 1). To further understand the economic vulnerability of immigrant groups over time, Study 2 (Chapter 4) examined to what extent various socio-economic and demographic characteristics of immigrants associated with asset poverty change over the years. Several poverty researchers have argued that measuring poverty based on currently held assets instead of household income may better capture the real picture of households' economic situation (Brandolini et al., 2010; Haveman & Wolff, 2004). The advantage of the asset poverty measure over income measures is that assets can have functions beyond smoothing out consumption needs. For example, assets can act as a storehouse of future consumption and a resource that can elevate people's lives with different opportunities (Sherraden, 2018, 2014, 1991).[36] In Studies 1 and 2 (Chapters 3 and 4) of this dissertation, the asset poverty of immigrants was measured with the consumption approach. Study 3 (Chapter 5)

[36] This point is particularly relevant at the current time. Assets are essential during a crisis like the COVID 19 pandemic (at the time of writing), when a family may lose its income at a time of great economic uncertainty.

of this dissertation examines the disparities in asset holdings of immigrants over time in Canada with a particular attention to homeownership. The following paragraphs include a detailed discussion of the important findings of this dissertation.

First, asset poverty rates are remarkably higher than income poverty rates for immigrant households. However, asset poverty is most prevalent when defining assets as financial resources (Chapters 3 and 4). This finding on asset poverty is consistent with previous studies (Brandolini et al., 2010; Blumenthal & Rothwell, 2018; Haveman & Wolff, 2004; Rothwell & Robson, 2018). The risk of poverty is greater for immigrants than Canadian-born households regardless of the indicator. For example, while comparing the prevalence of asset poverty among immigrants versus native-born Canadians, the income poverty rate is almost double (1.8 times), net worth poverty is 1.5 times greater, and financial asset poverty is 1.05 times greater for immigrants, even with similar socio-demographic characteristics. Despite the decline to 53.27% in 2012 from 59.83% in 1999, financial asset poverty remains remarkably high for immigrant households. In other words, with almost 7.5 million people are immigrants in Canada in 2016 (Statistics Canada, 2017a), likely 1 million immigrant households, based on an average family of four, do not have easily accessible financial resources that they can rely on to meet basic living expenses for three months. As described in the consumption approach, for individuals and families, financial assets such as savings are important because the role of savings is to serve as a cushion against variations in income or economic hardship in different life stages (Modigliani & Brumberg, 1954). However, for many immigrants, asset poverty in Canada was structurally persistent for the decade studied (1999 to 2012) (Chapter 4, Study 2).

Second, while considering immigrants as a group, previous research showed that immigrants tend to be income and net worth poor, but not likely to be financial asset poor

(Rothwell & Robson, 2018). However, when focusing on immigrants based on their country of origin, Chapter 3 (Study 1) found that some immigrant groups are significantly more at risk of financial and net worth poverty compared to other immigrant groups. For example, immigrants who came from the Middle East & North Africa, South Asia, Sub-Saharan Africa, and Latin America & the Caribbean are overrepresented among the financial asset poor compared to immigrants who came from North America, and Europe & Central Asia. As such, immigrants who were born in Africa and the Middle East face greater challenges than others while building assets (for instance, homeownership) in Canada (Chapter 5). Findings suggest that, in Canada, some visible minority immigrants may experience greater difficulties in overcoming economic insecurity than others, in line with previous studies (Haan, 2007; Maroto & Aylsworth, 2016). However, although it remains high, financial asset poverty rates have gone down over the years for immigrant households (Chapter 4, Study 2).

Third, the risk of asset poverty is concentrated among young immigrants. While the financial asset poverty rate dropped for all age groups between 1999 and 2012, the net worth poverty rate increased and remained high over the years for all age groups (see Chapter 4). For example, the findings for age are consistent with life-cycle models of savings that suggest that the risk of asset poverty is more prominent at young age (Chapter 3 and 4). This finding is consistent with previous research on asset poverty (Azpitarte, 2011; Kim & Kim, 2013; Rothwell & Robson, 2018). As such, immigrants living at different life stages may have different experiences of financial asset poverty, with the risk of financial asset poverty reducing as they grow older. However, the risk for net worth poverty is far greater than for financial asset poverty among young immigrants or adults in prime working years.

Fourth, the risk of both financial and net worth poverty declined over the time spent in Canada, suggesting that it may take a certain period to accumulate assets after migrating into a new society. Immigrants may generate assets over time as they integrate into society and get familiar with the labour market and financial services (e.g., banking services, credit markets). However, despite declining, the risk of financial asset poverty remained high for immigrants who had been living in Canada for thirty years or more (Chapters 3 and 4).

Fifth, not every immigrant is equally vulnerable to living in asset poverty. One interesting finding of this dissertation is that, while families having dependent children significantly increases the risk of asset poverty, a higher number of children in the household increases the likelihood of being homeowners; this suggests that immigrants desire to be homeowners despite financial hardship (Chapter 3, 4, and 5). Results from both Studies 1 and 2 found that the probability of incurring asset poverty decreased with homeownership, living in a married family, and a higher level of education (post-secondary degree). In addition, single-person families, those who speak a language other than English or French at home, and those who have large families are among the immigrant groups who are more likely to experience high asset poverty and face challenges to homeownership over time (Chapters 4 and 5). Another important finding of this dissertation suggests that since asset poor immigrants in Canada remain poor over the study period and are more vulnerable to material hardship than estimated by the income poverty measure, for these groups, poverty might pass across generations.

Sixth, there are disparities in homeownership across immigrant groups, with several influential factors. Income, employment, and secure financial situation of the households (to meet basic needs) are found to be significantly positively associated with homeownership. These results appeared consistent with previous studies demonstrating that income and employment are

positively associated with assets accumulation (Bricker et al., 2014; Chawla, 2004; Keister & Moller, 2000; Maroto, 2016) (Chapter 5). Although Rothwell and Robson's study (2018) and Chapters 3 and 4 of this dissertation show that homeownership reduced the likelihood of being in asset poverty, many immigrants from Africa and the Middle East, and immigrants those who are in their prime working-age, unemployed, single-person family, speak another language at home than English and French, and did not receive education and training after arriving in Canada, face more challenges to homeownership over time in Canada (Chapter 5, Study 3). However, some immigrant groups such as immigrants from Europe and South & Central America, who are financially well-off, who brought savings at entry and have savings in their home country made speedy and notable gains in homeownership in the first five years after arrival.

Implication for policy and practice

The first step to solve a problem is to recognize that there is a problem. In 2016, building financial capability and asset for all was recognized as one of the grand challenges of social work, which become a policy concern for many countries. By measuring poverty based on asset indicators, which play a role in enabling opportunities for socioeconomic mobility, findings of this dissertation have significant implications for the way economic vulnerability is conceptualized and the way social policy and practice has been implemented for individuals and families who are living in poverty and low income. This dissertation describes how some immigrant groups are at a considerably higher risk of asset poverty than others in Canada and are experiencing greater challenges in asset accumulation. As such, social workers, policymakers, settlement workers, and service providers who work with immigrants could benefit from the findings of this dissertation. Since this study adds a new perspective on immigrant economic inequality to Canadian social work literature, findings of this research may help social workers to

grasp another aspect of inequality and may change their approach in such work as anti-poverty activism, strategy or advocacy for vulnerable groups.

The findings of Chapters 3 and 4 provide strong evidence of the disparity in economic resources across immigrant groups and estimate much higher asset poverty than income poverty among immigrants, indicating the insufficiency of traditional income transfer policies to overcome economic vulnerability (Rothwell & Robson, 2018). The results also suggest that poverty seems to be more persistent for some groups who may face steep challenges in economic success in a way that calls for policy and practice priorities to support and improve the long-term economic security of specific vulnerable populations. Recently, policymakers, social workers, and poverty researchers have paid attention to asset-building programs as independent from income transfer programs, exploring how asset-building may mitigate asset poverty over the long term and contribute to household development (Midgley, 2005; Sherraden, 2018, 1991). Programs that assist families in accumulating assets may contribute to fighting poverty. For example, Individual Development Account (IDA) programs - matched savings accounts that enable low-income families to save, build assets, and enter the financial mainstream (Huang et al., 2016; Leckie et al., 2010; Lombe & Sherraden, 2008) - could be beneficial for immigrants who face difficulties to save because of the labour market discrimination. In the U.S., the Office of Refugee Resettlement (ORR) offers an IDA program for low-income refugees to build assets and provides required financial literacy and asset-specific training. The participants can use their matched savings accounts to purchase a home, pay for college education, vocational training, or recertification, or start-up a small business (ORR, 2020). Policymakers must consider the diversity of needs of immigrants experiencing income and asset poverty and remove barriers that hinder asset accumulation.

Consistent with previous studies (Milligan, 2005; Robson-Haddow & Ladner, 2005), Chapter 4 of this dissertation reports that immigrants tend to save through RESPs. However, immigrant households with children experience higher asset poverty over time and struggle to accumulate assets. Although RESPs are an important initiative for educational savings in Canada, use of RESPs remains heavily concentrated among high-income, high-wealth, and high parental education households and have been less beneficial for low-income families (Frenette, 2017). One recent study suggests that variation in wealth is the most important factor that explains the gap in RESP participation (Bonikowska & Frenette, 2020). Examples of policy alternatives could be Child Development Accounts (CDAs), which was first proposed by social work scholar Sherraden (1991). Several countries have adopted universal and progressive CDAs policies that deliver financial access, information, and incentives to encourage lifelong asset building for families and promote child development (Huang, Sherraden, Kim, & Clancy, 2014; Loke & Sherraden, 2009, Sherraden, 1991). A number of studies have documented the positive effects of CDAs, which can motivate low-income households to save for their children's future (Grinstein-Weiss et al., 2019; Huang et al., 2014; Nam & Han, 2010). Savings in CDAs can be used for homeownership, education and training, to start a small business, and other developmental purposes (Cramer & Newville, 2009).

Study 3 of this dissertation examines which immigrant groups are disadvantaged in building assets in Canada. These findings may help social workers to understand the inequality in asset holdings and the asset accumulation process of diverse immigrant groups and helping social workers to offer appropriate social services. For example, social workers are involved in organizing resources to support immigrants' housing needs as part of service delivery for immigrants. While different levels of government in Canada have introduced several social

policies and programs to help build assets for low-income families, many immigrants continue to face disproportionate challenges to homeownership over time. However, when interpreting results, immigration policies may also play a role in this regard. Each immigration category arrives in Canada with its own set of requirements. Many economic immigrants arrive in Canada with considerable assets, while others do not, which may lead to diverse outcomes regarding asset accumulation. Also, policies that favor family reunification, hiring skilled immigrants or educated professionals, or business immigrants which may contribute to explaining some of these differences among immigrant groups.

Attaining homeownership in Canada requires a substantial financial investment and long-term commitment. Immigrants with low income or with unstable or no jobs are less likely to build financial assets, such as savings, posing a significant barrier to investment in homeownership in Canada. Immigrants are not in the same position to access the financial resources of the host country. Also, unfamiliarity with the financial system and financial institutions, lack of understanding of credit and mortgage market, insufficient knowledge of financial services, public benefits, and consumer protection of the host country remain a critical problem for immigrants and may affect their asset-building potential (Nam, Sherraden, Huang, Lee, & Keovisai, 2019; Ralph, 2010; Schellenberg & Ostrovsky, 2008; SEDI, 2004). As such, financial education and counseling is important in that it aims to change people's behaviour, attitudes, and knowledge regarding their finances and improve their objective and subjective financial knowledge and financial self-efficacy (Fox, Bartholomae, & Lee, 2005; Rothwell & Wu, 2019; Collins & O'Rourke, 2010). Also, financial knowledge is associated with asset accumulation, portfolio decisions, and other financial outcomes, in addition to explaining 34% of asset inequality over the lifetime (Babiarz & Robb, 2014; Jappelli & Padula, 2013; Lusardi et al.,

2013). As such, savings policies could target financial literacy that addresses credit, debt, investment, mortgages or loans, cash-flow management, and other related issues that are important for asset accumulation. For example, in Canada, the Financial and Consumer Agency of Canada (FCAC) has recently developed a national strategy to promotes financial education for youth, young adults, and older adults (Financial Consumer Agency of Canada, 2020). Since financial literacy varies across socioeconomic groups (Buckland, 2010), immigrant settlement agencies can play a role by targeting disadvantaged immigrants to provide basic financial training according to their needs and assist newcomers in understanding the Canadian financial system. Such social policies that support low-income households, households of visible minorities, and the groups who face challenges in the Canadian housing market may increase access and opportunity to build assets.

Social workers who closely work with individuals and families and who are involved with social policy development should apply careful assessment and knowledge about the nature of ongoing financial struggles and economic discrimination of certain immigrant groups to build assets in Canada. However, since the typical social work curriculum provides little to no training or preparation in financial concepts, issues and practice (Despard & Chowa, 2010; Frey et al., 2017; Fenge, 2012; Gillen & Loeffler, 2012), many social workers and other helping professionals who assist their clients in tackling complex financial problems are often poorly educated, lack preparation, skills, and knowledge on financial and economic issues (Birkenmaier et al., 2013). As such, it is important to include curricula on "financial social work" and "economic content" in social work programs in Canada as suggested by several social work educators and researchers (Frey et al., 2017; Gates et al., 2017; Huang at al., 2020; Sherraden et al., 2016;). Finally, since immigrants with diverse backgrounds experience different levels of

economic inequality, policies and practices need to pay close attention to relevant factors such as age, ability, gender, family status, immigration status, race and ethnicity, and language preference while developing programs.

Limitations

In this dissertation, quantitative data was used to understand the asset poverty situation and asset holding patterns among immigrant groups. However, the studies have several limitations. Study 1 of this dissertation used cross-sectional data to estimate the prevalence of asset poverty among immigrants. The cross-sectional approach cannot tell us about the persistence of asset poverty. For example, in using a cross-sectional approach to asset poverty, this study cannot sufficiently explain whether the currently poor are likely to remain poor, or whether the currently non-poor are likely to maintain their situation, or whether any events or conditions have an impact on asset poverty (Carter & Barrett, 2006; Green & Hulme, 2005; Leonard & Di, 2014).

Study 2 examines immigrants' asset poverty situation over time by using repeated cross-sectional data. Therefore, Study 2 cannot examine variation in the poverty status of the same individuals or households, which may help to make a link between the current situation (for example, savings behaviour) of individuals and families and future outcomes (asset poverty). Performing repeated cross-sectional analyses alone may not be sufficient to understand asset poverty trends. Also, this study used SFS 1999 and 2012 to examine the asset poverty of immigrants over time in Canada. This study could have been more beneficial if the data from 2016 were used. However, SFS 2016 is not included in the analysis because of the unavailability of SFS 2016 data during the analysis. SFS 2016 would be used in a future follow-up study of immigrant asset poverty over time.

Both studies 1 and 2 used LICO as a basic needs threshold. However, the LICO has been criticized for not adequately capturing differences in the cost of living across regions (Noel, 2012). Alternatively, future research could use the market-basket measure (MBM) for interprovincial comparisons. Also, both Studies 1 and 2 used a headcount ratio to identify the asset poor as below or above the asset poverty line. The headcount approach is simple and tells us how many people are considered poor, but it has limitations stemming from its inability to differentiate among the poor (Brady, 2003; Sen, 1976). To address this concern, future research could measure the intensity of poverty among the poor as the average distance of poor households from the poverty threshold.

In addition to demographic and socioeconomic factors, there are other important factors such as culture, remittances, immigrants' ties and commitments to their homeland, and assets in the home country that may be associated with asset poverty and asset ownership (Firang, 2018; Kuuire et al., 2015). However, both Studies 1 and 2 were unable to examine these factors because SFS did not provide information on these issues. Immigrants from different countries may behave differently in the asset accumulation process. Individual characteristics such as willingness, judgments, attitudes towards uncertainty, family ties, networking ability could also influence asset poverty and asset holdings (Haan, 2012). Further, savings at arrival may influence asset ownership and asset poverty. However, SFS data did not provide this information. Because of the limitations of including the unmeasured variables in the analyses, the results may suffer from omitted variable bias. In future study, the potentially important variables could be measured (Remler & Van Ryzin, 2015). Also, reverse causation is a well-known concern in cross-sectional studies. Using cross-sectional data, it is difficult to determine

whether the exposure or outcome came first. The analyses in the studies did not take account of reverse causality (Remler & Van Ryzin, 2015).

Study 3 used LSIC data which provides information on the savings of immigrants in their home countries. However, LSIC does not have information on savings in Canada, which is an important indicator of financial assets and can affect home purchase decisions. Also, LSIC is not free from the problem of attrition. For example, a total of 12,040 individuals were interviewed in the first wave, 9,322 at wave two, and 7,716 participants remained at the third wave. However, in order to adjust for attrition, Statistics Canada designed a weighting method that was used to ensure that data at the second and third wave was representative of the respondent population in wave one. In addition, LSIC does not allow comparing immigrants to the Canadian population, leaving us to rely on previously published studies whose statistics have been generated using different methods. Also, using cross-sectional analyses to understand the asset ownership pattern of immigrants over time, this study was unable to control the unobserved heterogeneity across individuals (Asiamah, Mends-Brew, & Boison, 2019). Since several unobserved individual characteristics may influence the home purchase decision, using fixed effect regression might be a better option in future research. Besides, this research did not demonstrate causation but rather association. Since temporality of association is a strong criterion for causality (the effect has to occur after the cause), cross-sectional studies of this dissertation cannot establish causality (Remler, & Van Ryzin, 2015). Despite these limitations, however, the SFS and LSIC provide enough information to estimate the prevalence of asset poverty among immigrants, as well as the relationship between homeownership and various relevant factors, and homeownership patterns of immigrants over time in Canada.

Future research directions

This dissertation has shed light on a household's asset situation as an important indicator to measure the financial insecurity and economic integration of immigrants in Canada. For example, this dissertation provides insight into the prevalence of asset poverty among immigrants. However, we do not yet know how the assets of immigrants in their home country or Canada at the time of arrival and financial assets such as savings in Canada after migration affect asset poverty and asset building in the host country. By using repeated cross-sectional data, this dissertation illustrates that certain immigrant groups are more likely to experience asset poverty over the years than others. For some immigrants, poverty may become persistent. Future research could use longitudinal data to better understand the change over time in the asset poverty status of individuals or households.

Future research could also examine to what extent remittances explain asset poverty rates. Remittance has negative consequences for homeownership over time and may impact the saving capacity of immigrants (Kuuire et al., 2015). Also, immigrant groups who have strong ties or attachments to their home country may invest resources in the country of origin, which may compromise immigrants' ability to acquire homeownership and asset accumulation in their adopted country. These transnational obligations and activities (Ives, Hanley, Walsh, & Este, 2014) may assist in explaining the intergroup differences of asset poverty, asset accumulation process, and economic integration of immigrants in destination countries. Future research may connect immigrant homeownership in the host country to their transnational ties to better comprehend why immigrant groups may or may not building assets in the receiving country. Further, the extent to which unobserved individual characteristics affect home purchase decisions could be examined in future.

Conclusion

The three interrelated studies in this dissertation are the first attempt to measure asset poverty over time across immigrant groups and asset holding patterns of immigrants in Canada. Therefore, this dissertation provides a different picture and better understanding of the economic vulnerability of some immigrant groups who may face challenges to successful economic integration into the host country. Based on the limitations mentioned in this dissertation and in continuation of my previous research, my future research plan includes the examination of intergenerational asset poverty of immigrants using longitudinal data, and the evaluation of asset-based initiatives and programs. Another focus of my future research is to understand the impact of assets, such as small business ownership, on low-income households, and how to promote long-term financial security.

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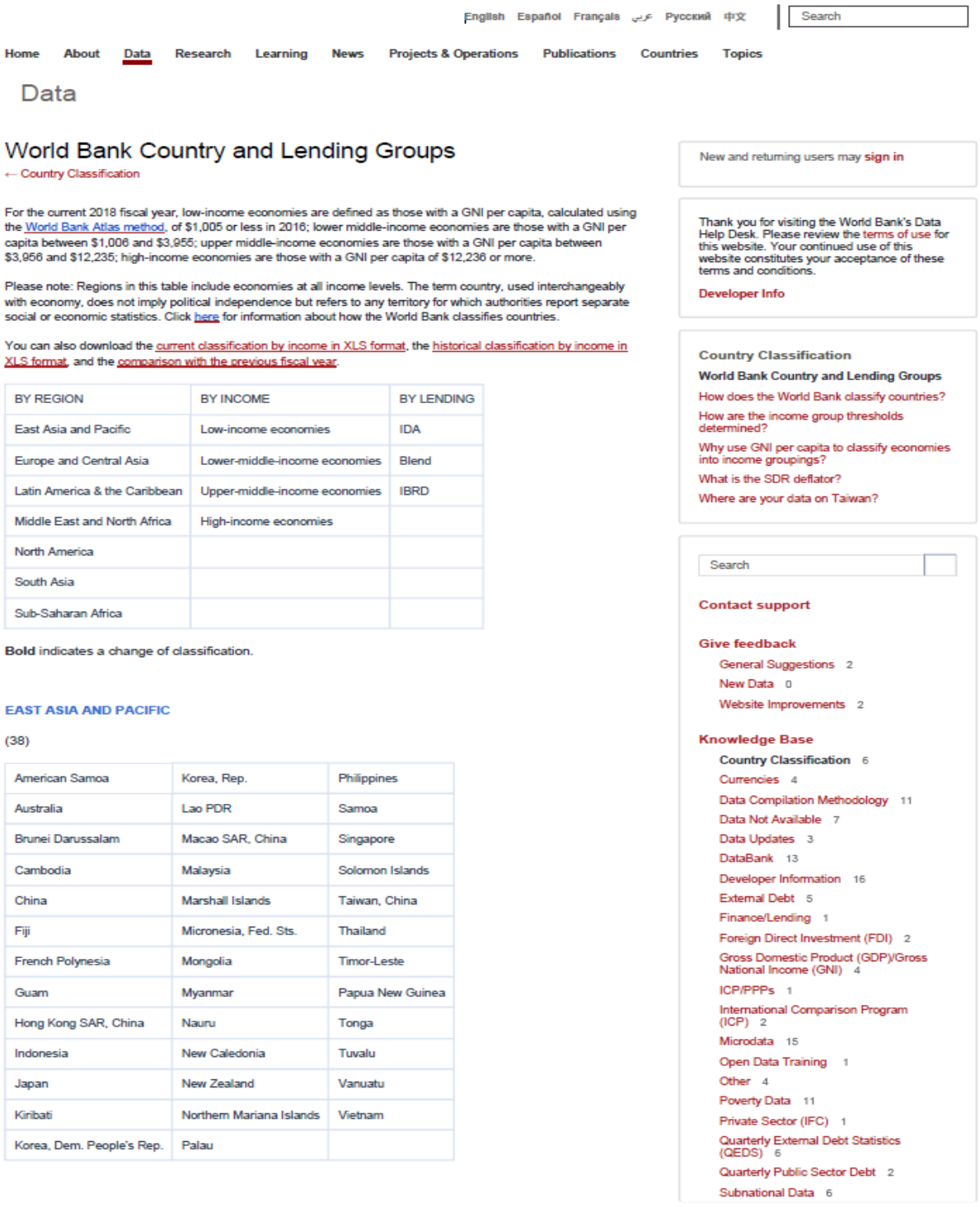
Appendix

Appendix A: World Bank Country and Lending Groups



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Data

World Bank Country and Lending Groups

← Country Classification

For the current 2018 fiscal year, low-income economies are defined as those with a GNI per capita, calculated using the World Bank Atlas method, of $1,005 or less in 2016; lower middle-income economies are those with a GNI per capita between $1,006 and $3,955; upper middle-income economies are those with a GNI per capita between $3,956 and $12,235; high-income economies are those with a GNI per capita of $12,236 or more.

Please note: Regions in this table include economies at all income levels. The term country, used interchangeably with economy, does not imply political independence but refers to any territory for which authorities report separate social or economic statistics. Click here for information about how the World Bank classifies countries.

You can also download the current classification by income in XLS format, the historical classification by income in XLS format, and the comparison with the previous fiscal year.

BY REGION	BY INCOME	BY LENDING
East Asia and Pacific	Low-income economies	IDA
Europe and Central Asia	Lower-middle-income economies	Blend
Latin America & the Caribbean	Upper-middle-income economies	IBRD
Middle East and North Africa	High-income economies	
North America		
South Asia		
Sub-Saharan Africa		

Bold indicates a change of classification.

EAST ASIA AND PACIFIC

(38)

American Samoa	Korea, Rep.	Philippines
Australia	Lao PDR	Samoa
Brunei Darussalam	Macao SAR, China	Singapore
Cambodia	Malaysia	Solomon Islands
China	Marshall Islands	Taiwan, China
Fiji	Micronesia, Fed. Sts.	Thailand
French Polynesia	Mongolia	Timor-Leste
Guam	Myanmar	Papua New Guinea
Hong Kong SAR, China	Nauru	Tonga
Indonesia	New Caledonia	Tuvalu
Japan	New Zealand	Vanuatu
Kiribati	Northern Mariana Islands	Vietnam
Korea, Dem. People's Rep.	Palau	

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Subnational Data 6

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World Development Report (WDR) 1
All articles

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EUROPE AND CENTRAL ASIA

(58)

Albania	Gibraltar	Norway
Andorra	Greece	Poland
Armenia	Greenland	Portugal
Austria	Hungary	Romania
Azerbaijan	Iceland	Russian Federation
Belarus	Ireland	San Marino
Belgium	Isle of Man	Serbia
Bosnia and Herzegovina	Italy	Slovak Republic
Bulgaria	Kazakhstan	Slovenia
Channel Islands	Kosovo	Spain
Croatia	Kyrgyz Republic	Sweden
Cyprus	Latvia	Switzerland
Czech Republic	Liechtenstein	Tajikistan
Denmark	Lithuania	Turkey
Estonia	Luxembourg	Turkmenistan
Faroe Islands	Macedonia, FYR	Ukraine
Finland	Moldova	United Kingdom
France	Monaco	Uzbekistan
Georgia	Montenegro	
Germany	Netherlands	

LATIN AMERICA AND THE CARIBBEAN

(42)

Antigua and Barbuda	Curacao	Paraguay
Argentina	Dominica	Peru
Aruba	Dominican Republic	Puerto Rico
Bahamas, The	Ecuador	Sint Maarten (Dutch part)
Barbados	El Salvador	St. Kitts and Nevis
Belize	Grenada	St. Lucia
Bolivia	Guatemala	St. Martin (French part)
Brazil	Guyana	St. Vincent and the Grenadines
British Virgin Islands	Haiti	Suriname
Cayman Islands	Honduras	Trinidad and Tobago
Chile	Jamaica	Turks and Caicos Islands
Colombia	Mexico	Uruguay
Costa Rica	Nicaragua	Venezuela, RB

Cuba	Panama	Virgin Islands (U.S.)

MIDDLE EAST AND NORTH AFRICA

(21)

Algeria	Jordan	Qatar
Bahrain	Kuwait	Saudi Arabia
Djibouti	Lebanon	Syrian Arab Republic
Egypt, Arab Rep.	Libya	Tunisia
Iran, Islamic Rep.	Malta	United Arab Emirates
Iraq	Morocco	West Bank and Gaza
Israel	Oman	Yemen, Rep.

NORTH AMERICA

(3)

Bermuda	Canada	United States

SOUTH ASIA

(8)

Afghanistan	India	Pakistan
Bangladesh	Maldives	Sri Lanka
Bhutan	Nepal	

SUB-SAHARAN AFRICA

(48)

Angola	Gabon	Nigeria
Benin	Gambia, The	Rwanda
Botswana	Ghana	São Tomé and Principe
Burkina Faso	Guinea	Senegal
Burundi	Guinea-Bissau	Seychelles
Cabo Verde	Kenya	Sierra Leone
Cameroon	Lesotho	Somalia
Central African Republic	Liberia	South Africa
Chad	Madagascar	South Sudan
Comoros	Malawi	Sudan
Congo, Dem. Rep.	Mali	Swaziland
Congo, Rep	Mauritania	Tanzania
Côte d'Ivoire	Mauritius	Togo
Equatorial Guinea	Mozambique	Uganda
Eritrea	Namibia	Zambia
Ethiopia	Niger	Zimbabwe

LOW-INCOME ECONOMIES ($1,005 OR LESS)

(31)

Afghanistan	Guinea	Rwanda
Benin	Guinea-Bissau	Senegal
Burkina Faso	Haiti	Sierra Leone
Burundi	Korea, Dem. People's Rep.	Somalia
Central African Republic	Liberia	South Sudan
Chad	Madagascar	Tanzania
Comoros	Malawi	Togo
Congo, Dem. Rep	Mali	Uganda
Eritrea	Mozambique	Zimbabwe
Ethiopia	Nepal	
Gambia, The	Niger	

LOWER-MIDDLE-INCOME ECONOMIES ($1,006 TO $3,955)

(53)

Angola	Indonesia	Philippines
Armenia	**Jordan**	São Tomé and Principe
Bangladesh	Kenya	Solomon Islands
Bhutan	Kiribati	Sri Lanka
Bolivia	Kosovo	Sudan
Cabo Verde	Kyrgyz Republic	Swaziland
Cambodia	Lao PDR	Syrian Arab Republic
Cameroon	Lesotho	Tajikistan
Congo, Rep.	Mauritania	Timor-Leste
Côte d'Ivoire	Micronesia, Fed. Sts.	Tunisia
Djibouti	Moldova	Ukraine
Egypt, Arab Rep.	Mongolia	Uzbekistan
El Salvador	Morocco	Vanuatu
Georgia	Myanmar	Vietnam
Ghana	Nicaragua	West Bank and Gaza
Guatemala	Nigeria	Yemen, Rep.
Honduras	Pakistan	Zambia
India	Papua New Guinea	

UPPER-MIDDLE-INCOME ECONOMIES ($3,956 TO $12,235)

(56)

Albania	Ecuador	**Nauru**
Algeria	Fiji	Panama
American Samoa	Gabon	Paraguay
Argentina	Grenada	Peru
Azerbaijan	Guyana	Romania
Belarus	Iran, Islamic Rep.	Russian Federation
Belize	Iraq	**Samoa**
Bosnia and Herzegovina	Jamaica	Serbia
Botswana	Kazakhstan	South Africa
Brazil	Lebanon	St. Lucia
Bulgaria	Libya	St. Vincent and the Grenadines
China	Macedonia, FYR	Suriname
Colombia	Malaysia	Thailand
Costa Rica	Maldives	**Tonga**
Croatia	Marshall Islands	Turkey
Cuba	Mauritius	Turkmenistan
Dominica	Mexico	Tuvalu
Dominican Republic	Montenegro	Venezuela, RB
Equatorial Guinea	Namibia	

HIGH-INCOME ECONOMIES ($12,236 OR MORE)

(78)

Andorra	Greece	Poland
Antigua and Barbuda	Greenland	Portugal
Aruba	Guam	Puerto Rico
Australia	Hong Kong SAR, China	Qatar
Austria	Hungary	San Marino
Bahamas, The	Iceland	Saudi Arabia
Bahrain	Ireland	Seychelles
Barbados	Isle of Man	Singapore
Belgium	Israel	Sint Maarten (Dutch part)
Bermuda	Italy	Slovak Republic
British Virgin Islands	Japan	Slovenia
Brunei Darussalam	Korea, Rep.	Spain
Canada	Kuwait	St. Kitts and Nevis
Cayman Islands	Latvia	St. Martin (French part)
Channel Islands	Liechtenstein	Sweden
Chile	Lithuania	Switzerland
Curaçao	Luxembourg	Taiwan, China

Cyprus	Macao SAR, China	Trinidad and Tobago
Czech Republic	Malta	Turks and Caicos Islands
Denmark	Monaco	United Arab Emirates
Estonia	Netherlands	United Kingdom
Faroe Islands	New Caledonia	United States
Finland	New Zealand	Uruguay
France	Northern Mariana Islands	Virgin Islands (U.S.)
French Polynesia	Norway	
Germany	Oman	
Gibraltar	Palau	

IDA

(59)

Afghanistan	Haiti	Rwanda
Bangladesh	Honduras	Samoa
Benin	Kiribati	São Tomé and Principe
Bhutan	Kosovo	Senegal
Burkina Faso	Kyrgyz Republic	Sierra Leone
Burundi	Lao PDR	Solomon Islands
Cambodia	Lesotho	Somalia
Central African Republic	Liberia	South Sudan
Chad	Madagascar	Sudan
Comoros	Malawi	Syrian Arab Republic
Congo, Dem. Rep.	Maldives	Tajikistan
Côte d'Ivoire	Mali	Tanzania
Djibouti	Marshall Islands	Togo
Eritrea	Mauritania	Tonga
Ethiopia	Micronesia, Fed. Sts.	Tuvalu
Gambia, The	Mozambique	Uganda
Ghana	Myanmar	Vanuatu
Guinea	Nepal	Yemen, Rep.
Guinea-Bissau	Nicaragua	Zambia
Guyana	Niger	

BLEND

(16)

Cabo Verde	Moldova	St. Vincent and the Grenadines
Cameroon	Mongolia	Timor-Leste
Congo, Rep.	Nigeria	Uzbekistan

Dominica	Pakistan	Zimbabwe
Grenada	Papua New Guinea	
Kenya	St. Lucia	

IBRD

(69)

Albania	Equatorial Guinea	Panama
Algeria	Fiji	Paraguay
Angola	Gabon	Peru
Antigua and Barbuda	Georgia	Philippines
Argentina	Guatemala	Poland
Armenia	India	Romania
Azerbaijan	Indonesia	Russian Federation
Belarus	Iran, Islamic Rep.	Serbia
Belize	Iraq	Seychelles
Bolivia	Jamaica	South Africa
Bosnia and Herzegovina	Jordan	**Sri Lanka**
Botswana	Kazakhstan	St. Kitts and Nevis
Brazil	Lebanon	Suriname
Bulgaria	Libya	Swaziland
Chile	Macedonia, FYR	Thailand
China	Malaysia	Trinidad and Tobago
Colombia	Mauritius	Tunisia
Costa Rica	Mexico	Turkey
Croatia	Montenegro	Turkmenistan
Dominican Republic	Morocco	Ukraine
Ecuador	Namibia	Uruguay
Egypt, Arab Rep.	Nauru	Venezuela, RB
El Salvador	Palau	**Vietnam**

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EUROPE AND CENTRAL ASIA

(58)

Albania	Gibraltar	Norway
Andorra	Greece	Poland
Armenia	Greenland	Portugal
Austria	Hungary	Romania
Azerbaijan	Iceland	Russian Federation
Belarus	Ireland	San Marino
Belgium	Isle of Man	Serbia
Bosnia and Herzegovina	Italy	Slovak Republic
Bulgaria	Kazakhstan	Slovenia
Channel Islands	Kosovo	Spain
Croatia	Kyrgyz Republic	Sweden
Cyprus	Latvia	Switzerland
Czech Republic	Liechtenstein	Tajikistan
Denmark	Lithuania	Turkey
Estonia	Luxembourg	Turkmenistan
Faroe Islands	Macedonia, FYR	Ukraine
Finland	Moldova	United Kingdom
France	Monaco	Uzbekistan
Georgia	Montenegro	
Germany	Netherlands	

LATIN AMERICA AND THE CARIBBEAN

(42)

Antigua and Barbuda	Curacao	Paraguay
Argentina	Dominica	Peru
Aruba	Dominican Republic	Puerto Rico
Bahamas, The	Ecuador	Sint Maarten (Dutch part)
Barbados	El Salvador	St. Kitts and Nevis
Belize	Grenada	St. Lucia
Bolivia	Guatemala	St. Martin (French part)
Brazil	Guyana	St. Vincent and the Grenadines
British Virgin Islands	Haiti	Suriname
Cayman Islands	Honduras	Trinidad and Tobago
Chile	Jamaica	Turks and Caicos Islands
Colombia	Mexico	Uruguay
Costa Rica	Nicaragua	Venezuela, RB

Appendix B: Other Financial Assets

Variables	Description
WAHOSP	Homeownership savings plan- Accumulation of total home ownership savings plan funds.
WATBILL	Treasury bills- Accumulation of treasury bill funds.
WATRUST	Money held in trust- Accumulation of money held in trust funds.
WASTOINP	Other non-pen invest/fin asset- Other investments or financial assets, non-pension.
WAANUITY	Annuities- Accumulation of annuity investment funds.
WADPSP	Deferred profit-sharing plan- Accumulation of total deferred profit sharing plan funds
WAFINOT	Other invest or financial assets- Accumulation of other investment and financial investment funds not included elsewhere.
WAOWED	Money owed RESP non-mort- Accumulation of non-mortgage funds loaned to others
WAMOWED	Money owed RESP as mort- Accumulation of mortgage funds loaned to others
WAMBS	Mortgage-backed securities- Accumulation of mortgage backed security funds.

Source: Survey of Financial Security, Statistics Canada.

Appendix C: Asset-Based Social Policies in Canada

Canadian researchers and policy makers became interested in asset building as a policy tool in the 1990s because there was a need to find solutions to problems that income-based welfare had not been able to address (Taylor, Grinstein -Weiss, & Denard, 2010; Nares, Robson-Haddow, & Gosse, 2001). The following discussion covers the evolution of the most prominent asset building initiatives in Canada. The purpose of this section is to critically review the extent to which policy interventions help boost savings and build assets among low-income individuals and households in general and immigrants in particular.

Registered Retirement Savings Plan (RRSP)

The fundamental pillars of Canada's public retirement income system include three different retirement programs: universal public pensions (the Old Age Security (OAS) and the Guaranteed Income Supplement (GIS)); mandatory public contributory pensions (the Canada and Quebec Pension Plans (CPP and QPP)); and voluntary private savings, namely Registered Retirement Savings Plans (RRSP) (CCPA, 2011). The RRSP was introduced in Canada in 1957 as part of the Canadian Income Tax Act to promote savings for retirement. RRSPs are registered by the Government of Canada and operated through private financial institutions such as banks, insurance company or credit unions (Government of Canada, 2019a). RRSPs enable taxpayers to defer, smooth out, and reduce lifetime taxation by saving for retirement, receiving a deduction on current taxable income, and paying tax on withdrawals in retirement, when total taxable income is expected to be lower (Robson, 2010). RRSPs are designed to hold savings as well as investment assets, including mutual funds, mortgage-backed equity, bonds, stocks, guaranteed investment certificates, income trusts, funds sponsored by an employer, and foreign currency

(Canada Revenue Agency, 2014). Any person one who is a Canadian resident and is under the age of 71 is eligible for an RRSP.

Despite the benefits outlined above, RRSPs have been criticized for disproportionately benefiting the wealthy (Maroto, 2019). Each year the federal government spends over $45 billion dollars in tax expenditures to encourage asset building, however, most of the benefits of these expenditures go to middle- and upper-income households (Côté, Mazer, & Weisstub, 2019; Townson, 2009). This happens mainly for two reasons: first, the government incentives reward the forms of assets that middle- and upper-income earners are more likely than lower-income earners to hold, and second, income tax expenditures offer greater benefit to taxpayers with higher taxable income (Robson, 2006: 31). Arrowsmith and Pignal (2010) found that individuals in the highest income quintile have a much greater proportion of RRSPs than those in all the other quintiles. For example, the top one percent of income earners receive 15% of the benefit from the RRSP tax deduction (Murphy, Veall, & Wolfson, 2015). The spousal RRSP is also a tax subsidy for the rich because when the money is withdrawn from the spousal RRSP, it's taxed at the lower-income spouse's rate (Canada Revenue Agency, 2014)

People who are in the lower tax bracket, however, do not benefit as much from such tax deductions. Lower to moderate-income earners are at a significant disadvantage in their opportunities to initiate their savings for retirement income, and face barriers to accessing benefits from RRSP initiatives. A recent report shows that 60% of low-income Canadians (incomes below $50,000) do not contribute to a tax-advantaged savings account, whether a Tax-Free Savings Account (TFSA), RRSP, or any workplace pension plan (Côté, Mazer, & Weisstub, 2019). RRSP coverage was found to be particularly inadequate amongst lower-paid workers, private-sector workers, and those who work for small- or medium-sized employers. Shillington

(2003) argued that Canadians with lower incomes could save in RRSPs but get little or no effective tax assistance for that effort, and the RRSP is not a flexible and easily accessible savings program for them. The government programs in Canada provide little attention to financial literacy, although lacking basic financial literacy, many Canadians do not take appropriate steps to plan and take advantage of the RRSPs. Therefore, scholars suggest that special efforts must be made to ensure that low-income individuals know of the potential advantages of the plan (Axworthy, 2006).

Regarding immigrants, a recent study found that the share of asset holding in RRSPs is lower among immigrant families than among their Canadian-born counterparts (Morissette, 2019). Since many immigrants face challenges in the labour market over the course of their lives, they may struggle to save for retirement. Some authors have documented that since 1997, there has been a downward trend in both the number of RRSP contributors and the total amount of contribution, and an increase in pre-retirement RRSP withdrawals, which is correlated to indicators of financial hardship (Côté, Mazer, & Weisstub, 2019). Most immigrants prefer to live in big CMAs, where the housing cost is very high (Teixeira & Drolet, 2018). The living cost of big cities may prevent immigrants to save money in RRSPs. Also, immigrants' desire to live in owner-occupied housing (Haan, 2012; Ray & Moore, 1991), might encourage them in pre-retirement RRSP withdrawals.

Canada and Quebec Pension Plans (CPP-QPP)

The Canada and Quebec Pension Plans were introduced on January 1, 1966. To provide greater retirement security, the nationally administered CPP and the parallel and complimentary provincially-administered QPP offer all workers in Canada a monthly retirement income and benefits when contributors retire, become disabled, or die (Government of Canada, 2019b).

CPP/QPP cover almost all workers in Canada, whether employees or self-employed, and, even without contributing themselves, marriage or common-law partners may share their spouses' retirement pensions (Townson, 2011). The pensions from these plans are based on the level of contributions made during employment, with contributions to the plan being compulsory for workers over the age of eighteen. Thus, these plans only include working people who contribute to the plans (HRSDC, 2008). Since all CPP/QPP participants do not accumulate the same amounts of retirement assets, CPP/QPP cannot provide equal benefit to all. Studies also have documented that CPP/QPP combined with the Old Age Security (OAS) and the Guaranteed Income Supplement (GIS) does not provide enough support for retirement consumption (Townson, 2011).

Research on the participation pattern of immigrants in major public pension programs is limited. Findings from Morissette's study (2002) showed that: immigrants enjoy lower retirement income than the Canadian-born; immigrant men from visible minority groups have lower pension coverage than other immigrant men; and the amount of pension received by the earlier cohorts of immigrants is higher than that of the recent immigrants. Because the amount of CPP retirement pension is based on how much someone has contributed and how long has been making the contributions to the CPP at the time of becoming eligible (Government of Canada, 2019b), immigrants who have migrated later in life and started working at a later age are likely to have fewer contributing years to build up pension assets. As such, immigrants may not qualify for a full benefit in the CPP/QPP (Marier & Skinner, 2008). Also, immigrants who arrived in Canada after 1970 receive far less retirement income from both public and private sources than the immigrants who came earlier (Marier & Skinner, 2008). Therefore, immigrants are facing a

much higher poverty rate in old age than the Canadian-born population (Marier & Skinner, 2008).

Homeownership subsidies

From the asset-based perspective, homeownership is an effective means of accumulating assets (Johnson & Sherraden, 1992). Since homeownership is an important goal for most Canadian families, Canadian governments at all levels (federal, provincial, and local) have chosen to implement programs to support those who are in the greatest need of suitable, adequate, and affordable housing. For people with low earnings who are unable to afford local rents, the government subsidizes houses and apartments throughout Canada, albeit at a woefully inadequate level when compared to need (Bulowski, 2020).

To increase housing supply and affordability, for example, in 1971, the Canada Mortgage and Housing Corporation (CMHC) introduced the Assisted Home Ownership Program (AHOP) to appeal to first-time buyers, stimulate the housing market, and help people with low incomes attain homeownership (CMHC, 2014). There are also several federal subsidy programs such as the Canadian Homeownership Stimulation Plan (CHSP), the Registered Homeownership Savings Plan (RHSP), the Mortgage Rate Protection Program (MRPP), First-Time Home Buyers' (FTHB) Tax Credit, the Home Renovation Tax Credit (HRTC), and the Home Buyers' Plan (HBP) to support homeownership (Hulchanski, 2006).

The federal government released the National Housing Strategy in 2017, which contained $40 billion in investments in affordable housing over the next decade (CHRA, 2018). Also, to make it easier for Canadians to buy homes they can afford, the 2019 budget proposed the First-Time Home Buyer Incentive that would provide funding of 5 or 10 percent of the home purchase price. Through this incentive, CMHC would provide up to $1.25 billion for the next three years

starting in 2019-2020 to eligible purchasers by sharing in the cost of a mortgage (Government of Canada, 2019c).

However, census data show that the proportion of Canadian households who were homeowners decreased to 67.8% from 68.4% between 2011 and 2016 (Gensey & CMHC, 2019). Many individuals and families in Canada are facing an uncertain future due to high housing costs, enormous household debt, and a rapidly changing labour market. Since the 2000s, the price of homes has increased on average 75%, especially in the major cities (Kirby, 2008; Teixeira & Drolet, 2018). Despite government encouragement of homeownership, for many vulnerable groups such as young adults and recent immigrants, owning a home has become an enormous challenge (Kershaw & Minh, 2016). Also, immigrants may not take advantage of some government initiatives towards ownership. For example, the Home Buyers' Plan allow first-time homebuyers to withdraw up to $35,000 from their RRSP contribution to buy or build a home without having to pay tax on the withdrawal (Government of Canada, 2019d). Although this incentive supports the down payment and costs associated with the purchase of a first home, recent immigrants might not receive any benefit from the program because they may not have had time to build RRSPs (Haan, 2012).

Individual Development Account (IDA)

In 1997, as a method to combat poverty, the concept of using Individual Development Accounts (IDAs) was introduced in Canada by a national not-for-profit organization named Social and Enterprise Development Innovations (SEDI) (Nares et al., 2001). The IDA matched savings assist low-income households to save, build assets, and enter the financial mainstream[37](Sherraden, 1991). The most important strength of IDAs is that they allow low-

[37] For example, if a person saves $1, it is matched at 3:1, so the $1 with which they started becomes $4.

income earners an opportunity to build savings they could not build on their own (McCauley, 2011). Withdrawals are typically restricted to the purchase of assets, such as buying a home, pursuing post-secondary education and training, or starting a small business. The IDA savings program of Supporting Employment & Economic Development (SEED) Winnipeg allows participants to use their IDA savings for: employment (licensing for a profession, purchasing a computer); education (education or training courses, textbooks, course materials, Registered Education Savings Plan (RESPs); business (business start or expansion needs); ability supports (necessary dental work, accessibility assets, mobility needs) (SEED Winnipeg Inc, 2019).

Some authors have documented positive effects of IDA programs on participants (Huang et al., 2016; Leckie et al., 2010). For example, IDA program participation may empower program participants to think and take initiative to future opportunities, influencing their outcomes as well as their overall socio-economic development, which may improve their lives over the long-term (Lombe, Nebbitt, & Buerlein, 2007; Robson, 2006). Lombe and Sherraden (2008) found a positive relationship between participating in an IDA program and social inclusion.

However, a ten-year follow-up study by Grinstein-Weiss et al. (2013) examining the long-term effects of IDA matching funds showed statistically insignificant effects on homeownership rates and home equity among low-income baseline renters. Another recent ten-year follow-up study found that an IDA program did not influence the propensity of holding a retirement account, the account balance, or the adequacy of retirement balances to meet retirement expenditures (Grinstein-Weiss et al., 2015). Richards and Thyer (2011) showed that participants in IDA programs are capable of saving, but the total amount of savings is limited, and the accumulated IDA savings could be a reallocation of savings from other assets. Further,

their study found very little evidence of participants' abilities to achieve one of the three primary purposes of IDA programs (e.g., homeownership, post-secondary education, and microenterprise). Also, Mills et al. (2008) showed that IDAs had almost no distinguishable effect on promoting assets, overall wealth, or reducing poverty rates. Another study showed that all IDA participants might not function the same way in the programs, and successful IDA participation has no significant relationship with financial practices (Rothwell & Sultana, 2013). Regarding reducing poverty, Feldman (2018) argued that the potentiality of IDA programs and asset building has overrated and premature.

Participation in IDA programs could be beneficial for immigrants. Many immigrants face discrimination in the labour market and earn less income. Also, immigrants with less stable jobs may face difficulties to save, buy properties, or invest for future returns. As such, IDA programs may improve their economic situation by encouraging them to save on a regular basis (Robson-Haddow & Ladner, 2005). Also, the financial literacy component of the IDA might be beneficial for newcomers. Since many immigrants are less familiar with the financial system of the host country and have difficulty obtaining credit, are more likely to be discouraged from applying for a bank account, and have limited access to formal credit (Nam, Sherraden, Huang, Lee, & Keovisai, 2019; Schellenberg & Ostrovsky, 2008).

The learn$ave program

In Canada, several community organizations have initiated IDA programs in Waterloo, Toronto, Calgary, Winnipeg, and Vancouver. Funded by the Human Resources and Skills Development Canada (HRSDC), the well-known *learn$ave* anti-poverty demonstration project was a nine-year project that started in Canada in 2000 to test the effectiveness of individual

development accounts (IDA) in increasing the human capital of low-income Canadians (Taylor et al., 2010).

Using matched savings accounts to encourage savings for assets, the *learn$ave* program focused on adult higher education as the primary savings goal. Later, it included savings for small business development. Participants were also offered financial literacy training and case management. This project was a policy experiment and was delivered in 10 diverse communities across the country among nearly 5,000 individuals with an offer of a 3:1 match rate. To be eligible for matched credit, participants were required to make deposits of up to $250 per month and $1,500 overall, and participants who saved $1,500 were eligible to receive $4,500 in matched credits, so a maximum amount of $6,000 in total was available to them for credit.

The outcomes of the *learn$ave* project were mixed. The final report of the project (Leckie, Hui, Tattrie, Robson, & Voyer, 2010) showed that participants were more likely to have a budget and financial goal, nearly all participants opened a checking and savings account, majority of them saved something, and several participants used the matched credits. However, findings showed that a large number of participants in the control group (participants were randomly selected and assigned to the groups) were capable of acquiring substantial assets without special incentives, financial management training or assistance from caseworkers (Leckie et al., 2010). For example, without *learn$ave*, the control group increased their net worth from $4,259 to $28,844 in 18 months. Thus, *learn$ave* did not produce any significant increase in net worth or employment outcomes, did not make a significant difference to business start-up, and did not have an impact on total savings, retirement savings, and investments such as stocks and bonds (Taylor et al., 2010). For many participants, investing the matched credits was more challenging than saving their own money because of the restrictions on how they are able to use the credit. The final

report of the project showed that *learn$ave* experiment groups increased their financial assets at the beginning of the project, but these increases faded away at the end of the *learn$ave* saving period for unclear reasons. However, the matched credits were able to affect participants' education enrolment positively and had a positive impact on life satisfaction for some participants. But as for cost-effectiveness, results indicated that the estimated cost per additional person prompted to enroll in an education program by *learn$ave* matched saving credits and services was quite high (Leckie et al., 2010).

In relation to immigrants specifically, however, *learn$ave* had strong effects on enhancing the saving and financial goal setting, suggesting a potential use for *learn$ave* as a niche tool that can improve the economic condition of new comers and accelerate their integration into Canadian society (Leckie, Michael, & Gyorfi-Dyke, 2008, p. xii). Early findings of the project indicated that recent immigrant participants were more likely to save and make deposits more regularly into their *learn$ave* IDAs (Robson-Haddow & Ladner, 2005). However, final project results showed that a large number of participants did not use all of the matched credits they had earned, and a significant number of participants did not use their credit at all. This outcome could be because of the delay between saving and investment, or because of the rigidity of the credit use options. Also, this project did not consider other needs (settlement cost for newcomers, sudden financial crises, medical expenses, etc.) of those with low-income. About 55% of the sample in the experimental sites were recent immigrants who already had higher levels of education (university degrees) and may have considered using the credit to fulfill their other needs, but the choices possible for using matched credit was very limited. Canadian-born participants enrolled in education and training more than immigrant participants. In addition, regular savers and new immigrants reported that the financial literacy component of the project

was useful to review the financial knowledge they already had, but that it did not offer further information or skills (Leckie et al., 2010; Taylor et al., 2010).

Robson-Haddow and Ladner (2005) noted that asset-building might be a significant policy area to investigate for low-income newcomers, and IDA programs could be better targeted to the needs of immigrants by emphasizing savings in order to invest in initial settlement needs. For example, savings could be used to purchase household goods (e.g., furniture), tools or supplies needed for education or employment, basic necessities of life (food, clothing, rent, internet, health care), transportation, or for skills training.

Financial literacy programs

Social and Enterprise Development Innovations (SEDI) has been at the forefront of financial literacy initiatives in Canada in various asset-building projects. For example, IDA projects often involve financial education for participants on how to manage money, stay on budget, conduct basic banking (e.g., open a bank account), increase savings, and work towards financial security. A few agencies in Canada, such as the Start Right Coalition for Financial Literacy, have emerged to enhance people's understanding of financial matters (Mason & Wilson, 2000).

Financial education and counseling, or financial literacy are important in asset accumulation, shaping persons' attitudes, actions, behaviors, and decisions that affect their financial and social well-being (Collins & O'Rourke, 2010; Rothwell & Wu, 2019; Grinstein-Weiss et al., 2012). It is documented in the literature that financial literacy is associated with asset accumulation and portfolio decisions, in addition to explaining 34% of asset inequality over the lifetime (Jappelli & Padula, 2013; Lusardi et al., 2013). Financial literacy can help those with low income to learn how to cope with strict budgets, use diversified activities to raise income,

constrain credit, and gain knowledge about relevant government programs and banking services (Buckland, 2010). The major components of IDAs are matched savings and financial literacy training, such as financial information and planning. Effective case management and economic literacy training contributed to program success, facilitated improvement in credit score and history and may enhance people's economic efficiency, which can then enhance their involvement in broader financial markets (Birkenmaier, Curley, & Kelly, 2012; Rohe, Gorham, & Quercia, 2005).

Financial literacy is very important for immigrants' asset accumulation since financial education increases the objective financial knowledge, subjective financial knowledge, and financial self-efficacy (Rothwell & Wu, 2019). A study by Ralph (2010) showed that lacking access to and understanding of credit remains a critical problem for most Latino immigrants in the United States, and such complications are likely to affect their asset-building potential for years after arrival. Because recent immigrants are not familiar with the financial system and institutions of the host country, they are less likely than the Canadian-born to receive financial information from the financial industry (Schellenberg & Ostrovsky, 2008). Even though the *learn$ave* program was partly effective for newcomers, participants with insufficient knowledge of Canadian financial services, public benefits, and consumer protection were more vulnerable to financial victimization (SEDI, 2004). Buckland (2010) argued that financial literacy varies across socioeconomic groups. Immigrants are not in the same position to establish credit compared to their low-income neighbors and are less active in taking initiatives (lack of language proficiency could be a reason) for credit card loans, auto loan debt, and other forms of liability than the native-born (Ralph, 2010). Therefore, low-income recent immigrants may need different

types of financial literacy training compared to low-income native-born. However, very few of the asset building and financial literacy programs target immigrants' needs in particular.

Registered Education Savings Plan (RESP)

The Registered Education Savings Plan (RESP), introduced in Canada in 1998, is a tax-deferred savings vehicle that is registered with the government to achieve and encourage savings for a child's post-secondary education (Government of Canada, 2018). An RESP can be stablished for any recipient, giving subscribers (who open the plan and make contributions to it) access to other saving incentives such as the Canada Education Savings Grant (CESG), Canada Learning Bond (CLB) and/or provincial grants (Service Canada, 2013b). One person can have more than one plan from different institutions in his or her name, but the lifetime contribution must limit of $50,000 per beneficiary (Government of Canada, 2018).

When the plan earnings are withdrawn for post-secondary education expenses, they are taxable to the beneficiary, not to the subscriber. However, the contributor has to return the monies to the Government of Canada that he/she received through CESG and CLB, if the RESP savings are not used for post-secondary educational purposes (Loke & Sherraden, 2009). It should be mentioned here that the Canada Learning Bond (CLB) is another incentive that entitles eligible RESP beneficiaries to a grant (CLB) of up to $2,000. The CLB is paid by the Government of Canada to assist low-income families with saving money for their children's post-secondary education (Government of Canada, 2013). To receive the CLB, it is compulsory to start an RESP account with a licensed RESP provider.

Although RESPs are considered an important initiative for child savings, the complexity of the design and delivery system of the RESP product prevents low-income Canadians from using these incentives to save. SEDI (2010) has documented some of these barriers: low level of

knowledge of RESP providers (e.g., banks, mutual fund companies, scholarship foundations, trust companies) often confuse prospective clients; the wide range of RESP products is too complex to understand and overwhelms average clients; minimum investment obligations may discourage low-income families from opening an RESP; the uncertainty of gaining approval for financial support through CLB may prevent a parent with limited resources to open an RESP; and eligible subscribers can be rejected from the CLB and enhanced CESG because of using the wrong form to apply for the benefits (three different types of application forms exist). Therefore, clients have found their experiences with saving for education disappointing (Knight, Waslander, & Wortsman, 2008). Also, RESPs may not necessarily be the best tax-deferred savings plan for people who are in the low tax bracket, leading some scholars to conclude that CESGs paid as matching funds to RESP contributions are costly, poorly targeted, and questionable use of public money (Milligan, 2002).

Using data from the 1999 and 2012 Survey of Financial Security, the empirical studies of Milligan (2005) and Frenette (2017) showed that participation in RESPs is heavily concentrated among high-income, high-wealth, and high parental education households. Findings from the Canadian Survey of Financial Capability showed that about 83% of respondents in the highest income quintile are saving for their children's post-secondary education, as compared to only 48% in the lowest quintile (Arrowsmith & Pignal, 2010). Similarly, an HRSDC (2009) evaluation found that RESP contributions rise with income and are higher for those with high household income. Another study showed that only a few low-income households are participating in savings because the complexity of RESPs restricts most of the low-income families from investing in their children's education (SEDI, 2010).

Research demonstrates that low-income families with children have various reasons to save (Grinstein-Weiss et al., 2006), while Milligan (2005) showed that immigrants were more likely than other Canadians to save into RESPs. Similarly, Robson-Haddow & Ladner (2005) found that more newcomers had RESPs than non-newcomers, which may suggest that saving for their children's educations is relatively more important to newcomers. Households with children eagerly want to save when they are provided structured opportunities such as policies and programs that encourage savings by allowing users to simply make deposits by mail, avoiding transaction costs for going to the bank (Grinstein-Weiss et al., 2006). Although some immigrants are saving for RESPs, their participation rate is significantly lower than that of high-income households. These mixed results lead many to argue that RESPs cannot meet equity goals (Axworthy, 2006; HRSDC, 2009; Milligan, 2005).