

# **Measuring Success: Predictors of Successful Economic Integration of Resettled Female Refugees**

by

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## **ABSTRACT**

There is a growing political, academic and practical interest in refugee integration in Canada. The challenge, however, is that not much of the existing research focuses specifically on refugee women and their unique experiences beyond mental and physical health. My dissertation contributes to addressing this gap by examining their successes and challenges in the Canadian labour market. Using the 2016 version of the Longitudinal Immigration Database (IMDB), this dissertation addresses the question: What are the characteristics that predict economic success among refugee women in Canada? A secondary question asks, to what extent does arriving during an economic recession influence the income of refugee women? This dissertation uses Critical Race theory, Intersectional theory and Segmented Labour Market theory informed by a quantitative research design to address these questions. These theoretical perspectives help to understand the findings suggesting that the barriers in the Canadian labour market help to sustain existing racism, discrimination and inequality refugee women experience.

The findings indicate that the level of education at arrival for refugee women in Canada varies. Based on the sample population in my dataset and existing research, there are large numbers of refugee women with low levels of education compared to those with graduate-level education and of those with university degrees. A significant number (62%), however, have skilled and technical education and work experiences prior to their arrival to Canada. In addition, the most dominant skill level among refugee women in Canada is elemental labour followed by intermediate labour and clerical skills. Very few refugee women (mainly those aged between 35 to 49 years) arrive in Canada with managerial and professional skills. Education is an important predictor of the employment income of refugee women in Canada according to the results of the multivariate analysis. The findings in this study, not surprisingly, reveal that refugee women with university degrees earn significantly more than those with a high school diploma or less. As time in Canada and education levels increase, so does the chances of earning an income that is higher than median employment income. Arriving during a recession (2008) does not seem to have an influence on their wages in the long-term. In the short term, however, there is a decline in wages and income three and six years after arrival for groups who arrived during the latest recession.

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*Capable God, one thing I know, one thing I have found, is that God has worked it out!*

Dedicated to my parents:

ALFRED KOFI OGOE

AND

GRACE ABA OGOE

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## **GLOSSARY OF TERMS**

**1951 Refugee Convention and its 1967 Protocol** - these are key legal documents that form the basis of the work of UNHCR. With 149 State parties to either or both, they define the term ‘refugee’ and outline the rights of refugees, as well as the legal obligations of States to protect them.

**Blended visa office-referred refugees** - includes refugees who have been selected abroad while outside of their home country or country where they normally lived, who were granted permanent resident status on the basis of a well-founded fear of returning to that country. This category of refugees is new, introduced in 2013 and is a blend of the government sponsorship and private sponsorship programs where the government and private sponsors share the costs of resettlement for a period of one year. The United Nations Refugee Agency or another designated referral organization referred them for resettlement to Canada.

**Canadian born** (non-immigrant) - includes persons who are Canadian citizens by birth, it does not include naturalized citizens (those who have already transitioned from newcomer to Canadian citizen).

**Government-assisted refugees** - includes refugees who have been selected abroad while outside of their home country or country where they normally lived, who were granted permanent resident status on the basis of a well-founded fear of returning to that country and who have received resettlement assistance from the federal government. The United Nations Refugee Agency or another designated referral organization referred them for resettlement to Canada. This category includes persons who had a well-founded fear of persecution for reasons of race, religion, nationality, membership in particular social group or political opinion (Geneva Convention refugees).

**Immigrant** - refers to a person who is, or who has ever been, a landed immigrant or permanent resident of Canada. 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. Refugees are not a part of this group as they arrive to Canada due to fears of persecution.

**Privately sponsored refugees** - includes refugees who have been selected abroad while outside of their home country or country where they normally lived, who were granted permanent resident status on the basis of a well-founded fear of returning to that country and who were privately sponsored by organizations, groups of Canadian citizens and/or permanent residents, or had the funds to support themselves and any dependents after they arrived in Canada. Private sponsors in Canada referred them for resettlement to Canada. This category includes persons who had a well-founded fear of persecution for reasons of race, religion, nationality, membership in particular social group or political opinion (Geneva Convention refugees) as well as persons who had been seriously and personally affected by civil war or armed conflict, or have suffered a serious violation of human rights.

**Protected persons in Canada or dependents abroad** - includes refugees who applied for protection while inside Canada and who were granted permanent resident status on the basis of a well-founded fear of returning to their country of origin, as well as immigrants who were granted permanent resident status as family members of a protected person in Canada, who were living abroad at the time of application and whose application for permanent residency was considered concurrently with that of the protected person in Canada. The first group includes persons who had a well-founded fear of persecution for reasons of race, religion, nationality, membership in a particular social group or political opinion (Geneva Convention refugees). The term ‘refugees landed in Canada’ was formerly used to refer to the protected persons in Canada. In some countries, the term ‘asylum seeker’ is used in similar ways but demarcates those who are currently under the process of having their claim reviewed, not necessarily accepted. Data for this category are only available in the IMDB database for refugees who have landed since 1990.

**Refugee** - A refugee is someone who fled his or her home and country owing to “a well-founded fear of persecution because of his/her race, religion, nationality, membership in a particular social group, or political opinion”, according to the United Nations 1951 Refugee Convention. Many refugees are in exile to escape the effects of natural or human-made disasters.

**Resettled refugees** - includes refugees who have been selected abroad while outside of their home country or country where they normally lived and who were granted permanent resident status on the basis of a well-founded fear of returning to that country. The United Nations Refugee Agency, another designated referral organization or a private sponsor referred them for resettlement to Canada. This category includes persons who had a well-founded fear of persecution for reasons of race, religion, nationality, membership in particular social group or political opinion (Geneva Convention refugees) as well as persons who had been seriously and personally affected by civil war or armed conflict, or have suffered a massive violation of human rights.

## **LIST OF ACRONYMS**

ADB - Asian Development Bank

BVOR - Blended Visa Office-Referred

GARs - Government-Assisted Refugees

IMDB - Longitudinal Immigration Database

IRCC - Immigration, Refugees and Citizenship Canada

OLS - Ordinary Least Squares

PSRs - Privately-sponsored refugees

UNHCR - United Nations High Commissioner for Refugees

## CHAPTER 1: INTRODUCTION

Conflicts, persecution and the destruction of society have been the most common causes of involuntary migration in the 21<sup>st</sup> century. The United Nations High Commissioner for Refugees (UNHCR; 2018) calculates that there is forceful displacement of an individual every two seconds and that displacement is due to some form of persecution or war. Such issues typically stem from political, economic and religious instabilities leaving some men, but mostly women, vulnerable and at the mercy of those who hold power (Barclay et. al, 2016). War and its aftermath force people to leave their homes with little to no resources and through no fault of their own. According to UNHCR (2018), the highest levels of human displacement in human history are happening now; worldwide about 79.5 million people have been forced out of their homes or their countries as a result of some form of persecution or internal displacement (UNHCR, 2019). As a result, there has been a significant increase in refugee growth over the last few years to date (UNHCR, 2018). In 2015, an estimated 19.5 million people were considered refugees, and by the end of 2019, this number had increased to 26 million, with more than half under the age of 18 years (UNHCR, 2019). Recent estimates in 2020 see that number skyrocketing due to the pandemic and the related social, economic and political pressures it has placed upon people.

Despite Africa being a major source of refugees, it is also the continent hosting the largest refugee camps (Wilhelm, 2016). Most of the countries hosting refugees face their own internal financial hardships beyond the costs of feeding and housing newcomers. As a result, the presence of refugees poses further pressure on the scant existing resources. This is why most of these countries cannot permanently accommodate refugees. According to UNHCR (2018), about 10 million refugees worldwide are denied access to basic rights such as education, employment and freedom of movement. Women in such crisis situations are exposed to exploitation, sexual harassment, sexual violence and gang rape. Even more vulnerable are women who may be pregnant during war as they are exposed to additional challenges of not receiving proper basic health and reproductive care (resulting in obstetric complications or even postpartum haemorrhaging) or safe shelter in their transit to safe destinations (Women's Refugee Commission, 2013; Amnesty, 2016). These unstable circumstances both in their transit journey and in camps make women vulnerable and at high risk. With this in mind, there has been a constant urge to engage in humanitarian actions aimed at addressing these ongoing dangers

women have to deal with when wars break out. The shift in bettering and aligning resources with the needs of refugee women is therefore key to refugee resettlement. This has become a focus for most governments to provide humanitarian support, and Canada is no different.

### 1.1 A Closer Look at Refugee Women

Refugee women are considered a vulnerable group during and after periods of war due to the nature of their experiences. Camus-Jacque (1990) and Pityana (1991) identify these experiences as including psychological trauma, abductions and physical and sexual abuse such as rape. Women are far more likely than men to survive war. Women also experience these issues in a gendered way. Existing research draws attention to the immediate impacts of wars, conflicts and natural disasters, among others, on women rather than focusing on their longer-term outcomes in their resettlement societies (Ashford and Huet-Vaughn, 2000; Schweitzer et al., 2006; Vu et al., 2014). This may be because there are few studies that specifically examine women's economic integration and the factors that facilitate or impede this process. In countries where most of these unfortunate circumstances occur, UN Women (2016) indicates that females are 2.5 times more likely to be school dropouts due to dangers such as being kidnapped or gang raped, and they face additional discrimination in refugee camps where some form of an education system is established. Unfortunately, it is almost always the case that males are considered first. The result of this is that when refugee women are eventually resettled in a host country, some may lack the necessary educational qualifications, language qualifications, skillsets and work experience needed to access the economic opportunities that the country has to offer.

It is also common for refugee women to arrive in their host country having lost multiple family members through wars or having no idea if their partners, children, siblings or parents are still alive. In some instances, refugee women arrive in a host society with their spouses and children ready to begin a new life. The challenges here are that financial constraints and adapting to the labour market can result in such families pursuing strategies that they believe will secure a more stable financial future. Researchers have theorized this resettlement strategy as the family investment hypothesis (Long 1980; Baker and Benjamin, 1997). Family investment hypothesis highlights the traditional and secondary role which some women play by way of taking up low-paying jobs and working extra-long hours in host countries to facilitate their spouses'

investments toward higher human capital qualifications in the host country. The resulting effects are that even though it may seem that refugee women are eventually integrated into the host society, they lag behind men in terms of self-advancement, financial independence as well as preparation for better job opportunities.

The situation is no better for refugee women who are resettled without their spouses. In many cases, women are the only remaining adults left in the family unit. The large number of single female-headed households is as a result of losing male figures who are recruited to be soldiers, are killed in these wars and are sometimes kidnapped and tortured (UN Women, 2016). In addition to these devastating circumstances, and sometimes low education and skill training, female-headed households may have to accept jobs which have low earnings to survive in their host society. Ager and Strang (2008) point out the few or no financial resources that refugees arrive in host countries with - hence, until they are well integrated into the economy with well-paying jobs, most tend to rely fully on one-year government financial assistance, while others rely on ethnic communities, organizations or friends and then move on to provincial income assistance for a few years after (Stewart et al., 2008).

Even though refugee women's admission to host countries does not include an economic benchmark for entry, there is supporting evidence that in most instances, refugee women face higher unemployment which is even worse for those 40 years of age and older (Colic-Peisker and Tilbury, 2006; Endicott, 2017). In Guo and Andersson's (2005) research, the case is made that the top contributing factors for refugees' downward occupational mobility is linked to non-recognition of their education, language challenges, lack of Canadian work experience and discrimination in the labour market by employers. Refugee women face these barriers more as there is the additional sexism and racism they face in the job market. Gannage (1999) as well as Guo and Andersson (2005) point out that in labour immigration, immigrant women are viewed as providers of cheap and docile labour. Refugee women in such cases become integrated in the labour market, but most are reduced to manual work (Mojab, 1999). Hence, the successful economic integration of refugee women may be impacted by their age, sex, nationality, race as well as the discounting of their educational knowledge and skills obtained prior to being resettled.

Likewise, existing studies highlight the low labour market participation of refugee women compared to refugee men (Dumper, 2002; Yost and Lucas, 2002; Lamba, 2003). This has been linked to the vital component of economic integration for refugees particularly proficiency in the host country's language (Daley and Warman, 2019). Studies point to the low language proficiency of refugees which provides the basis for the challenges they have in securing jobs in a host country or even participating in the labour market (Wright, et al, no date c.f. Jamil 2016). The reason could be due to the target group used in most of these studies; most studies focus on refugees who have low or no language proficiency in order to draw attention to the necessary services needed for this group when resettled in their new home. As such, there is great diversity among research findings. For instance, according to Jamil et al.'s (2016) research on well-educated Iraqi refugees before and after the 2007 recession, the female refugee groups used in their study indicated that language proficiency was not a barrier in accessing and integrating into the labour market while Daley and Warman (2019) report the opposite.

A source of satisfaction and survival for many refugees is having a good job in their resettled country (Yakushko et al., 2008). This establishes some level of individual independence and security. At the 2016 UN Summit for Refugees and Migrants, the Executive Director of UN Women and Director General of the International Organization for Migration stressed the need to protect the rights and needs of women. In their joint statement, they point out that host countries fail to recognize the valuable contribution women add to host societies (Mlambo-Ngcuka & Swing, 2016). Refugee women are assets with potential that sustains not only their families and countries but also contributes to the economy of the country at large. Therefore, when examining the labour market predictors of the successful economic integration of refugee women, it is vital to consider the individual characteristics of this group as well as general employment conditions such as barriers, discrimination and biases in the host country's labour market (Jamil et al., 2016).

The United Nations (UN) advocates not only for the protection of refugees, but also for ensuring that they have rights and are still recognized as valuable members of any society in which they find themselves (UNHCR, 2018). However, this agenda of the UN cannot be achieved without the support of countries that are willing to open their borders and integrate refugees with the goal

of achieving positive outcomes at all levels for this group (Gorlick, 2000). Hence, the case of burden-sharing in responsibilities towards refugee women not only should highlight a population that has mental and physical health issues, has different work skills, has language barriers, has a lack of proof of educational credentials in some cases and is seen as more of a financial burden on the country, but also should present measures which showcase their economic growth and contributions to the host country (Wilkinson, 2008; McKeary and Newbold 2010).

## 1.2 Research Question

There are several pathways through which refugees become integrated into society when they are resettled in Canada. Their successful integration, however, is dependent on several factors, such as employment, income, housing and health care among others, to ensure that they have fully resettled in their new home. The concept of integration therefore can be viewed along political, socio-cultural and economic pathways. At the broad level, political integration points to how refugees regain a sense of identity through political processes put in place by host countries (Smith, 2008; Strang and Ager, 2010). Socio-cultural integration, in contrast, reduces the burden of uncertainty in a host country by building connections to members of society and fostering new linguistic, security and community participation (Phillimore and Goodson, 2008; Steel et al., 2011).

Economic integration plays a major role in the lives of refugees and their families due to many interrelated factors. These factors of economic integration relate to how well the country presents services, such as language training, skills and education, credentials recognition and even employment opportunities such that refugees can become financially independent (Nakhaie and Kazemipur, 2013; Latif, 2015). With this holistic view of integration in mind, this dissertation defines the integration of refugee women as a process that promotes free engagement and the building of relationships with members of society, which develops a sense of belonging in the host society as women benefit from and access institutions. This ensures economic access such that refugee women have positive outcomes in job pools, finances and credential recognition, among others.

My focus in this research is on the economic integration of resettled refugee women. Here, economic independence is vital as it allows an individual to have some sense of financial independence (from their partners, parents, family members etc.) and it promotes well-being and hope for a secure future (Nakhaie and Kazemipur, 2013; Latif, 2015). In essence, economic integration of refugee women can be predicted by certain factors which determine their access and ability to be successful in their new home. As such, the main research question that this dissertation seeks to address is *What are the characteristics that predict economic success among refugee women in Canada?*

More specifically, the following sub-questions are explored to provide a complete picture of the factors when it comes to refugees' economic growth and advancement in a new social setting:

- What are the human capital and demographic characteristics of resettled refugee women who enter the Canadian labour market?
- Does education contribute to the income of resettled refugee women in Canada?
- Does the year (or period) of arrival and economic conditions in the Canadian labour market affect the economic success of resettled refugee women?

### 1.3 Justification

The existing literature presents convincing grounds to delve deeper and broaden our understanding of the successful economic integration of refugee women in host societies (Schweitzer et al., 2006; Semlak et al., 2008; Sulaiman-Hill and Thompson, 2012). Refugee households are more likely to be fractured, with family members arriving at different times and often in incomplete forms, with various family members missing. Many refugees come from countries where men typically dominate the family and as such, moving to a new country with more equitable power in family dynamics can be challenging - this is not to imply that male dominance does not exist in Canada. Despite men being recognized as the de facto head of many families, women also play significant roles in ensuring the maintenance and sustenance of their households. Hence, examining the economic experiences of refugee women helps shape the direction of integration measures, such as job placement, for this group. In addition, it informs

governments and settlement agencies about programs that can be put in place to improve the labour market experiences of refugee women in the country.

Despite a plethora of research conducted on migration, language and war-induced trauma experienced by refugees, there is little focus on or any attention paid to the economic outcomes specifically of the females in this group. This condition gives rise to the need for looking more closely at factors which contribute and promote refugee women's successful economic integration in their new home. The economic situation of refugees is integral to their stability for resettlement (Li, 2003). This presents them with the opportunity to have meaningful engagement in society and to rebuild their lives. As such, there is a need to focus on the economic outcomes of refugee women, as it plays a role in gaining back not only their sense of financial independence but also their sense of identity. This research serves as an empirical means to evaluate the experience that refugee women have in the Canadian labour market and whether it is one that embodies positive or negative outcomes for immigrants.

In Canada, despite the financial support that the government gives to refugees upon their arrival over a stated period, they qualify to apply for jobs immediately (Clark-Kazak, 2017). This gives refugees the opportunity to achieve self-dependence (through economic integration by participating in the labour market), to provide for their families and to aim to achieve financial growth and prosperity. For refugees, resettlement in a new society comes with some challenges, regardless of how much assistance is provided by the host society. The ability to steer through the resources offered to them and make use of their own skills helps to determine whether integration is being achieved. The aim is to understand the role of characteristics that predict successful economic integration for refugee women as they navigate the Canadian labour market. This helps to determine, for instance, whether a lack of education or the opposite hinders or promotes their economic outcomes as well as to assess their contribution to the economic growth of the country.

Education, language training and credentials recognition can be viewed as useful measures to understand the economic integration of refugees by serving to some extent as a pathway for access to more and better opportunities. Hence, investigating which factors are key to successful

economic integration is beneficial for helping refugees strengthen their human capital qualification. Additionally, my research examines whether a lack of Canadian experience affects refugee women's access in the labour market and the overall effects on economic integration. This will allow for a better understanding of their experiences, challenges and setbacks and thereby, what steps need to be taken to better integrate refugee women in the labour market with a goal of a greater sense of success.

It is necessary to explore the economic integration of refugee women to ensure that the factors considered present an informed picture of their experiences and growth in Canada. The arrival of refugees in Canada therefore presents justification to not only ensure that their lived experiences and economic integration is successful but also ensure that, for the various groups that make up this population of refugee women, the impact of resettlement integration is beneficial for their economic advancement and personal growth.

This dissertation has eight chapters: in Chapter 2, I review the *Literature* which engages this research in prominent discussions on refugee resettlement, labour markets (as well as from a Canadian context) and economic integration; Chapter 3 is on the *Theoretical framework* which helps conceptualize the research questions; Chapter 4 *Methodology* provides information on the dataset used, operational variables, how the data is analyzed as well as ethical considerations; Chapters 5, 6 and 7 focus on the *Findings and Discussion* which present the main findings of the research, detailed discussions on the findings linked to relevant literature and theories and, most importantly, new information to contribute to this area of research; and the Chapter 8 *Conclusion* focuses on summarizing the answers to the main research question, academic, policy and practical implications and suggestions for future studies.

## CHAPTER 2: LITERATURE REVIEW

Very few studies have systematically identified and examined the economic outcomes of refugees and how such outcomes vary by refugee women's human and demographic capital (Lamba, 2003; Allen, 2009; Kaida et al., 2020). I believe one reason for the gap is that refugees are depicted as fatally flawed and damaged due to their refugeedom. As such, researchers have ignored the other parts of their lives without realising most lead productive healthy and happy lives for many decades after they reach Canada. These gaps in the literature have an influence on the extent of the changes that can be created and implemented. For most resettlement countries, timely economic integration of refugees has become a vital component of integration practices and policies. However, despite resettled refugee women's access to working legally in most countries upon arrival or after a period of time, some of these women face barriers, discrimination and racialization in the labour market. Societies like Canada have a vested interest in assuring economic equality for all its members. According to Olsen (2011:96), "(f)ostering greater economic equality through some form of redistribution is justified because it is necessary to preserve democracy, ensure social stability, improve population health, and act as a spur on the economy". It is important to understand the economic outcomes for refugee women in order to better shape regulatory policies, resettlement programs and reforms to sustain the economic advancement and access of these women in the host country's labour market (Maxmen, 2018; Kabir and Klugman, 2019).

This section draws attention to the economic status of and outcomes for refugee women in order to advance the case for refugee women's economic empowerment by highlighting both the existing challenges and gaps facing refugee women in labour markets as well as the potential gains from economic inclusion. It is understood that such inclusion creates growth for a country's economy, regulatory reform and, on the individual level, economic stability for resettled refugee women.

### 2.1 Resettlement

Resettlement is the "selection and transfer of refugees from a state in which they have sought protection to a third state which has agreed to admit them as refugees with permanent residence status" (UNHCR, 2004:2). In most instances, refugees have three main options: 1) repatriation

where refugees are sent back to their country after a period of stay in refugee camps, 2) integration in a local community of a host country (but in most cases this is temporary) and, lastly, 3) resettlement in a host society as directed by the UNHCR. The UNHCR is the key international agency in providing humanitarian assistance to refugees and, as such, plays a central role by assessing refugee claims and recommending refugees for resettlement to host countries (Ki-moon, 2012). In 1951, 147 countries signed the *UN Convention on the Status of Refugees* which was a commitment to welcome victims of war, those fleeing conflict or persecution (UNHCR 1951). This action served as a means by which countries changed their humanitarian policies, with one bearing in mind that most refugees could not return to their home countries and hence needed a fresh start in other countries (UNHCR, 2000).

According to the *1951 UN Convention on the Status of Refugees*, a refugee<sup>1</sup> is “someone who is unable or unwilling to return to their country of origin owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion” (UNHCR, 2021). About 68% of the world’s refugee population under UNHCR’s mandate are from five countries, which are the Syrian Arab Republic (6.7 million), Venezuela (4.0 million), Afghanistan (2.6 million), South Sudan (2.2 million) and Myanmar (1.1 million) (UNHCR, 2021). This trend is an indication of the yearly, ever-growing rates of refugees contributing to the global number of displaced persons.

These refugees are overwhelmingly female. UNHCR statistics for female refugees in 2019 shows a total of 7,842,941. See table 2.1 below for breakdown by age.

Table 2.1: Number of female refugees by age group

AGE	NUMBER	PERCENTAGE
0–4 years	1,184,918	15%
5–11 years	1,665,916	21%

<sup>1</sup> There are different categories of displaced people: (1) *Refugees* according to UN 1951 Refugee Convention are persons who have fled their home and country owing to “a well-founded fear of persecution because of his/her race, religion, nationality, membership in a particular social group, or political opinion”.

(2) *Asylum seekers* identify as refugees and have fled their homes as refugees do, but their claim to refugee status is not yet definitively evaluated in the country to which they fled.

(3) *Internally Displaced Persons* are persons who have not crossed an international border but have moved to a different region than the one they call home within their own country.

(4) *Stateless persons* do not have a recognized nationality and do not belong to any country. Statelessness situations are usually caused by discrimination against certain groups.

(5) *Returnees* are former refugees who return to their own countries or regions of origin after time in exile.

Source: <https://www.un.org/en/observances/refugee-day>

<b>AGE</b>	<b>NUMBER</b>	<b>PERCENTAGE</b>
12–17 years	1,066,639	14%
18–59 years	3,644,554	46%
60+	280,914	4%

Source: UNHCR (2001-2021).

The UNHCR population data indicates that in 2019, about 317,200 refugees returned to their country of origin while 107,800 refugees were resettled in 26 countries (UNHCR, 2019). The reason so few refugees are resettled in third countries is that the extent of assistance that refugees sometimes need can be unending, and this has contributed to numerous myths associated with this group. For instance, due to the financial advantage and resources of most western countries, there is a common myth that most refugees are in western countries. However, according to UNHCR, it is non-western countries such as Turkey, Colombia, Pakistan and Uganda which are host to the largest number of refugees (UNHCR, 2020). In addition, due to the necessary assistance that needs to be provided to refugees (such as pre-travel arrangements to the host country, medical care settlement services and government financial support for a limited period), some people are of the mindset that refugees are a drain on a host country’s economy and resources. Yet in most cases, refugees are expected to pay back the cost of transportation to the host country and are subject to tax deductions just as are regular citizens of any country (Alexander, 2018; ISSofBC, 2021). The idea of living freely on social assistance is a myth that does not exist for refugees.

Further, most citizens believe that refugees take jobs from citizens and as such, contribute to the rise in unemployment in host countries (OECD, 2018; Demircuc-Kunt, et al., 2019). Contrary to this myth, several studies indicate that refugees help stabilize the economy with some even starting small businesses which creates employment (Green et al., 2016; Hou, 2020; Kaida, et al., 2020; Kaduuli, 2021). We must remember that refugees contribute to the labour market of their host country. This contribution comes in the form of filling in labour shortages and taking on jobs natives will not do, but more importantly, in cases where they get to work in the field that matches their credentials, they bring new knowledge, valuable experience and skills (Anderson, 2019).

Canada has a long track record of providing humanitarian assistance. Since 1959, the country has resettled about 700,000 refugees (UNHCR, 2017). Further, in 1986, Canada was awarded the prestigious Nansen medal by the UNHCR for resettling over 60,000 refugees during the Indochina refugee crisis (IRCC, 2017). Perhaps it is no surprise that the number of refugees arriving in Canada keeps growing with a steady number of world events that contribute to the ever-growing number of displaced persons worldwide. Among the 37 countries which provide resettlement for refugees, Canada is recognized as one of the top countries that annually receives refugees for resettlement (Amundson, 2018); in 2018, Canada surpassed the US (28,100 versus 22,900) as the number one country of destination for resettled refugees<sup>2</sup> (UNHCR, 2018; BBC, 2019; CBC, 2019; Radford and Connor, 2019). Canada therefore has gained attention for its humanitarian assistance towards refugees. Figure 2.1 below provides an overview of top leading countries of origin of refugees resettled in Canada over the last five years. The numbers ebb and flow, partly due to Canadian national politics with some political parties more ‘welcoming’ to refugees in some years and more generous in other years. International politics and climate play a big role in the number of refugees admitted to Canada annually as well, with some years admitting more refugees such as during the Kosovar conflict in the 1990s, the Syrian conflict in 2015 and more recently the collapse of Afghanistan in 2021. Figure 2.1 below provides an overview of the top 10 country of origin of refugees resettled in Canada.

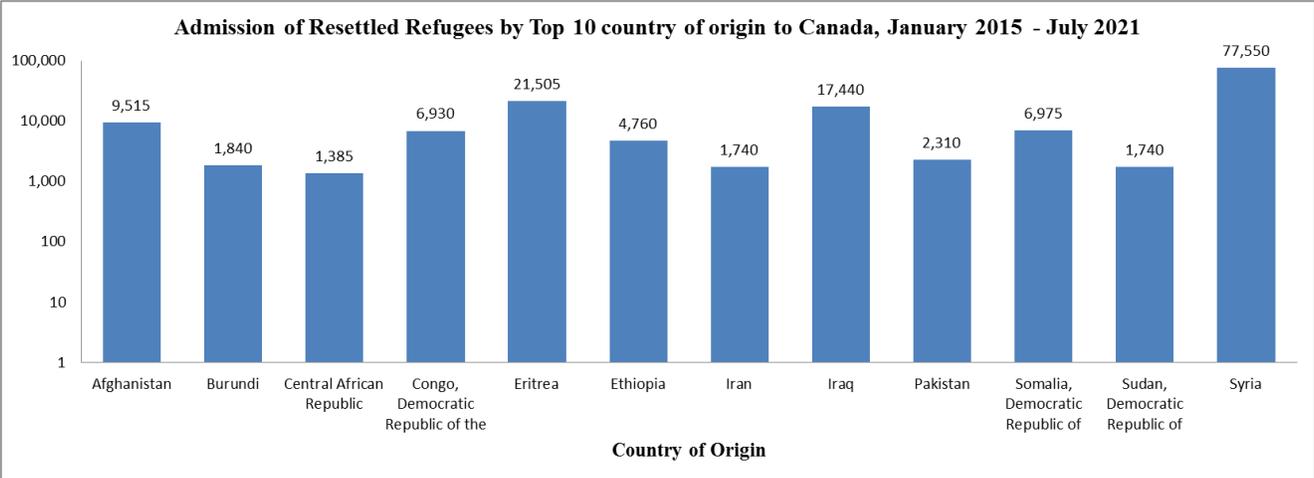


Figure 2.1: Overview of the top 10 country of origin of refugees resettled in Canada over the last five years.  
 Source: IRCC, 2021.

<sup>2</sup> This was because of a xenophobic anti-immigrant policy instituted by the Trump government but even that in 2021, the Biden administration is only allowing 61,000 refugees which is still fewer than the 100,000+ that were arriving annually under the Obama administration. Nonetheless, the US may eclipse Canada this year unless they take on a lot more Afghan refugees.

For female refugees in particular, Canada for decades has opened its borders to receive significant proportions and integrate them in its society. Female refugees admitted to Canada by year of arrival comprise just over half of the entire population of refugees resettled each year with these growing numbers showing the necessity to have an inclusive resettlement framework geared towards female labour force participation. The yearly trend since 2008 typically has been on the rise in the hundreds of thousands and for this reason, it is important that Canadian national politics embrace measures right from the outset which recognise the diversity of resettled refugee women - this includes for instance foreign credential recognition, jobs, language training and childcare. Figure 2.2 below provides an overview of the number of refugee females resettled in Canada over the last decade.

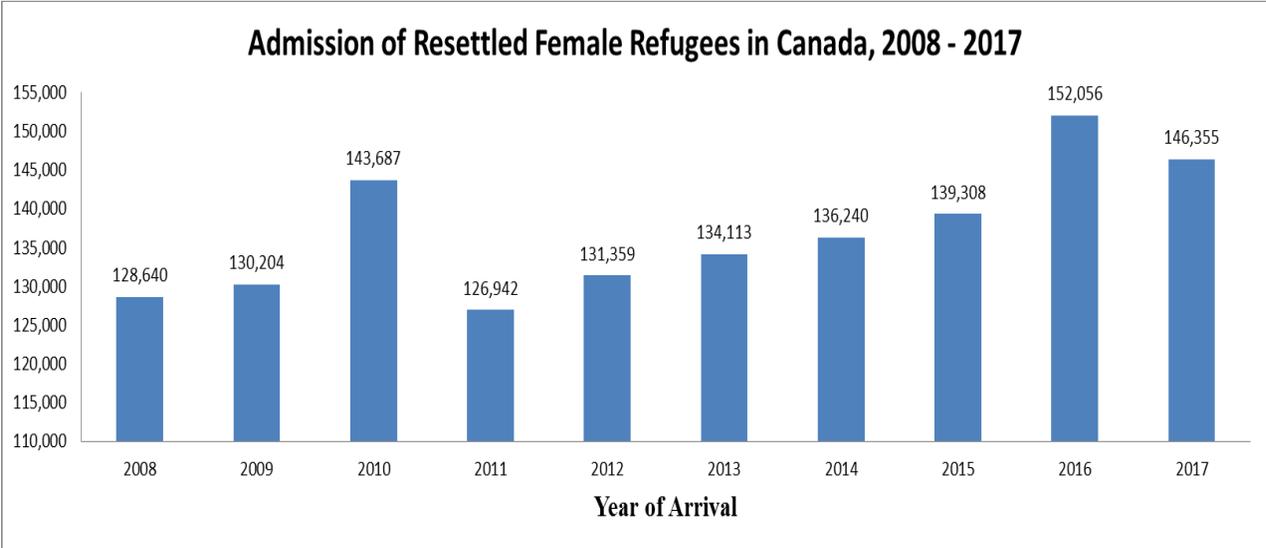


Figure 2.2: Overview of number of female refugees resettled in Canada over the last decade. Source: IRCC, 2017.

Resettlement programs for refugees are offered in many countries including Canada, the US and the United Kingdom (IRCC, 2016; Jamil et al., 2016). Despite the broad acceptance of resettlement in the global community, the programs as well as processes involved in the resettlement of refugees varies across countries. In Canada for instance, the refugee resettlement program is administered by Immigration Refugees and Citizenship Canada (IRCC). Canada’s resettlement of refugees had not always been a “smooth” process. El-Assal (2016) indicates that refugee resettlement was initially done on an impromptu basis until the Immigration Act of 1976 was created which adopted the definition of ‘refugee’ from the *1951 UN Convention on the*

*Status of Refugees*. This provided the legal grounds to identify refugees as a distinct category in Canadian immigration law. This legislation has been updated over the last couple of years and at present is known as *Immigration and Refugee Protection Act* of 2002. The main emphasis in this law is the expansion of the refugee definition to include the *1984 UN Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment*, other risk assessment criteria, security measures and legal obligations (Labman, 2019; Government of Canada, 2021).

Canada recognizes the need to provide assistance to refugees as a way of engaging in international humanitarian assistance. Basically, Canada has to do this under international law given that the country is a signator to the *1984 UN Convention*. Beirens and Fratzke (2017) indicate that burden-sharing has resulted in policy changes not just at the international level where the UNHCR proposes and expands on humanitarian agendas, but also at the individual state and community levels through the creation of resettlement programs. Table 2.2 provides a list of settlement countries by the year in which their resettlement programs were established. For Canada, the programs were established in 1978, among the earliest.

Table 2.2: Year of establishment of refugee resettlement program by country

Country	Year resettlement program was established
Argentina	2005
Australia	1977
Austria	N/A
Belarus	N/A
Belgium	2013
Cambodia	N/A
Canada	<b>1978</b>
Denmark	1979
Finland	1985
France	N/A
Germany	2012
Hungary	N/A

<b>Country</b>	<b>Year resettlement program was established</b>
Iceland	1996
Ireland	1999
Italy	N/A
Japan	N/A
Liechtenstein	N/A
Lithuania	N/A
Luxembourg	N/A
Netherlands	1983
New Zealand	1987
Norway	1970s
Philippines	N/A
Portugal	2007
Rep. of Korea	N/A
Romania	2008
Sweden	1950
Switzerland	N/A
United Kingdom	2004
United States of America	1975
Uruguay	2009

Source: Beirens and Fratzke (2017).

The goal of resettlement services is to assist refugees in becoming full and functioning members of the host community with an identity and more importantly, with opportunities to rebuild their lives. As such, host countries must have access to resources, financial capabilities and policies to guide the approaches taken (Viratkapan and Perera, 2006; ADB, 2010). Each year, the number of refugees to be resettled in Canada is proposed to and approved by Parliament by the Minister of Immigration Refugees and Citizenship in consultation with various stakeholders such as provincial governments, IRCC and Canada Border Services in case of any security issues (UNHCR, 2014a). The services provided to refugees in Canada aim for integration of this group in the larger society. Hence, the role of settlement agencies and organizations is a crucial

partnership the government makes use of to provide a variety of essential services that refugees need to adapt to their new home (IRCC, 2021).

Presently, Canada’s Resettlement Assistance Program for refugees is the primary source for financial and government assistance provided to refugees admitted under the Government Assisted Refugees (GARs) program, Private Sponsorship Refugees (PSRs) program or through the Blended Visa Office-Referred (BVOR) program (Korn and Raphael, 2016; Hynie and Changoor, 2016). Refugees recommended to Canada by UNHCR are predominantly represented in the GAR and PSR programs (Yu et al. 2007; CIC, 2017b). After arrival, all refugees regardless of their program of entry receive access to free language training, medical resources, employment services, social assistance and other social services (IRCC, 2016). More specifically, those in the GAR program are supported financially by the federal government up to a year in addition to having access to a Resettlement Assistance Program counsellor, while those in the PSR program are supported by their private sponsors such as faith-based organizations and groups of individuals that provide both financial and social support for one to a maximum of three years. The BVOR, which is a much newer program, is a partnership between the federal government and private sponsors where they each provide six months of support for the refugees (IRCC 2017b). Table 2.3 provides a list of resettlement programs by year and number of refugees admitted.

Table 2.3: Admitted refugees by resettlement program, 2010-2020.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 <sup>3</sup>
<b>GAR</b>	7,266	7,363	5,426	5,722	7,625	9,488	23,624	8,823	8,080	9,940	10,700
<b>PSR</b>	4,833	5,584	4,227	6,332	5,071	9,747	18,646	16,874	18,560	19,130	20,000
<b>BVOR</b>	-	-	-	153	177	811	4,435	1,284	1,155	990	1,000

Source: IRCC (2019a).

An essential objective of the GAR, PSR and BVOR resettlement programs is to facilitate successful integration of refugees in order for them to be self-sufficient within the shortest possible time. This to an extent will mean having employment in order to gain financial control over one’s life. However, because refugees, unlike other immigrants admitted to Canada, are

<sup>3</sup>NOTE: The 2020 numbers were proposed **target numbers** for that year. Further reading at: Government of Canada (2020), Notice - Supplementary Information 2020-2022 Immigration Levels Plan, <https://www.canada.ca/en/immigration-refugees-citizenship/news/notices/supplementary-immigration-levels-2020.html>

resettled on the basis of humanitarian reasons, very few if any policy guidelines have been developed nationally to address their economic rights in the country (Yu et al., 2007). Nevertheless, as a signatory to the *1951 UN Convention on the Status of Refugees*, Canada recognizes the economic rights of refugees; the *1951 Refugee Convention* discusses how this group should be treated in host countries (Smith, 2016). For instance, Articles 17, 18 and 21 address wage earning, self-employment issues and the need to provide housing for refugees without discrimination respectively. Hence, refugees can have the right not only to enjoy sources of income by getting access to jobs but also to be economically independent. The role of legislation, regulations and policies adopted at the international and national levels is vital in refugee resettlement. This gives power to measures and approaches that allow refugees to achieve successful outcomes in their resettlement. Additionally, it secures the rights and benefits of refugees while at the same time holds host societies accountable to their humanitarian obligations.

Camfield (2015) makes a compelling argument that for human rights to achieve such obligations, it must challenge the power of governments and state officials who create and maintain existing inequalities and wealth distribution. This is evident in the Canadian system where resettled refugees are expected to integrate into the Canadian labour market as soon as possible and to be independent of government social assistance. In sum, there is no challenge to power in Canada's refugee program. Canada's resettlement of refugees is built on obtaining a permanent residence status with which refugees can legally work in the country, providing resources such as language training, employment services and skills training to help refugees adapt to their new homes. However, despite these factors in place, resettled refugees tend to face major barriers in the Canadian labour market that are often easily and frequently ignored by various labour market actors. At this time and because I cannot change the way the Canadian economic system is structured, I focus on only the economic integration of refugee women as this is central to their resettlement and also has implications for their success in their new home. In addition, drawing from the brief overview of resettlement discussed in the above paragraphs, within the context of this study, resettlement is viewed as the permanent relocation of refugee women such that they are equipped through the host countries resettlement resources, policies and programs to rebuild their lives. Resettlement of refugees therefore has become a channel through which host

countries serve as a lifeline to ensure the integration of refugees back into a lifestyle where they can be active and participating members of society in the host country.

## 2.2 Labour Market Conditions for Refugees

Hamermesh (2019) defines a labour force as those who are actively working and those who are actively looking for employment. This includes the working-age population who are fully employed, partially employed, as well as unemployed. Even though attention is given to those actively participating in the labour market, it is also necessary to understand why others still struggle to find employment. In the case of resettled refugees, research has identified various barriers in host countries' labour markets as well as whether a country is in recession or not at the time of a refugee's arrival (Hamermesh, 2019). In addition, the economic systems in most countries are guided by policy frameworks which help to understand the labour market, that is, to understand what are the wages, laws, potential barriers, conditions to find employment and essentially, if the labour market is growing or not.

The power that employers have in determining the labour market futures makes it possible to discriminate in the hiring process. There are reports that show how employers often overlook newcomers' human capital qualifications (Madut, 2016). Newcomers indicate the stress of having to spend a great deal of time with retraining and employment support programs but sometimes still facing barriers in the labour market. This is due to existing policies in neoliberalism systems which have empowered employers (McCormack and Workman, 2015) but with very little government intervention. This has "weakened employment standards by promoting a privatized model of workplace regulation that exposes workers to market forces... i.e. inequality, discriminations and unsafe work condition" (Thomas, 2010:76). Furthermore, Fowler (2016) points out another aspect of neoliberalism which is the push for individualism in such a system, making the formation of unions, union rights and collective action a challenge. Unions are essential in the labour market to push for policies and overcome barriers that select groups in the society face (Peck, 1996). However, neoliberal systems see the activities of unions in the labour market as presenting unnecessary inflexibility in the operations of a country's employment sector and processes (Fowler, 2016).

Anderson (2019) also points out that immigrants rarely achieve income parity with those born in Canada. Labour market outcomes in host countries can vary because there may be several factors at play in the economic structure. From Root et al. (2014) and Arat-Koc's (2012) points of view, neoliberalism has created a wave of patriarchy which serves to preserve the wage inequality between men and women. This is evident with the kinds of work both genders are employed. As such, women tend to have lower labour market participation and earnings, with this being even worse for newcomers. Further in regards to wage assimilation in the labour markets of host countries, Anderson (2019) highlights that the rate at which this wage assimilation is achieved is characterized by factors such as the newcomers' gender, year of entry, ethnicity, education and skill level(s).

For instance, Anderson (2019) reveals in her studies that newcomers with higher levels of education are able to achieve income mobility faster compared to newcomers with lower levels of education. However, for refugees, where their human capital is obtained plays a role in how fast and how well they are included in the labour market of host countries and income levels they fall into. Several researchers have provided some basis for this standpoint that most employers in host countries undervalue, and in some cases, do not value the education and skill sets that immigrants bring to the job market (Li, 2000; Anderson, 2019). The ethno-cultural backgrounds of immigrants are used by employers as one of the deciding factors in keeping foreign workers out of the workforce (Sanchez, 1997; Huber and Espenshade; 1997).

Similarly, refugees may face discrimination and underemployment in the host labour market not because they lack the necessary human capital qualifications to find employment, rather because it is a case of discrimination mostly experienced by those from developing countries (Li, 2004; Pendakur and Pendakur 1998; 2014). Immigrants from developed countries do not usually face the same biases in the labour market. Mata and Pendakur's (2017) findings speak to this, indicating that female immigrants from European countries face less discrimination than do other female immigrants from other regions. Hence, there are some advantages for refugees who resettle in countries similar to their country of origin. With similarities in institutions, for example from an English-speaking country to another English-speaking country, this generally makes their integration process into the labour market faster. This means better job placements,

less earning disparity between such newcomers and natives and a sense of belonging in the host country (Anderson, 2019).

Aside from this, Jamil et al.'s (2016) study also looks at the economic integration of resettled, well-educated refugees in the US before and after the 2008 and 2009 recessions. In their research, they found that during the recession period, the economic turndown added to existing barriers affecting even highly educated refugees in the US labour market; 55% of the refugees were unemployed during the recession, while before the recession only 22.9% were unemployed. Often in host countries, language tests are used as a means to deskill refugees by subjecting them to secondary sector jobs where most services require simple or basic communication skills. However, despite the US economy being favourable to the group that arrived before the recession, those who arrived during the recession were faced with unemployment and underemployment and could not secure suitable professional employment regardless of language proficiency. This shows that some of the limitations to achieving success in the labour market are dictated not only by employers but also by unfavourable economic conditions.<sup>4</sup>

Other studies in the US and Europe address the different sectors in which immigrants and natives typically find themselves within the labour market (Anderson, 2019). In these countries, researchers point out that native-born workers are more likely to be found in managerial and supervisory jobs due to their ability to communicate better. Immigrants who do not have any education have manual labour jobs. However, those who have at least a college level education have the chance of finding good jobs such as analytical positions. Here, one can see that such types of work have less to do with oral communication and little or no contact with customers (Anderson, 2019). It is beneficial for a host country's economy when newcomers get jobs which utilize their skillsets rather than under-utilize them (Anderson, 2019). The danger in ignoring these barriers for host countries is that they lose out on the valuable contribution that refugees bring to the labour market, there is deterioration of skills sets and there is a loss of knowledge which could have been utilized in various fields.

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<sup>4</sup> In the Canadian section of this literature review, there are similar results for immigrants during recession.

Nevertheless, neoliberalism emphasizes the characteristics of an ideal immigrant (for instance English speaking, educated, male and white). Yet, not all refugees are ideal in terms of the criteria that comes with such an ideal - some are highly educated, with applicable work experience, language proficiency and other advantages, while others are not (Gardiner 2008; Dobrowolsky, 2013). This to some extent has helped make meaning of present immigration policies in several host countries: It justifies the inequalities and limitations that female refugees face in the labour market for generally not being “ideal” (Root et al., 2014). In addition, the underlying sexism and parochialism at play is clear and as such, provides some basis to promote policy changes, adopt intervention measures against discrimination, racism that lower-wage refugees face and high unemployment rates (McCormack and Workman, 2015). Essentially, a movement to address the chronic low economic outcomes refugees experience has been underway. Like other newcomers, the problems related to the economy’s failure to recognize skills, experience and education attained from abroad is one of the major issues that plague Canada today. Even after thirty years, the failure to recognize foreign credentials has not been adequately addressed. Instead, the solutions have been meagre, regulations unenforced, and piecemeal. Only four provinces have created an Office of the Fairness Commissioner whose goal is to have professional organizations address the failure of their occupation’s adequate assessment of foreign credentials across the provincially regulated sectors. While the goal of the Fairness Commissioner is laudable, no province has given that office the authority to do anything other than monitor provincially regulated professions. There remains no mechanism to encourage or punish organizations that do not want to address foreign credential assessment.

### 2.3 Canadian Context

In this dissertation, Root et al.’s, (2014) understanding of the neoliberalism is adopted to make sense of the Canadian labour market as it applies to immigrants and specifically, refugee women. They assert that neoliberalism focuses on “self-sufficiency, traditional hard-working ‘family values’, a law-and-order orientation, and the embracing of a liberal-democratic value system focused on individual rights and western values” (Root et al., 2014:3). Such ideals to an extent serve the interests of refugee women where economic integration is expected to result in self-sufficiency, independence and the ability to exercise their rights without the constant discrimination and inequality this group faces. The government embracing this mindset in

collaboration with settlement agencies, therefore is useful not only for policy development for refugees but also for recognizing that self-dependence is one of the many ways that refugees can be given power to take control of and ownership over their lives.

The Canadian labour market is structured in a way that when newcomers are resettled in the country, they should be beneficial to the labour market and contribute to its growth and expansion. With this in mind, immigrants who are skilled workers are admitted into Canada based on having the essential skill sets and credentials which will contribute to the country's economy while with immigrants who are refugees, there is less expectation of them adding value to the country's economy since their selection is based on a well-founded fear of persecution (Evra and Kazemipur, 2019; Anderson, 2019). However, Krahn et al. (2000) indicate that work experience, language and foreign credentials recognition are vital factors in achieving successful labour market outcomes once immigrants arrive in Canada. Recall that refugees resettle usually not out of their own free will - it is as a result of unexpected circumstances. As such, they often do not get the opportunity to adequately plan and prepare and thereby may not be proficient in the host country's language or have their credentials among other challenges, which delays their integration process or even delays attaining success in the labour market (Pyke et al., 2004; Yakushko et al., 2008).

Dan Hiebert (2006:46) makes an interesting observation that "immigrants use fewer benefits than the Canadian-born population given their economic position". This raises questions for Canada's welfare state in regards to its neoliberal structure and also for some of the perceptions that immigrants, especially refugees, are over-dependent on welfare (Bauder, 2011; Banting et al., 2013). Such perceptions, however, are challenged by findings which reveal that immigrants not only pay more in taxes compared to the welfare they receive but also make a significant contribution to the country's economy (OCED, 2013). This does not mean that refugees have an economic advantage. Rather, Evra and Kazemipur (2019) remind us of the economic disadvantage that immigrants face in Canada by discussing the lower returns on education all newcomers (including refugees) face when compared to the Canadian-born population and that this problem has been considerably more acute in the second decade of the 21<sup>st</sup> century. Their

findings indicate that between 2002 and 2016, newcomers consistently received lower employment income (when education and skill are controlled) compared to earlier cohorts.

Despite their income inequality, Li (2003) provides an interesting insight drawing attention to the fact that immigrants who landed in Canada after the early 2000s faced negative economic conditions such as low wages, but they experienced faster income mobility compared to earlier immigrant cohorts. Specifically referencing income, Li (2003) studied the initial earnings of landed immigrants in Canada between 1980 and 1996, in addition to their earning over the years, to examine how long it takes to catch-up with Canadians. Li shows that landed immigrants who arrived between 1983 and 1988 took over 13 years to catch up compared to landed immigrants beyond the mid-1990s who took five to six years when compared with the incomes of native-born Canadians. This is supported by a Statistics Canada report (2019) which also points out that even though immigrants face challenges, there have been positive changes in the economic outcomes of immigrants in Canada. The basis for this assertion is that their research shows that the longer immigrants integrate into the society, the better opportunities they receive and the higher incomes they earn, which in some cases is equivalent to or even higher than Canadian-born earnings.

Refugees who have science, technology, engineering and mathematics (STEM) backgrounds have a better chance of being in high demand in the labour market compared to other disciplines. This assertion is based on Picot's (2019) studies on how these fields tend to boost a country's economy as well as innovation sectors. In recent years, Canada, like other western countries, has shown much interest in recruiting more immigrants (refugees included) with STEM backgrounds (Picot, 2019). According to this 2016 study, Canada reported 47% of bachelor-level STEM employment and 63% of master's- and doctorate-level STEM jobs occupied by immigrants. There may be a small representation of refugee women in these statistics; we cannot tell from the data provided. However, challenges arise for refugees when the credentials obtained in these disciplines are not from the host country or even from another western country. As such, even though there is employment opportunities in these fields, refugee women most often get shut out because of a lack of foreign education recognition unless they are willing to take additional training in Canada.

Other researchers come to the same conclusion that even with STEM backgrounds, refugees earn less than native-born Canadians who are in STEM occupations (Canadian Council of Academics, 2015; Picot and Hou, 2018, 2019). According to Picot and Hou's (2019) research on Canada, there has been a downward trend in the income of university-educated STEM immigrants between 1986 and 2011, while that of native-born Canadians have remained more or less constant during the same period. Specifically, the negative earnings gap between these two groups increased from 18% in 1985 to 34% in 2010 (Picot and Hou, 2018). Education is vital for economic integration, but for immigrants who have achieved all their education from developing countries, they face unfavourable treatment in either finding employment in their field or getting earnings that meets their level of education. Evidence of this is seen in Canada where immigrants from the Philippines with STEM qualifications, according to Picot and Hou (2019:4), "have among the worst occupational and earnings outcomes among immigrants from developing countries". Again, the implication for this group is that most end up with part-time jobs that they are overqualified for to supplement their income or end up in non-related fields (Canadian Council of Academics, 2015; Blit et al., 2017).

Krahn et al.'s (2000) research with 525 resettled refugees in Canada also offers insight on how highly skilled refugees with high educational qualifications face downward occupational mobility. Their credentials and skillsets become racialized when the host country uses these as a means to determine which group of people are preferable in the labour market and what jobs fit them (Cunningham, 2000). This reinforces to some extent the inequalities that exist in labour markets and therefore restricts any possible competition that may come from refugees. This finding supports Evra and Kazemipur's (2019) assertion that ascribed characteristics play a role in immigrants' employment as well as income. Immigrants face discrimination in the labour market with those from source countries such as countries in the Middle East, facing much higher levels of this discrimination and unfair treatment as a result of their race, ethnicity, colour and cultural traits (for example, one's name; Dechief and Oreopoulos, 2012; Gingrich and Lightman, 2015).

Several studies have highlighted the lack of foreign credential recognition and the challenges even in getting them recognized, the lack of Canadian work experience and foreign accents when

speaking one of Canada's official languages which hinders the hiring of newcomers (Adamuti-Trache and Sweet, 2005; Houle and Yssaad, 2010). However, existing datasets do not provide test scores to prove the language proficiency of refugees in Canada, but rather, datasets use self-assessment measures (Daley and Warman, 2019). Daley and Warman (2019) indicate the limitations that may arise from such self-assessment and in essence, what is actually known in regards to the fluency of refugee women in the host country's language. These self-assessments may contain "measurement error and/or capture different skills than objective test scores" (Daley and Warman, 2019:1).

Likewise, the implications of overcoming existing labour market barriers are going in for lower paying jobs which place less emphasis on some or all of these barriers - this has been the norm for several immigrant cohorts in Canada. In other instances, refugees are forced to take jobs in the secondary sector regardless of their credentials and foreign experience (Lamba, 2003; Statistics Canada, 2017). Endicott (2017) asserts that Canadian colleges and universities have institutionalized the deskilling of refugees, contributing to their downward economic mobility compared to other groups. This is supported by similar observations by Krahn and Lowe (1998) as well as Lamba (2003) who point out that immigrants with graduate and doctorate degrees in specific fields are presented with options to earn a much lower degree in Canada; in Edmonton's Grant MacEwan Community College, refugees and immigrants who are cardiac surgeons, gynaecologists and radiologists are offered a nursing diploma prior to practicing in their fields in Canada (Krahn et al., 2000; Endicott, 2017).

Self-regulated professions in Canada have their own guidelines, rules and eligibility criteria such that they have the power to determine who can practice a particular profession in the country (Wilkinson, 2017). Since these self-regulated professions are self-governing, there is less accountability when it comes to being held responsible for making it more difficult for refugees to access and practice these professions in Canada (Kelly, Marcelino and Mulas, 2014). The case of refugees who have professional careers sometimes goes beyond the credentials not being recognized; credentials are lost or even destroyed during wars and the institutions where they were obtained may no longer exist. This means most refugees are left in a state where they cannot prove their qualifications to practice in their specialized fields.

Again, the few studies done on immigrants in Canada have not shown different outcomes for this group during recessions. Picot (2013) indicates that immigrant cohorts who were in Canada in the late 1990s experienced positive economic outcomes while the more recent cohorts during the 2008 to 2009 recession years experienced downward economic outcomes compared to native-born Canadians due to the negative economic position of the country at that time. Even within the refugee population, recessions have different levels of impact. For instance, Papademetriou and Terrazas (2010) highlight that in as much as younger adults are the more desirable labour force, they may face the most risk during recessions compared to older adults who usually may have better job security, seniority and tenure, thereby securing their jobs even in economic turndowns. This makes younger adults in the labour market with their little work experience, nonessential during recessions. In addition, Challinor (2011) points out that the consistent low economic outcomes of immigrants when compared to native-born Canadians exist even during non-recession periods. For instance, Challinor (2011) states that in 2006, while the unemployment rate for native-born Canadians was 4.9%, immigrants had an unemployment rate of 11.5% and also during the 2008 and 2009 recession, the unemployment rate of recent immigrants in Ontario was almost twice that of native-born Canadians.

Countries that are consistently receiving refugees have therefore adopted some measures to deal with the constant barriers in the labour market. One such strategy is Denmark's wage subsidy program which has provided positive results for immigrants resettled in the country. This program supports employers who hire immigrants with no local work experience (Clarke and Skuterud, 2018). In addition to this is the adoption of credentialing reform in both Canada and Denmark. Clarke and Skuterud (2018) show the similarities between the two countries approaches. The Canadian process showcased in the 2009 Pan-Canadian Framework for the Assessment and Recognition of Foreign Qualifications sets the expectations in regards to a universal approach adopted by the provinces. This includes a metric system by which the quality of credentials and universities are evaluated. Sharing this information with employers increases the hiring probability for immigrants as employers are able to determine the value and integrity of foreign credentials.

## 2.4 Economic Integration

When one thinks of the economic integration of refugees, the expectation is that it “comprises the extent to which refugees are able to enter the labour market in their country of landing and secure positive employment outcomes relative to their education and work experience” (Endicott, 2017:6). It is no surprise that several researchers have stated that the most important component of integration for a refugee is successful economic integration (Danso, 2002; Endicott, 2017). Having financial and job security through one’s employment is one major indicator of this success (Danso, 2002). Additionally, many refugee women receive funding for up to one year after arrival which may not be long enough to retrain, learn a new language and overcome any trauma they may have. As such, the need for refugees to find employment for sustenance and those who are not “lucky” fall on social support (Citizenship Immigration Canada, 2016).

This dissertation focuses on economic integration and as such defines economic success as education contributing to income above median employment income as well, positive increasing effect on income during recession. Successful economic integration in the context of this study is evident when refugee women are able to engage in the Canadian labour market in accessible ways which are commensurate with their skillsets, which recognize their credentials, offer options for job opportunities and the evidence shows in their income. As such, the ability to translate their human capital qualifications in terms of their level of education (at landing in Canada) and skill level presents the opportunity to achieve economic integration, successful economic outcomes and ultimately, a boost to the host country’s economy (Green and Worswick, 2017). Their labour market output should be such that they are able to meet the standard of living where they are resettled and be independent of financial assistance from the government (Kuhlman, 1991). In this sense, refugees become members of a society, enjoy equal access and become partakers of the institutions of the country.

There is a long history of the study of foreign credentials. Stobbe and Harris (2013) among many others, find that Canadian employers often do not recognize foreign credentials, making it a hurdle for refugees to fully integrate into the economic sector. Galabuzi (2006) adds that barriers, discrimination and challenges in the economic integration of immigrants downplays their skills

and can create mental frustration and physical health issues for some individuals. For refugee women, this can be problematic as refugees already arrive in host societies having been forced out of their homes and having endured some form of trauma and/or family separation. To have to deal with further alienation and delays from the labour market can affect their health, independence and overall economic integration. This means that as part of the resettlement plans that Canada has for refugees, economic integration and easy labour market access must be prioritized recognizing the diversity newcomers bring to the labour force. Not only will it be beneficial for refugees but the country as well - Schmidtke (2018) points out that successful economic integration is essential for the growth of Canada. With the recognition of this country as a multicultural society, there is the need to establish a system that builds on equality and the social and economic inclusion of newcomers. The Canadian government's stance on this is seen in a Citizenship and Immigration Canada (2001:4) statement: "Rather than expecting newcomers to abandon their own cultural heritage, the emphasis is on finding ways to integrate differences in a pluralistic society."

There is a need for effective policies to guide the economic integration of refugees in Canada. Some immigration experts however have criticized Canada's lack of a working approach to ensure that refugees secure jobs upon arrival. Garcea (2016), Krahn et al. (2000) and Endicott (2017) point out that resettled refugees become the responsibility of settlement agencies which are under-staffed and backlogged with so many requests in addition to assisting the large number of resettled refugees by teaching interview skills, revising their resumes and helping them find well-paying jobs. These agencies most often are unable to assist or eradicate some of the barriers that refugees face in the labour market as well as the negative stigma associated with refugees, which makes employers not want to hire them, and the associated systematic discrimination (Krahn et al., 2000; Garcea, 2016).

There are a few datasets that help to understand the economic integration of refugees in Canada. Studies on refugees using the IMDB by Devoretz, Pivnenko and Beiser (2004), as well as Hiebert (2002), draw attention to refugees having similar earnings as family class immigrants. The central argument in this small body of research is that refugees earn the lowest among all immigrant categories in Canada. Their labour market participation rate is also lower compared to

other family reunion immigrants in Canada (Aydemir, 2011). Canada's resettlement programs sometimes influence the rate of refugees' resettlement outcomes. Studies have indicated that PSRs tend to have better economic integration outcomes compared to GARs. Similarly, Schmidtke's (2018) report asserts that GARs have higher unemployment rates and lower earnings compared to PSRs. The better economic integration outcomes of PSRs are a result of the additional guidance provided by sponsorship groups (Schmidtke, 2018).

Chiswick et al. (2005) indicate that immigrants who are married earn about 8% more than those who are not married, with this gap even more evident across the entire Australian labour market. In a like manner, Danzer and Ulku's (2008) examination of Germany's labour market outcomes uses monthly net income as a measure to determine economic success, and they come to the conclusion that those who are married are more likely to have positive economic success, recognizing the role of economic support from spouses.

There are several indicators that promote the economic integration of refugees. In the cases where refugees have some level of education which is recognized in Canada and qualifies them to secure employment, their entry into the labour market may be straight forward. However, in reality, this is usually not the case. The region of birth of resettled refugees contributes to the rate at which they integrate in their new home. De Silva (1997) addresses this by comparing whether the periods of landing have an impact on the earnings of three immigrant groups, which are the independents, assisted relatives and the combined Convention refugees, and the designated class. He concludes that immigrant groups from Europe achieve the most economic success compared to immigrant groups from Africa and Southeast Asia since the former have significantly higher earnings (De Silva, 1997). Here, it is evident that the similarities between Europe and Canada make the human capital characteristics of refugees from Europe more acceptable and easily transferable into the Canadian labour market.

Ladson-Billings (2009) points out that for societies made of diverse racial groups, one would realize that the dominant group tends to be advantaged and, as such, enjoy economic privileges as compared to minority groups such as refugees. This racism tends to favour the day-to-day activities of the dominant race. This situation is further entrenched by existing rules and laws in

countries which refugees eventually become a part of. Hence, in Canada, for instance, the government determines the extent to which refugees have privileges or qualify for programs, and job markets tend to favour Canadian citizens over refugees in terms of eligibility criteria as well as having Canadian work experience. The outcome is that it disempowers refugees and slows their economic integration and their being part of the labour market. Given these stakes, it becomes a familiar situation that significant numbers of refugee women are with low paying jobs, are overqualified for their jobs or are unemployed.

Researchers have indicated the superficial nature of policies which indicate commitment to integration based on multiculturalism, but in reality, integration is a case of tolerating minority groups such as refugees and fitting them into the larger society when they are deemed fit (Fleras and Elliot, 2002; Ghosh and Abdi, 2004). Resettled refugees arrive in host countries with hopes of a better life, which for some is evident when they are assured of security, shelter, healthcare access and, in most cases, economic opportunities in order to be financially independent. Despite this, their integration into the labour market is met with barriers in situations where some employers do not want to work with immigrants whom they may perceive as not having the right work ethic, having inferior credentials or lack of language fluency, among other matters (Riaño, 2011).

## 2.5 Conclusion

The economic institutions of different countries are constantly undergoing changes (Peck, 1996) which have an impact on determining the predictors of successful economic integration of resettled female refugees. In some cases, the changes are a result of the political atmosphere at that time (which plays a significant role in the kind of policies adopted), recessions and also the rise in the number of newcomers being integrated into the country (Root et al., 2014). Refugees are a valuable contribution to the growth of a country's economy when there are opportunities in place to facilitate their integration. However, institutional barriers exist while new ones arise, creating the need for stakeholders such as settlement agencies, policy-makers and academics to engage in the necessary next steps to address these challenges which are becoming more entrenched for resettled female refugees in Canada. This is the case with the Office of the Fairness Commissioners which have been adopted by only four provinces and who have not been

given authority to require professions to recognize foreign credentials. In short, there exists long standing structural problems within provincial governing bodies and within professions that make it nearly impossible for refugees in certain professions to find work for which they were trained.

## CHAPTER 3: THEORETICAL FRAMEWORKS

Several theories can be employed to help understand the economic integration of refugees. I have used three in this dissertation: critical race theory, intersectional theory and segmented labour market theory. These theories assist in contextualizing and identifying the factors that promote refugee women's access to the Canadian labour market, and they also assist in analyzing the implications of existing barriers.

### 3.1 Critical Race Theory

According to Delgado and Stefancic (2001:3), critical race theory is a methodology for analysis “interested in studying and transforming the relationship among race, racism, and power”. Critical race theory analyses how race serves as a factor through which economic, educational, social and political divisions are created. Delgado (2003) has explained that racial privilege tends to favour and promote the interests of the dominant race, and it erroneously presumes that all outcomes are with good intentions and equal for all. In essence, racial privilege speaks to how society turns a blind eye to discriminatory practices. This may be because refugees are typically the beneficiaries of welfare from governments, so it makes refugees appear as though they are enjoying equal opportunities with the dominant group without realizing their subordinate positions in the existing structures (Delgado and Stefancic, 2001). Racism and ‘race’ are therefore products of social organization preserved through normalizing discriminations against marginalized groups.

Furthermore, critical race theory also points out that racism is normalized in most societies where the culture, institutions and positions tend to be dominated by white people, and thus exclude minority ethnicities. The tendency of the dominant group to continually hold power leads to minority groups, such as refugee women, to occupy unfavourable or lesser social and economic positions (Crenshaw et al., 1995). Racism in contemporary times has become an issue which is mostly denied due to its presence being more subliminal and hidden within the workings of social and economic structures (Ladson-Billings, 1998).

The existing power dynamics in Canada are displayed by white supremacy (being born a Canadian with white parents) and the privileges that come with it. Immigrants who arrive in the

country as refugees have to compete on very unequal grounds with this group. Critical race theory therefore helps to frame the impact that discrimination has on refugee women and the marginalized positions they are put in because they are of a different race than the host society. Refugee women face several barriers in terms of economic integration and significant discrimination when accessing the labour market. Their educational credentials are regarded as inferior to credentials earned in Canada, their skillsets are not equally valued and they often experience bullying while working in Canada.

In addition, the intersection between race and power presents views on social disparities as well as inequalities among groups in a particular society (Delgado & Stefancic, 2017). Despite refugees' access to benefits and resources in their new homes, the existence of embedded inequalities and discrimination in institutions against refugees (example, education, jobs) cannot be denied (Aylward, 1999). Some researchers point out that regardless of the economic status of Canadian-born citizens, existing institutional discrimination and structural racism tends to favour the interests of the dominant race. This leads most members of the society to accept the trends and constructions of racism as something marginalized groups construct in order to blame society as being unfair. Refugee women's success becomes one which to some extent is shaped by how much access and opportunities the host country is ready to offer. Hence, when access and opportunity are not available, further inequalities for newcomers in the resettled society are created.

Critical race theory enables the discrimination that refugees face in host societies to be seen. As this study focuses on refugee women's successful economic integration, it is therefore concerned with the barriers as well as the "red tape" in Canadian institutions which restrict refugees from easily accessing the labour market, well-paying jobs and even experiences. From the critical race theory perspective, inequalities and discrimination are protected and promoted by the ways Canadian society is structured. For example, refugees lack equal access to the Canadian job market (Li, 2000) because several Canadian employers would rather not hire people from outside their race. Even in cases where there are exceptions, the jobs are mostly those Canadian-born people do not want to do (Oreopoulos, 2011). As such, even when refugees are integrated into the labour market, their extent of success is limited. In this study, the theory of critical race will

help contextualize some of the challenges that refugee women in Canada face when accessing the labour market (due to racism and discrimination) as well as their experiences navigating this system of inequality in the pursuit of better chances for economic integration.

There are many advantages to equalizing economic opportunities in any society. Buster & Baffoe (2015) have discussed the benefits of including minority groups in a country's economy. These benefits include the sustaining and growing of a country's economy. Refugees no doubt arrive in host countries with several challenges and limitations. However, recognizing refugees' existing skillsets, work experiences as well as education levels is valuable to the host country. It should be noted that the focus in using critical race theory is not so much on identifying the past historical oppression, discrimination and marginalization minority groups have experienced. Rather, the goal in using the theory is to further develop the discussions on how and why these elements still persist in contemporary times. The theory is used to pinpoint the challenges and barriers that refugees face in Canadian society which are beyond the control of the refugees and exist as a result of how institutions have been structured. These are thus barriers that refugees lack the power to change on their own.

### 3.2 Intersectional theory

According to researchers like Phoenix and Pattynama (2006) and Vivar and Lutz (2016), intersectionality's aim is to examine the links between different structures of power, how those links position individuals and how individuals also position themselves based on multiple categories. Hence, multiple and complex identities constituting gender, class and ethnicity are created. Intersectional theory distinguishes the conservative ideologies, norms and societal exclusions formed in host countries which promote the rejection of newcomers. The theory is based on the perception that one or more differences, such as ethnicity, sex, and skin colour, interact with the identity of individuals, presenting grounds for racial and gender discrimination as well as subordination. The power structure in a society shapes how certain genders are observed and how the gender role expectations are formed at large (Tastsoglou and Preston, 2012).

Patricia Hill-Collins (2002) has contributed to the existing literature on intersectionality. Collins asserts that oppression is intertwined with elements like gender, race, class and nationality which have been developed from an intersectional system on which a society is built. Similarly, Yuval-Davis (2011) has stated that intersectionality is grounded in a feminist theory standpoint which addresses the inequalities in a society evidenced through discrimination and oppression. Yuval-Davis (2011) indicates the need to address the impacts of these actions on all members of the society and not just a specific group. However, there is a need to recognize the intra-categorical connections (e.g., the differences within one group of females) and inter-categorical connections (e.g., the differences existing among multiple categories of inequality) that exist among various classes of females (McCall, 2005). This dissertation relies on these two approaches when applying intersectionality because refugee women come from different parts of the world, and refugee women from the same country can still fall into different categories. Thus, these characteristics result in varying degrees of inequalities and barriers for refugee women.

Refugees who have settled in Canada come from different parts of the world and bring with them their diverse experiences, languages, education backgrounds, skills and work experiences (Guo and Andersson, 2005). However, refugees face barriers in host societies due to the very factors which serve to create their identity. Behtoui (2004) has asserted that labour market integration can already be challenging, but it is even more challenging for immigrants, as they are faced with discrimination in the new society where they are often forced to take on low-level jobs which contribute to the lower market position of this population. For refugee women, there is an additional pressure of factors, such as gender and gender roles, appearance and level of education, that are viewed through a prejudiced lens that subordinates them as inferior to other members of the society (Nangia, 2013). The complexity of successful economic integration for refugee women therefore becomes apparent when examined through the lens of intersectional theory. For refugee women, access to the labour market is intertwined with racism, sexism and discrimination which are a result of the existing social structures that have bred negative perceptions of refugees.

Anthias and Yuval-Davis (1983) as well as Nash (2008) have conceptualised intersectional theory as a way of examining the diverse disadvantages and experiences that a specific group of

females face in a society as a result of their gender, race and class. This theory perceives the group as being in a position where they have to constantly battle oppression, discrimination, patriarchy and subordination in labour market opportunities and society at large. Intersectional theory proposes that these elements of gender, race and class should not be seen as individual factors, but rather recognised for their interconnectedness and interdependence in order to conceive the way marginalized groups are treated in host countries (Valentine, 2007). By recognising these factors, the social construction of refugees can therefore be seen as defining a group as being from a different racial and cultural background, having an unrecognized education, in some cases lacking fluency in either of Canada's official languages and having low-skilled jobs (Li, 2003). All of these aspects of the social construction of refugees can be linked to the knowledge that for refugees to achieve successful economic integration in Canadian society, they must conform to Canadian standards. In light of this, the advantage of intersectional theory in this study is that it draws attention to the underlying denied racism and inequality that exist in Canadian society which slow down the integration of refugees.

Refugee women are in two intersecting categories: refugee (who are mostly seen as vulnerable) and woman (a role which often occupies a secondary place in society). Their class and gender make their experiences quite different from men who settle in a host country. Salaff and Greve (2003) have highlighted this gender difference in labour markets, pointing out that female immigrant professionals face more barriers in accessing the labour market compared to men. The researchers associated the challenges refugee women continue to face in their initial professions to the fact that the value placed on their credentials is different from the value placed on those of men. This difference contributes to existing unequal power dynamics and results in refugee women accepting jobs for which they are overqualified just to survive (Salaff and Greve, 2003). To reach successful economic integration of refugee women in Canadian society, there is a need to recognize the diversity among resettled refugees. Refugee women come with different knowledge levels, foreign credentials, ethnicities, cultures, language differences - chapter 5 provides more insight on this.

Intersectional theory enables understanding of the privileged position of dominant groups as well as some minority groups. Staunæs (2003) has pointed out that there is a need to acknowledge the

power and privilege some groups enjoy compared to others when exploring intersectional theory. The basis for this claim is that despite the social categories that refugee women may belong to, there are some whose education, skin colour or work experience puts them in a different class of privilege, regardless of the inequalities and discrimination they may face in host countries. This effect becomes evident when examining the place of birth of refugee women in the Canadian society. As a result, different levels of access and inclusion some members of this group receive compared to other resettled refugee women groups are seen. However, this fact is not to ignore that, in general, refugee women in a host country do not enjoy the same level of privileges that white Canadians do. The application of intersectional theory in this study assists in understanding some of the struggles refugee women face and showcases the factors beyond refugee women's control which hinder their full acceptance in economic integration.

The use of intersectional theory is gaining acceptance, especially in research that focuses on gender and marginalized groups (Collins 2002; Lykke, 2010). Based on the objectives and perspective of the researcher, this theory offers the flexibility to understand the diverse factors (as discussed in the above paragraphs) which when combined can explain the unequal social status of members in a society. Situating intersectional theory within this study enables a better understanding of gender bias, especially in the case of examining refugee women's economic integration. The subordination and perceptions of inferiority towards refugees' economic contributions arise because refugees are seen as alien and not traditional to the social fabric of the host country. Intersectional theory presents the opportunity to address the barriers and needs of refugee women in their efforts towards economic integration.

### 3.3 Segmented Labour Market Theory

According to Reich et al. (1973:359), the segmented labour market theory is "the historical process whereby political-economic forces encourage the division of the labour market into separate submarkets, or segments, distinguished by different labour market characteristics and behavioural rules". This theory draws attention to institutional factors, such as unfair income distribution and discrimination that exist in labour markets. There are four main dimensions to segmented labour market theory: segmentation into primary and secondary labour market sectors, segmentation within the primary sector, segmentation by race, and segmentation by sex

(Reich et al., 1973). In regard to this dissertation, the interest in the theory is on all dimensions except segmentation within the primary sector. The remaining three factors are relevant to the understanding of various economic outcomes of refugee women in the Canadian labour market.

Segmented labour market theory expands on older ideologies of the labour market, such as the dual labour market, where conditions in the labour market create primary and secondary markets. Segmented labour market theorists have argued that the economy should be examined on the basis of “good” and “bad” jobs as opposed to skilled and unskilled workers (Kalleberg and Sorensen, 1979). Differentiated by several characteristics, the primary sector (good jobs) offers benefits such as high wages, good working conditions, employment stability, job security, and chances for advancement, whereas the secondary sector (bad jobs) offers low wages, poor working conditions, employment variability and little chance for advancement (Snyder et al., 1978; Samers, 2010). The flexibility of jobs in the secondary sector of the segmented labour market makes it possible to absorb a massive number of people, especially newcomers who want work experience in their host country and have less concern with their job match and suitability (Bauder, 2005). Researchers have also pointed out the rapid rate at which the secondary sector is growing. This growth can be attributed to factors such as the creation of part-time jobs in this sector, short-term contract jobs and flexible job requirements which make access easy for job seekers (Bauder, 2005; Samers, 2010).

Doeringer and Piore’s (1985) work on dual labour markets have also been explored by various economists as well as sociologists. In particular, it has extended the discussion on human capital qualification and the wages individuals enjoy in a particular segmented labour market. In the primary sector, human capital is relevant to the extent that it presents variations in earnings for jobs, while in the secondary sector, earnings for human capital qualifications, such as a high level of education are low (Dickens and Lang, 1985; 1993). Segmented labour market theory therefore predicts that individuals with university level education working in the primary sector have high earnings, whereas in the secondary sector, despite the low earnings, one’s level of education is not of relevance (Fichtenbaum et al., 1994). In addition, Dickens and Lang (1993) have stated that a segmented labour market includes a system where there are different rules for determining wages and employment in the primary sector versus the secondary sector. One can

therefore argue that the tenets of segmented labour market theory present human capital qualifications as instrumental in wage determination and employment in the primary sector, while in the secondary sector such qualifications are often ignored.

Labour markets in most countries are segmented. Thus, the focus should not just be on segmentation into sectors but also segmentation along which lines. The segmented labour market theory addresses the systemic factors that play a role in the Canadian labour market sector where resettled refugees in the country find employment (Reich et al., 1973). Hence, the role of employers becomes crucial as they can create unemployment for refugees by creating barriers which prevent their access to primary sector jobs. Employers in the secondary sector are more willing to employ newcomers because less training and investment are required for jobs in this sector (Reich et al., 1973). Piore (1980) explains that the secondary sector absorbs the overflow of job seekers who are not able to find jobs in the primary sector. Because the secondary sector is characterized by poor work conditions, little to no opportunities for advancement and low wages, Canadian-born people typically do not want to work in this sector. In contrast, immigrants are more willing and tolerant of these jobs. In essence, employees are typically aware of their lack of job security, low pay and limited benefits, but these factors give employers access to cheap labour. Due to this difference, the segmented labour market theory becomes useful for understanding inequalities in terms of how it helps create, recreate and preserve the gaps between various groups in the labour market, as well as their economic outcomes (Leontaridi, 1998).

The second level of classification in segmentation theory divides the primary sector into subordinate primary jobs and independent primary jobs. Subordinate primary jobs are characterized by factors such as responsiveness to rules and authority, discipline and dependability. Examples of such jobs are office jobs where employees work in agreement with the organization's goals. Independent primary jobs are characterized by self-initiating characteristics, such as problem-solving and creativity. Piore (1975) indicates that the segmentation within the primary sector brings about differences in status, wages and opportunities for upward job mobility within this sector.

The third level of classification in segmented labour market theory is based on race. The extent of ethnic and racial discrimination varies across countries (Bonacich, 1972), and segmented labour market theory presents an opportunity to discuss racialization of groups within the labour market of a country. The argument here is that some jobs are “race-typed” and preserve the prejudice and discrimination against various groups that enter either the primary or secondary sector. Bonacich (1972) added to the knowledge on this theory by highlighting the idea of discrimination in situations where workers performing the same job received different wages for the same labour because they belonged to different groups. Bonacich (1972) explained that the split nature of labour markets is not a result of differences in skill levels, but rather differences in the price for the same labour done by groups or individuals belonging to different ethnicities. Most often, refugees from some parts of the world are exploited based on ideas that some races and ethnicities are superior to others. Racialization therefore does not affect all groups equally, especially in terms of access to the labour market. As pointed out by Bonacich et al. (2008), a group can occupy a dominant position as a result of their ascribed status, even if they are immigrants in a new country. For example, the ascribed status of refugees from Europe can still play favourably in a racialized labour market setting in comparison to the ascribed status of refugees from Africa.

Several writers have used segmented labour market theory to understand the employment situations of immigrants (Lusis & Bauder, 2010; Jayaraman & Bauder, 2014). In most cases, the question has been on why there tends to be a higher proportion of newcomers in the secondary sector of the labour market. Bauder (2003, 2006) attributes this occurrence to employers’ perceptions of immigrants, which present opportunities for inclusion and exclusion as well as devaluation of foreign credentials. As a result, immigrants experience slow economic integration with poor labour market outcomes (Dustman & Schmidt, 2001; Block & Galabuzi, 2011; Lightman & Gingrich, 2013). Furthermore, labour markets become segmented through the operations of employers who create market sectors and sub-markets within the labour market (Reich et al., 1973). Despite human capital returns in a segmented labour market, employers tend to focus more on ascribed characteristics, and in the case of refugees, hiring becomes based on race, language fluency and stereotypes (Reich et al., 1973).

In addition to employers' control in the labour markets, Peetz (2019) has indicated that employers sometimes use their position of power to deliberately employ workers who are desperate to find jobs. For refugees in a new country, having work experience in that country is an essential step in their economic integration. Thus, many refugees are desperate for work and accept jobs that have poor conditions and pay. This circumstance has been supported by Bauder (2006) whose research revealed that employers sometimes determine the suitability of newcomers for a particular employment based on stereotypes, such as mannerisms and behaviours. For instance, women of colour tend to be submissive caretakers of both their nuclear family and their extended family, thus making them suitable for service-related jobs. According to Bauder (2006:45), this practice is referred to as "cultural segmentation of labour".

In regard to segmentation by race, intersectionality can be used in the case of refugee women in Canada by exploring the additional dimensions of sex, class and ethnicity. In support of this, Lusis and Bauder (2010:30) have asserted that "in a Canadian context, for example, immigrants are excluded from primary segment occupations by institutionalized cultural practices of credential non-recognition professionalism...". As a multicultural society where the ideas of acceptance, inclusiveness and tolerance are promoted, resettled refugees in Canada from different parts of the world are faced with a patriarchal relationship with Canada. Evidence of this is seen through the low-level jobs refugees are often employed in, their low wages and the discriminatory work practices they face.

The fourth level of classification in the segmented labour market theory is segmentation by sex. This focuses on how certain jobs are seen as suitable for men only and others for only women. The labour market embraces these restrictions of men-only jobs and women-only jobs as a result of existing institutions in the society which support the norms, values and behaviours each sex is expected to perform (Reich et al., 1973). Furthermore, wages of females in the labour market compared to males are usually lower. This difference has been related to the fact that there are more females who find work in the secondary sector than those who find employment in the primary sector (Reich et al., 1973). The benefit of segmented labour market theory in this dissertation is that it presents the opportunity to explore the complex dimensions in the labour market. These dimensions include the sexism, racism and discrimination that refugee women

may be exposed to in Canada's segmented labour market. In Bonacich et al.'s 2008 work, the authors indicated that women of colour are especially prone to facing harsh conditions in the labour market. This has been further supported by Chang (2016) and Salazar (2001) who indicated that there are a higher number of women of colour in service jobs, and that these women receive lower wages and have poorer working conditions than other races.

The realities that face some refugee women in their economic integration are worth discussing. Issues of systemic discrimination and barriers tend to influence which sector of the segmented labour market these women find employment. To investigate these issues, various writers have addressed the segmented labour market from a feminist perspective by exploring segmentation by sex (Dixon and Jones, 2006). Contributions to these barriers and issues stem from the existing patriarchy of most societies being carried into the labour market. The result of this influence includes the stereotyping of women and the expected subordination of women in both the private and public domain. According to feminist writers who employ the segmented labour market theory, there is a need to recognize the disadvantaged position of women at every level of society created by existing societal institutions which serve to reproduce and preserve inequalities against women. In essence, certain jobs are seen as masculine, and therefore employers only offer the vacancies to men, and there are different expectations about the kinds of jobs that should employ women (Dixon and Jones, 2006; Estevez-Abe, 2006).

Peetz (2019) has made a notable contribution to the discussion on segmented labour market theory by highlighting the idea that institutions influence the way women interact with work. Institutions have created certain norms, values, behaviours and roles that females are expected to perform, even in the labour market. Historically, job offers were based on sex and in some instances race (Sakamoto and Chen, 1991a). Evidence of this can be seen in domestic jobs for females, such as childcare workers, librarians, primary school teachers and nurses (Brosnan, 1996; Peetz, 2019). The segmentation of the labour market has indirectly become a mechanism to further and overtly discriminate against various groups. Kalleberg and Sorensen (1979) have made the argument that when women of colour find themselves employed at the beginning of their career, they find it difficult to leave a secondary sector job. This claim supports Colic-Peisker and Tilbury's (2006:206) assertion that "social and institutional forces reduce

opportunities for certain social groups, and relegate them to the ‘second division’ of the labour market’. Segmented labour market theory therefore helps to question labour market practices, economic mobility and outcomes of refugees in Canada, enabling a greater understanding of their overrepresentation in precarious jobs (Galabuzi, 2001).

Jayaraman and Bauder (2014) have also used the segmented labour market theory to address the experiences of immigrant women working in the settlement sectors in Germany and Canada. They have pointed out that the labour markets in these countries are segmented and that a higher number of immigrant women work in the secondary sector where they are faced with low wages, harsh working conditions and very little upward occupational mobility. In addition, immigrant women’s ascribed status further adds to the barriers they face in the secondary sector. When looking at the primary sector, some immigrants were observed to have found themselves employed in this segment of the labour market. However, top senior management positions were occupied mostly by men who were non-immigrants. Bauder (2005) has also reported the overrepresentation of females in secondary sector employment. In addition to gender, race, ascribed characteristics and discrimination have also been recognised to influence one’s ability to move into other segments of the labour market (Block & Galabuzi, 2011; Jayaraman & Bauder, 2014). For some refugee women in Canada, their skill levels make them only employable in the secondary sector. However, one can also attribute this occurrence to a lack of foreign credential recognition, and both racial and gender discrimination leading these women to take jobs in the secondary sector where they face fewer barriers, but also low earnings and over-qualification (Man, 2004; Jayaraman & Bauder, 2014). Table 3.1 provides a summary of the theories and the research questions they address.

Table 3.1: Summary of the theoretical lens and the specific research question they address.

<b>Research questions</b>	<b>Critical Race Theory</b>
2. Does education contribute to the income of resettled refugee women in Canada?	This is addressed based on ideas of racism and power highlighted in this theory.
3. Does the year (or period) of arrival and economic conditions in the Canadian labour market affect the economic success	<b>Intersectional Theory</b>
	This is addressed based on contextualizing the differences that exists between different groups

of female refugees?	and the impact of labour market conditions.
	<b>Segmented Labour Market Theory</b>
	This is addressed based on the role of employment income dictating the economic outcome of refugee women as well as evidence of inequalities based on the primary and secondary sectors as they relate to refugee women’s employment.

In conclusion, critical race, intersectional and segmented labour market theories are used in a complementary manner in this dissertation. They shed light from similar but different perspectives on the main research question. In addition, the ideas on the persistence of marginalization of refugees can be reflected through these theories. The power dynamics that host societies have over the integration of refugees can affect their successful economic integration. The theories present a good foundation for the investigation of the sub-research questions by drawing out specific issues related to the barriers that effect refugees’ access of the labour market as well as highlighting the factors that can promote their successful economic integration into Canadian society.

3.4 Limitations

As with all theories, there are some limitations to critical race, intersectional and segmented labour market theories. Even though critical race theory is often been used to highlight the influence of power and racism on marginalized populations, not all tenants of critical race theory are fully realized in a quantitative research on newcomers and refugees. Most importantly, critical race theory creates difficulty in identifying concrete measures for quantitative data. This limitation may be evident in my dissertation because of its focus on individual-women-centred data which does not allow me to draw out the complexity of power dynamics and structural racism/inequality faced by refugee women because I lack the structural level data to fully prove my point.

Despite the usefulness of intersectional theory in conceptualizing gender, class, and race into one framework, there is no consensus on the definition of intersectionality or the combination of

dynamics that constitute intersectionality. Critics of intersectionality argue that it's more of a conceptual framework than a theory which examines the links between race, gender, power and class without truly explaining the force(s) generating these factors among marginalized groups (Cho et al., 2013). For my dissertation, there is a possibility of overlooking underlying explanatory factors which results in economic disparities (eg. root cause of economic inequality in the Canadian labour market) for different refugee women (Foley, 2019) which is also a structural problem since I lack that data

The critique of the segmented labour market theory has been its failure to account for the possibility of individuals moving from the primary sector to the secondary sector, and vice versa, over a number of years (Reich et al., 1973). Furthermore, it is difficult to document solid barriers between the primary and the secondary labour markets, even within the same country, because these lines are often blurred or hidden. As a result, my dissertation is not able to measure the movement between primary and secondary labour markets as I cannot identify them within the data that I have available. Critics of the segmented labour market theory have also pointed out that the criteria used to determine the segmentation of the labour market by theorists is biased, since it is chosen subjectively by researchers who often have very little evidence with regard to the primary or secondary placement of labour markets (Boston, 1990; Graham and Shakow, 1990). This subjectivity emerges in the theory because classifying occupations into primary or secondary sectors is not always straight forward. For instance, Altmaan et al. (2014) have identified the jobs of secretaries as professions that can be in both the primary and secondary sectors, even though high skill sets are not needed for employment in such positions.

## CHAPTER 4 - METHODOLOGY

This chapter discusses the methodology used in this research. It begins with an overview of data source used and description of participants. The research design also discusses the statistical models and approaches employed to derive answers to the research questions. This includes the sampling, recoding of variables of interest from the survey dataset, a discussion on the data analysis for both the dependent and independent variables, data limitations and finally, relevant ethical considerations that underpins this research.

### 4.1 Source of Data

This dissertation makes use of the 2016 version of the Longitudinal Immigration Database (IMDB). This was the most recent data available to me at the time I started my dissertation. This dataset is maintained and housed by Statistics Canada on behalf of a federal-provincial consortium led by Immigration Refugees and Citizenship Canada (IRCC) at the Research Data Centres (RDC) and is a relevant source of data information on immigrants and refugees in Canada. The IMDB includes administrative immigration records on every single arriving person from 1980 and their annual tax files since 1982 which provides reliable data on the performance and economic impact of immigration programs. The information for this database is obtained from three administrative files comprising immigration information from IRCC, Immigrant Landing File (ILF) and the Non-permanent Resident File (NRF) excluding non-permanent residents who only ever held a visitor's permit. Also, it is updated each year with citizenship data, new non-permanent residents, new immigrants who arrive in the country - all newcomers must agree to allow their names and information to be stored in the database, settlement services data and new taxation data (Statistics Canada, 2018). The IMDB is the first dataset among many that links tax records to other forms of nationally collected data - data connections between IMDB and various provincial health data bases, for instance, and connecting the census to tax files in another incidence are two examples of modern database creation and data tracking strategies.

The IMDB dataset is a census with a longitudinal design which provides valuable information on the socio-economic outcomes of immigrants based on broad subject themes such as ethnic diversity and immigration, education, skills, labour market and income, population and

demography as well as mobility and migration (Statistics Canada, 2018). This immigration data is obtained from forms newcomers must complete before their arrival to Canada. According to Statistics Canada (2016), the IMDB is the only database source which provides a direct link between immigration policy and the economic performance of immigrants. As such, it allows for analysis by immigrant category, data on refugee women's labour market experience, income from 1982 and demographic characteristics such as gender, age, marital status, world area of birth and also self-declared knowledge of official language, level of education at landing as well as skill level (Statistics Canada, 2017).

The IMDB is not a typical database with rows representing individuals and columns representing variables. Instead, it is a compilation of many tables from which users make inquiries and create their own customized tables. The strength of IMDB is that because it has an exhaustive data on the economic behaviour of the immigrant tax filer population in Canada, it enables analysis of different characteristics of this population over a short and or long period in order to determine various outcomes (Statistics Canada, 2017). As the focus of my dissertation is on the successful economic integration of refugee women, the IMDB assists in analyzing refugees' labour market success in Canada based on the impact of variables such as level of education, language fluency and income. The advantages of using this secondary administrative source are that it is less costly and as a census, I can obtain data from everyone as compared to having to collect original data. In addition, there is considerably less time spent on primary data collection as well as cleaning the data. As such, using the IMDB dataset brings some convenience in carrying out this research.

#### 4.2 Description of participants

The target population for this study is refugee women resettled in Canada; refugees claiming asylum from within Canada are excluded from this research as their integration experience may be different from landed refugees. A representative sample of 229,645<sup>5</sup> refugee women to Canada is selected in order to have reliable estimates - from this selection I obtain my target population<sup>6</sup>. My target population from the IMDB is refugee women who landed in Canada from

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<sup>5</sup> It should be noted that my sample sizes changes for each of my research questions (6 and 7) and this is addressed and given more content and details in chapters 6 and 7.

<sup>6</sup> My actual sample is limited to those who are off working age, have income and as such, actually have held some sort of job.

1995 to 2016 and participants 0 to 64 years at the time of arrival. The rationale is to determine whether they will be able to achieve some economic integration<sup>7</sup> and positive outcome especially since they have no Canadian ‘exposure’ in terms of Canadian education, language fluency et cetera which will have different implications for their labour market success. In addition, the target population includes females who fall in any of the following immigration category census - Protected Persons, Dependent Protected Persons, Government Assisted Refugees, Privately Sponsored Refugees and Blended Visa Refugees.

More generally, the target population is females who have entered Canada as refugees with varying levels of education, work experiences and income, and no limitations on the world area of birth for this select group. I discuss the other demographic selection factors in the section below. Overall, the population was selected based on the grounds that they are relevant to achieve the objectives of this study.

### 4.3 Research Design

#### 4.3.1 Scope of Study

From the IMDB, the refugee women included in this study are identified under the admission category classification for refugee<sup>8</sup>. The refugee category has two main groups which are protected persons in Canada or dependents abroad<sup>9</sup> and resettled refugees who are the ones the public is most familiar with. Protected persons in Canada or dependents abroad include protected persons in Canada and dependants abroad of a protected person in Canada while Resettled refugee includes Government-Assisted Refugees<sup>10</sup>, Privately Sponsored Refugees<sup>11</sup>, and Blended Visa Office-Referred refugees<sup>12</sup>. Females selected for this study encompass both groups: protected persons and resettled refugees (Statistics Canada, 2017). Table 4.1 below lists the categories of refugees in tabular format.

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<sup>7</sup> As discussed in the literature review chapter, this dissertation defines economic success as education contributing to income above median employment income and positive increasing effect on income during recession. Successful economic integration is evident when refugee women are able to engage in the Canadian labour market in accessible ways which are commensurate with their skillsets, which recognize their credentials and which offer options for job opportunities and the evidence shows in their income.

<sup>8</sup> See glossary of terms.

<sup>9</sup> Ibid

<sup>10</sup> Ibid.

<sup>11</sup> Ibid

<sup>12</sup> Ibid

Table 4.1: Admission category classification

<b>REFUGEE CATEGORY</b>	<i>A. Protected person in Canada or dependent abroad</i>	Protected person in Canada
		Dependent abroad of a protected person in Canada
	<i>B. Resettled refugee</i>	Government-Assisted Refugee (GAR)
		Privately Sponsored Refugee (PSR)
		Blended Visa Office-Referred refugee (BVOR)

Source: Statistics Canada, Census of Population (2016); Government of Canada (2019).

Like most countries, the working age is typically between 25 to 64 years - individuals above the ages of 64 usually are planning on retiring or have retired and therefore no longer in the labour market. I will like to point out that changes to Canada Pension Plan (CPP) affects the retirement age. In Canada, the standard age to start receiving retirement pension is 65 and the CPP contributions stop when an individual reaches 70 years of age even if they are still working (Government of Canada, 2021). As such, 64 years is a realistic cut off point in this dissertation as it ensures the inclusion of refugee women active in the Canadian labour. For those under the ages of 24, even though we do find some in the labour market, they are expected to spend the majority of their time acquiring a skill or education although they may be working alongside to prepare and have the necessary work experience for later transition into the workforce. In regards to this research, the main focus is on economic integration and those fully participating in the Canadian labour market in order to determine which factors make this integration successful. As such, the economic outcomes of those 25 to 64 years will be given more focus (Yssaad and Fields, 2018; Picot and Hou, 2020).

There are additional considerations which have an influence on the sample selected for this thesis. These include whether the refugee women stated an education qualification, official language, skill level, world area of birth and marital status. Those who did not state at least one of these categories were excluded using listwise deletion from the research. This is a cautious approach but does not involve a large number of individuals given that most will have this information in their files and will be complete as this is a condition for their arrival to Canada. The purpose for the scope of this research is to ensure that the research focuses on refugee women engaging in the Canadian labour market - for my dissertation, I am only looking at

women who are or want to be employed, understanding that not everyone wants to be employed and that employment is not a condition of settlement or of successful integration.

#### 4.3.2 Operationalization of variables

##### 4.3.2.1 Measurement of dependent variables

This research is concerned with employment income and this dependent variable is measured in different ways - the rationale is discussed below. Even though the IMDB tax files have several types of income variables, presence of employment income is selected because it includes wages and salaries, commissions from employment, training allowances, tips and gratuities and self-employment income (net income from business, profession, farming, fishing and commissions) (Statistics Canada, 2015). This is the total reported employment income and is measured in Canadian dollars.

The Consumer Price Index (CPI) is one of the most common measure of price changes over time. As such, in order to determine continuously rising value or falling value of money, Statistics Canada measures prices against a reference base year or period as a way to adjust the value of money (Bank of Canada, 2020). CPI therefore allows adjusting for instance income payments, income taxes and social benefits in order to prevent inflation-induced increases over a year or periods (Statistics Canada, 2014, 2019). As such, the employment income variable is adjusted using the 2016 annual CPI for Canada which is 128.3<sup>13</sup> (Canadian CPI History, no date).

The *adjusted employment income* is used in two different ways for the different research questions. In regards to the effect of education on employment income in Chapter 6, adjusted employment income is used as a binary (where 0=income below median employment income and 1=income above median employment income) which is analyzed under three periods. That is 5 years after arrival, 10 years after arrival and 15 years after arrival for the logistic regression models. Furthermore, with regards to effect of the recession on income in Chapter 7, adjusted employment income is used as continuous variable (where landing year includes 2005, 2008 and 2011) which is analyzed under three periods. That is landing year, 3 years after arrival and 6

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<sup>13</sup> Employment income variable is adjusted by dividing the income for each year by that year's annual CPI for Canada/ 2016 annual CPI for Canada which is 128.3

years after arrival for the ordinary least regression models. Here the rationale is to compare the labour market outcomes of refugee women in the Canadian labour market in order to make arguments as to why refugee women could be faced with poor labour market outcomes, higher unemployment, poverty and lower standard of living.

To resolve issues of skewness and kurtosis associated with the employment income variable, several existing studies successfully use the natural log transformation method which is employed here for the dependent variable for chapter 6 and 7 in order to have a more normal distribution of employment income (Babones, 2008; Bartram, 2011; Benoit, 2011). This is essential since the unlogged adjusted employment income has very extreme values which deviate from a normal distribution.

#### 4.3.2.2 Measurement of independent variables

The independent variables in this research provide information on the achieved and ascribed characteristics that are often associated with an individual's success in the labour market. In this dissertation, these include human capital variables (education qualification, official language and skill level) and demographic variables (landing age, marital status, immigration category census and world area birth).

1. Education qualification: This is an ordinal level. It represents the highest level of education the refugee women have obtained outside of Canada. It provides an insight on how foreign credentials are viewed as well as valued in the Canadian labour market. From the IMDB dataset, the recodes of this variable used in this study are 1= 'High School Diploma or Less' (benchmark category), 2='Trade/Apprenticeship Certificate', 3='College/Trade Diploma', 4='Incomplete University', 5='Bachelor's Degree' and 6='Graduate Degree'<sup>14</sup>.
2. Official language: This is categorized as a human capital variable because it is a merit that you earn/learn rather than a category you are born into. As such, this variable provides information on the language proficiency of the refugee women in Canada. In the

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<sup>14</sup> This would include refugee women currently in graduate school.

IMDB, it is a categorical variable and is recoded into 1<sup>15</sup>=‘English only or French only or English and French’ and 0=‘Neither English nor French’ (benchmark category) for this study.

3. Skill level\_cd11: This variable indicates the intended skill level of the target population at the time of admission to Canada - it is based on “what job do you expect to do when you arrive in Canada”. It provides an insight into what job roles and positions they potentially qualify for or expected to work in the Canadian labour market. This is a hierarchical structure variable and for this study, categorized into 1=‘Managerial’, 2=‘Professionals’, 3=‘Skilled and Technical’, 4=‘Intermediate and Clerical’, 5=‘Elemental and Labourers’ and 6=‘New Workers’<sup>16</sup> (benchmark category).
4. World area birth: Even though the IMDB has a variable for country of origin, this version and detail cannot be used due to sample size issues for several of the countries. For most countries, the number of women arriving is low especially when we examine income by year of arrival. World area birth provides information on the region of birth of the refugee women. The key is to understand how region of birth plays a role in how refugees are viewed in the Canadian society and varying degrees of discrimination and racism faced. The recoded categories used in this study include 1=‘Europe’, 2=‘Africa and the Middle East’, 3=‘Southern Asia’, 4=‘Eastern Asia’, 5=‘Oceania and other Asia’ (benchmark category), and 6=‘The Americas’.
5. Landing age groups: This variable represents the age group of the target population included in this research. In the IMBD dataset, it is measured as a categorical variable with a hierarchical structure - I did not have access to age as a continuous level variable and this is a limitation. This is recorded into the following categories for this study, 1=‘15 to 24 years of age’ (benchmark category), 2=‘25 to 34 years of age’, 3=‘35 to 49 years of age’ and 4=‘50 to 64 years of age’.

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<sup>15</sup> These categories are combined in order to overcome sample size and interaction effect limitations in the models.

<sup>16</sup> According to CIC, New worker is an occupation (code 999860) and includes individuals 15 years of age or older.

6. Marital status rollup: This categorical variable is the marital status of the refugee women at the time of admission into Canada. The marital status categories used in this dissertation include, 1='Single', 2='Married, common law partner' and 3='Separated, divorced, widowed' (benchmark category).
7. Immigration category census: The IMDB categorizes refugees based on the program of resettlement into Canada. For this dissertation, the categories of interest from this variable that have been recorded for this analysis are, 1='Protected Persons', 2='Dependant Protected Persons' (benchmark category), 3='Government Assisted Refugees' and 4='Privately Sponsored Refugees or Blended Visa Refugees'.

See appendix I for summary of the variables, categories and recodes used for the statistical models.

#### 4.4 Data analysis and interpretation

The data is analyzed using Statistical Analytics Software (SAS) and Statistical Software for Data Science (STATA), and presented using simple descriptive statistics including crosstabs, univariate and multiple regression models. SAS is the preferred data analysis package of the RDC and is used in the initial stages to merge the IMDB landing years and tax files (1995-2016). The SAS data can be easily entered into STATA which allows the bootstrapping to be done correctly. The newly merged file is exported into STATA for more detailed analysis and for bootstrapping. The select variables are recoded accordingly as part of the analysis process as discussed in the sub-section above. To ensure robustness, I conduct robustness check for each regression model in order to correct for heteroscedasticity - in STATA, my robustness check is done using vce (robust) which gives accurate assessments of the variability of the parameter estimates even when the model is misspecified and as long as the observations are independent (Stata, 2021).

To this effect, chapter 5 deals with this question:

1. What are the human capital and demographic characteristics of resettled refugee women who enter the Canadian labour market?

Here, I use descriptive statistics and crosstabs to present a profile of the target population in terms of their ascribed characteristics as well as achieved characteristics and whether it meets the Canadian labour market expectations and qualification. I further compare the refugee women to both Canadian and immigrant women with similar attributes.

Next, chapter 6 examines the results of this question:

2. Does education contribute to the income of resettled refugee women in Canada?

The segmented nature of the Canadian labour market implies that workers will be in different pay grades and therefore, placing some groups above median employment income and others below median employment income. Statistics Canada reports the income of the Canadian population based on several measures and in different categories as an indicator for the United Nations Sustainable Development Goals to determine for instance, income inequality in Canada. Statistics Canada uses this approach to determine the estimate of income for the entire population on the basis of medians (Statistics Canada, 2017). According to Statistics Canada (2017, 2018), the Canada-wide median employment income for all workers in 2016 was \$33,300. The median adopted for this study is based on the 2016 median income since the 2016 IMDB data was the latest version accessible during the time of my research. As such, with the median being \$33,330 as the bench mark for median employment income, those below this figure will be income earners below median employment income (that is, \$33,299) while those at this bench mark and above will be income earners above median employment income.

There are some limitations to this approach. In Canada, minimum wage varies from province to province as well as the various layers of employee benefits rates deducted such that, who will fall in the median income gap is inconsistent across the country for the refugee women in this study. In addition, to an extent, this approach leads to underestimating the actual struggle of some refugee women who in some cases have to rely on income support from the government or even child tax credits to meet their livelihood expenses thereby serving as supplementary income.

The employment income variable for this chapter is binary: income below median employment income (below cut off) is coded as '0' and income above median employment income (above cut

off) is coded as '1'. I then compare income 5 years after arrival, 10 years after arrival and 15 years after arrival. This is to give the reader a rough indication of short-term, medium-term, and long-term economic integration. This follows a formula developed by Jim Frideres, Dick Wanner and Peter Li in the late 1990s (Wanner, et. al, 2005). The binary constitutes recode adjusted employment income 5y/10y/15y (.=.) (median income/33,299.99=0 'below cut off') (33,300/maximum income=1 'above cut off'), gen (Emp\_5ybinary/Emp\_10ybinary/ Emp\_15ybinary), where cut off income is the median income at which half the population had higher income and half had lower in 2016 (Statistics Canada, 2018).

A multiple logistic equation is employed to answer this research question - this produces odds ratios so that there is an educated guess as to whether income goes up or down. The first set of models includes the education qualification variable to determine the role of this factor on employment income five, ten and fifteen years after arrival. The second set of models includes additional human capital variables and world area birth to determine the role of these factors in the income gap refugee women find themselves in the Canadian labour market. The third and fourth set of models includes both the human capital variables and the demographic variables. This helps to determine the demographic factors effect on the refugee women's human capital and how it potentially plays a role for instance in the rate of foreign credentials acceptance, skills recognition and fluency in any of the Canadian official languages.

Interaction terms are examined for education qualification with each of the additional human capital (knowledge of official language and skill level) as well as demographic variables (world area birth, landing age, marital status and immigration category census). The role and importance of interaction effects are that because regression equations cannot handle variables that interact with one another without interaction variables, interaction models are needed to provide a deeper understanding of the relationship between education qualification and the other variables to the overall impact on income below or above median employment income. Essentially, the importance of interaction effects is to indicate how two or more of my independent variables working together impact the dependent variable (Lavrakas, 2008).

Finally, chapter 7 also examines the results of this question:

3. Does the year (or period) of arrival and economic conditions in the Canadian labour market affect the economic success of resettled refugee women?

The employment income variable for this chapter is continuous. The main dependent variable reported in chapter 7 is adjusted employment income and is logged in order to deal with the skewness of the variable. Here I look at income in three ways. That is income before the recession in 2005 arrival, three years after (2008) and six years after (2011) for the first group, income during the recession in 2008 arrival, three year after (2011) and six years after (2014) for the second group and lastly income after the recession in 2011 arrival and three year after (2014) for the third group. Again, this is to give the reader a rough indication of short-term, medium-term, and long-term economic integration (Wanner, et. al, 2005).

Multiple ordinary least regression models are constructed to answer this research question. The first set of ordinary least regression models test employment income during the economic conditions (arrival before recession, during recession and recession aftermath) with the human capital characteristics the refugee women possess. The second set of models test the likelihood that demographic factors in addition to the human capital characteristics of the refugee women impact their employment income in these periods (arrival before recession, during recession and recession aftermath). This helps frame a comprehensive understanding of which characteristics of the refugee women are necessary and significant in a given economic period (arrival before recession versus during recession versus recession aftermath) in order to influence an increase or decrease in employment income negatively or positively. Table 4.2 provides a summary of the research questions and the variables used to answer these questions.

Table 4.2: Overview of research questions and select variables from the IMDB dataset

<b>Research questions</b>	<b>Longitudinal Immigration Database (IMDB) Variables</b>
1. What are the human capital and demographic characteristics of resettled refugee women who enter the Canadian labour market?	<ul style="list-style-type: none"> <li>• Landing_age_6_groups</li> <li>• Immigration_category_census</li> <li>• World_area_birth</li> <li>• Marital_status_rollup</li> <li>• Official_language</li> <li>• Education_qualification</li> <li>• Skill_level_cd11</li> </ul>
<b>Research questions</b>	<b>Longitudinal Immigration Database (IMDB) Variables</b>

	Dependent variables	Independent variables
2. Does education contribute to the income of resettled refugee women in Canada?	<ul style="list-style-type: none"> <li>• Adjusted employment income: <ul style="list-style-type: none"> <li>➤ <i>5 years after arrival</i></li> <li>➤ <i>10 years after arrival</i></li> <li>➤ <i>15 years after arrival</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Education_qualification</li> <li>• Official_language</li> <li>• Skill_level_cd11</li> <li>• Landing_age_6_groups</li> <li>• Marital_status_rollup</li> <li>• Immigration_category_census</li> <li>• World_area_birth</li> </ul>
3. Does the year (or period) of arrival and economic conditions in the Canadian labour market affect the economic success of female refugees?	<ul style="list-style-type: none"> <li>• Adjusted employment income: <ul style="list-style-type: none"> <li>➤ <i>At arrival years (2005, 2008, 2011)</i></li> <li>➤ <i>3 years after arrival</i></li> <li>➤ <i>6 years after arrival</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Landing_year</li> <li>• Education_qualification</li> <li>• Official_language</li> <li>• Skill_level_cd11</li> <li>• Landing_age_6_groups</li> <li>• Marital_status_rollup</li> <li>• Immigration_category_census</li> <li>• World_area_birth</li> </ul>

#### 4.5 Limitations

Like all secondary data analysis, the main limitation with my plan has been some of the variables from the IMDB not measured in a way that is most beneficial to fully address my research questions. In some cases, variables that might have been useful are not available either. For instance, the IMDB does not contain information on the intended occupation of the refugee women which they wish to pursue in Canada as such, it is difficult to determine whether this intention was achieved when they resettled to showcase their successful economic integration. In addition, there is no measure of educational experience outside versus inside Canada and so I cannot measure change in education. Then again I have the family dynamics problem - fertility plays a big role in women's employment income and there is no variable that shows when people enter the family unit (birth or marriage) or when they leave the family unit (grow up, divorce or die), as such, I do not have this measure as well. This is a common challenge of quantitative research but one that cannot be ignored.

Furthermore, there is the additional challenge of the responses for the variables of interest either being 'skipped' or 'not stated'. This to some extent may affect the level of generalization of some findings from this dissertation. Also, some categories of refugee women were excluded

from this study mainly due to not contributing to the objections of this study. For instance those who did not state their knowledge of official language, marital status and some skill level categories including student, retired and other non-workers. Those below 15 years of age were also excluded simply because they cannot be participants in the Canadian labour market and therefore will surely have poor economic outcomes and the same as those who did not indicate their knowledge of foreign language, students or even retirees. The downside however of excluding these various categories is the significant reduction in sample size which affects the generalizing of ones findings. Again, these excluded categories restrict the study from examining more broadly the implications for some refugee women.

Equally, I did not have access to age as a continuous level variable which is also a limitation and for most countries, the number of women arriving is low especially when I examine income by arrival year.

#### 4.6 Ethical Considerations

To obtain access to the IMDB in the University of Manitoba Research Data Centre (RDC), I went through security screening process, signing of the Oath of Office and Secrecy, participating in an RDC orientation session and signing a Micro-data Research Contract with Statistics Canada together with my dissertation supervisor. This is to ensure complying with the rules governing Statistics Canada data access.

Other ethical considerations are recognized in all aspects of this study. Manitoba's RDC does not allow removal of data with small numbers and as such, enables the ability to ensure non-disclosure of identity and related characteristics of participants of interest for this study. Furthermore, as part of the confidentiality constraints to prevent the release of personal information, micro-records are not released to users and all the statistics are subjected to rounding, vetted by Manitoba's RDC director before release. Caution is also taken when analyzing and interpreting the findings in order to adequately portray the experiences of refugee women without distorting their reality. To an extent, it is also ethical for me to do this research using secondary data because I do not have to bother refugee women to answer a survey. Again, to contribute to programs and services aimed at improving the outcomes of refugee women in

Canada, the findings from this study will be shared with service provider organizations and government sources so that it can be used for beneficial purposes.

#### 4.7 Conclusion

My dissertation seeks to address the idea of what success looks like for refugee women in the Canadian labour market. This is a vital contribution especially for the government and settlement agencies who play a key role in the resettlement and integration of newcomers in Canada. This makes the availability and access to relevant data for this group important for research and policy purposes - some of the data sets have very limited data in terms of ethnicity and religion for instance. In addition, the government wishes more people would use the IMDB but it is so complex that very few students and professors ever try to take it on. As well, data is not merged between years so it makes that task more difficult and out of reach for researchers.

## **CHAPTER 5: What are the human capital and demographic characteristics of resettled refugee women who enter the Canadian labour market?**

Refugee women arrive in Canada with human capital and demographic characteristics that are different from what Canadian employers may be used to. This difference most often serves as the basis for the inferior positions refugees are subjected to in the labour market. Krahn et al. (2000) and Jamil et al.'s (2012) research suggests that the reasons for low job and skill match among refugee women are language fluency, the host country's negative attitudes towards refugees (including racism and discrimination), the belief that refugees lack professional knowledge or that their knowledge is inferior to the host country's standards, non-recognition of their credentials and prior experience all contribute to precarious and low paying work.

For the refugee women in this study, their economic integration and successful outcomes I believe are influenced by this low class position - when we think about what it is like to be precariously employed as a refugee in Canada, a study by Creese (2010) provides insight into some of discrimination and marginalization refugees face in the labour market even with having knowledge of one of Canada's official languages - her study reveals that despite African refugees being fluent in English speaking, because of their strong foreign accent, they are often discriminated against by potential employers who just will hire them, pass them over for promotions or not offer them higher positions even if they are qualified. Wilson-Forsberg and Sethi, (2015) also suggests that even in the case of those with foreign work experience who take on volunteer opportunities to have some Canadian work experience, there is no guarantee for refugees who use this path in getting better paying jobs or jobs which match their level of education or skill.

This chapter introduces the topic of work experiences for refugee women by summarizing the major characteristics of the women participating in my study. The data is drawn from the IMDB, a longitudinal data set described in Chapter 4. In this dissertation, I limit the sample to former refugee women aged between 1 month and 64 years old (at the time they arrived in Canada) and who arrived in the country between 1995 and 2016. This chapter lays the foundation to situate the research findings within the Canadian labour market which I discuss in Chapters 6 and 7.

The main research question addressed by this chapter is: *What are the human capital and demographic characteristics of resettled refugee women who enter the Canadian labour market?* The first part of the analysis examines World area birth, Landing age, Marital status, Immigration category census, Education qualification, Skill level and Official language. The second part of the chapter provides data to determine whether the target populations in this dissertation arrive in Canada with the qualifications necessary for successful economic integration. This information provides valuable baseline information to understand how refugee women are ‘received’ in the labour market. These findings are compared to sample datasets on women born in Canada and immigrant women<sup>17</sup> (e.g., economic immigrants) to present an overview of how refugee women measure up against other women in the Canadian labour market.

## 5.1 Demographic variables

### 5.1.1 World area of birth

Between 1995 and 2016, the IMDB records the arrival of 229,645 refugee women to Canada. From this data, we can examine their world area of birth. Table 5.1 provides an overview of the world area of birth for refugee women in Canada. As refugee women come from all over the world and there are known inequalities with regard to access to the labour market in Canada, it is important to have a sense of the distribution of world regions as a characteristic in this study. The world regions from which the greatest number of refugee women in Canada comes from are Africa and the Middle East (39%); these are followed by the Americas (17%). Other world regions also have a minor representation of refugee women in Canada. Table 5.1 below summarizes the results for world area of birth of refugee women.

Table 5.1: World area of birth of refugee women, 2016.

<b>World_area_birth</b>		
<b>VARIABLE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
Europe	30,155	13%
Africa and the Middle East <sup>18</sup>	89,400	39%
Southern Asia	36,630	16%

<sup>17</sup> I cannot assume straight across comparison with the refugee women in my study because the data on women born in Canada and immigrant women are not usually prepared in that same way.

<sup>18</sup> It was not possible to separate the Middle East from Africa due to small sample sizes.

<b>World_area_birth</b>		
<b>VARIABLE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
Eastern Asia	10,305	4%
Oceania and other Asia	24,505	11%
Americas	38,655	17%
<b>Total</b>	<b>229,650</b>	<b>100%</b>

Table 5.2 provides comparative information about the place of birth for immigrant women for comparative purposes. Among refugee women, 39% are from Africa and the Middle East, compared to 8% for immigrant women in Canada. Also, a higher proportion of immigrant women (50%) are from the Asia regions compared to the refugee women in this study (31%). Essentially, this gives an idea of the place of birth of the newcomer population in Canada. Table 5.2 below summarizes the results for world area of birth of immigrant women.

Table 5.2: Place of birth of immigrant women, 2016.

<b>Place of birth</b>		
<b>VARIABLE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
Europe	1,073,260	27%
Africa	314,975	8%
Southern Asia	538,815	14%
Eastern Asia	594,755	15%
Oceania and other Asia	814,375	21%
Americas	617,590	16%
<b>Total</b>	<b>3,358,955</b>	<b>100%</b>

Source for Immigrant women: Statistics Canada - 2016 Census. (*sample data\**) - Catalogue Number 98-400-X2016203.

### 5.1.2 Age

Age matters in the labour market because it influences job access and distribution. Table 5.3 examines the age distribution of the refugee women at their time of arrival. The landing age of refugee women indicates that the majority of this population arrived in Canada as young adults -

about 27% were between 25 to 34 years of age at arrival and 25% between 35 to 49 years of age at arrival. However, challenges may arise for older adults between 50 to 64 years of age (7%) who are seeking employment since they may not fit into an ‘active labour force’. In addition, even though a relatively small portion of this sample population were under 15 years of age (18%) and 15 to 24 years of age (22%) upon arrival in Canada, it is important to note that they may have different labour market outcomes than those who are over 25 because of the opportunity to gain some or all of their educational credentials and skills in Canada. Table 5.3 below summarizes the results for the landing age of refugee women in Canada.

Table 5.3: Landing age of refugee women in Canada, 2016.

<b>Landing_age_6_groups</b>		
<b>VARIABLE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
Under 15 years of age	41,090	18%
15 to 24 years of age	51,485	22%
25 to 34 years of age	61,850	27%
35 to 49 years of age	58,420	25%
50 to 64 years of age	16,810	7%
<b>Total</b>	229,655	100%

On average, refugee women are generally younger than women born in Canada and younger than immigrant women. In Table 5.4, I examine the age distributions of women born in Canada and immigrant women so that we can have a sense of how the age distribution of refugee women compares. The median age (the point at which 50% of the population sits) is 25-34 years of age for women born in Canada and 15-24 years of age for immigrant women. Comparing to refugee women, we realise that the median age for refugee women (25-34 years) is closer to the Canadian average than the immigrant average which is younger. Table 5.4 below summarizes the results for age groups of women born in Canada and landing age of other immigrant women in Canada.

Table 5.4: Age groups of women born in Canada and landing age of other immigrant women, 2016.

VARIABLE	FREQUENCY	PERCENTAGE
<b>WOMEN BORN IN CANADA: Age groups</b>		
0 to 14 years	2,628,710	23%
15 to 24 years	1,712,465	15%
25 to 34 years	1,691,765	15%
35 to 44 years	1,576,250	14%
45 to 54 years	1,786,765	16%
55 to 64 years	1,867,285	17%
<b>Total</b>	<b>11,263,240</b>	<b>100%</b>
<b>IMMIGRANT WOMEN: Age at immigration<sup>19</sup></b>		
Under 5 years	367,175	9%
5 to 14 years	645,940	17%
15 to 24 years	880,005	22%
25 to 44 years	1,684,950	43%
45 years and over	376,260	10%
<b>Total</b>	<b>3,954,330</b>	<b>100%</b>

Source for Canadian women and other Immigrant women: Statistics Canada - 2016 Census. (sample data\*) - Catalogue Number 98-400-X2016203.

### 5.1.3 Marital status

Marital status has an influence on the type of work women do in Canada (Chiswick et al., 2005, Danzer and Ulku, 2008). Table 5.5 shows the distribution of marital status for the refugee women in this study. The results from the univariate analysis indicate that the majority of refugee women in the IMDB were single (48%) - this is likely due to their younger age distribution; followed by women who were married or in common law partnerships (43%) and, finally, those who were separated, divorced, or widowed (9%). Table 5.5 below summarizes the results for marital status of refugee women in Canada.

Table 5.5: Marital status of refugee women in Canada, 2016.

<sup>19</sup> Refers to the age at which an immigrant first obtained landed immigrant or permanent resident status.

<b>Marital_status_rollup</b>		
<b>VARIABLE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
Single	109,335	48%
Married, common law partner	99,785	43%
Separated, divorced, widowed	20,525	9%
<b>Total</b>	<b>229,645</b>	<b>100%</b>

Table 5.6 shows the distribution of marital status for women born in Canada and immigrant women. Comparatively, the proportion of single women was relatively smaller for women born in Canada (28%) and immigrant women (16%) than refugee women (48%) (Statistics Canada, 2017). In addition, a higher number of women born in Canada (55%) and immigrant women (63%) were married compared to refugee women (43%) (IMDB, 2016; Statistics Canada, 2017). Table 5.6 below summarizes the results for marital status women born in Canada and other immigrant women.

Table 5.6: Marital status of women born in Canada and other immigrant women, 2016.

<b>VARIABLE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
<b>WOMEN BORN IN CANADA: Marital status (aged 15 years and over)</b>		
Never married	3,017,335	28%
Married or living common law	5,864,635	55%
Separated, divorced, widowed	1,777,605	17%
<b>Total</b>	<b>10,659,575</b>	<b>100%</b>
<b>IMMIGRANT WOMEN: Marital status (aged 15 years and over)</b>		
Never married	617,030	16%
Married or living common law	2,397,510	64%
Separated, divorced, widowed	755,145	20%
<b>Total</b>	<b>3,769,685</b>	<b>100%</b>

Source for Canadian women and other Immigrant women: Statistics Canada - 2016 Census. (sample data\*) - Catalogue Number 98-400-X2016203.

#### 5.1.4 Immigration category census

The refugee women sampled in this study arrived in Canada through various resettlement programs; the program with the highest representation is Protected Persons (42%) which is almost twice the representation for Government-Assisted Refugees (GARs) (27%), Dependant Protected Persons (17%), and lastly, Privately Sponsored Refugees (PSRs) and Blended Visa Office-Referred refugees (BVOR) (14%). Table 5.7 below summarizes the results for immigration category of refugee women in Canada.

Table 5.7: Immigration category of refugee women in Canada, 2016.

<b>Immigration category</b>		
<b>VARIABLE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
Protected Persons	95,970	42%
Dependant Protected Persons	38,280	17%
Government Assisted Refugees	63,020	27%
Privately Sponsored Refugees and Blended Visa Office-Referred Refugees	32,375	14%
<b>Total</b>	<b>229,645</b>	<b>100%</b>

## 5.2 Labour market variables

### 5.2.1 Education qualification

Table 5.8 provides an overview of the highest to lowest level of education for refugee women in Canada. Among this group of women, 10% had earned a university degree, while a much higher proportion had high school diploma or less (74%). Overall, the refugee women in this study had lower levels of education but their rates of university level education are similar to people born in Canada. Table 5.8 below summarizes the results for education qualifications of refugee women in Canada.

Table 5.8: Education qualifications of refugee women in Canada, 2016.

<b>Education qualification<sup>20</sup></b>		
<b>VARIABLE</b>	<b>FREQUENCY<sup>21</sup></b>	<b>PERCENTAGE</b>

<sup>20</sup> According to the IMDB dictionary, education qualification refers to education obtained at the time of admission

<sup>21</sup> Counts are rounded to conform to RDC data release regulations.

<b>Education qualification<sup>20</sup></b>		
<b>VARIABLE</b>	<b>FREQUENCY<sup>21</sup></b>	<b>PERCENTAGE</b>
High School Diploma or Less	168,920	74%
Trade/Apprenticeship Certificate	11,140	5%
College/Trade Diploma	17,865	8%
Incomplete University	9,620	4%
Bachelor's Degree	17,535	8%
Graduate Degree	4,560	2%
<b>Total</b>	<b>229,640</b>	<b>100%</b>

Table 5.8 provides information about the educational qualifications for women born in Canada and immigrant women for comparative purposes. Interestingly, women born in Canada and immigrant women also have high proportions of secondary education qualifications or less, reflecting approximately 28% women born in Canada with Secondary (High) School Diploma or Equivalency Certificate and 17% with No Certificate, Diploma or Degree, and for immigrant women, 33% had Secondary (High) School Diploma or Equivalency Certificate and 25% had No Certificate, Diploma or Degree (Statistics Canada, 2017). Also, a higher number of other immigrant women (30%) had university-level qualifications compared to both women born in Canada (25%) and refugee women (10%) (Statistics Canada, 2017; IMDB, 2016). Table 5.9 below summarizes the results for education qualifications of women born in Canada and immigrant women.

Table 5.9: Education qualifications of women born in Canada and immigrant women, 2016.

<b>VARIABLE</b>	<b>FREQUENCY<sup>22</sup></b>	<b>PERCENTAGE</b>
<b>WOMEN BORN IN CANADA <sup>23</sup>: Highest certificate, diploma or degree<sup>24</sup></b>		
No Certificate, Diploma or Degree	1,842,225	17%
Secondary (High) School Diploma or Equivalency Certificate	2,923,890	28%
Apprenticeship or Trades Certificate or Diploma	706,015	7%
College, CEGEP or other Non-University Certificate or Diploma	2,528,585	24%

<sup>22</sup> Statistics Canada rounds up total number.

<sup>23</sup> Includes persons who are Canadian citizens by birth

<sup>24</sup> Location of study inside and outside Canada

VARIABLE	FREQUENCY <sup>22</sup>	PERCENTAGE
University Certificate or Diploma below Bachelor Level	318,700	3%
University Certificate, Diploma or Degree at Bachelor Level or above	2,284,770	22%
<b>Total</b>	10,604,180	100%
<b>IMMIGRANT WOMEN<sup>25</sup>: Highest certificate, diploma or degree<sup>26</sup></b>		
No certificate, Diploma or Degree	697,105	25%
Secondary (High) School Diploma or Equivalency Certificate	893,440	33%
Apprenticeship or Trades Certificate or Diploma	67,795	3%
College, CEGEP or other Non-University Certificate or Diploma	252,155	9%
University Certificate or Diploma below Bachelor Level	94,165	3%
University Certificate, Diploma or Degree at Bachelor Level or above	740,015	27%
<b>Total</b>	2,744,665	100%

Source Statistics Canada - 2016 Census. (*sample data\**) -Catalogue Number 98-400-X2016278, Catalogue Number 98-400-X2016278.

#### 5.2.1.1 Education qualification by world area of birth

Recognition of foreign education qualifications influences the economic outcomes of newcomers to an extent. Figure 5.1 examines the educational credentials of refugee women by world area of origin. Refugee women from Africa and the Middle East (34%) and the Americas (26%) have statistically higher numbers of graduate degree holders compared to refugee women from other world regions. Additionally, it is worth noting that among the various birth regions, refugee women from Africa and the Middle East (40%) and Southern Asia (18%) have the lowest education qualifications. Figure 5.1 below shows refugee women's level of education achieved at arrival by world area of birth.

<sup>25</sup> 'Immigrants' includes persons who are, or who have ever been, landed immigrants or permanent residents. Such persons have been granted the right to live in Canada permanently by immigration authorities. Immigrants who have obtained Canadian citizenship by naturalization are included in this category. In the 2016 Census of Population, 'Immigrants' includes immigrants who landed in Canada on or prior to May 10, 2016.

<sup>26</sup> Location of study outside Canada

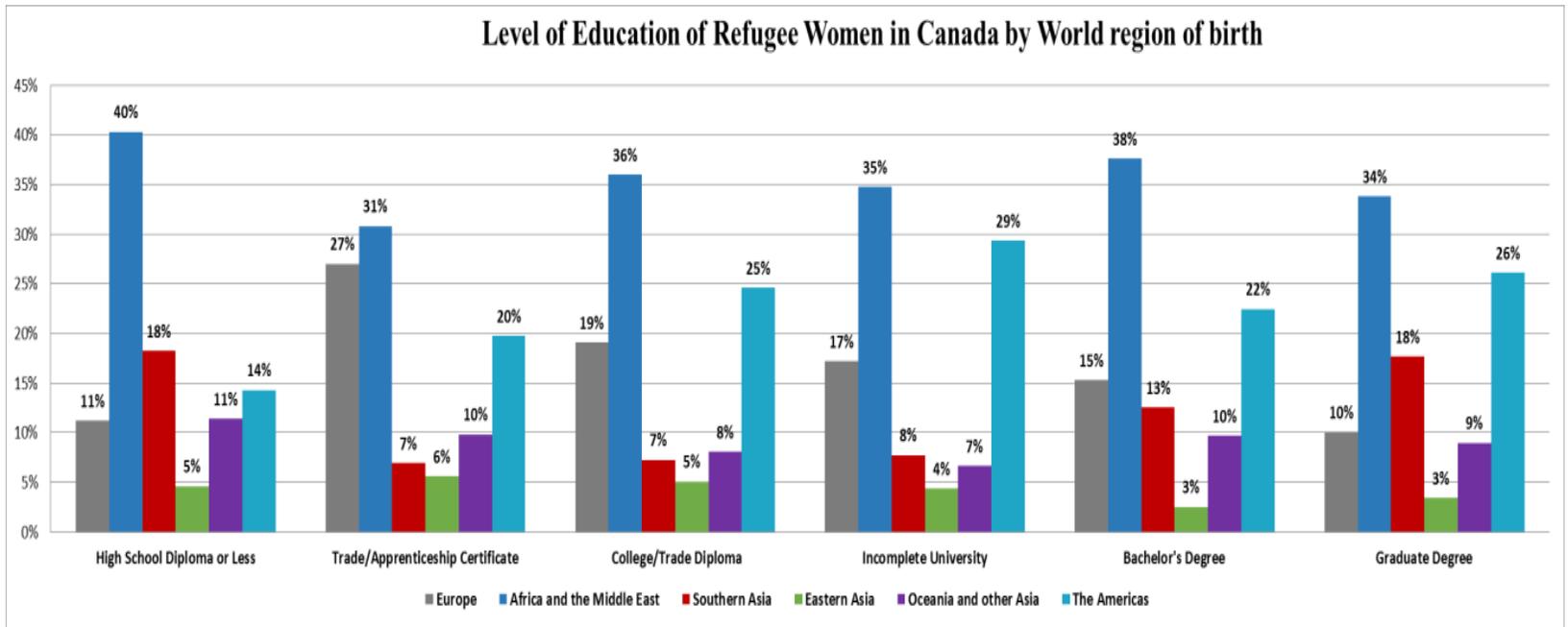


Figure 5.1: Refugee women's level of education achieved at arrival by world area of birth, 2016

Figure 5.2 examines education level for all immigrant women. I have provided this information so that we can compare to refugee women. Conversely, in the immigrant women category, Asians have the highest levels of education at the university level (29%). Also, immigrant women from Southern Asia (28%) compared to refugee women from Southern Asia (18%) have the lowest education qualifications. Figure 5.2 below shows immigrant women's level of education achieved at arrival by world area of birth.

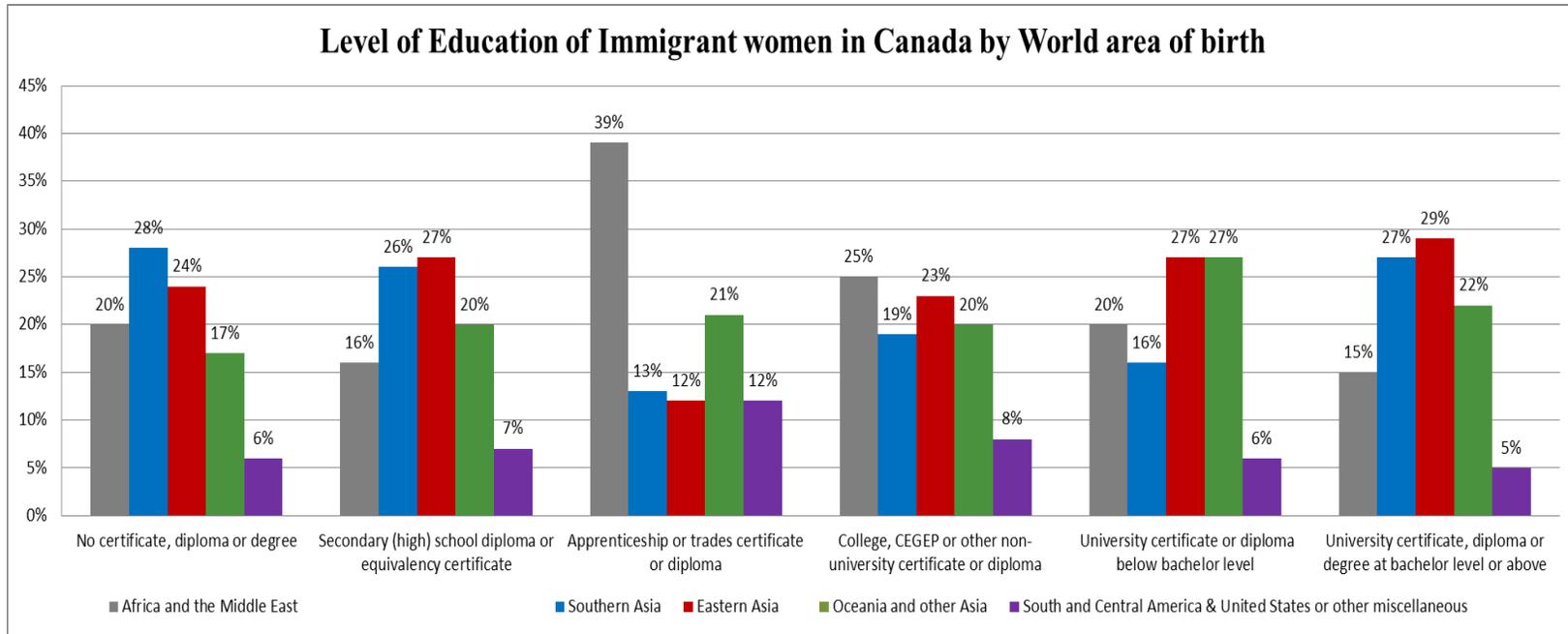


Figure 5.2: Immigrant women’s level of Education achieved at arrival by World area of birth, 2016. Source: Statistics Canada - 2016 Census. Catalogue Number 98-400-X2016286

### 5.2.1.2 Education qualification by age

Education level varies by age group as is shown in figure 5.3. The results show that younger members of refugee women who arrived in Canada at 24 years old or younger represent the majority of those with no secondary or lower education level qualifications (92%); this 92% rate is not surprising as they may currently still be in school. Additionally, the results reveal that of those who spent most of their childhood and youth in Canada, 3% have incomplete university and only 1% have a Bachelor's degree. Given that these qualifications were likely attained in Canada, these education levels provide a strong basis for different economic outcomes compared to women from more mature age groups who were over 25 upon arrival in Canada. For example, according to the IMDB, 34,986 refugee women under the age of 24 had employment income at arrival; this number increased to 48,060 for employment income within three years after arrival and became 50,840 within six years after arrival. The results also show that refugee women between 25 to 34 years (21%) and 35 to 49 (19%) age groups have university-level education at arrival which is unsurprising given the societal expectation in some countries that an individual should have some university education. Figure 5.3 below shows refugee women's education levels achieved at arrival by landed age.

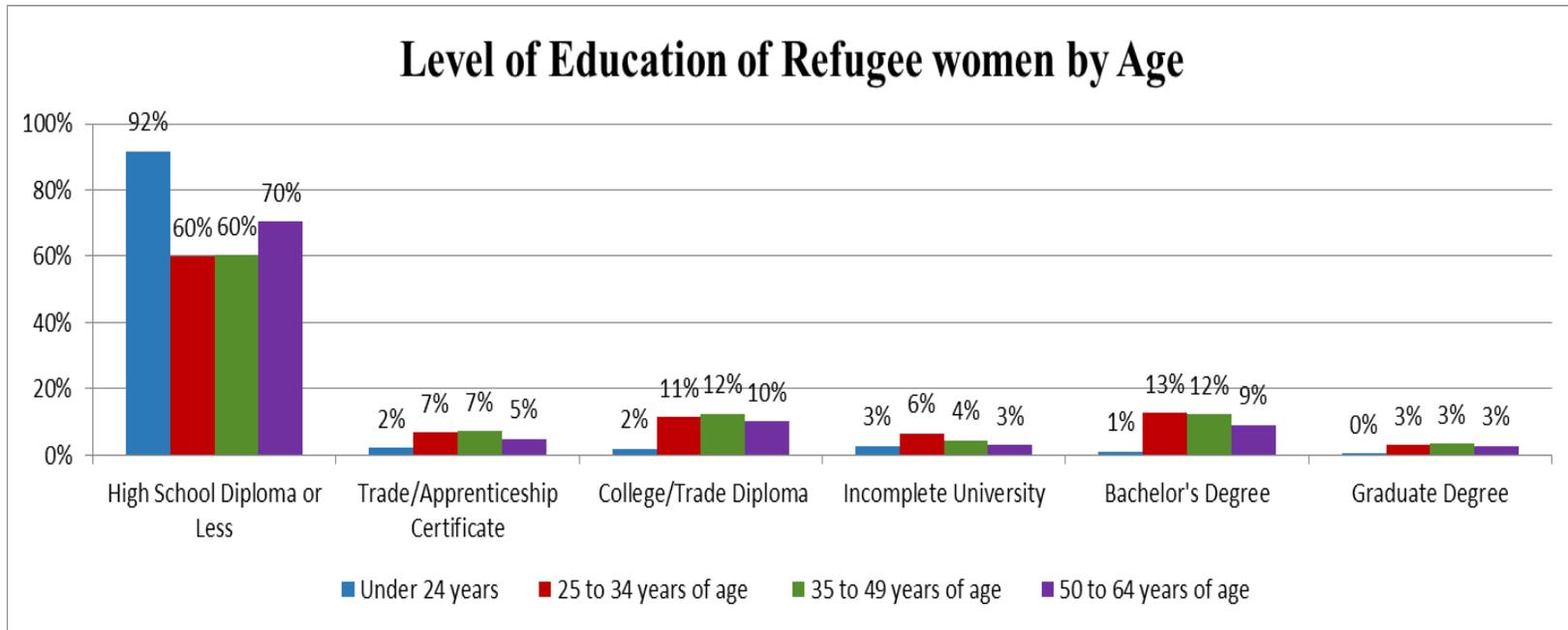


Figure 5.3: Refugee women’s education levels achieved at arrival by landed age, 2016.

Figure 5.4 provides comparable educational data for immigrant women and women born in Canada. Immigrant women between the ages of 25 to 54 are more likely to earn university degrees (40%) compared to refugee women<sup>27</sup> (31%) and women born in Canada (27%). In contrast, more women born in Canada had diplomas or certificates (40%) compared to refugee women (33%) and immigrant women (29%). Figure 5.4 below shows refugee women versus immigrant women's education level by age.

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<sup>27</sup> 35 to 49 years of age

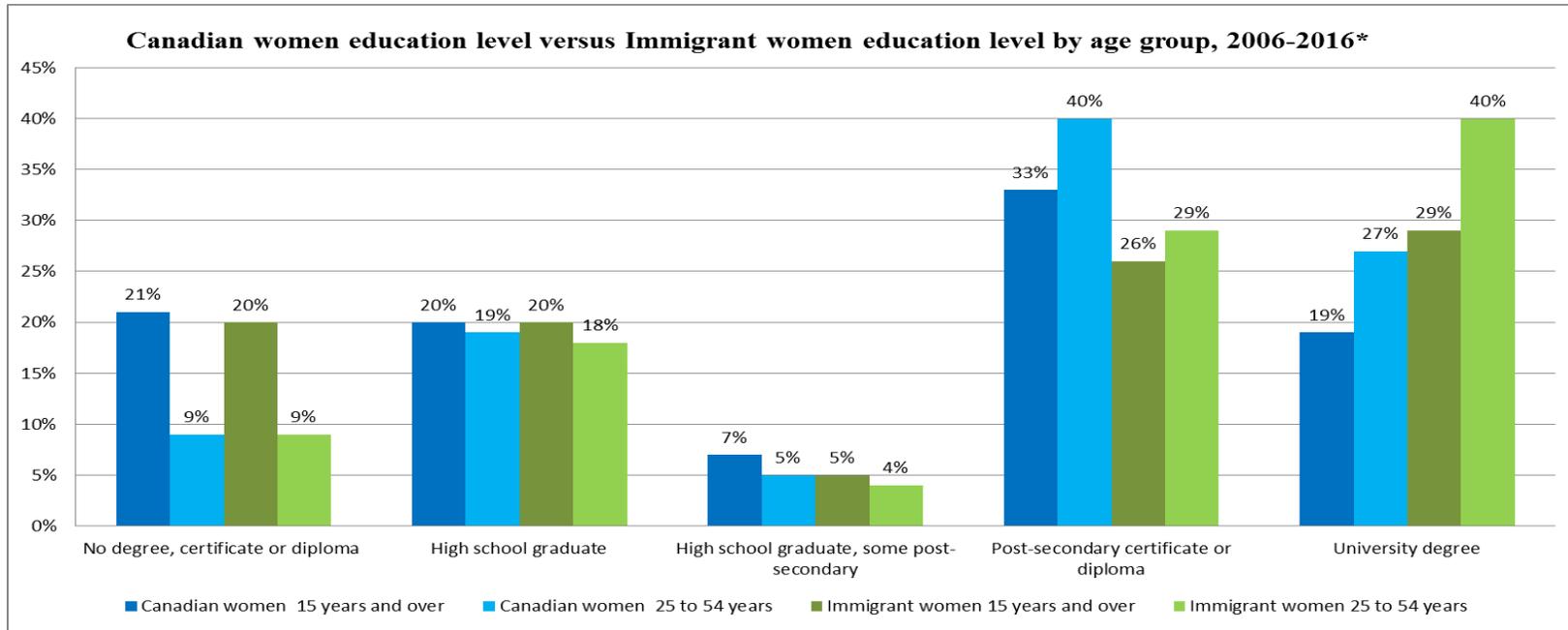


Figure 5.4: Refugee women versus Immigrant women’s Education level by Age, 2016.

Source: Statistics Canada. Table 14-10-0087-01

### 5.2.1.3 Education qualification achieved at arrival by immigration status

Figure 5.5 examines the highest level of education for refugee women by their immigration status. More than 50% of the refugee women had high school diploma or less with the highest being among Government Assisted Refugees (82%) and Protected Persons (82%). In addition, less than 15% of the refugee women had university degree - only 10% of Protected Persons refugee women had Bachelor's degree and another 4% had Graduate degree compared to Dependant Protected Persons (6% Bachelor's degree and 1% Graduate degree), Government Assisted Refugees (6% Bachelor's degree and 1% Graduate degree) and Privately Sponsored Refugees and Blended Visa Referred refugee women (6% Bachelor's degree and 1% Graduate degree). Figure 5.5 below shows the highest level of education of refugee women in Canada by immigration category.

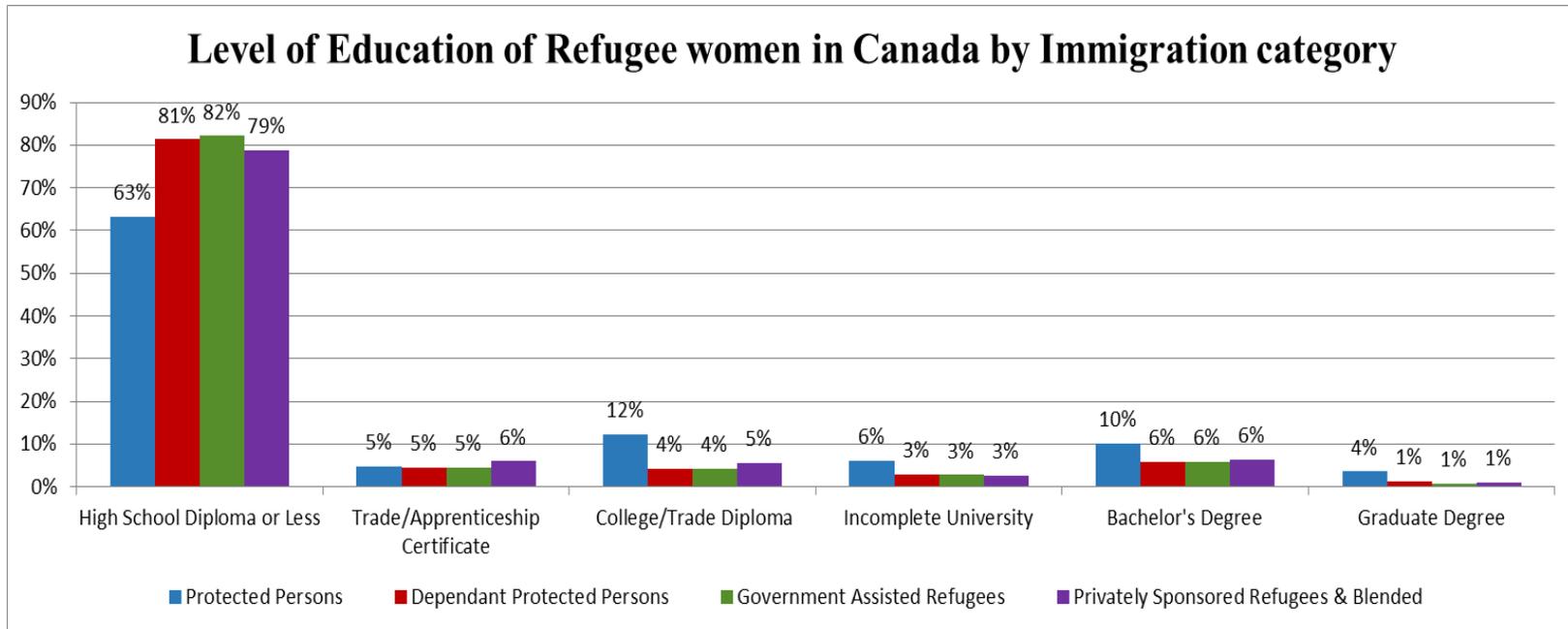


Figure 5.5: Highest level of education of refugee women in Canada by immigration category, 2016.

### 5.2.2 Skill level

Table 5.10 identifies the distribution of occupational skill level among the refugee women in my study. The IMDB assess occupational skill levels based on the National Occupational Classification - occupational skill levels refers to the intended skill level of the immigrant at the time of admission (IMDB, 2016). Occupational skill levels of refugee women are therefore vital in determining the kinds of jobs and positions this group seeks for employment. Thirty-percent of refugee women had skills as Elemental and Labourers (30%); just over one-quarter (27%) had Intermediate and Clerical skill levels. Only 2% of refugee women were managers and another 7% were considered as professionals. These skill levels lay the groundwork to analyze their economic outcomes. Table 5.10 below summarizes the results for skill level of refugee women in Canada.

Table 5.10: Skill level of refugee women in Canada, 2016.

<b>Skill_level_cd11</b>		
<b>VARIABLE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
Skill level A Managerial	295	2%
Skill level A Professionals	970	7%
Skill level B Skilled and Technical	3,430	25%
Skill level B Intermediate and Clerical	3,785	27%
Skill level D Elemental and Labourers	4,095	30%
New Workers	1,260	9%
Total	13,835	100%

Table 5.11 displays the skill level distribution of immigrant women and women born in Canada. All women are under-represented in managerial professions. Only 2% of refugee women work as managers, compared with 9% of women born in Canada and 9% of immigrant women (Statistics Canada, 2017). Refugee women were far less likely to be professionally trained (7%) than those born in Canada (21%) and immigrant women (24%). Comparatively, most women born in Canada (30%) had high school/job-specific training than immigrant women (29%). Table 5.11 below summarizes the results for skill levels of women born in Canada and other immigrant women.

Table 5.11: Skill levels of women born in Canada and other immigrant women, 2016.

VARIABLE	FREQUENCY	PERCENTAGE
<b>WOMEN BORN IN CANADA: All skill levels</b>		
Skill level A Managers	622,335	9%
Skill level A Professionals	1,484,295	21%
Skill level B College or apprenticeship training	2,111,080	29%
Skill level C High school or job-specific training	2,155,585	30%
Skill level D On-the-job training	852,805	12%
<b>Total</b>	<b>7,226,100</b>	<b>100%</b>
<b>IMMIGRANT WOMEN: All skill levels</b>		
Skill level A Managers	65,895	9%
Skill level A Professionals	183,795	24%
Skill level B College or apprenticeship training	207,445	27%
Skill level C High school or job-specific training	225,300	29%
Skill level D On-the-job training	87,820	11%
<b>Total</b>	<b>770,250</b>	<b>100%</b>

Source for Canadian women and other Immigrant women: Statistics Canada - 2016 Census (*sample data\**) - Catalogue Number 98-400-X2016272, Catalogue Number 98-400-X2016272

#### 5.2.2.1 Skill level and level of education

There is also a correlation between skill level and level of education. Figure 5.6 shows that refugee women with a university education may not necessarily have jobs commensurate with their education level. Of refugee women with graduate degrees, 62% worked in Skilled and Technical positions, while 16% worked in Elemental and Labourer positions and 9% in Intermediate and Clerical positions. Figure 5.6 below shows refugee women's level of education achieved at arrival by skill levels.

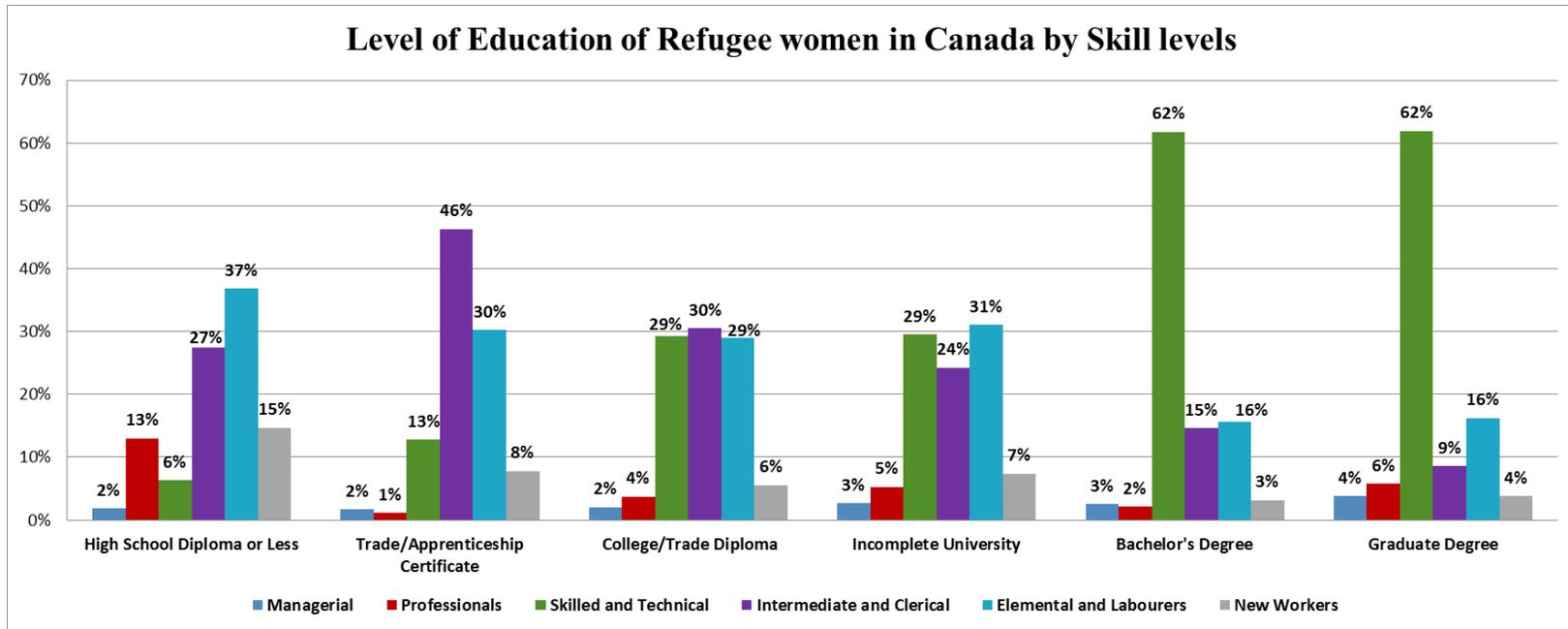


Figure 5.6: Refugee women's level of education achieved at arrival by skill levels, 2016.

In the sample data on women born in Canada and other immigrant women, the National Occupational Classification (NOC) skill level is based on the amount and type of education and training required to enter and perform the duties of an occupation, forming the basis for their education level and skill level match (Statistics, 2021). Figure 5.7 shows the skill level data for immigrant women and women born in Canada. Comparing these two groups with refugee women, women born in Canada and immigrant women were dominant in skill level B (College or apprenticeship training) and skill level C (High school or job-specific training) because a majority of these women had some postsecondary education or high school education. Moreover, similar to refugee women, very few women born in Canada (9%) and immigrant women (9%) with university degrees were in managerial positions. Also, refugee women with university degrees were far less likely to be professionally trained (8%) than those born in Canada (21%) and immigrant women (24%). Figure 5.7 shows Canadian women versus other immigrant women's skill levels by education level.

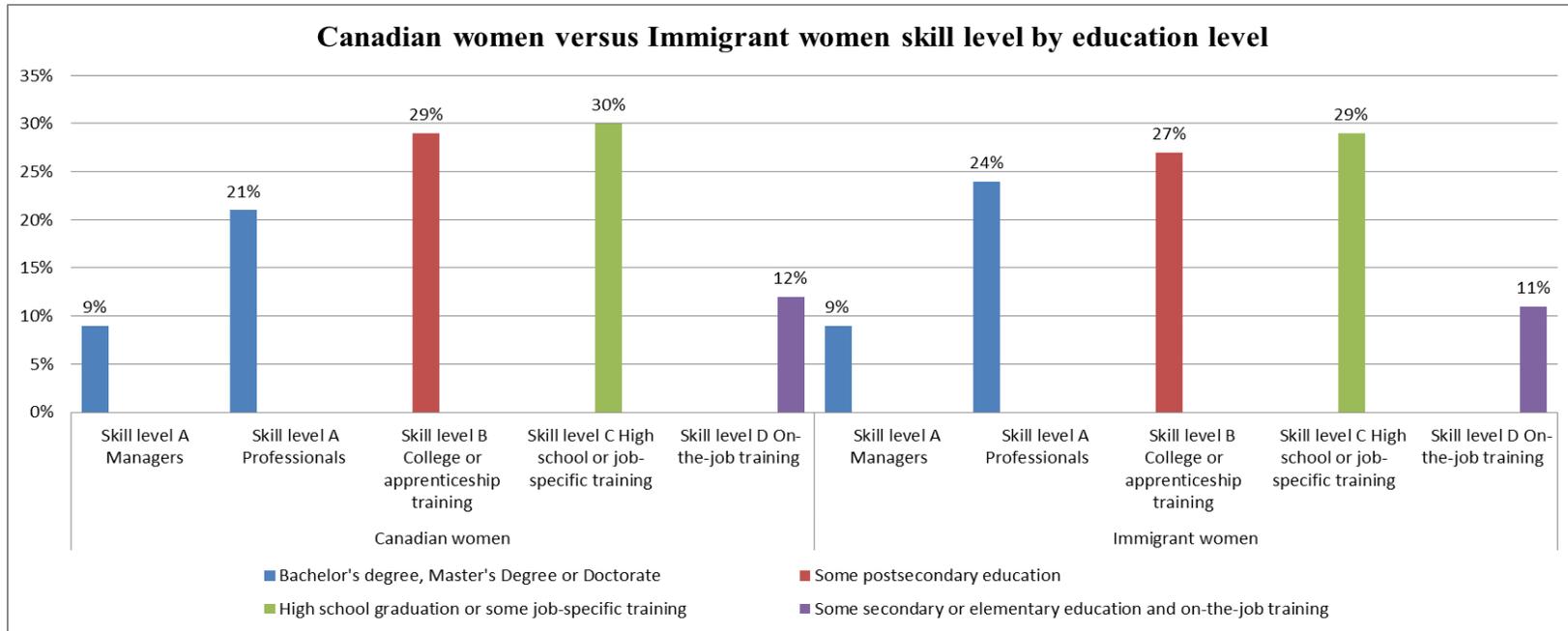


Figure 5.7: Canadian women versus other Immigrant women's Skill levels by Education level, 2016. Source: Statistics Canada - 2016 Census. Catalogue Number 98-400-X2016272

#### 5.2.2.2 Skill level achieved at arrival by world area of birth

Figure 5.8 shows the skill levels achieved by refugee women at arrival by world area of birth. The distribution of skill training is influenced by world area of birth. Those with the highest managerial skill levels were from Europe (36%), Africa and the Middle East (24%), and the Americas (17%). Interestingly, those with low level skills which is elemental and labourers were from these same world areas of birth. Figure 5.8 shows refugee women's skill levels achieved at arrival by world area of birth.

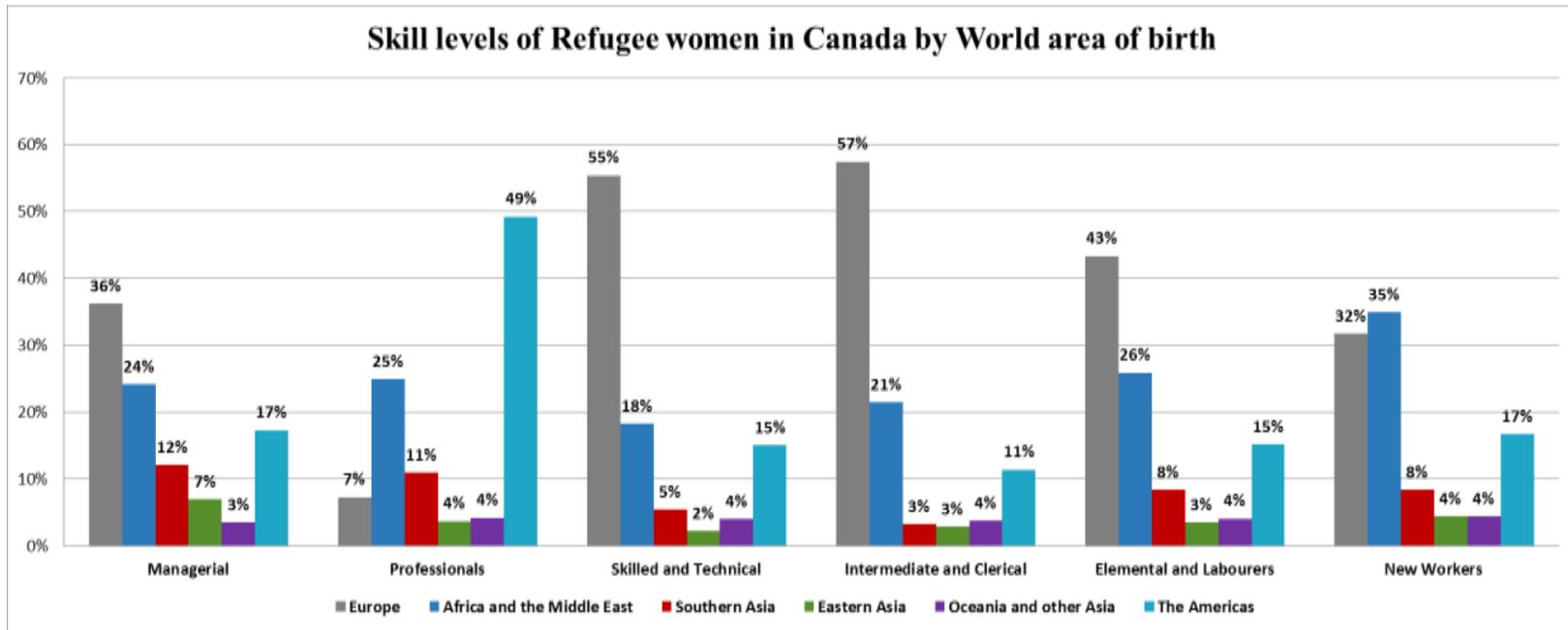


Figure 5.8: Refugee women’s skill levels achieved at arrival by world area of birth, 2016.

### 5.2.2.3 Skill level achieved at arrival by landed age

Figure 5.9 shows that refugee women who were 24 years old or younger upon arrival in Canada may perform well in the Canadian labour market because most of their skills and professional experiences were attained in Canada. The results illustrate that those who arrived in Canada before the age of 24, 10% have managerial skills and a rather high number have professional skills (59%). In addition, 5% had Skilled and Technical skills, 9% had Intermediate and Clerical skills, and 12% had elemental and labourers skills. For refugee women who were 25 years or older upon arrival, more women between 35 to 49 had Managerial (48%) and Professional (20%) skill levels, and also represented the majority in the Skilled and Technical (47%) and Intermediate and Clerical (43%) categories. Figure 5.9 shows refugee women's skill levels achieved at arrival by landed age.

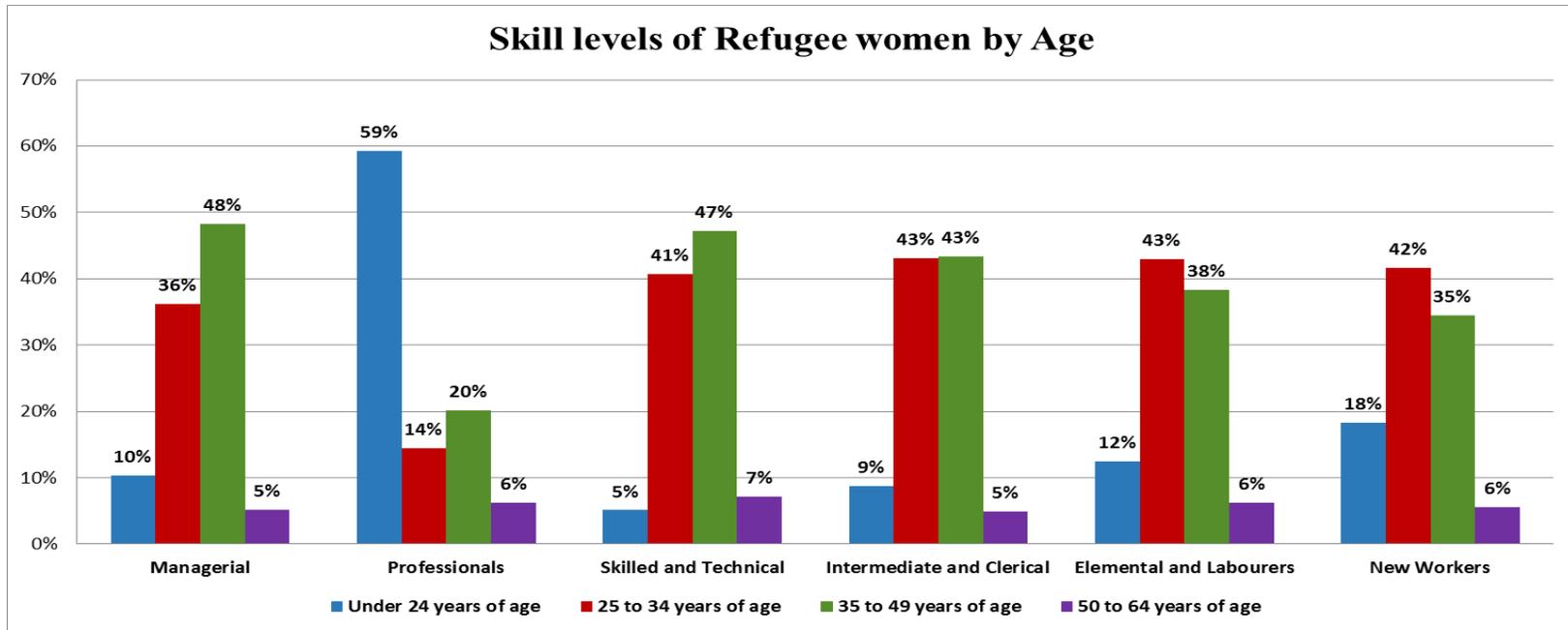


Figure 5.9: Refugee women’s skill levels achieved at arrival by landed age, 2016.

#### 5.2.2.4 Skill level achieved at arrival by relationship status.

Figure 5.10 shows the skill levels achieved by refugee women at arrival by relationship status. Relationship status and skill level for this group indicate that single refugee women had higher skill levels (49%) compared to refugee women who were married or in common law partnerships (46%) or refugee women who were separated, divorced, or widowed (5%). As such, single refugee women may have higher earnings opportunities. In addition, the skill level with the most representation was among Intermediate and Clerical - 68% refugee women who are married/common law partner were in this category. However, this is three times less for single refugee women (20%) and five times less for those who are separated, divorced, or widowed (12%). Figure 5.10 shows refugee women's skill levels achieved at arrival by marital status.

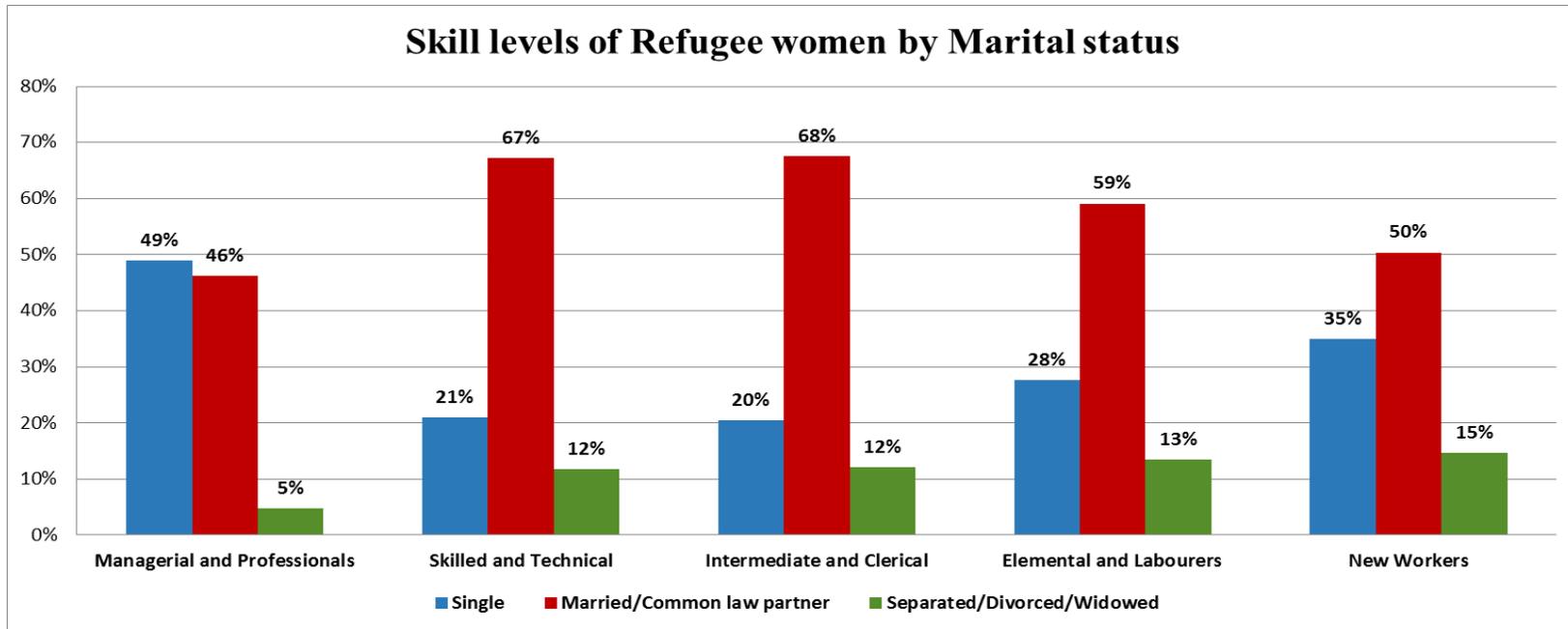


Figure 5.10: Refugee women’s skill levels achieved at arrival by marital status, 2016.

#### 5.2.2.5 Skill level achieved at arrival by immigration category.

Figure 5.11 shows the skill levels achieved by refugee women at arrival by immigration category. These results help to paint a picture of the entry level effect and extent to which the refugee women might be involved in the labour market. Privately Sponsored and Blended Visa refugee women (37%) and Government Assisted Refugee women (35%) are most likely to work in Intermediate and Clerical jobs - this is also the skill level with the most representation among the refugee women in this study. In addition, there is a significant proportion of Dependent Protected Persons refugee women (34%) and Government Assisted Refugee women (28%) in Skilled and Technical job. However, refugee women are under-represented in Managerial and Professional positions - only 18% of Protected Persons refugee women and 9% Dependent Protected Persons refugee women work as managers and professionals compared to the very low 2% Government Assisted Refugee women and 1% Privately Sponsored and Blended Visa Office-Referred refugee women. Figure 5.11 shows refugee women's skill levels achieved at arrival by immigration category.

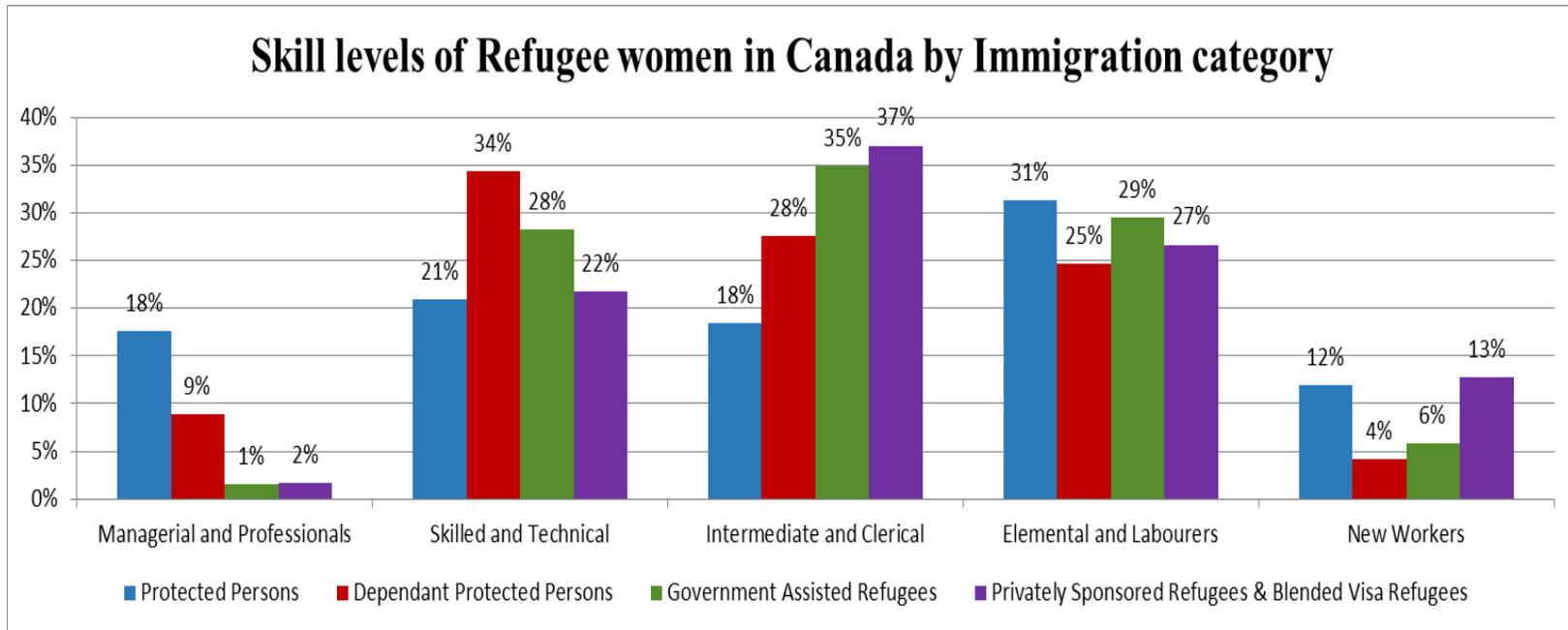


Figure 5.11: Refugee women’s Skill levels achieved at arrival by Immigration Category, 2016.

### 5.2.3 Knowledge of official language

The IMDB data displayed in Table 5.12 indicates over half of refugee women were fluent in at least one of Canada's official languages. Knowledge of the host country's language is needed for day-to-day interactions in a society. Of the refugee women, 44% were fluent in English only, 9% in French only, and 3% in both English and French. However, almost half of the refugees in this study (44%) were not fluent in either of Canada's official languages. Table 5.12 below summarizes the results for knowledge of Canadian official languages among refugee women in Canada.

Table 5.12: Knowledge of Canadian official languages among refugee women, 2016.

<b>Official_language</b>		
<b>VARIABLE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
English only	99,990	44%
French only	21,480	9%
English and French	7,670	3%
Neither English nor French	100,510	44%
<b>Total</b>	<b>229,645</b>	<b>100%</b>

Table 5.13 provides comparable data on knowledge of Canadian official languages for immigrant women in Canada. Comparatively, immigrant women are more likely to be fluent in one of Canada's official languages, with 62% fluent in English only and 25% fluent in both English and French (Statistics Canada, 2017). There is a wide gap between those who are neither fluent in English nor French for these two groups of women - 9% of immigrant women cannot speak English nor French compared with 44% of refugee women (Statistics Canada, 2017). Table 5.13 below summarizes the results for knowledge of Canadian official languages among other immigrant women.

Table 5.13: Knowledge of Canadian official languages among other immigrant women, 2016.

<b>VARIABLE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
<b>IMMIGRANT WOMEN: Official_language</b>		
English only	665,960	62%
French only	35,850	3%

<b>VARIABLE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
English and French	270,600	25%
Neither English nor French	94,330	9%
<b>Total</b>	1,066,740	100%

Source for Canadian women and other Immigrant women: Statistics Canada - 2016 Census. (sample data\*) - Catalogue Number 98-400-X2016203.

Bivariate results showing the relationship between language proficiency and region of birth in Figure 5.12 demonstrate that a significant number of refugee women from Africa and the Middle East (38% and 60%), the Americas (18% and 32%), and Europe (11% and 6%) were fluent in English only or French only whereas among immigrant women, fluency in English or French is highest among those from Europe (33% and 36%), Americas (34% and 19%) and, Africa and the Middle East (7% and 35%). However, both refugee (52%) and immigrant women (34%) from Africa are the most fluent in both English and French. Figure 5.12 shows refugee women versus immigrant women's knowledge of official language by world area of birth.

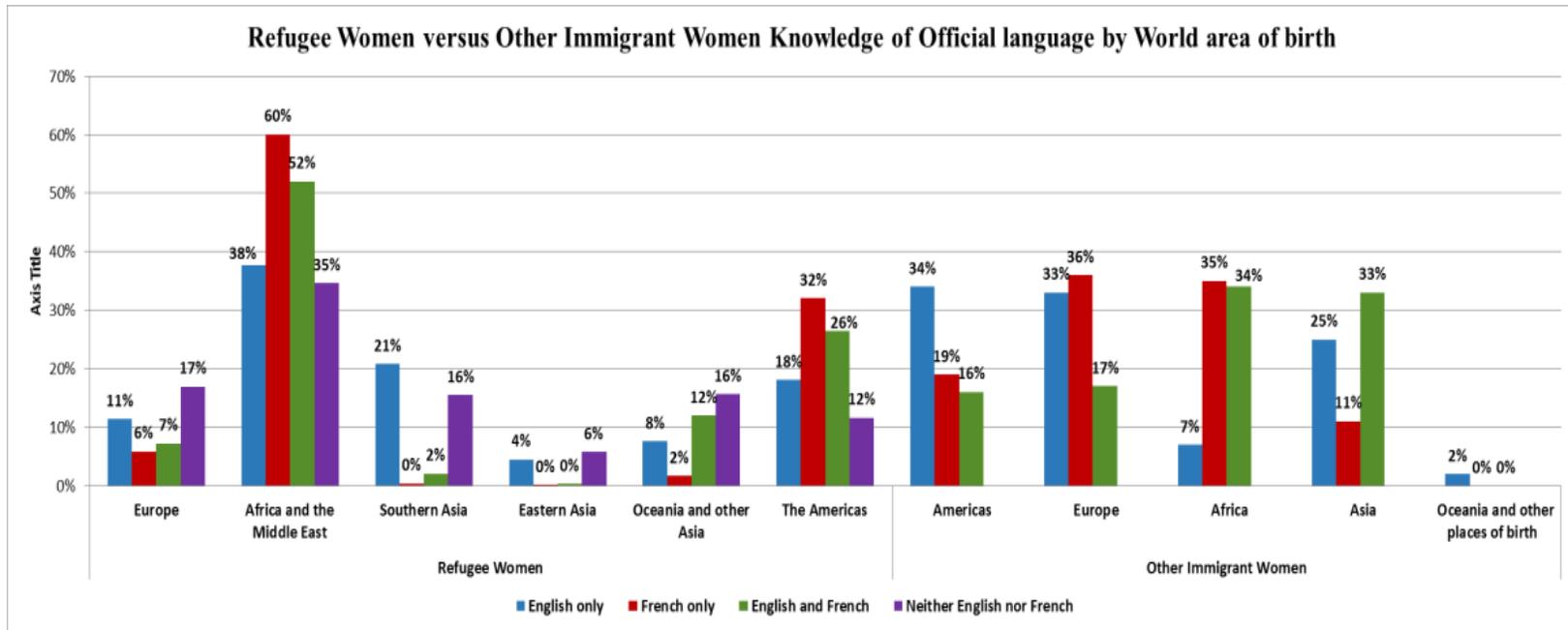


Figure 5.12: Refugee women versus Immigrant women’s Knowledge of Official language by World area of birth, 2016.

Source: IMDB 2016, Statistics Canada - 2016 Census. Catalogue Number 98-400-X2016353.

### 5.3 Discussion

Although there is very little research on *economic outcomes of refugees* in general, there is even less that focuses exclusively on refugee women. There is also very little expectation of them having any human capital, and even in cases where there are such expectations, this is often not recognized in Canada (De Silva, 1997; Madut, 2016; Anderson, 2019). The rationale for engaging in this research is to contribute to our academic knowledge on refugee women and contribute to policy and service provision to better help refugee women in the context where they are looking for employment. This section summarizes the main findings of who are the refugee women in this study in relation to labour market engagement.

#### 5.3.1 Labour market: How similar or different are refugee women to immigrant women and Canadian born women?

Country of origin determines economic integration among refugees (De Silva; 1997; Anderson, 2019; Evra and Kazemipur, 2019; Picot and Hou; 2019). Though region of birth is not a reliable measure of an individual's competence in the labour market, some Canadian employers use it to screen out possible employees. For the target population, this means that refugee women from Europe or the US are favoured for faster economic integration in the Canadian labour market. Their foreign education, language fluency, and skill levels will give them a better position for finding well-paying employment than refugees from regions such as Eastern Asia.

The results shed light on the overall literacy levels of refugee women in this study. Education is a key element not only for access to the labour market but also for desired jobs with opportunities for upward mobility, financial security and independence, and status (Guo and Andersson, 2005; Anderson, 2019). This group features a mix of low and high levels of education which will present variations in their labour market performance. Depending on the type of work, refugee women should be able to apply for positions in regulated professions, technical occupations, or administrative and service roles. In this study, there were a high number of refugee women with high school diploma or less among those who arrived in Canada at 24 years old or below. As such, it is possible that the opportunity for prolonged exposure to Canadian life in terms of schooling, language fluency, and skill development will result in successful labour market integration and greater upward economic mobility for these women.

However, the Canadian labour market does not only comprise refugee women. As described in the findings section, refugees have to compete with immigrant women and Canadian women for the same kinds of jobs, and these other groups sometimes have higher education levels compared to refugee women. Among the three groups of women, immigrant women have the highest percentage of university education; this is because in most cases, economic immigrants are accepted into Canada based on having desirable qualities such as high education levels that promise economic benefits (Hiebert, 2019; Vineberg, 2019; Ahmad, 2020). In essence, refugees may receive recognition for their education when applying to jobs, but their chances narrow if Canadian and other immigrant women seek employment in the same positions and fields.

Existing literature draws attention to the need for refugees to be knowledgeable in at least one of the official languages of Canada in order to secure work, particularly in jobs that require higher skills (Krahn et al., 2000; Anderson, 2019; Daley and Warman, 2019). My results demonstrate a reasonable number of refugee women in Canada over the past decade are literate in at least one of Canada's official languages; an estimate of about 50% fall within this category and thereby likelihood of being successful in the labour market as they possess one of the major qualities for which this group is usually discriminated against in the labour market. Both refugee women (53%) and other immigrant women (75%) are knowledgeable in at least one of Canada's official language. Comparing these two groups in terms of positive labour market outcomes, differences arose in the number of women with English fluency only, French only or both. These differences are due to the fact that refugees' knowledge of a foreign language is a self-assessed measure at admission based on data questionnaire responses, while immigrants must provide proof of knowledge of a foreign language through official test results designated by Immigration, Refugees and Citizenship Canada (IRCC) (Ferrer et al., 2014; Bures et al., 2014; IRCC, 2020).

Women in the Canadian labour market tend to predominate in middle-to low skill jobs. Refugee women engage in manual labour, but unskilled and manual/service labour are the predominant forms of employment for women born in Canada. Comparing the findings on refugee women and the sample data on Canadian women and immigrant women, only a small proportion of all these populations have managerial skills - 2% (refugee women), 9% (Canadian women), and 9% (other immigrant women) as opposed to the highest skill levels being in job-specific training and

apprenticeship training. For refugee women, the percentages are even lower compared to the other two other groups, with very few refugees with managerial and professional skills.

### 5.3.2 Why care about these differences in terms of labour market outcomes?

The significance of these findings is to look more closely whether the economic integration of refugee women is achievable based on the Canadian labour market expectations. The refugee women in this study as seen from my findings section arrive in Canada with credentials and experiences making them employable in various sectors of the labour market. However, Piore (1970) indicates that it is not so much as a result of the individual's achieved status that makes ones successful in a foreign labour market but more of ones ascribed status, behavioral traits and its implications on the individual's achieved status. For this study, my findings present grounds why there is the need to examine the predictors of successful economic integration based not just on the refugee women's human capital qualifications but also recognizing the fact that employers give much significance to ascribed characteristics thereby a determining factor in whether one can access better jobs, better income et cetera (Snyder et. al, 1978; Samers, 2010). Furthermore, looking at the big picture, we recognize the diversity in the Canadian labour market - based on my findings, these women (refugees, immigrants and Canadians) have similar attributes, but the intersections between various categories such as age, region of birth, education and skill levels reflect the possibility of experiencing racial and gender discrimination as well as disadvantages in the Canadian labour market (McCall, 2005; Tastsoglou and Preston, 2012). For instance, employers use such factors as well as fluency in Canada's official language to create barriers resulting in wage inequalities, underemployment and unemployment. Hence, refugee women experience more inequality and marginalization than others, and Canadian-born women are treated differently in the labour market overall (Valentine, 2007).

### 5.4 Conclusion

Having the necessary characteristics for the Canadian labour market are essential but not necessarily the only factors that predicts successful economic integration for refugee women. For this group, recognition of foreign credentials is an essential predictor of successful economic integration (Krahn et al., 2000; Endicott, 2017). Philippe Legraine (2016:1) points out that "refugees can contribute economically to the societies that welcome them in many ways: as

workers, innovators, entrepreneurs, taxpayers, consumers and investors.” However, these contributions are only possible when refugees’ human capital match the jobs they are offered. The different characteristics that members of this group have - including region of birth, age, education and skill levels impact their labour market outcomes. As such, the rate of their economic integration will differ, and the extent of discrimination as well as the racial inequalities and gender expectations they face also vary (Tastsoglou and Preston, 2012). Chapters 6 and 7 will build on this.

## **CHAPTER 6: Does education contribute to the income of resettled refugee women in Canada?**

In general, refugees require financial stability and security, especially when they have to start and/or continue their life in a new country with their families. This means that the Canadian labour market needs to factor this need into its economic structure setup if successful economic integration is to be achieved for this group. Job quality as existing in the labour market must be such that a significant number of refugee women are able to have earnings above the median employment income based on their education qualifications, skill level, and overall foreign credentials recognition (Kalleberg et al., 2000; Hall and Greenman, 2015). However, when examined from the perspective of various intersecting factors, the labour market experiences of refugee women were found to be affected by non-recognition of their human capital. Hence, the reality is that refugee women face income disparity and, in other cases, inequality. In this chapter, I establish the role of education as a predictor of successful economic integration and attempt to understand whether other characteristics of refugee women in the Canadian labour market play a role in determining their employment income.

This chapter presents the results of 12 binary multiple logistic regression models. Data from the IMDB is used to answer question 2 in this dissertation: *Does education contribute to the income of resettled refugee women in Canada?* The analyses focus on the extent to which human capital factors and demographic factors affect the presence of employment income five, ten, and fifteen years after arrival for refugee women in Canada. Only statistically significant outputs, interactions, and interesting results are presented and discussed in the sub-sections below.

### 6.1 Overview of results

The results are organized by the employment income at a number of years after arrival (i.e., five, ten, and fifteen years after arrival) to examine the relationship between refugee women's education qualification and income. In each arrival period, the first binary logistic regression model examines whether the education qualification of refugee women contributes to their employment income above the median employment income years after arrival. The second binary logistic regression model determines whether additional human capital characteristics of refugee women influence employment income above the median employment income years after

arrival. Lastly, the third and fourth models test the likelihood that the demographic factors in addition to human capital characteristics of refugee women influence employment income above the median income years after arrival. Interaction terms are also explored for the second, third, and fourth sets of models.

Notably, in each employment income number of years after arrival<sup>28</sup> (i.e., five, ten, and fifteen years after arrival), the number of refugee women in the models was found to be different because of the variation in the number of refugee women admitted into Canada per year. In addition, the characteristics of interest for the target population were found to further have an impact on the number of refugee women in the years after arrival period models. Table 6.1 shows a summary of the population sizes for the models.

*Table 6.1: Population sizes for the models: five, ten, and fifteen years after arrival.*

<b>MODELS FOR</b>	<b>SAMPLE SIZE</b>
5 years after arrival (2000-2016)	12,300; 12,200
10 years after arrival (2005-2016)	11,300; 11,100
15 years after arrival (2010-2016)	8,000

## 6.2 Results

### **EMPLOYMENT INCOME FIVE YEARS AFTER ARRIVAL**

*Table 6.2: Effect of education on likelihood of having an income above median employment income at five, ten, and fifteen years after arrival for refugee women in Canada.*

	<b>Income after 5 years</b>		<b>Income after 10 years</b>		<b>Income after 15 years</b>	
	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval
Trade/Apprenticeship Certificate	1.21*	(0.99, 1.48)	1.52***	(1.32, 1.74)	1.42***	(1.24, 1.63)
College/Trade Diploma	2.03***	(1.74, 2.38)	1.99***	(1.77, 2.24)	1.65***	(1.45, 1.9)
Incomplete University	2.16***	(1.74, 2.68)	2.27***	(1.93, 2.68)	2.34***	(1.95, 2.80)
Bachelor's Degree	3.35***	(2.88, 3.90)	3.05***	(2.7, 3.44)	3.01***	(2.63, 3.44)
Graduate Degree	4.24***	(3.34, 5.38)	3.15***	(2.52, 3.92)	2.27***	(1.70, 3.04)

Statistical significance: \*\*\*  $p \leq 0.001$ , \*  $p \leq 0.05$ . See appendix II for complete table.

<sup>28</sup> Where year of arrival is 1995

### 6.2.1 Model 1.1: *Effect of education<sup>29</sup> on income five years after arrival*

Model 1.1 examines the effect of education on *employment income five years after arrival*. In total, approximately 12,300 refugee women have been active in the Canadian labour market for five years (2000-2016 period). The level of education is significant for refugee women in Canada who have an employment income above the median employment income (versus below the median employment income). Similarly, refugee women with a college/trade diploma are 2.03 times more likely to have an employment income above the median employment income compared to those who have a high school diploma or less. Refugee women who have not completed their university studies are 2.16 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those who have a high school diploma or less. Refugee women with a ‘bachelor’s degree’ are 3.35 times more likely to have an employment income above the median employment income compared to those who have a high school diploma or less. Lastly, refugee women with a graduate degree are 4.24 times more likely to have an employment income above the median employment income compared to those who have a high school diploma or less.

The higher the education qualification of refugee women is, the higher their likelihood of having an employment income above the median employment income compared to those with a lower education qualification. As such, education has a positive influence on the likelihood of refugee women finding well-paying jobs in Canada. This model, therefore, suggests that the level of education qualification does contribute to the employment income above the median employment income five years after the arrival of refugee women in Canada. Table 6.2 shows the results for model 1.1.

The next set of results pertains to the second multiple logistic regression model with additional human capital variables aimed at better understanding the relationship between education and earnings above the median employment income for refugee women.

Table 6.3: *Influence of human capital characteristics contributing to income at five, ten, and fifteen years after arrival for refugee women in Canada.*

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<sup>29</sup> This refers to the refugee women’s level of education at arrival.

	Income after 5 years		Income after 10 years		Income after 15 years	
	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval
<b>OFFICIAL LANGUAGE</b>						
English only or French only or English and French	2.05***	(1.81, 2.32)	1.67***	(1.07, 1.28)	1.16**	(1.05, 1.27)
<b>SKILL LEVEL</b>						
Managerial	-	-	-	-	-	-
Professionals	-	-	0.62***	(0.47, 0.83)	-	-
Skilled and Technical	-	-	1.24**	(1.04, 1.48)	1.63***	(1.32, 2.00)
Intermediate and Clerical	-	-	-	-	-	-
Elemental and Labourers	1.27*	(1.02, 1.59)	-	-	1.39**	(1.14, 1.69)
<b>INTERACTION TERMS (Education qualification # Official language)</b>						
Trade/Apprenticeship Certificate # English only/French only/English and French	-	-	1.35*	(1.02, 1.79)	1.40*	(1.04, 1.88)
College/Trade Diploma # English only/French only/English and French	-	-	-	-	1.37*	(1.05, 1.79)
Incomplete University # English only/French only/English and French	-	-	-	-	1.61**	(1.10, 2.34)
Bachelor's Degree # English only/French only/English and French	-	-	1.28*	(1.00, 1.65)	1.62***	(1.23, 2.13)
<b>INTERACTION TERMS (Education qualification # Skill level)</b>						
Trade/Apprenticeship Certificate # Skilled and Technical	2.99**	(1.19, 7.51)	-	-	-	-
College/Trade Diploma # Professionals	3.0**	(1.20, 7.55)	-	-	-	-
College/Trade Diploma # Skilled and Technical	2.45*	(1.13, 5.34)	-	-	-	-
Incomplete University # Professionals	5.7**	(1.71, 19.19)	2.85*	(1.02, 7.97)	-	-
Incomplete University # Skilled and Technical	4.06**	(1.40, 11.74)	-	-	-	-
Bachelor's Degree # Professionals	4.40**	(1.59, 12.20)	3.34**	(1.25, 8.80)	-	-
Bachelor's Degree # Skilled and Technical	2.52*	(1.08, 5.88)	-	-	-	-
Graduate Degree # Professionals	10.66*	(1.02, 111.89)	-	-	-	-

	Income after 5 years		Income after 10 years		Income after 15 years	
	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval
Graduate Degree # Skilled and Technical	12.56**	(1.53,103.50)	-	-	-	-
Graduate Degree # Intermediate and Clerical	10.13*	(1.15, 89.04)			-	-

Statistical significance: \*\*\* $p \leq 0.001$ , \*\* $p \leq 0.01$ , \* $p \leq 0.05$

Note: Only interactions and p-values that are significant are shown in the table. See appendix III for complete table.

### 6.2.2 Model 1.2: *Effect of education, official language knowledge, and skill level on income five years after arrival*

Model 1.2 examines *employment income five years after arrival* in Canada with education qualification,<sup>30</sup> including knowledge of the official language and skill level, for approximately 12,300 refugee women in the labour market. Refugee women who are fluent in either or both official languages of Canada are 2.05 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those who are still learning the official language. Only women belonging to the elemental and labourers category are 1.27 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to new workers.<sup>31</sup> Otherwise, most of the skill levels of refugee women have no influence on income.

Two interactions, 1) between education qualification and knowledge of the official language and 2) between education qualification and skill level, are investigated.<sup>32</sup> For the first interaction for education qualification and the official language at five years after arrival, no influence is found on earning a wage above the minimum. With the second interaction, education qualification and skill level, only some results are statistically significant. In other words, for refugee women holding a trade/apprenticeship certificate and belonging to the skilled and technical category, the interaction is statistically meaningful. These refugee women are 3.00 times more likely to have an employment income above the median employment income compared to those with a high school diploma or less and new workers. Similarly, refugee women holding a college/trade

<sup>30</sup> In this model, education qualification is significant at all levels ( $p \leq 0.001$ ).

<sup>31</sup> According to CIC, New worker is an occupation (code 999860) and includes individuals 15 years of age or older.

<sup>32</sup> This is beneficial because the interaction between education and language are statistically similar, as is education and skill level.

diploma (2.45 times more likely) and belonging to the skilled and technical category and refugee women working in a professional trade are 3.0 times more likely to have an employment income above the median employment income compared to those with a high school diploma or less and new workers.

The interactions between those who have not completed their university degree and those who have skilled and technical or professionals skill levels are also significant and high. For refugee women who have not completed their university studies, their propensity to earn a wage higher than the minimum is 4.06 times greater than that of those with a high school diploma or less and new workers. On the other hand, those who have completed their degree are 5.7 times more likely to have an employment income above the median employment income compared to those with a High school diploma or less and new workers. Similarly, refugee women with a bachelor's degree having a skilled and technical (2.52 times more likely) or professional (4.40 times more likely) skill level are more likely to have an employment income above the median employment income compared to those with a high school diploma or less and new workers. Lastly, refugee women with a graduate degree and an intermediate and clerical (10.13 times more likely) skill level or with a skilled and technical (12.56 times more likely) or professional (10.66 times more likely) skill levels are more likely to have an employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less and new workers.

The overall model answers the research question, indicating that the level of education qualification in addition to some skill level types does contribute to the employment income five years after the arrival of refugee women in Canada and that the direction of this relationship is positive. Women with higher levels of education and skills are significantly more likely to have jobs that pay higher than the median employment income. Table 6.3 shows the results for model 1.2.

Table 6.4: *Influence of human capital characteristics and world area of birth contributing to income five, ten, and fifteen years after arrival for refugee women in Canada.*

	Income after 5 years		Income after 10 years		Income after 15 years	
	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval
<b>WORLD AREA BIRTH</b>						
Europe	-	-	2.04***	(1.58, 2.63)	3.13***	(2.24, 4.36)
Africa and the Middle East	-	-	1.73***	(1.33, 2.25)	2.09***	(1.48, 2.96)
Southern Asia	-	-	-	-	-	-
Eastern Asia	0.59*	(0.36, 0.98)	-	-	-	-
America	-	-	1.45**	(1.10, 1.91)	1.64**	(1.13, 2.37)
<b>INTERACTION TERMS (Education qualification # World area birth)</b>						
Trade/Apprenticeship Certificate # Europe	-	-	-	-	0.25*	(0.06, 0.96)
College/Trade Diploma # Europe	-	-	-	-	0.28**	(0.12, 0.67)
Incomplete University # Europe	-	-	0.27**	(0.11, 0.67)	-	-
Incomplete University # Africa and the Middle East	-	-	0.31**	(0.12, 0.80)	-	-
Incomplete University # America	-	-	0.36*	(0.14, 0.93)	-	-
Bachelor's Degree # America	2.56*	(1.09, 6.02)	-	-	-	-

Statistical significance: \*\*\* $p \leq 0.001$ , \*\* $p \leq 0.01$ , \* $p \leq 0.05$

Note: Only interactions and p-values that are significant are shown in the table. See appendix IV for complete table.

### 6.2.3 Model 1.3: *Effect of human capital characteristics and world area of birth on income five years after arrival*

Model 1.3 examines *income five years after arrival* in Canada in relation to human capital variables and world area of birth for approximately 12,300 refugee women who are in the labour market. The addition of the world area of birth variable in the model results in some changes in the trends reported above among the human capital variables. In this model, education qualification<sup>33</sup> is significant at all levels; knowledge of the official language<sup>34</sup> is significant; and of the skill levels, only the elemental and labourers<sup>35</sup> category is significant.

<sup>33</sup>  $p \leq 0.001$ ,  $p \leq 0.01$

<sup>34</sup>  $p \leq 0.001$

<sup>35</sup>  $p \leq 0.05$

In general, the world area of birth has an influence on women’s propensity to earn a wage above the minimum. Refugee women from Eastern Asia are about 0.59 less likely to have an employment income above the median employment income (versus below the median employment income) compared to those from Oceania and other parts of Asia. This is the only category that is statistically significant in this model. I examined the interaction between education qualification and world area of birth and found only one significant interaction. Refugee women with a bachelor’s degree from the Americas are 2.56 times more likely to have an employment income above the median employment income compared to those with a high school diploma or less or those from Oceania and other parts of Asia.

The results obtained for this model provide some insight into the research question, indicating that the world area of birth in addition to the human capital variables does not necessarily contribute to employment income five years after arrival for refugee women in Canada. The implications of this are discussed in a later section in this chapter. Table 6.4 shows the results for model 1.3.

Additional demographic characteristics of refugee women in Canada are included in the last set of models.

Table 6.5: *Effect of demographic characteristics contributing to income at five, ten, and fifteen years after arrival for refugee women in Canada.*

	Income after 5 years		Income after 10 years		Income after 15 years	
	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval
<b>LANDING AGE GROUPS</b>						
25 to 34 years of age	-	-	-	-	-	-
35 to 49 years of age	-	-	0.8**	(0.64, 0.89)	0.58***	(0.48, 0.69)
50 to 64 years of age	0.33***	(0.22, 0.48)	0.14***	(0.09, 0.20)	0.03***	(0.02, 0.1)
<b>MARITAL STATUS</b>						
Single	-	-	-	-	-	-
Married, common law partner	-	-	-	-	-	-
<b>CENSUS IMMIGRATION CATEGORY</b>						
Protected Persons	1.58**	(1.19, 2.10)	1.36**	(1.08, 1.70)	-	-

	Income after 5 years		Income after 10 years		Income after 15 years	
	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval	Odds ratio	95% confidence interval
Government Assisted Refugees	1.39*	(1.0, 1.87)	1.56***	(1.23, 2.0)	1.51**	(1.18, 1.94)
Privately Sponsored Refugees & Blended	1.41*	(1.0, 1.97)	1.80***	(1.40, 2.32)	1.66***	(1.27, 2.17)
<b>INTERACTION TERMS (Education qualification # Landing age)</b>						
Trade/Apprenticeship Certificate # 25 to 34 years of age	0.42**	(0.23, 0.76)	-	-	-	-
College/Trade Diploma # 50 to 64 years of age	3.11*	(1.00, 9.69)	-	-	-	-
Incomplete University # 25 to 34 years of age	0.56*	(0.31, 1.00)	0.60*	(0.37, 0.96)	-	-
Incomplete University # 35 to 49 years of age	0.55*	(0.30, 1.00)	0.45**	(0.03, 0.74)	0.50*	(0.27, 0.93)
<b>INTERACTION TERMS (Education qualification # Marital status)</b>						
Trade/Apprenticeship Certificate # Single	-	-	0.55*	(0.32, 0.94)	-	-
Trade/Apprenticeship Certificate # Married, common law partner	-	-	-	-	0.53*	(0.31, 0.90)
College/Trade Diploma # Married, common law partner	-	-	-	-	0.59*	(0.36, 0.96)
Incomplete University # Single	-	-	-	-	2.5*	(1.04, 5.80)
<b>INTERACTION TERMS (Education qualification # Census immigration category)</b>						
Bachelor's Degree # Privately Sponsored Refugees & Blended Visa Refugees	-	-	-	-	2.04*	(0.99, 4.21)

Statistical significance: \*\*\* $p \leq 0.001$ , \*\* $p \leq 0.01$ , \* $p \leq 0.05$

Note: Only interactions and p-values that are significant are shown in the table. See appendix V for complete table.

#### 6.2.4 Model 1.4: *Effect of human capital characteristics and demographic characteristics on income five years after arrival*

Model 1.4 examines *employment income five years after arrival* in Canada in relation to human capital characteristics and demographic characteristics for approximately 12,200 refugee women who are in the labour market. For the human capital variables in this model, education

qualification<sup>36</sup> is significant at all levels; knowledge of the official language<sup>37</sup> is significant; and of the skill levels,<sup>38</sup> only the skilled and technical and elemental and labourers categories are significant. Moreover, with regard to the world area of birth, only the Eastern Asia<sup>39</sup> category is significant.

With regard to age, refugee women between 50 and 64 years of age are 0.33 times less likely to have an employment income above the median employment income (versus below the median employment income) compared to those between 15 and 24 years of age. The remaining landing age at arrival categories are not significant in this model. Moreover, the marital status of refugee women has no effect on their employment income above the median employment income (versus below the median employment income). Lastly, there is a significant relationship between the census immigration category and employment income above the median employment income (versus below the median employment income). Refugee women from the protected persons category are 1.58 times more likely, government assisted refugee women 1.39 times more likely, or privately sponsored refugees and blended visa refugee women 1.41 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to dependant protected persons.

The interaction between education qualification and landing age in this model is significant. Refugee women between 25 and 34 years of age with a trade/apprenticeship certificate are 0.42 times less likely to have their education contribute to their employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are 15 to 24 years of age. Similarly, those with incomplete university degrees are also 0.56 times less likely to have their education contribute to their employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are 15 to 24 years of age. Refugee women between 35 and 49 years of age with incomplete university degrees are 0.55 less likely to have their education contribute to their employment income above the median employment income (versus below the median employment income) compared to those

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<sup>36</sup>  $p \leq 0.001$ ,  $p \leq 0.01$

<sup>37</sup>  $p \leq 0.001$

<sup>38</sup>  $p \leq 0.05$

<sup>39</sup>  $p \leq 0.05$

with a high school diploma or less who are 15 to 24 years of age. On the other hand, refugee women between 50 and 64 years of age with a college/trade diploma are 3.11 more likely to have their education contribute to their employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are 15 to 24 years of age. However, the interactions between the education qualification and marital status as well as the census immigration category of refugee women are not significant.

Overall, model 1.4 answers the research question to an extent, indicating that education does contribute to the employment income of refugee women in Canada even when additional human capital and demographic factors are considered. Table 1.4 shows the results for model 6.5.

## **EMPLOYMENT INCOME TEN YEARS AFTER ARRIVAL**

### *6.2.5 Model 1.5: Effect of education on income ten years after arrival*

Model 1.5 examines the effect of education on *employment income ten years after arrival*. There are approximately 11,300 refugee women who have been in the Canadian labour market for ten years (2005-2016 period). As with model 1.1, education qualification is a significant positive predictor of having a higher wage (defined as more than the median employment income) for refugee women in Canada. Refugee women with a trade/apprenticeship certificate are 1.5 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those who have a high school diploma or less. Refugee women with a college/trade diploma are 1.99 times more likely to have an employment income above the median employment income compared to those with a high school diploma or less. Refugee women who have not completed their university degrees are 2.27 times more likely to have an employment income above the median employment income compared to those who have a high school diploma or less. Refugee women with a bachelor's degree are 3.05 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less. Lastly, refugee women holding a graduate degree are 3.15 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less.

In summary, refugee women with higher levels of education are much more likely to earn wages that are above the minimum. The results obtained for this model are similar to those noted for employment income five years after arrival. See Table 6.2 for the results of model 1.5.

6.2.6 Model 1.6: *Effect of education, official language knowledge, and skill level on income ten years after arrival*

Model 1.6 examines the effect of education qualification, knowledge of the official language, and skill level on *employment income ten years after arrival*. There are approximately 11,300 refugee women who have been in the Canadian labour market for ten years. Similar to employment income five years after arrival, education qualification<sup>40</sup> in this model is significant at all levels. Refugee women who are fluent in either or both official languages are 1.17 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those who are not fluent in either English or French. Conversely, refugee women who have professional skills are 0.62 times less likely to have an employment income above the median employment income (versus below the median employment income) compared to new workers. Refugee women belonging to the skilled and technical category are 1.2 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to new workers. The results are not statistically significant for refugee women with managerial skill levels, refugee women with intermediate and clerical skills, or refugee women from the elemental and labourers category.

Interactions between education qualification and both knowledge of the official language and skill level are investigated. With education qualification and official language, the results are significant for employment income ten years after arrival for only those with a trade/apprenticeship certificate or bachelor's degree. Refugee women with a trade/apprenticeship certificate are 1.35 times more likely to have an income above the median employment income (versus below the median employment income) and refugee women with a bachelor's degree are 1.28 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those with a

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<sup>40</sup>  $p \leq 0.001$

high school diploma or less who are not fluent in either English or French. Furthermore, with education qualification and skill level, refugee women with incomplete university degrees and with a professional skill level are 2.85 times more likely and refugee women with a bachelor's degree and with a professional skill level are 3.34 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less and new workers. The remaining interactions between the other levels of education qualification and skill level are not significant.

In conclusion, the effect of language knowledge on income is smaller for refugee women ten years after arrival compared to five years after arrival. Again, the results obtained for the overall model answers the research question, indicating that the level of education qualification in addition to knowledge of the official language and some skill level types does contribute to employment income ten years after the arrival of refugee women in Canada. See Table 6.3 for the results of model 1.6.

#### *6.2.7 Model 1.7: Effect of human capital characteristics and world area of birth on income ten years after arrival*

Model 1.7 examines the effect of human capital characteristics and world area of birth on *employment income ten years after arrival*. There are approximately 11,300 refugee women who have been in the Canadian labour market for ten years. Education qualification<sup>41</sup> is significant at all levels; knowledge of the official language<sup>42</sup> is significant; and of the skill levels, only the “professionals”<sup>43</sup> category is significant.

In general, European refugee women are 2.04 times more likely, Middle Eastern refugee women are 1.73 times more likely and refugee women from the Americas are 1.43 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those from Oceania and other parts of Asia. The model also shows that women from Southern Asia and Eastern Asia are not affected by these income disparities in this model. When I examined the interaction effects, I found that refugee women

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<sup>41</sup>  $p \leq 0.001$

<sup>42</sup>  $p \leq 0.001$

<sup>43</sup>  $p \leq 0.05$

with incomplete university degrees from Europe are 0.27 times less likely, Africa and the Middle East are 0.31 times less likely or the Americas are 0.36 times less likely to have an employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are from Oceania and other parts of Asia.

The results obtained for the overall model answers the research question, indicating that the world area of birth in addition to the human capital variables does contribute to employment income above the median employment income for refugee women in Canada ten years after arrival. Furthermore, the world area of birth of refugee women, regardless of their education qualification, contributes significantly to their income above the minimum, with the likelihood varying across world areas. This characteristic is significant for income ten years after arrival compared to income five years after arrival. See Table 6.4 for the results of model 1.7.

#### 6.2.8 Model 1.8: *Effect of human capital characteristics and demographic characteristics on income ten years after arrival*

Model 1.8 examines the effect of human capital characteristics and demographic characteristics on *employment income ten years after arrival*. There are approximately 11,100 refugee women who have been in the Canadian labour market for ten years. In this model, education qualification<sup>44</sup> is significant at all levels; knowledge of the official language<sup>45</sup> is also significant; and of the skill levels,<sup>46</sup> only the skilled and technical as well as elemental and labourers categories are significant. With the world area of birth,<sup>47</sup> the categories of Europe, Africa and the Middle East, and the Americas are significant.

Again, the landing age variable is significant for employment income ten years after arrival. Refugee women between 35 and 49 years of age are 0.8 times less likely and those between 50 and 64 years of age are 0.14 times less likely to have an employment income above the median employment income (versus below the median employment income) compared to those between 15 and 24 years of age. Moreover, the marital status of refugee women has no effect on their

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<sup>44</sup>  $p \leq 0.001$

<sup>45</sup>  $p \leq 0.001$

<sup>46</sup>  $p \leq 0.05$

<sup>47</sup>  $p \leq 0.001, p \leq 0.01$

employment income above the median employment income (versus below the median employment income) ten years after arrival. However, there is a significant relationship between the census immigration category and employment income above the median employment income (versus below the median employment income). Refugee women belonging to the protected persons are 1.34 times more likely, government-assisted refugee women are 1.56 times more likely, or privately sponsored refugees and blended visa refugee women are 1.80 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to dependant protected persons.

Similarly, the interaction between education qualification and landing age in this model is significant for refugee women between 25 and 34 years of age with incomplete university degrees. These women are 0.60 times less likely to have their education contribute to their employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are between 15 and 24 years of age. Moreover, refugee women between 35 and 49 years of age with incomplete university degrees are 0.45 times less likely to have their education contribute to their employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are between 15 and 24 years of age. In addition, refugee women who are single and who have a trade/apprenticeship certificate are 0.55 times less likely to have their education contribute to their employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are separated, divorced, or widowed. However, the interactions between the education qualification and census immigration category of refugee women are not significant.

In conclusion, model 1.8 answers the research question, indicating that education does contribute to the employment income of refugee women ten years after their arrival in Canada even when additional human capital factors are considered. However, the demographic factors do not play much of a significant role. See Table 6.5 for the results of model 1.8.

## **EMPLOYMENT INCOME FIFTEEN YEARS AFTER ARRIVAL**

### *6.2.9 Model 1.9: Effect of education on income fifteen years after arrival*

Model 1.9 examines the effect of education on *employment income fifteen years after arrival*. There are approximately 8,000 refugee women who have been in the Canadian labour market for fifteen years (2010-2016 period). As with model 1.1 (employment income five years after arrival) and model 1.5 (employment income ten years after arrival), women with higher levels of education are significantly more likely to be earning more than the median employment income. The results indicate that refugee women with a trade/apprenticeship certificate are 1.42 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less. Refugee women with a college/trade diploma are 1.65 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less. Refugee women who have not completed their university studies are 2.34 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less. This higher education effect continues as advanced university degrees are considered. Refugee women with a bachelor's degree are 3.01 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less. Lastly, refugee women with a graduate degree are 2.27 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less.

Overall, the pattern observed in the model for the effect of education on income years after arrival indicates that as the time spent in Canada and educational level increase, so does the propensity for moving out of minimum-wage jobs and into higher-income jobs, with the chance of earning an income higher than the median employment income. See Table 6.2 for the results of model 1.9.

### *6.3.0 Model 2.0: Effect of education, official language knowledge, and skill level on income fifteen years after arrival*

Model 2.0 examines the effect of education qualification, knowledge of the official language, and skill level on *employment income fifteen years after arrival*. There are approximately 8,000 refugee women who have been in the Canadian labour market for fifteen years. Similar to the effects on employment income five and ten years after arrival, education qualification<sup>48</sup> in this model is significant at all levels. However, the effect of language knowledge on income is relatively small. Refugee women who are fluent in either or both official languages are 1.16 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to those who are not fluent in either English or French. The effect of official language knowledge is higher among more highly educated refugee women, but only for two skill groups. More specifically, refugee women who belong to the skilled and technical category are 1.63 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to new workers, whereas those belonging to the elemental and labourers category are 1.39 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to new workers. However, no significant results were found for refugee women with managerial, professional, or intermediate and clerical skill levels.

With the interactions between education qualification and official language knowledge, the results are significant for employment income fifteen years after arrival for all levels of education, with the exception of those with the highest level of education (i.e., graduate degree). Refugee women who have a trade/apprenticeship certificate are 1.4 times more likely to earn an income higher than the median employment income, whereas those holding a college/trade diploma are 1.37 times more likely to earn an income higher than the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are not fluent in either English or French and those with Incomplete University are 1.61 times more likely to earn an income higher than the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are not fluent in either English or French. Finally, refugee women with a bachelor's degree are 1.62 times more likely to have an employment income above the median employment income compared to those with a high school diploma or less who are not fluent in

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<sup>48</sup>  $p \leq 0.001$

either English or French. Furthermore, with regards to the interactions between education qualification and skill level, the results obtained for the various levels of education qualification and skill level are not significant.

As with model 1.6 (employment income ten years after arrival), the effect of official language knowledge on earning a wage higher than the minimum decreases as the educational level increases. The results indicate that the level of education qualification in addition to knowledge of the official language does contribute to the employment income of refugee women fifteen years after their arrival in Canada. Specifically, the higher the education qualification is, the higher is the likelihood of earning an income above the median employment income. However, the level of education qualification of refugee women combined with their skill level does not have any impact on their employment income fifteen years after their arrival. See Table 6.3 for the results of model 2.0.

### 6.3.1 Model 2.1: *Effect of human capital characteristics and world area of birth on income fifteen years after arrival*

Model 2.1 examines the effect of human capital characteristics and world area of birth on *employment income fifteen years after arrival*. There are approximately 8,000 refugee women who have been in the Canadian labour market for fifteen years. Education qualification<sup>49</sup> is significant at all levels; knowledge of the official language<sup>50</sup> is significant; and of the skill levels, only the skilled and technical<sup>51</sup> and elemental and labourers<sup>52</sup> categories are significant.

Refugee women from Europe are 3.13 times more likely, Africa and the Middle East are 2.09 times more likely or the Americas are 1.64 times more likely to have employment income above the median employment income (versus below the median employment income) compared to those from Oceania and other parts of Asia. Again, the results show that being from Southern Asia or Eastern Asia does not have a significant effect on employment income of refugee women from these areas. The interaction between education qualification and world area of birth in this model is significant for only refugee women from Europe with a trade/apprenticeship certificate

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<sup>49</sup>  $p \leq 0.001$ ,  $p \leq 0.01$

<sup>50</sup>  $p \leq 0.001$

<sup>51</sup>  $p \leq 0.001$

<sup>52</sup>  $p \leq 0.01$

who are 0.25 times less likely or with a college/trade diploma who are 0.28 times less likely to have an employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are from Oceania and other parts of Asia.

Human capital characteristics and world area of birth do contribute to employment income for some refugee women. However, with education qualification at arrival, this does not contribute to employment income above the median employment income fifteen years after the arrival of refugee women in Canada. See Table 6.4 for the results of model 2.1.

### 6.3.2 Model 2.2: *Effect of human capital characteristics and demographic characteristics on income fifteen years after arrival*

Model 2.2 examines the effect of human capital characteristics and demographic characteristics on *employment income fifteen years after arrival*. There are approximately 8,000 refugee women who have been in the Canadian labour market for fifteen years. Again, education qualification<sup>53</sup> is significant at all levels; knowledge of the official language<sup>54</sup> is also significant; and of the skill levels, only the skilled and technical<sup>55</sup> and elemental and labourers<sup>56</sup> categories are significant. With regard to the world area of birth,<sup>57</sup> the categories of “Europe, Africa and the Middle East, and America are significant.

Refugee women between 35 and 49 years of age are 0.58 times less likely or those between 50 and 64 years of age are 0.03 times less likely to have an employment income above the median employment income (versus below the median employment income) compared to those who are between 15 and 24 years of age. Moreover, the results show that the marital status of refugee women has no impact on their employment income above the median employment income (versus below the median employment income) fifteen years after their arrival. There is a significant relationship between the census immigration category and employment income above the median employment income (versus below the median employment income). Refugee women belonging to the government-assisted refugee women are 1.51 times more likely, or

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<sup>53</sup>  $p \leq 0.001$ ,  $p \leq 0.05$

<sup>54</sup>  $p \leq 0.001$

<sup>55</sup>  $p \leq 0.001$

<sup>56</sup>  $p \leq 0.01$

<sup>57</sup>  $p \leq 0.001$ ,  $p \leq 0.01$

privately sponsored refugees and blended visa refugee women are 1.66 times more likely to have an employment income above the median employment income (versus below the median employment income) compared to dependant protected persons.

The interaction between education qualification and landing age in this model is significant only for refugee women between the ages of 35 and 49 with an incomplete university degree. Those belonging to these categories are 0.50 times less likely to have their education contribute to their employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are between 15 and 24 years of age. Therefore, as the age at arrival increases, the likelihood of earning a wage above the minimum increases. Refugee women with a trade/apprenticeship certificate and belonging to the married, common law partner category are 0.53 times less likely or those holding a college/trade diploma are 0.59 times less likely to have their education contribute to their employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are separated, divorced, or widowed. Single refugee women with an incomplete university degree are 2.5 times more likely to have their education contribute to their employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are separated, divorced, or widowed. Moreover, refugee women with a bachelor's degree and belonging to the privately sponsored refugees and blended visa office-referred refugees category are 2.04 times more likely to have their education contribute to their employment income above the median employment income (versus below the median employment income) compared to those with a high school diploma or less who are dependant protected persons.

Overall, the results obtained for the model answer the research question, indicating that education does contribute to the employment income of refugee women fifteen years after their arrival in Canada even when additional human capital and demographic factors are considered. See Table 6.5 for the results of model 2.2.

Examining the education qualification of refugee women according to their demographic characteristics does not always suggest that education contributes to employment income above the median employment income. Other factors influence income among refugee women. In Section 6.4, the influences of education and other variables are examined.

### 6.3 Discussion

Similar studies have been undertaken by researchers who have examined the wage mobility and economic experiences of immigrants in Canada over a span of years using several indicators as well as the IMDB (DeVoretz et al., 2004; Statistics Canada, 2021). Others have also compared the labour market outcomes of refugees and other immigrant groups (Bevelander, 2020). However, what seems to be missing in most of these studies is a focus solely on refugee women and their economic integration, including what their labour market outcomes look like and, more importantly, which factors contribute to their successful economic integration. To answer these questions and fill some of the knowledge gap on this group, the discussions in this section will bring about some insight that is very little explored.

#### 6.3.1 *Human capital and demographic factors in achieving positive income outcomes*

In general, education is essential in every job market as it assists in determining the kinds of jobs an individual can apply for and the wage expectations, or at least this is what a meritocratic system that awards people equally for their human capital would have people believe. For refugee women, this means that the educational level that they have reached before resettling<sup>58</sup> in a new country is key to their successful economic integration. This is because it serves as a means for this group to gain good (for instance high pay, education to correct job match) and sustaining jobs in the country in which they resettled, receive even better wages than what they used to receive in their country of origin, develop new skills, and ultimately contribute to the growth of the host country's economy (UN Women, 2016).

Although education has an influence on employment income, the strength of this influence wanes after some time in Canada. It can also be observed that having a higher educational level at arrival, such as a university or postgraduate degree, is a better guarantee for refugee women to

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<sup>58</sup> What researchers find is that where education was attained has a great deal of influence on job outcomes. I could not really measure 'quality' of job versus education in this study and as such there is a likely devaluation of education once refugee women arrive to Canada.

earn an income above the median employment income. My findings confirm the results of current research on the economic outcomes of refugees who arrive in Canada without education (Dhital, 2015; Evans and Fitzgerald, 2017). In a study by Dhital (2015), the IMDB dataset is also used to compare the rates of increase in income among three refugee categories. The results showed that refugee women with a bachelor's degree earned much more in the long run than those with only a postsecondary certificate. Similarly, using data from the 2010-2014 American Community Survey, Evans and Fitzgerald (2017) reported that refugees who entered the US between the ages of 18 and 45 with very low levels of education and language skills initially faced issues pertaining to low earnings, low employment rates, and high welfare use. In summary, refugee women who have not received an education are at a distinct disadvantage in terms of income compared to those who have other levels of education qualification.

My results also support studies that indicate upward income mobility among educated immigrants (Picot et al., 2019). Notably, the results obtained in this study on women holding university degrees are similar to those of Anderson<sup>59</sup> (2019), who pointed out that immigrants attain income mobility faster with higher levels of education than when they arrive in the host country with lower levels of education. Comparing the various incomes after different numbers of years of arrival (i.e., five, ten, and fifteen years) reveals consistency in higher levels of education qualification contributing to earning better wages. However, the number of years after arrival in Canada has no impact on whether an individual will have an income above the median employment income.<sup>60 & 61</sup>

Other aspects of human capital also influence the income of refugee women. Generally, language is required as a primary mode of communication in day-to-day activities. Hence, for refugee women in Canada, being fluent in English, French, or both is a contributing factor to being successful in the country's labour market. The results outlined in this chapter support many studies in the literature discussing the importance of knowledge of a foreign language for economic integration (Wright et al., no date c.f. Jamil, 2016; Daley and Warman, 2019; Anderson, 2019). However, in my dissertation a decrease has been observed in the likelihood of

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<sup>59</sup> Anderson's (2019) paper examines the speed of wage assimilation of immigrants over a span of years in host countries. Indicating that wage assimilation is affected by year of entry, immigrant skill, ethnicity, and gender.

<sup>60</sup> Bevelander (2020) points out that even though refugees may catch up in the labour market, they still lag behind economic migrants in terms of earnings.

<sup>61</sup> According to Wilkinson and Garcea (2017), the economic integration of refugees into Canada's labour force can take an estimate of 12 to 15 years.

knowledge of the official language contributing to employment income above the median employment income over the years. The results show that employment income after five years has knowledge of the official language having a higher likelihood (OR = 2.05) compared to ten years (OR = 1.67) and fifteen years (OR = 1.16). This point is interesting since the longer refugee women have spent integrating into the Canadian labour market, the less relevant this factor becomes in achieving successful economic integration.

Having a high skill level gives refugee women a chance to compete for jobs within their qualification pay grade. However, for the refugee women in this study, even though some of them have managerial and professional skill levels, a significantly larger number arrive in Canada with low skills.<sup>62</sup> From the results, although refugee women belonging to the skilled and technical or elemental and labourers category have a better income compared to new workers, which to an extent is evidence of success based on earnings above the median employment income, this outcome draws attention to the slow rate at which most refugee women can reach this level (income above the median employment income). Here, employment income ten years after arrival has a low likelihood (OR = 1.24) compared to employment income fifteen years after arrival (OR = 1.63) for refugee women who belong to the skilled and technical category. This shows a five-year gap with likelihood upward by only 0.39. Similarly, employment income five years after arrival has a lower likelihood (OR = 1.27) compared to employment income fifteen years after arrival (OR = 1.39) for refugee women who belong to the elemental and labourers category. This shows a ten-year gap with likelihood upward by only 0.12.

In general, the higher the likelihood of refugee women being able to communicate in either English or French is, the more likely it is that they have obtained some level of education and that they will be able to find jobs much faster than those who are not fluent in any of the official languages and have no or a low educational level (Krahn et al., 2000; Riaño, 2011). Hence, in addition to the educational level, being knowledgeable of the country's official language is associated with greater income gaps than among the various groups of refugee women in the labour market not fluent in any of Canada's official languages (Anderson, 2019). Although employment income five years after arrival has the highest likelihood of income above median

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<sup>62</sup> This is understandable given that refugees are: 1) likely to be younger than 30 upon arrival; 2) have interrupted or no schooling; 3) not selected for entry to Canada based on their skills but because of their need for protection.

employment income compared to the other periods,<sup>63</sup> when combined with the educational level of the refugee women and language component, this is no longer significant. However, combinations of an education qualification above a trade/apprenticeship certificate to the bachelor's degree level and proficiency in at least one of Canada's official languages present an even higher likelihood of employment income above the median employment income compared to the case of those with neither education nor language proficiency ten and fifteen years after arrival. This places refugee women with these characteristics in a more desirable position in terms of employment and the pay grade associated with the kinds of jobs they can apply for.

Furthermore, refugee women with a high skill level have higher educational levels, justifying to an extent their income above the median employment income. The professionals included in this study have incomplete university degrees, bachelor's degrees, and graduate degrees, partly explaining their higher earnings compared to the individuals in the other categories (Endicott, 2017). The results show that although skill level is significant for income above the median employment income, the type of educational level adds to its relevance, as it makes a difference in the income received for specific credentials. In general, the expectation for refugee women actively participating in the labour market is that for those with desirable human capital, this will positively contribute to their income. Therefore, the education qualification of refugee women combined with their knowledge of the official language and skill level contributes to their income, but based on the level of desirability of the human capital, as revealed in the results.

Several literature sources have pointed out that the discrimination that refugees face in the Canadian labour market is a result of biased perceptions of foreign credentials (Krahn et al., 2000; Galabuzi, 2006; Stobbe and Harris, 2013; Endicott, 2017). This factor caused the world area of birth to become a significant predictor of successful economic integration for refugee women, but only in some instances. Generally speaking, refugee women from Europe, Africa and the Middle East, and America fare better in the Canadian labour market than those from Asian regions. In addition, the results obtained for employment income above the median employment income support existing studies that have pointed out that due to the similarities between the institutions in Europe and America, particularly in Canada, when compared to

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<sup>63</sup> Employment income five years (OR=2.05), ten years (OR=1.67) and fifteen years (OR=1.16) after arrival.

countries in Asia, refugees resettling in Canada from Europe and America tend to have better economic outcomes than those of other groups (Mata and Pendakur, 2017). This is because they may face little to no discrimination from employers in the Canadian labour market (Huber and Espenshade, 1997; Sanchez, 1997).

Nevertheless, the interaction between the world area of birth variable and human capital variable does not support the assertion of some studies that indicate that some groups of immigrants face fewer barriers and less discrimination as a result of where they obtained their education qualification (De Silva, 1997; Mata and Pendakur, 2017). In particular, the case of refugee women from Europe and America does not validate the assertion that where an individual obtains their foreign credentials is crucial for their education recognition in the host country, which in turn plays a role in the job income gap<sup>64</sup> (Anderson, 2019). This may be a result of the significance of the type of education they arrived in Canada with. This is true for this study, in which the interaction results show incomplete university degrees to low levels of education qualification for refugee women from Europe but at least a bachelor's degree for refugee women from America.<sup>65</sup> To an extent, such educational levels of refugee women from Europe in the Canadian labour market result in them landing jobs with low earnings, making this group unlikely to have an employment income above the median employment income, regardless of the number of years in the labour market. In fact, the results show that, regardless of the level of education qualification, the likelihood of income above median employment income decreases over the years.

Refugee women from Africa and the Middle East<sup>66</sup> who obtained their education qualification prior to arriving in Canada are less likely to have an employment income above the median employment income compared to those from Oceania and other parts of Asia. This draws attention to how the foreign credentials of refugees from developing countries in these two regions are equally not regarded contributing to their poor economic outcomes in the Canadian labour market (Li, 2004; Pendakur and Pendakur, 1998, 2014). To an extent, refugee women face income inequality in the labour market with source countries such as developing countries

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<sup>64</sup> Some caution is needed here as I did not have an indicator as to where exactly their education was attained so I do not know for sure if this is the case.

<sup>65</sup> OR=2.56

<sup>66</sup> OR=0.31

facing much higher levels as a result of their race and ethnicity (Dechief and Oreopoulos, 2012; Gingrich and Lightman, 2015). In addition, some element of discrimination can be observed in the sense that the success of refugee women from Africa and the Middle East is shaped not only by having some education qualification, but also by the fact that they do not come from countries that are more preferred by Canadian employers.

In general, the demographic characteristics of refugee women not only provide information regarding the identity of this group but also highlight how these factors influence their achieved human capital and income. For the selected refugee women in this study, their age at entry to the labour market entry makes no difference in terms of having an employment income above the median employment income. Examining resettlement in a broad context reveals much faster integration for immigrants who arrive in a new country with their complete family unit, that is, with a partner and, in some cases, children and older family members. The point here is that couples can sometimes meet their financial needs much faster if both of them work or an investment is made in one partner to obtain credentials in the host country and, thereby, a better job and salary, options that are not possible for those who are single (Long, 1980; Baker and Benjamin, 1997). The results obtained in this study indicate that the marital status of refugee women does not play any role in having an employment income above the median employment income, providing no contribution to discourses that address or examine economic integration from this point of view.<sup>67</sup>

Similar to studies on the economic integration of refugees based on an immigration program, the results obtained in this study support insights into which immigration program for refugees has shown the best economic integration outcomes (Schmidtke, 2018). Overall, programs belonging to the privately sponsored refugees and blended visa office-referred category have better income results compared to other immigration categories. Although no pattern has been observed in terms of an increase or decrease of the likelihood of having an employment income above the median employment income over the years, this draws attention to which programs require a re-examination of their current structure to better help refugees achieve favourable outcomes in the labour market in the long run. Overall, the results indicate that refugee women, regardless of the

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<sup>67</sup> However, it may show that women play a supportive income role where men are head of the household and main providers.

immigration program used, do have positive income results and some even fare better, as seen in the privately sponsored refugees and blended visa office-referred case. Schmidtke (2018) further indicates that this is a result of the guidance provided by sponsorship groups, which allows this group to further excel in the labour market.

The results showed that refugee women belonging to various age groups have different participation rates in the labour market and different levels of experience. For those aged 25 and above, a relatively high level of education can be observed. These results help clarify why older age groups achieve higher incomes than do younger age groups. One reason may be that as they age, there is an expectation of upward mobility in employment and, ultimately, upward income mobility. Given the different findings of several literature sources, the results of this study indicate that refugee women between 50 and 64 years of age, given that their education qualifications are relatively high, fare better compared to others in the labour market.

Colic-Peisker and Tilbury (2006) and Endicott (2017) found that older immigrants in the labour market face different challenges even in securing employment to earn a decent income to support their families. This, however, is not entirely what the results presented herein indicate. Rather, although those between 25 and 49 years of age have a higher level of education than that of those between 50 and 64 years of age, this younger group is less likely to have an employment income above the median employment income, which may be an indicator of work experience or labour market preparedness. Refugee women belonging to the age group of 25 to 49 years without a university degree have less economic success compared to their counterparts. Hence, the income of refugee women increases with age.

Some discrepancy can be observed in the results obtained for single refugee women and those who belong to the married, common law partner category in terms of their income being above the median employment income according to their level of education. The results further show that refugee women who belong to the married, common law partner category have higher levels of education compared to those who are single. However, despite the marital status of these refugee women, having an educational level below that of a university degree causes all groups to have an employment income below the median employment income. Interestingly, some

studies have pointed out that low levels of education are usually associated with being married for refugee women (Ager and Strang, 2008). Generally, because men tend to be the heads of their households, more investments are made toward achieving higher education levels for men. The downside is that women end up supporting this goal, and their schooling is also interrupted when they become refugees. The outcomes are married refugee women arriving in Canada with some level of education that is not competitive enough to ensure financial security, as can be observed in the results of this study. Furthermore, the results for married refugee women again validate the family investment hypothesis proposed by some authors (Long, 1980; Baker and Benjamin, 1997).

The results obtained for the models do not differ significantly among the various immigration categories. However, when additional factors are considered, the privately sponsored refugees and blended visa office-referred<sup>68</sup> category shows better economic outcomes compared to other immigration categories. There is, therefore, a high level of consistency with existing literature sources indicating that privately sponsored refugees obtain a higher income than government-assisted refugees (Schmidtke, 2018).

### *6.3.2 Understanding refugee women and income using a critical race perspective*

Examining the results obtained for the models of refugee women's employment income above the median employment income raises questions regarding the current discrimination and inequality that refugees face in the Canadian labour market. To better understand this idea, the theoretical perspectives raised in critical race theory are employed.

From a critical race theory perspective, researchers have indicated that, despite the relevant economic qualifications of immigrants (in this case refugee women), there exist institutional discrimination and structural racism (Delgado & Stefancic, 2017). Hence, it is useful to understand refugee women and income from a critical race theory perspective with increased focus on their educational levels as a key contributor to their income. However, this factor (for instance education or skill level) does not solely justify whether one will likely have an income above the median employment income since some individuals become subject to racial and age

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<sup>68</sup> OR=2.04

discrimination, as can be observed from the lack of significance in the interaction results. Such social disparities in the Canadian labour market create a system in which the success of refugee women with whatever level of human capital qualifications, as seen from the results, means very little since it is shaped by how much access and opportunities the host country is ready to offer.

From this theoretical perspective, inequalities are maintained and promoted by how the Canadian labour market is structured. When examined from a critical race theory perspective, the results obtained in this study support Li's (2000) assertion that refugees lack equal access to the Canadian job market. Jobs in various employment sectors have a standardized pay grade, which helps overcome the barriers that refugee women may face. However, because of the non-recognition of where refugee women have obtained their education credentials from as well as their skill level experiences, they get offered jobs that have low earnings and even face gender inequality. This is evident in the cases of refugee women from Africa, the Middle East, and Asia, who despite having some level of education do not earn incomes above the median employment income. A significant number of white Canadian employers prefer not to hire people from a different race or to hire refugee women on the basis of a stereotypic perception of this group (Collie, 2019). In some other cases, some employers offer jobs that require long hours of work to pay a bare minimum income (Adams, 2012; Jan, 2017).

Critical race theory further raises the question of why refugee women with skills, such as professionals, have low incomes even though such regulated professions should typically offer an income above the median employment income. One assumption is gender discrimination in the fields in which refugee women are employed in Canada. Aylward (1999) and Delgado and Stefancic (2017) have pointed out that despite the benefits and resources that refugees have access to at their new homes, there still undeniably exist inequality and discrimination embedded in different institutions. Hence, the tenets of critical race theory highlight the lack of power that refugee women have in the Canadian labour market; this lack of power subjects them to varying degrees of racial discrimination and income disparity. Delgado (2003) has reported that racial privilege favours and promotes the interests of the dominant race, a notion that is evident in the case of refugee women in the Canadian labour market, where it is typically assumed that all outcomes are based on good intentions and equal for all. Active members of the labour market

who have completed their university-level education are mostly 24 years of age and above. For refugee women in this age group, despite their participation in the Canadian labour market, the findings generally reveal a low income gap. This draws attention to the availability of labour in the Canadian labour market, with a case of the under-utilization of the skill sets and qualifications of refugee women, thereby driving this group to accept jobs that offer minimum income wages (Lochhead and Mackenzie, 2005).

Further supporting the above point, refugee women from different regions of the world, such as Europe, Africa, and the Middle East, do not experience the same outcomes in the labour market, resulting in low incomes for some refugee women. Bonacich, Alimahomed, and Wilson (2008) have asserted that the country of origin of newcomers contributes to how well they are received by employers in the host country's labour market. Refugee women who were born in areas similar to Canada, in terms of social, economic, and political conditions, fare better compared to other groups. The results prove this notion, as in the case of African and Middle Eastern women, who have lower incomes compared to women of European or American descent. This reinforces the argument of critical race theory on how race serves as a factor through which economic divisions are created. Refugee women coming from developing countries to the Canadian labour market face challenges related to racism, colourism, and being part of a minority group in the Canadian society. As a result, despite the human capital characteristics that they may possess, these traits do not translate into wages equal to those of refugees from other parts of the world.

#### 6.4 Conclusion

Refugee women arrive in Canada hoping to achieve economic integration as part of their resettlement journey. For such women, their employment income is essential. They rely on this income to support not only themselves, but also in some cases elderly family members, sick parents, husbands, and children. This means that having an employment income above the median employment income is an essential means to an end. As observed from the results and discussion, education contributes to the income of refugee women above the median employment income since it is a predictor of successful economic integration. However, in the Canadian labour market, this factor alone may not be enough for refugee women to achieve that desirable income goal. Several employers have created a stage in which additional factors are

considered to preserve the income inequality that exists in the Canadian labour market. The consequence could be high rates of poverty and unemployment among refugees – this I believe has a lot to do with capitalism existing in the Canadian labour market and will be addressed in the conclusion chapter.

Furthermore, a large number of refugee women belong to the skilled and technical or elemental and labourers category, which in the case of the Canadian labour market places them in secondary sectors. The challenge is that although some individuals from these categories are likely to have an income above the median employment income, the characteristics of the jobs offered in the secondary sector make achieving successful economic integration difficult. As such, these refugee women may experience poor economic integration with positive labour market outcomes (Dustman & Schmidt, 2001; Block & Galabuzi, 2011; Lightman & Gingrich, 2013).

## **CHAPTER 7: Do economic conditions at time of arrival in Canada influence the economic success of refugee women?**

According to Jamil et al. (2016) labour market conditions and economic decline in the host society have negative effects on the economic integration of refugees. Poor labour market conditions make it more difficult for refugees to enter the labour market, increases their unemployment, and reduces their income. Little research has explored the influence of economic conditions of the host society on labour market outcomes among immigrants and refugees, particularly over the long-term. In this chapter, I compare the outcomes of three groups of refugee women, those arriving in the period before the economic recession (2005), during the economic recession (2008), and those arriving in the aftermath (2011). Recession gripped Canada and elsewhere between 2008 and 2009 and full recovery did not happen until 2015 (Cross, 2011; Gibson, 2016). Among the Canadian population, the unemployment rate soared to 8.3% during the height of the recession (Jeudy, 2021). Many people were overqualified for the jobs they worked in order to make ends meet.

This chapter examines whether or not the economic conditions in the Canadian labour market do make a difference in the employment incomes of refugee women. The focus of the analysis is on the earnings of refugee women who arrived in Canada in 2005, 2008 and 2015, and examines each arrival group over three time periods: year of arrival, three years after and six years after these arrival periods. I ask, do human capital and demographic characteristics have any influence on labour market outcomes among refugee women depending on whether or not they arrived before, during or after an economic recession? The results focus on the influence of employment income as a factor to determine successful economic integration in the labour market in the arrival before recession, during recession and its aftermath years.

The answer to this question is derived from a series of multiple ordinary least regression models. The chapter uses data from the 2016 IMDB which was the most recent version available at the start of my research to answer question 3 in this dissertation - *Does the year of arrival and economic conditions in the Canadian labour market affect the economic success of resettled refugee women?* Sixteen multiple ordinary least regression models are created that look at the impact on employment income of refugee women 1) arriving in 2005, 2008 and 2011; 2) three

years after arrival in 2005, 2008 and 2011; 3) six years after arrival<sup>69</sup> in 2005 and 2008. The dependent variable takes three forms: 1) employment income year of landing; 2) employment income three years after arrival; and 3) employment income six years after arrival. Canada's 2008-2009 recession dates serve as the point of reference for this chapter and thereby, the 0/3/6 year models periods relates to this in order to shed light on the conditions during integration in the Canadian labour market, to predict the occurrence of similar patterns and impact in the continuing years.

## 7.1 Results

The results are organized into three time periods: 1) employment one year after arrival, 2) three years after arrival; and 3) six years after arrival. These periods coincide to indicate a refugee woman's 1) initial employment entry 2) during recession and 3) recession aftermath. For each period (arrival, three years after arrival and six years after arrival), there are two OLS regression model sets - the first set of ordinary least regression model tests employment income during the economic conditions (arrival before recession, during recession and recession aftermath) with the human capital characteristics the refugee women possess. The second set of models tests the likelihood that demographic factors in addition to the human capital characteristics of the refugee women impact their employment income in these periods (arrival before recession, during recession and recession aftermath). Table 7.1 shows the variables in the set of models.

*Table 7.1: Summary of variables in the models for effect on employment income on labour market outcomes at Arrival, Three years after arrival and Six years after arrival.*

Independent variables	Dependent variable: Employment income	
	Model 1	Model 2
Education level	X	X
Knowledge of official language	X	X
Skill level	X	X
World area birth		X
Landing age groups		X
Marital status		X
Immigration category		X

We have found that the characteristics of refugee women not participating in the labour market are different from those who do (presence of children in household, religion, country of origin

<sup>69</sup> I do not have the data for six years after arrival for the 2011 cohort.

being the three biggest predictors). The women with no labour market experience are very different from those with labour market experience and need to be thoughtfully considered using different models and predictors. Sadly, these questions must be left for a separate study given the complexity of the present study. Table 7.2 shows the population size for the number of refugee women with no employment income.

*Table 7.2: Population size (N) for refugee women with no employment income at Arrival, Three years after arrival and Six years after arrival.*

<b>Arrival year/period</b>	<b>Refugee women with NO employment income</b>
2005	2,840
Three years after 2005 arrival - 2008	12,915
Six years after 2005 arrival -2011	12,925
2008	2,805
Three years after 2008 arrival - 2011	13,410
Six years after 2008 arrival - 2014	13,400
2011	2
Three years after 2011 arrival - 2014	13,400

Notable in each arrival period, the number of refugee women is different because the number of admissions of refugees to Canada per year varies and because the country of origin differs by year due to fluctuations in world conflict situations. Also, I only include women who are active in the labour market during that particular year bearing in mind that women drop out for various reasons - they may return to school, become ill, leave the labour market for other reasons or they may lose their job. Table 7.3 shows the population size for the models.

*Table 7.3: Population size (N) for refugee women with employment income at Arrival, Three years after arrival and Six years after arrival.*

<b>Employment income at arrival</b>		
<b>2005</b>	<b>2008</b>	<b>2011</b>
N=11,390	N=11,810	N=8,965
<b>Employment income 3 years after arrival</b>		
<b>Employment income after 3 years (2008)</b>	<b>Employment income after 3 years (2011)</b>	<b>Employment income after 3 years (2014)</b>
N=13,730	N=13,825	N=13,825
<b>Employment income 6 years after arrival</b>		
<b>Employment income after 6</b>	<b>Employment income after 6</b>	

<b>years (2011)</b>	<b>years (2014)</b>	
N=13,730	N=13,490	

### 7.1.1 REFUGEE WOMEN WHO ARRIVE BEFORE RECESSION

#### 7.1.1.1 Employment Income and Human Capital Variables

For the women arriving in 2005, the independent variables account for only 2% in the variation in employment income at arrival. The  $R^2$  for model<sup>70</sup> two is only slightly better at 3% in the variation in employment income three years after arrival. The goodness of fit test is not any better for those women arriving as well as six years after arrival, also sitting at 3%. Even though the  $R^2$  is slightly better three and six years after arrival than arrival year, overall the quality of the models is unacceptably low. Often, researchers who attempt to predict human behavior using human capital variables generally have low  $R^2$  that is, less than 50% (Frost, 2020) since there is significant evidence that the human capital model is not very good at predicting labour market success - the models do not work as well for refugee women as it may for Canadian born women. Hence, because the independent variables in these models are statically significant, I can still draw valid conclusions about the relationships between the variables. Table 7.4 shows the likelihood of human capital factors on employment income for the models.

Table 7.4: *The likelihood of human capital factors contributing to the increase or decrease of employment income Year of Arrival, Three and Six years after arrival for refugee women arriving in 2005 in Canada before recession, during recession and aftermath.*

	Income at arrival year - <b>2005</b>		Income three years after 2005 arrival - <b>2008</b>		Income six years after 2005 arrival - <b>2011</b>	
	Coef.	95% confidence interval	Coef.	95% confidence interval	Coef.	95% confidence interval
<b>EDUCATION QUALIFICATION</b>						
Trade/Apprenticeship Certificate	0.76***	(0.52, 1.01)	-	-	-	-
College/Trade Diploma	0.59***	(0.37, 0.82)	0.12**	(0.03, 0.22)	-	-
Incomplete University	0.96***	(0.66, 1.27)	0.16*	(0.01, 0.31)	0.15*	(-0.00, 0.30)
Bachelor's Degree	1.09***	(0.8, 1.34)	0.14**	(0.0, 0.26)	0.17**	(0.06, 0.28)
Graduate Degree <sup>71</sup>	-	-	0.26*	(0.04, 0.48)	0.23*	(0.01, 0.44)
<b>OFFICIAL LANGUAGE</b>						
English only or French	-0.45***	(-0.62,-0.28)	0.50***	(0.44, 0.56)	0.48***	(0.42, 0.53)

<sup>70</sup>  $R^2$  is the proportion of variation in a dependent variable accounted for or explained by the predictors or independent variables in a model (Frost, 2020). As such, the  $R^2$  provides information by which I assess my regression models goodness-of-fit.

<sup>71</sup> Some Post-Graduate Education or Master's Degree or Doctorate. This would also include people currently in graduate school.

	Income at arrival year - 2005		Income three years after 2005 arrival - 2008		Income six years after 2005 arrival - 2011	
	Coef.	95% confidence interval	Coef.	95% confidence interval	Coef.	95% confidence interval
only or English and French						
<b>SKILL LEVEL</b>						
Managerial	-0.71*	(-1.35,-0.07)	-	-	-	-
Professionals	-2.94***	(-3.53,-2.36)	-	-	-	-
Skilled and Technical	-0.40**	(-0.72,-0.08)	-0.39***	(-0.54, 0.25)	-0.37***	(-0.5, -0.22)
Intermediate and Clerical	-0.3*	(-0.63,-0.05)	-0.28***	(-0.42,-0.15)	-0.27***	(-0.41, -0.14)
Elemental and Labourers	-	-	-	-	-	-

Statistical significance: \*\*\*p<0.001, \*\*p<0.01, \*p<0.05

Income at Arrival: N=11,390; Income after 3 years: N=13,730; Income after 6 years: N=13,730

Note: only p-values that are significant are shown in the table. See appendix for complete table.

Income at Arrival: R<sup>2</sup> = 0.02, Income after 3 years: R<sup>2</sup> = 0.03, Income after 6 years: R<sup>2</sup> = 0.03

Table 7.4 examines employment income<sup>72</sup> and the effect of human capital characteristics. Here, I only included women who are active in the labour market which is 11,390 refugee women (arrival year - 2005), 13,730 (three years after 2005 arrival - 2008 and, six years after 2005 arrival - 2011).

For refugee women with graduate degree compared to those with high school diploma or less, landing in 2005 before the recession has no influence on employment income. Those arriving three years after their arrival during the height of the recession (2008), there is a very small but positive effect on income ( $\beta=0.26$ ) meaning that for every category increase in educational attainment, the women are slightly more likely to have labour market income. Six years after arrival, the labour market return to a graduate education declines very slightly ( $\beta=0.23$ ) which is an indication that coming out of a recession does have a slight negative effect on graduate refugee women in finding work.

<sup>72</sup> This is gross income (measure in dollars) that has been adjusted using consumer price index and I have also taken the log of this employment income to deal with skewness.

Among refugee women with bachelor's degree, landing in 2005 before the recession has a strong positive effect ( $\beta=1.09$ ) on employment income compared to those with high school diploma or less ( $\beta=0.14$ ). For high school diploma holders, the completion of the diploma nets only a very small but positive influence on participating in the labour market. Six years after arrival, during the aftermath of the recession, refugee women with a bachelor's degree ( $\beta=0.17$ ) find a very small but slightly higher influence on employment income. In summary, bachelor's degree holders are more likely to be employed if they arrive prior to the recession, but see their employment levels decline during the recession but rebound very slowly after recession.

Landing before a recession period has a moderately strong effect on employment income ( $\beta=0.96$ ) for refugee women who have incomplete university education if they arrive in 2005 compared with those who arrive with high school diploma or less. In short, there is a labour market 'reward' for those who have attempted to or are in the process of attaining higher education. For the 2005 landing group with incomplete university education, the effect of incomplete education still increases employment income three years after their arrival to Canada (during 2008 recession), but the effect of that education on income is much weaker ( $\beta=0.16$ ). This lower effect of incomplete education continues six years after arrival ( $\beta=0.15$ ) such that, we can conclude that after the recession, the 'incomplete' university group still have a positive influence on income but it is not as big.

Among refugee women with trade/apprenticeship certificate, landing in 2005 has a moderately strong and positive effect ( $\beta=0.76$ ) on employment income compared to those with high school diploma or less. However, three years after their arrival to Canada during recession (2008) as well as six years after their arrival (2011), their trade/apprenticeship certificate is not as beneficial and has no influence on employment income.

Lastly, refugee women who have college/trade diploma at arrival year 2005 have slightly more positive effect on their employment income ( $\beta=0.59$ ) than those with high school diploma or less. Comparing their outcome three years after their arrival to Canada during recession (2008), the effect of education level on income is smaller ( $\beta=0.12$ ). Six years after their arrival, those women with a college/trade diploma find no statistically significant influence on their

employment income. For this group, we can say that their income is not increased or decreased after the recession to any degree.

How does knowledge of one of Canada's official languages influence employment income for refugee women? For those arriving in 2005 before Canada's recession, knowledge of one of the official languages has a moderate negative effect on employment income ( $\beta = -0.45$ ) compared to women with no prior knowledge. For this group however, three years after their arrival to Canada and during the recession in 2008, their employment income increases ( $\beta = 0.50$ ) when they have prior knowledge of English or French or both. This slight benefit of official language knowledge however is smaller six years after arrival, as the influence of English or French language knowledge or both has a smaller but positive affect on employment income ( $\beta = 0.48$ ) compared to the language effect before the recession period.

How does previous skill level influence employment income among the 2005 arrival group? Among refugee women with previous professional skills, landing in 2005 has a strong negative effect ( $\beta = -2.94$ ) on employment income compared to new workers<sup>73</sup>. However, landing during recession (2008), and six years after their arrival (2011), this having a professional skillset does not have any influence on employment income.

Managers also do not fare well in the Canadian labour market either. For women landing in 2005, the effect of having previous managerial experience has a negative effect ( $\beta = -0.71$ ) on employment income. Later on, during recession (2008) and six years after their arrival (2011), having a managerial background has no statistically significant influence on employment income.

For skilled and technical professions, refugee women arriving in 2005 have a low and negative impact on their income ( $\beta = -0.40$ ). This trend continues three years later (during recession 2008), with their employment income decreasing slightly in 2008 ( $\beta = -0.39$ ) and 2011 ( $\beta = -0.37$ ). This is an indication that refugee women with skilled and technical experience actually experience employment income reductions as time goes on.

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<sup>73</sup> According to CIC, New worker is a person entering the labour market and includes individuals 15 years of age or older.

Among refugee women with intermediate and clerical skills, landing in 2005 has a low and negative influence on employment income ( $\beta = -0.3$ ) compared to new workers. For this group, three years after their arrival during recession (2008), their employment income is still falling ( $\beta = -0.28$ ) and six years after arrival ( $\beta = -0.27$ ). Like skilled and technical professionals, those with clerical skills see income declines - an indication that their skillset is also not being recognized in the labour market such that we can affirm that the aftermath of the recession is no better on the employment income of refugee women with intermediate and clerical skills than the recession period.

Overall, what these models tell us is that refugee women who arrived in Canada before the recession generally fared better in the labour market if they arrived with higher education such as bachelor's degree, incomplete university, trade/apprenticeship certificate or college/trade. However in the long term, the positive groups higher education is equal to small but still positive employment income whereas language has a negative effect in only the short term and skillset really has no or a negative effect.

#### 7.1.1.2 Employment Income, Human Capital and Demographic Variables

In these next set of models, I now expand the initial model beyond looking at the effects of employment income on arriving before a recession, human capital variables and now add on demographic variables to see if there is a change. For the women arriving in 2005, the independent variables account for only 10% in the variation in employment income at arrival. The  $R^2$  for model two and three is lower at 5% in the variation in employment income three and six years after arrival. Even though the  $R^2$  is slightly better in the arrival year than three and six years after arrival, overall the quality of the models is unacceptably low. However, because the independent variables in these models are statically significant, I can still draw valid conclusions about the relationships between the variables. Table 7.5 shows the likelihood of human capital factors and demographic factors on employment income for the models.

*Table 7.5: The likelihood of human capital and demographic factors contributing to the increase or decrease of employment income Year of Arrival, Three and Six years after arrival for refugee women arriving in 2005 in Canada before recession, during recession and aftermath.*

	Income at arrival year - <b>2005</b>		Income three years after 2005 arrival - <b>2008</b>		Income six years after 2005 arrival - <b>2011</b>	
	Coef.	95% confidence interval	Coef.	95% confidence interval	Coef.	95% confidence interval
<b>EDUCATION QUALIFICATION</b>						
Trade/Apprenticeship Certificate	0.31**	(0.01, 0.55)	-	-	-	-
College/Trade Diploma	0.50***	(0.28, 0.72)	-	-	-	-
Incomplete University	0.57***	(0.27, 0.87)	0.1*	(0.00, 0.30)	0.16*	(0.0, 0.31)
Bachelor's Degree	0.84***	(0.59, 1.10)	0.14**	(0.03, 0.26)	0.18**	(0.06, 0.3)
Graduate Degree	-	-	-	-	-	-
<b>OFFICIAL LANGUAGE</b>						
English only or French only or English and French	0.65***	(0.45, 0.86)	0.08**	(0.02, 0.14)	0.07*	(0.00, 0.13)
<b>SKILL LEVEL</b>						
Managerial	-0.66*	(-1.28,-0.03)	-	-	-	-
Professionals	-2.62***	(-3.20,-2.03)	-	-	-	-
Skilled and Technical	-0.58***	(-0.90,-0.26)	-0.22**	(-0.37,-0.1)	-0.21**	(-0.4,-0.06)
Intermediate and Clerical	-0.55***	(-0.84,-0.25)	-0.14*	(-0.3, -0.01)	-0.14*	(-0.28, -0.01)
Elemental and Labourers	-	-	-	-	-	-
<b>WORLD AREA BIRTH</b>						
Europe	1.36***	(0.89, 1.83)	-	-	-	-
Africa and the Middle East	-	-	-	-	-	-
Southern Asia	-	-	-	-	-	-
Eastern Asia	1.25***	(0.63, 1.88)	-	-	-	-
America	-	-	0.33**	(0.11, 0.56)	0.25*	(0.01, 0.49)
<b>LANDING_AGE_6_GROUPS</b>						
25 to 34 years of age	-	-	-	-	-	-
35 to 49 years of age	-0.37**	(-0.66,-0.08)	-	-	-	-
50 to 64 years of age	-3.75***	(-4.22,-3.29)	-0.29**	(-0.46,-0.11)	-0.28**	(-0.45,-0.12)
<b>MARITAL STATUS</b>						
Single	0.7***	(0.34, 0.96)	-	-	-	-
Married, common law partner	0.35**	(0.08, 0.61)	-	-	-	-
<b>IMMIGRATION CATEGORY CENSUS</b>						
Protected Persons	-	-	0.6***	(0.44, 0.69)	0.51***	(0.38, 0.6)
Government Assisted Refugees	0.95***	(0.53, 1.37)	-	-	-	-
Privately Sponsored	1.21***	(0.77, 1.67)	-	-	-	-

	Income at arrival year - <b>2005</b>		Income three years after 2005 arrival - <b>2008</b>		Income six years after 2005 arrival - <b>2011</b>	
	Coef.	95% confidence interval	Coef.	95% confidence interval	Coef.	95% confidence interval
Refugees & Blended						

Statistical significance: \*\*\* $p \leq 0.001$ , \*\* $p \leq 0.01$ , \* $p \leq 0.05$

Income at Arrival:  $N=11,390$ ; Income after 3 years:  $N=13,450$ ; Income after 6 years:  $N=13,440$

Note: only p-values that are significant are shown in the table. See appendix for complete table.

Income at Arrival:  $R^2 = 0.10$ , Income after 3 years:  $R^2 = 0.05$ , Income after 6 years:  $R^2 = 0.05$

Table 7.5 examines employment income with human capital and demographic characteristics. Again, I only included women who are active in the labour market which is 11,385 refugee women (arrival year - 2005), 13,450 (three years after 2005 arrival - 2008) and 13,440 (six years after 2005 arrival - 2011). This is to determine if additional variables are included in the model, the results change.

Among refugee women with bachelor's degree, landing in 2005 before the recession has a strong positive effect ( $\beta=0.84$ ) on employment income compared to those with high school diploma or less. For this group, three years after their arrival during the height of the recession (2008), there is a significant decline but still positive effect on income ( $\beta=0.14$ ) meaning that for every category increase in educational attainment, the women are slightly less likely to have labour market income. However, six years after arrival, the labour market return to a bachelor's degree rises slightly ( $\beta=0.18$ ) which is an indication that coming out of a recession does have a slight positive effect on refugee women in finding work.

Landing before a recession period has a moderate effect on employment income ( $\beta=0.57$ ) for refugee women who have incomplete university education if they arrive in 2005 compared with those who arrive with high school diploma or less. Essentially, there is a labour market 'reward' for those who have attempted to or are in the process of attaining higher education. For the 2005 landing group with incomplete university education, the effect of incomplete education increases employment income three years after their arrival to Canada (during recession 2008), but the effect of that education on income is much weaker ( $\beta=0.1$ ). Six years after arrival, during the aftermath of the recession, refugee women with incomplete university education ( $\beta=0.16$ ) find a

very small but slightly higher influence on employment of income. In summary, the 'incomplete' university group are more likely to be employed if they arrive prior to the recession, but see their employment levels decline during the recession but rebound very slowly after recession.

Among refugee women with trade/apprenticeship certificate, landing in 2005 has an average and positive effect ( $\beta=0.50$ ) on employment income as well as a low and positive effect on the employment income ( $\beta=0.31$ ) for those with college/trade diploma at arrival compared to those with high school diploma or less. However, three years after their arrival to Canada during recession (2008) as well as six years after their arrival (2011), their education level is not as beneficial and has no influence on employment income. For these groups, we can say that their income is not increased or decreased during or after the recession to any degree.

Also, how does knowledge of one of Canada's official languages influence employment income for refugee women? For those arriving in 2005 before Canada's recession, knowledge of one of the official languages has a moderate positive effect on employment income ( $\beta=0.65$ ) compared to women with no prior knowledge. For this group, three years after their arrival to Canada during the recession in 2008, their employment income decreases ( $\beta=0.08$ ) when they have prior knowledge of English or French or both. This benefit of official language knowledge however is slightly smaller six years after arrival, as the influence of English or French language knowledge or both has a smaller but positive affect on employment income ( $\beta=0.07$ ) compared to the language effect during the recession period.

How does skillset influence employment income for refugee women? For refugee women with previous professional skills, landing in 2005 before Canada's recession has a strong negative effect ( $\beta= -2.62$ ) on employment income compared to new workers. However, landing during recession (2008), and six years after their arrival (2011), this having a professional skillset does not have any influence on employment income. For this group, we can say that their income is not increased or decreased during or after the recession to any degree.

Similarly, managers also do not fare well in the Canadian labour market either. For women landing in 2005, the effect of having previous managerial experience has a negative effect ( $\beta= -$

0.66) on the employment income compared to new workers. Later on, during recession (2008) and six years after their arrival (2011), having a managerial background has no statistically significant influence on employment income.

For skilled and technical professions, refugee women arriving in 2005 have above average negative effect on employment income ( $\beta = -0.58$ ). This trend continues three years later (during recession 2008), with their employment income decreasing moderately in 2008 ( $\beta = -0.22$ ) and 2011 ( $\beta = -0.21$ ). This is an indication that refugee women with skilled and technical experience actually experience employment income reductions as time goes on.

Among refugee women with intermediate and clerical skills, landing in 2005 has an average and negative influence on employment income ( $\beta = -0.55$ ) compared to new workers. For this group, three years after their arrival during recession (2008), their employment income is still falling ( $\beta = -0.14$ ) and six years after arrival ( $\beta = -0.14$ ). Like skilled and technical professionals, those with clerical skills see income declines, an indication that their skillset is also not being recognized in the labour market.

Conversely, how does previous world area of birth influence employment income among the 2005 arrival group? Among refugee women from Europe, landing in 2005 has a strong positive effect ( $\beta = 1.36$ ) on employment income and for those from Eastern Asia, a strong positive effect ( $\beta = 1.25$ ) compared to refugee women from Oceania and other Asia. Landing during recession (2008) and six years after their arrival (2011), their world area of birth does not have any influence on employment income in these periods.

For refugee women from the Americas compared to those from Oceania and other Asia, landing in 2005 before the recession has no influence on employment income. Three years after their arrival during the height of the recession (2008), there is a very small but positive effect on income ( $\beta = 0.33$ ) meaning that for every category increase in world area of birth, the women are slightly more likely to have labour market income. Six years after arrival, the labour market return to refugee women from the Americas declines very slightly ( $\beta = 0.25$ ) which is an

indication that coming out of a recession does have a slight negative effect on refugee women from the Americas in having better paying work.

Again, how does landing age influence employment income among the 2005 arrival group? Refugee women between 50 to 64 years of age at arrival have a strong negative effect ( $\beta = -3.75$ ) on employment income compared to those who are 15 to 24 years of age. Comparing their outcome three years after their arrival to Canada during recession (2008), the effect of age on income is smaller ( $\beta = -0.29$ ) with a low negative effect. However, six years after arrival, their employment income rises ( $\beta = 0.28$ ) with a low positive influence on employment income. This is an indication that refugee women between 50 to 64 years of age experience some employment income increases as time goes on.

For refugee women between 35 to 49 years of age, landing in 2005 before Canada's recession has a low negative effect ( $\beta = -0.37$ ) on employment income compared to those who are 15 to 24 years of age. Later on, during recession (2008) and six years after their arrival (2011), their age has no statistically significant influence on employment income.

How does relationship status influence employment income among the 2005 arrival group? Among single refugee women, landing in 2005 before Canada's recession has a strong positive effect ( $\beta = 0.7$ ) on employment income and a moderately low positive effect ( $\beta = 0.35$ ) on the employment income of married/common law partner refugee women compared to those who are separated, divorced or widowed. Here also, during recession (2008) and six years after their arrival (2011), their relationship status has no statistically significant influence on employment income. For these groups, we can say that their income is not increased or decreased during or after the recession to any degree.

The immigration category of the refugee women is also significant. Among privately sponsored and blended office-referred refugee women, landing in 2005 before Canada's recession has a strong positive effect ( $\beta = 1.21$ ) on employment income as well as a moderately high positive effect ( $\beta = 0.95$ ) on the employment income of government assisted refugee women compared to dependant protected persons. During recession (2008) and six years after their arrival (2011),

their immigration category has no statistically significant influence on employment income. Hence for these groups, we can say that their income is not increased or decreased during or after the recession to any degree.

For protected persons refugee women compared to dependant protected persons, landing in 2005 before the recession has no influence on their employment income. Arriving three years after their arrival during the height of the recession (2008), there is a strong but positive effect on income ( $\beta=0.6$ ) meaning that for every category increase in immigration category, the refugee women are slightly more likely to have labour market income. Six years after arrival, the labour market return on immigration category declines very slightly ( $\beta=0.51$ ) which is an indication that coming out of a recession does have a slight negative effect on protected persons refugee women in finding better paying work.

Overall, what these models tell us is that refugee women who arrived in Canada before the recession generally fared better in the labour market if they arrived with higher education and were knowledgeable in at least one of Canada's official languages whereas their skillset has a negative declining effect in both the short and long terms. From these models, we also see that refugee women from developed world regions typically fair better in Canadian labour market than other world regions in the short term. Likewise, those between 35 to 49 years of age, single relationship status and arrive in Canada through the privately sponsored refugees and blended immigration category are at an advantage in the labour market.

## **7.1.2 REFUGEE WOMEN WHO ARRIVAL DURING RECESSION**

### **7.1.2.1 Employment Income and Human Capital Variables**

For the 2008 arrival year model, the independent variables account for 2% in the variation of achievement of employment income arrival. The  $R^2$  for model two is worse at 0% in the variation achievement in employment income three years after arrival. The goodness of fit test is not any better for those women arriving as well as six years after arrival, also sitting at 0%. Even though the  $R^2$  is slightly better arrival year than three and six years after arrival, overall the quality of the models is unacceptably low. Nonetheless, because some of the independent variables in these models are statically significant, I can still draw valid conclusions on the

relationships between the variables and the role of recession. Table 7.6 shows the likelihood of human capital factors on employment income for the models.

Table 7.6: *The likelihood of human capital factors contributing to the increase or decrease of employment income Year of Arrival, Three and Six years after arrival for refugee women arriving in 2008 in Canada during recession and aftermath.*

	Income at arrival year - <b>2008</b>		Income three years after 2008 arrival - <b>2011</b>		Income six years after 2008 arrival - <b>2014</b>	
	Coef.	95% confidence interval	Coef.	95% confidence interval	Coef.	95% confidence interval
<b>EDUCATION QUALIFICATION</b>						
Trade/Apprenticeship Certificate	0.90***	(0.66, 1.14)	-0.03*	(-0.06,-0.00)	-0.04*	(-0.07, -0.0)
College/Trade Diploma	0.75***	(0.53, 0.97)	-	-	-	-
Incomplete University	0.82***	(0.50, 1.14)	-	-	-	-
Bachelor's Degree	1.1***	(0.88, 1.38)	-	-	-	-
Graduate Degree	0.47*	(0.00, 0.93)	-	-	-	-
<b>OFFICIAL LANGUAGE</b>						
English only or French only or English and French	-0.23**	(-0.40,-0.07)	0.04***	(0.02, 0.07)	0.05***	(0.03, 0.08)
<b>SKILL LEVEL</b>						
Managerial	-	-	-	-	-	-
Professionals	-1.51***	(-1.98,-1.04)	-	-	-	-
Skilled and Technical	-	-	-	-	-	-
Intermediate and Clerical	-	-	-	-	-	-
Elemental and Labourers	0.20*	(-0.10, 0.49)	-	-	-	-

Statistical significance: \*\*\* $p \leq 0.001$ , \*\* $p \leq 0.01$ , \* $p \leq 0.05$

Income at Arrival: N=11,810; Income after 3 years: N=13,825; Income after 6 years: N=13,825

Note: only p-values that are significant are shown in the table. See appendix for complete table.

Income at Arrival:  $R^2 = 0.02$ , Income after 3 years:  $R^2 = 0.00$ , Income after 6 years:  $R^2 = 0.00$

Table 7.6 examines employment income with human capital characteristics. Here, I only included women who are active in the labour market which is 11,810 refugee women (arrival year – 2008), 13,825 (three years after 2008 arrival - 2011 and six years after 2008 arrival - 2014).

Once more, among refugee women with bachelor's degree, landing in 2008 has a strong positive effect ( $\beta=1.1$ ) on employment income compared to those with high school diploma or less.

However, three years after their arrival to Canada during recession (2011) as well as six years after their arrival (2014), their bachelor's degree is not as beneficial and has no influence on employment income.

Refugee women with trade/apprenticeship certificate arriving in 2008 have a strong and positive impact on their income ( $\beta=0.90$ ) compared to those with high school diploma or less. However, three years later after recession, their employment income decreases significantly in 2011 ( $\beta= -0.03$ ) and 2014 ( $\beta= -0.04$ ). This is an indication that refugee women with trade/apprenticeship certificate actually experience employment income reductions as time goes on.

Landing before a recession period has a moderately strong effect on employment income ( $\beta=0.82$ ) for refugee women who have incomplete university education, above average outcome in employment income ( $\beta=0.75$ ) for those with college/trade diploma and a moderate effect on employment income ( $\beta=0.47$ ) for refugee women who have graduate degree if they arrive in 2008 compared to those who arrive with high school diploma or less. Essentially, there is a labour market 'reward' for those who have attempted to or are in the process of attaining higher education. However, three years after their arrival to Canada during recession (2011) as well as six years after their arrival (2014), their level of education is not as beneficial and has no influence on employment income.

How does knowledge of one of Canada's official languages influence employment income for refugee women? For those arriving in 2008 during Canada's recession, knowledge of one of the official languages has a moderately negative effect on employment income ( $\beta= -0.23$ ) compared to women with no prior knowledge. For this group however, three years after their arrival to Canada in 2011, their employment income increases ( $\beta=0.04$ ) when they have prior knowledge of English or French or both. This trend continues six years later after recession (2014), with their employment income increasing slightly in 2014 ( $\beta=0.05$ ). This is an indication that refugee women who are fluent in at least one of Canada's official language actually experience employment income increases as time goes on.

Furthermore, how does previous skill level influence employment income among the 2005 arrival group? Among refugee women with previous elemental and labourer skills, landing in 2008 during Canada's recession has a small positive effect ( $\beta=0.20$ ) on employment income while those with previous professional skills have a strong negative effect ( $\beta= -1.51$ ) on employment income compared to new workers. However, three years after their arrival (2011) as well as six years after their arrival (2014), their skillsets is not as beneficial and has no influence on employment income. As such, we can say that their income is not increased or decreased after the recession to any degree.

Overall, what these models tell us is that human capital characteristics have little impact on employment income of refugee women who arrive during the recession and this gets worse in the aftermath of the recession period except for those who arrived with higher education such as bachelor's degree and knowledgeable in at least one of Canada's official language in the long term. Also, skillset really has no or a negative effect during recession and aftermath except for elemental and labourers which has a positive effect in only the short term.

#### 7.1.2.2 Employment Income, Human Capital and Demographic Variables

In these next set of models, I expand beyond looking at the effects of arriving during a recession, human capital variables and now add on demographic variables to see if there is a change. For the 2008 arrival year model, the independent variables account for 10% in the variation of achievement of employment income arrival. The  $R^2$  for model two is worse at 1% in the variation achievement in employment income three years after arrival. The goodness of fit test is not any better for those women arriving as well as six years after arrival, also sitting at 1%. Even though the  $R^2$  is slightly better in the arrival year than three and six years after arrival, overall the quality of the models is unacceptably low. However, because some of the independent variables in these models are statically significant, I can still draw valid conclusions about the relationships between the variables. Table 7.7 shows the likelihood of human capital factors and demographic factors on employment income for the models.

*Table 7.7: The likelihood of human capital and demographic factors contributing to the increase or decrease of employment income Year of Arrival, Three and Six years after arrival for refugee women arriving in 2008 in Canada during recession and aftermath.*

	Income at arrival year - <b>2008</b>		Income three years after 2008 arrival - <b>2011</b>		Income six years after 2008 arrival - <b>2014</b>	
	Coef.	95% confidence interval	Coef.	95% confidence interval	Coef.	95% confidence interval
<b>EDUCATION QUALIFICATION</b>						
Trade/Apprenticeship Certificate	0.48***	(0.24, 0.72)	-	-	-	-
College/Trade Diploma	0.67***	(0.46, 0.9)	-	-	-	-
Incomplete University	0.47**	(0.16, 0.78)	-	-	-	-
Bachelor's Degree	0.93***	(0.69, 1.18)	-	-	-	-
Graduate Degree	0.72**	(0.27, 1.19)	-	-	-	-
<b>OFFICIAL LANGUAGE</b>						
English only or French only or English and French	0.68***	(0.48, 0.88)	-	-	-	-
<b>SKILL LEVEL</b>						
Managerial	-	-	-	-	-	-
Professionals	-1.33***	(-1.82,-0.84)	-	-	-	-
Skilled and Technical	-	-	-	-	-	-
Intermediate and Clerical	-	-	-	-	-	-
Elemental and Labourers	-	-	-	-	-	-
<b>WORLD AREA BIRTH</b>						
Europe	1.50***	(1.0, 1.95)	-0.12*	(-0.23,-0.12)	-	-
Africa and the Middle East	0.61**	(0.15, 1.07)	-	-	-	-
Southern Asia	0.60*	(0.06, 1.14)	-	-	-	-
Eastern Asia	1.57***	(0.97, 2.2)	-	-	-	-
America	0.71**	(0.24, 1.2)	-	-	-	-
<b>LANDING_AGE_6_GROUPS</b>						
25 to 34 years of age	-	-	-	-	-	-
35 to 49 years of age	-0.57***	(-0.86,-0.28)	-	-	-	-
50 to 64 years of age	-4.40***	(-4.84,-3.95)	-	-	-	-
<b>MARITAL STATUS</b>						
Single	0.37*	(0.06, 0.67)	0.05*	(0.01, 0.10)	-	-
Married, common law partner	0.39**	(0.13, 0.66)	0.0**	(0.0, 0.08)	-	-
<b>IMMIGRATION CATEGORY CENSUS</b>						
Protected Persons	0.38*	(-0.00, 0.77)	-	-	-	-
Government Assisted Refugees	1.11***	(0.71, 1.51)	-0.08*	(-0.15,-0.01)	-	-
Privately Sponsored	1.45***	(1.0, 1.88)	-	-	-	-

	Income at arrival year - <b>2008</b>		Income three years after 2008 arrival - <b>2011</b>		Income six years after 2008 arrival - <b>2014</b>	
	Coef.	95% confidence interval	Coef.	95% confidence interval	Coef.	95% confidence interval
Refugees & Blended						

Statistical significance: \*\*\* $p \leq 0.001$ , \*\* $p \leq 0.01$ , \* $p \leq 0.05$

Income at Arrival:  $N=11,785$ ; Income after 3 years:  $N=13,490$ ; Income after 6 years:  $N=13,485$

Note: only p-values that are significant are shown in the table. See appendix for complete table.

Income at Arrival:  $R^2 = 0.10$ , Income after 3 years:  $R^2 = 0.05$ , Income after 6 years:  $R^2 = 0.05$

Table 7.7 examines employment income with human capital and demographic characteristics. Again, I only included women who are active in the labour market which is 11,785 refugee women (arrival year - 2005), 13,490 (three years after 2008 arrival - 2011) and 13,485 (six years after 2008 arrival - 2014). The aim is to determine if additional variables are included in the model, the results change.

Among refugee women with bachelor's degree, landing in 2008 during the height of the recession has a strong positive effect ( $\beta=0.93$ ) on employment income, a moderately strong positive effect on employment income ( $\beta=0.72$ ) for refugee women who have graduate degree and a positive above average outcome in employment income ( $\beta=0.67$ ) for those with college/trade diploma compared to those with high school diploma or less. In short, there is a labour market 'reward' for those who have higher education. However, three years after their arrival to Canada in the aftermath of the recession (2011) as well as six years after their arrival (2014), their education certificate is not as beneficial and has no influence on employment income. For these groups, we can say that their income is not increased or decreased after the recession to any degree.

Similarly, among refugee women with trade/apprenticeship certificate, landing in 2008 has a moderate positive effect ( $\beta=0.48$ ) on employment income as well as  $\beta=0.47$  for those with incomplete university education compared to those with high school diploma or less. Again, three years after their arrival to Canada during recession (2008) as well as six years after their arrival (2011), their education certificate is not as beneficial and has no influence on employment

income. For these groups, we can say that their income is not increased or decreased after the recession to any degree.

How does knowledge of one of Canada's official languages influence employment income for refugee women? For those arriving in 2008 during Canada's recession, knowledge of one of the official languages has a moderately high positive effect on employment income ( $\beta=0.68$ ) compared to women with no prior knowledge. Even so, three years after the recession (2011) as well as six years after their arrival (2014), their language fluency is not as beneficial and has no influence on employment income.

How does skillset influence employment income for refugee women? For refugee women with previous professional skills, landing in 2008 during Canada's recession has a strong negative effect ( $\beta= -1.33$ ) on employment income compared to new workers. However, landing after recession (2011), and six years after their arrival (2014), this having a professional skillset does not have any influence on employment income. For this group, we can say that their income is not increased or decreased after the recession to any degree.

How does world area of birth influence employment income among the 2005 arrival group? Among refugee women from Eastern Asia, landing in 2008 has a strong positive effect ( $\beta=1.57$ ) on employment income compared to refugee women from Oceania and other Asia. However, landing after the recession (2011), and six years after their arrival (2014), their world area of birth does not have any influence on employment income in these periods.

Among refugee women from Europe, landing in 2008 after the recession has a strong positive effect ( $\beta=1.50$ ) on employment income compared to those from Oceania and other Asia. For this group, three years after their arrival (2011), there is a significant decline and a negative effect on income ( $\beta= -0.12$ ) meaning that for every category increase in immigrant category, the women are slightly less likely to have labour market income. However, landing six years after their arrival (2014), their world area of birth does not have any influence on employment income in this period.

Among refugee women from the Americas, landing in 2008 has a high positive effect ( $\beta=0.71$ ) on employment income, for those from Africa and the Middle East, a positive effect ( $\beta=0.61$ ) and those from Southern Asia also have a positive effect ( $\beta=0.60$ ) compared to refugee women from Oceania and other Asia. However, landing during recession (2011) and six years after their arrival (2014), their world area of birth does not have any influence on employment income in these periods.

Again, how does landing age influence employment income among the 2008 arrival group? Among refugee women between 50 to 64 years of age, landing in 2008 during the recession has a strong negative effect ( $\beta= -4.40$ ) on employment income and a moderately negative effect ( $\beta= -0.57$ ) for refugee women between 35 to 49 years of age compared to those who are 15 to 24 years of age. Later on, three years after the recession (2011) and six years after their arrival (2014), their age has no statistically significant influence on employment income.

How does relationship status influence employment income among the 2008 arrival group? Landing in 2008 during Canada's recession has a small positive effect ( $\beta=0.39$ ) on the employment income of married/common law partner refugee women compared to those who are separated, divorced or widowed. Three years after the recession (2011), their employment income decreases ( $\beta=0.0$ ). However, six years after their arrival (2014), their relationship status is not as beneficial and has no influence on employment income. In summary, the married/common law partner refugee women group are more likely to be employed if they arrive during the recession, but see their employment levels decline after recession and do not rebound even years after.

Likewise, landing in 2008 during Canada's recession has a small positive effect ( $\beta=0.37$ ) on the employment income of single refugee women compared to those who are separated, divorced or widowed. For this group, three years after their arrival (2011), there is a significant decline but still positive effect on income ( $\beta=0.05$ ) meaning that for every category increase in relationship status, the women are slightly less likely to have labour market income. However, six years after their arrival (2014), their relationship status is not as beneficial and has no influence on employment income. In summary, the married/common law partner refugee women group are

more likely to be employed if they arrive during the recession, but see their employment levels decline after recession and do not rebound even years after.

How does immigration category influence employment income among the 2008 arrival group? Among privately sponsored and blended office-referred refugee women, landing in 2008 during Canada's recession has a strong positive effect ( $\beta=1.45$ ) on employment income compared to dependant protected persons. However, three years after the recession (2011) as well as six years after their arrival (2014), their immigration category has no statistically significant influence on employment income. Hence for this group, we can say that their income is not increased or decreased during or after the recession to any degree.

Landing in 2008 during Canada's recession also has a high positive effect ( $\beta=1.11$ ) on the employment income of government assisted refugee women compared to dependant protected persons. For this group, three years after their arrival (2011), there is a significant negative decline on income ( $\beta= -0.08$ ) meaning that for every category decrease in immigration category, the women are slightly less likely to have labour market income. However, six years after their arrival (2014), their immigration category is not as beneficial and has no influence on employment income. In summary, the government assisted refugee women are more likely to be employed if they arrive during the recession, but see their employment levels decline after recession and do not rebound even years after.

For protected persons refugee women compared to dependant protected persons, landing in 2008 during Canada's recession also has a low positive effect ( $\beta=0.38$ ) on their employment income. However, three years after the recession (2011) as well as six years after their arrival (2014), their immigration category has no statistically significant influence on employment income. Hence for this group, we can say that their income is not increased or decreased during or after the recession to any degree.

Overall, what these models tell us is that refugee women who arrived in Canada during the recession generally fared better than after the recession in the labour market if they arrived with higher education and knowledgeable in at least one of Canada's official languages in the short

term whereas their skillset has a negative declining effect in both the short and long terms. From these models, we also see that refugee women from developed world regions typically fair better in Canadian labour market than other world regions in the short term. Likewise, those between 35 to 49 years of age, single status and arrive in Canada through the privately sponsored refugees and blended visa office-referred immigration category are slightly at an advantage in the labour market than the other groups.

### 7.1.3 ARRIVAL AFTER RECESSION

#### 7.1.3.1 Employment Income and Human Capital variables

For the 2011 arrival year model, the independent variables account for 6% in the variation of achievement of employment income at arrival. The R<sup>2</sup> for model two is no better at 1% in the variation achievement in employment income three years after arrival (2014). Even though the R<sup>2</sup> is slightly better in the arrival year than three years after arrival, overall the quality of the models is unacceptably low. Yet, because some of the independent variables in these models are statically significant, I can still draw valid conclusions about the relationships between the variables bearing in mind that it can sometimes be difficult to predict human behavior and conditions when using existing datasets. Table 7.8 shows the likelihood of human capital factors on employment income for the models.

Table 7.8: *The likelihood of human capital factors contributing to the increase or decrease of employment income Year of Arrival and Three years after arrival for refugee women arriving in 2011 in Canada during recession aftermath.*

	Income at arrival year - <b>2011</b>		Income three years after 2011 arrival - <b>2014</b>	
	Coef.	95% confidence interval	Coef.	95% confidence interval
<b>EDUCATION QUALIFICATION</b>				
Trade/Apprenticeship Certificate	0.13**	(0.06, 0.20)	-	-
College/Trade Diploma	0.16***	(0.09, 0.22)	0.05**	(0.01, 0.1)
Incomplete University	0.28***	(0.18, 0.37)	-	-
Bachelor's Degree	0.38***	(0.31, 0.45)	0.07**	(0.02, 0.13)
Graduate Degree	0.27***	(0.13, 0.42)	0.12*	(-0.00, 0.24)
<b>OFFICIAL LANGUAGE</b>				
English only or French only or English and French	-0.11***	(-0.16, -0.06)	0.06***	(0.04, 0.09)
<b>SKILL LEVEL</b>				

	Income at arrival year - 2011		Income three years after 2011 arrival - 2014	
	Coef.	95% confidence interval	Coef.	95% confidence interval
Managerial	-	-	-	-
Professionals	-0.67***	(-0.81, -0.53)	0.24***	(0.12, 0.36)
Skilled and Technical	0.2***	(0.14, 0.33)	-0.06*	(-0.11, -0.00)
Intermediate and Clerical	0.09*	(0.00, 0.18)	-	-
Elemental and Labourers	0.11*	(0.02, 0.20)	-	-

Statistical significance: \*\*\* $p \leq 0.001$ , \*\* $p \leq 0.01$ , \* $p \leq 0.05$

Income at Arrival:  $N=8,965$ ; Income after 3 years:  $N=13,830$

Note: only p-values that are significant are shown in the table. See appendix for complete table.

Income at Arrival:  $R^2 = 0.06$ , Income after 3 years:  $R^2 = 0.01$

Table 7.8 examines employment income with human capital characteristics. Here, I only included women who are active in the labour market which is 8,965 refugee women (arrival year - 2005) and 13,830 (three years after 2011 arrival - 2014).

For refugee women with bachelor's degree compared to those with high school diplomas or less, landing in 2011 after the recession has a moderately low positive effect ( $\beta=0.38$ ) on employment income compared to those with high school diploma or less. Those arriving three years after their arrival (2014), there is a significantly small but positive effect on income ( $\beta=0.07$ ) meaning that for every category increase in educational attainment, the women are slightly less likely to have labour market income which is an indication that coming out of a recession does have a slight negative effect on bachelor's degree holders refugee women in finding work.

Landing before a recession period has a moderately strong effect on employment income ( $\beta=0.28$ ) for refugee women who have incomplete university education if they arrive in 2011 compared to those who arrive with high school diploma or less. However, three years after their arrival to Canada (2014), their incomplete university education is not as beneficial and has no influence on employment income.

For refugee women with graduate degree compared to those with high school diplomas or less, landing in 2011 after the recession has a low positive effect ( $\beta=0.27$ ) on employment income compared to those with high school diploma or less. Those arriving three years after their arrival

(2014), there is a small but positive effect on income ( $\beta=0.12$ ) meaning that for every category increase in educational attainment, the women are slightly more likely to have labour market income which is an indication that coming out of a recession does have a slight negative effect on graduate refugee women in finding better paying work.

Among refugee women with college/trade diploma compared to those with high school diplomas or less, landing in 2011 after the recession has a low positive effect ( $\beta=0.16$ ) on employment income compared to those with high school diploma or less. Those arriving three years after their arrival (2014), there is a small but positive effect on income ( $\beta=0.05$ ) meaning that for every category increase in educational attainment, the women are slightly less likely to have labour market income which is an indication that coming out of a recession does have a slight negative effect on refugee women with college/trade diploma in finding work.

Lastly, landing before a recession period has a low positive effect on employment income ( $\beta=0.13$ ) for refugee women who have trade/apprenticeship certificate if they arrive in 2011 compared to those who arrive with high school diploma or less. However, three years after their arrival to Canada (2014), their trade/apprenticeship certificate is not as beneficial and has no influence on employment income.

How does knowledge of one of Canada's official languages influence employment income for refugee women? For those arriving in 2011 after Canada's recession, knowledge of one of the official languages has a low negative effect on employment income ( $\beta= -0.11$ ) compared to women with no prior knowledge. For this group however, three years after their arrival to Canada in 2014, their employment income increases ( $\beta=0.06$ ) when they have prior knowledge of English or French or both. We can conclude that after the recession, having knowledge of one of the official languages has a positive influence on income but it is not as large.

How does previous skill level influence employment income among the 2011 arrival group? For refugee women with skilled and technical experience compared to new workers, landing in 2011 after the recession has a moderate positive effect ( $\beta=0.2$ ) on employment income compared to new workers. Those arriving three years after their arrival (2014), there is a small but negative

effect on income ( $\beta = -0.06$ ) meaning that for every category decrease in skill level, the women are less likely to have labour market income which is an indication that coming out of a recession does have a negative effect on refugee women with skilled and technical experience in finding work.

Among refugee women with elemental and labourer skills, landing in 2011 has a low and positive effect ( $\beta = 0.11$ ) as well as those with intermediate and clerical skills have a very low positive effect ( $\beta = 0.09$ ) on employment income compared to new workers. However, three years after their arrival (2014), their skillsets are not as beneficial and has no influence on employment income. For this group, we can say that their income is not increased or decreased after the recession to any degree.

Among refugee women with previous professional skills, landing in 2011 has above average negative effect ( $\beta = -0.67$ ) on employment income compared to new workers. For this group, three years after their arrival (2014), their employment income rises ( $\beta = 0.24$ ). This is an indication that their skillset is being recognized in the labour market such that we can affirm that, the aftermath of the recession is better on the employment income of refugee women with professional skills.

Overall, what these models tell us is that refugee women who arrived in Canada with higher education such as bachelor's degree, graduate degree or even incomplete university fare better in the labour market during the aftermath of recession. However in the long term, language has a positive but small effect on income. For skill level, the effect on employment income is low and rebounds very slowly in the continuing years.

#### 7.1.3.2 Employment income, Human Capital and Demographic variables

I now expand the next set of models beyond looking at the effects of arriving after a recession, human capital variables and now add on demographic variables to see if there is a change. For the 2011 arrival year model, the independent variables account for 7% in the variation of achievement of employment income at arrival. The goodness of fit test is not any better for those women arriving three years after arrival at 2%. Again, even though the  $R^2$  is slightly better in the

arrival year than three years after arrival, overall the quality of the models is unacceptably low. Nonetheless, because some of the independent variables in these models are statically significant, I can still draw valid conclusions about the relationships between the variables. Table 7.9 shows the likelihood of human capital factors and demographic factors on employment income for the models.

Table 7.9: *The likelihood of human capital and demographic factors contributing to the increase or decrease of employment income Year of Arrival and Three years after arrival for refugee women arriving in 2011 in Canada during recession aftermath.*

	Income at arrival year - <b>2011</b>		Income three years after 2011 arrival - <b>2014</b>	
	Coef.	95% confidence interval	Coef.	95% confidence interval
<b>EDUCATION QUALIFICATION</b>				
Trade/Apprenticeship Certificate	-	-	-	-
College/Trade Diploma	0.12***	(0.05, 0.19)	0.05*	(0.01, 0.09)
Incomplete University	0.21***	(0.11, 0.30)	-	-
Bachelor's Degree	0.33***	(0.25, 0.40)	0.06*	(0.0, 0.12)
Graduate Degree	0.33***	(0.19, 0.47)	-	-
<b>OFFICIAL LANGUAGE</b>				
English only or French only or English and French	0.13***	(0.07, 0.19)	0.04**	(0.01, 0.07)
<b>SKILL LEVEL</b>				
Managerial	-	-	-	-
Professionals	-0.48***	(-0.6, -0.32)	0.36***	(0.20, 0.53)
Skilled and Technical	0.16**	(0.06, 0.26)	-	-
Intermediate and Clerical	-	-	-	-
Elemental and Labourers	-	-	-	-
<b>WORLD AREA BIRTH</b>				
Europe	0.24***	(0.10, 0.37)	-	-
Africa and the Middle East	0.20**	(0.1, 0.34)	0.1*	(0.0, 0.16)
Southern Asia	-	-	-	-
Eastern Asia	-	-	-	-
America	-	-	0.08*	
<b>LANDING_AGE_6_GROUPS</b>				
25 to 34 years of age	-	-	-	-
35 to 49 years of age	-	-	-	-
50 to 64 years of age	-0.35***	(-0.55, -0.16)	-	-
<b>MARITAL STATUS</b>				
Single	-	-	-	-
Married, common law partner	-	-	-	-
<b>IMMIGRATION CATEGORY CENSUS</b>				
Protected Persons	-	-	-0.10*	(-0.20, -0.00)

	Income at arrival year - 2011		Income three years after 2011 arrival - 2014	
	Coef.	95% confidence interval	Coef.	95% confidence interval
Government Assisted Refugees	0.34***	(0.21, 0.46)	-0.09*	(-0.17, -0.0)
Privately Sponsored Refugees & Blended	0.34***	(0.21, 0.47)	-0.11**	(-0.19, -0.02)

Statistical significance: \*\*\* $p \leq 0.001$ , \*\* $p \leq 0.01$ , \* $p \leq 0.05$

Income at Arrival:  $N=8,880$ ; Income after 3 years:  $N=13,490$

Note: only p-values that are significant are shown in the table. See appendix for complete table.

Income at Arrival:  $R^2 = 0.10$ , Income after 3 years:  $R^2 = 0.02$

Table 7.9 examines employment income with human capital and demographic characteristics. Again, I only included women who are active in the labour market which is 8,880 refugee women (arrival year - 2011) and 13,490 (three years after 2011 arrival - 2014).

Among refugee women with bachelor's and graduate degree, landing in 2011 after the recession has a moderately low positive effect ( $\beta=0.33$ ) on employment income compared to those with high school diploma or less. However, three years after arrival (2014), only those with bachelor's degree have their employment still being significant - the labour market return to a bachelor's degree education declines very slightly ( $\beta=0.06$ ) which is an indication that coming out of a recession does have a significant negative effect on the bachelor's degree education of refugee women in finding work.

Landing before a recession period has a low positive effect on employment income ( $\beta=0.21$ ) for refugee women who have incomplete university education if they arrive in 2011 compared with those who arrive with high school diploma or less. However, three years after their arrival to Canada (2014), their incomplete university education is not as beneficial and has no influence on employment income.

For refugee women with college/trade diploma compared to those with high school diplomas or less, landing in 2011 after the recession has a very low positive outcome ( $\beta=0.12$ ) on employment income compared to those with high school diploma or less. Those arriving three years after their arrival (2014), there is a significantly small but positive effect on income

( $\beta=0.05$ ) meaning that for every category increase in educational attainment, the women are less likely to have labour market income which is an indication that coming out of a recession does have a slight negative effect on refugee women with college/trade diploma in finding work.

How does knowledge of one of Canada's official languages influence employment income for refugee women? For those arriving in 2011 after Canada's recession, knowledge of one of the official languages has a low positive effect on employment income ( $\beta=0.13$ ) compared to women with no prior knowledge. For this group however, three years after their arrival to Canada in 2014, their employment income decreases ( $\beta=0.04$ ) when they have prior knowledge of English or French or both. This slight benefit of official language knowledge however is much smaller three years after arrival.

How does previous skill level influence employment income among the 2011 arrival group? For those landing in 2011 after Canada's recession, with previous professional skills has a below average negative effect ( $\beta= -0.48$ ) compared to new workers. For this group however, three years after their arrival to Canada in 2014, their employment income increases ( $\beta=0.36$ ) when they have previous professional skills. In summary, refugee women with previous professional skills are more likely to be employed if they arrive after the recession as they rebound after the recession.

Again, among refugee women with skilled and technical experience, landing in 2011 after Canada's recession has a low positive effect ( $\beta=0.16$ ) on employment income compared to new workers. However, three years after their arrival to Canada (2014), their skilled and technical experience is not as beneficial and has no influence on employment income.

How does world area of birth influence employment income among the 2011 arrival group? Among refugee women from Europe, landing in 2011 after Canada's recession has a moderately low positive effect ( $\beta=0.24$ ) on employment income compared to those from Oceania and other Asia. However, three years after their arrival to Canada (2014), their world area of birth is not as beneficial and has no influence on employment income.

Furthermore, among refugee women from Africa and the Middle East, landing in 2011 has a moderately low positive effect ( $\beta=0.20$ ) on employment income compared to those from Oceania and other Asia. For this group, three years after their arrival (2014), there is a decline and a positive effect on income ( $\beta=0.1$ ) meaning that for every category increase in world area birth, the women are slightly less likely to have labour market income.

For refugee women from the Americas compared to those from Oceania and other Asia, landing in 2011 after the recession has no influence on employment income. Those arriving three years after their arrival in 2014, there is a very small but positive effect on income ( $\beta=0.08$ ) meaning that for every category increase in world area of birth, the women are slightly more likely to have labour market income which is an indication that coming out of a recession does have a slight positive effect on refugee women from the Americas in finding work.

Again, how does landing age influence employment income among the 2011 arrival group? For refugee women between 50 to 64 years of age, arriving in 2011 after Canada's recession has a low negative effect ( $\beta= -0.35$ ) on employment income compared to those who are 15 to 24 years of age. However, three years after their arrival (2014), their age is not as beneficial and has no influence on employment income. For this group, we can say that their income is not increased or decreased after the recession to any degree.

How does immigration category influence employment income among the 2011 arrival group? Landing in 2011 after Canada's recession has a moderately low positive effect ( $\beta=0.34$ ) on the employment income of privately sponsored and blended visa office-referred refugee women compared to dependant protected persons. For this group, three years after their arrival (2014), there is a significant negative decline on income ( $\beta= -0.11$ ) meaning that for every decrease in immigration category, the women are slightly less likely to have labour market income. In summary, the privately sponsored and blended visa office-referred refugee women are less likely to be employed if they arrive after the recession as their employment levels decline after recession and does not rebound even years after.

Similarly, landing in 2011 after Canada's recession has a moderately low positive effect ( $\beta=0.34$ ) on the employment income of government assisted refugee women compared to dependant protected persons. For this group, three years after their arrival (2014), there is a significant negative decline on income ( $\beta= -0.09$ ) meaning that for every decrease in immigration category, the women are slightly less likely to have labour market income. In summary, the government assisted refugee women are less likely to be employed if they arrive after the recession as their employment levels decline after recession and does not rebound even years after.

For protected persons refugee women compared to dependant protected persons, landing in 2011 after Canada's recession has no influence on employment income. Nonetheless, three years after their arrival (2014), their employment income has a low negative effect ( $\beta= -0.10$ ) compared to dependant protected persons. This is an indication that protected persons refugee women actually experience employment income reductions as time goes on.

Overall, what these models tell us is that, refugee women who arrived in Canada after the recession with higher education and knowledgeable in a least one of Canada's official languages in both the short and long terms generally fared better in the labour market, whereas skillset has a positive effect on skilled and technical experience in the short term and for those with professionals skills, they rebound positively on their employment income in the long term. From these models, we also see that refugee women from developed world regions typically fair better in Canadian labour market than other world regions in the short term. Likewise, those between 50 to 64 years of age experience poor labour market outcomes and there is a decline on the effect of immigration category on employment income.

## 7.2 Discussion

The Canadian recession in the period 2008 - 2010 had implications for all participants in the labour market (Cross, 2011; Gibson, 2016). For instance, in Crossman et. al's (2021) research, he points out that one significant aspect of the 2008 recession in Canada was that the Gross Domestic Product (GDP) fell drastically. Employment share before recession among women was at 47% however, from October 2008 to May 2009 during Canada's recession, there was a decline such that the job loss share was at 18% for women (Rosenbaum et. al, 2021). Rosenbaum et. al

(2021) points out that representation of women in some of the sectors hardest hit during recession contributes to the differential unemployment impacts on sectors and the demography of women who work in them (that is accommodation sector, food services and retail trade sector). The interest here is that we are fed a line that the job market works as a meritocracy but as we can see with lower employment rates of immigrants and refugees and failure to recognize foreign credentials of newcomers, human capital is weighted less giving the employers a 'reason' to reject newcomer workers and maintaining an unequal labour market.

### *7.2.1 Employment income as a measure of economic success*

For refugee women, having employment income is essential to rebuilding their life in their new home, a path to financial independence and economic success. Jamil et. al (2016) makes a valid point that labour market successes are influenced by certain predictors - this they indicate includes education, language proficiency, acculturation and work experience in the country of resettlement. In the case of successful economic integration of refugee women in this study, their human capital characteristics at arrival and subsequent years as well as demographic characteristics are not that important, at least in the case of refugee women. However, I argue that considering the economic conditions of the host society at their arrival and accounting for years in the labour market further completes the picture of the economic integration of refugee women.

Examining employment income over the periods, the result for employment income at arrival years (2005, 2008, and 2011) indicates that education is a significant, though relatively weak, contributing factor. Specifically, refugee women with university level education have higher positive employment income compared to those with secondary level education. There is a benefit to refugee women arriving before the recession in that their employment income is less affected by market forces in 2008 and 2011. For women arriving after the recession, skillset, education and language do not have as positive an impact as they do for women arriving prior to or during the recession. The decline could be due to continuing of deteriorating economic conditions on income following the recession and the economy slowing rebuilding. This could also mean that refugee women, compared with other women, are bearing the brunt of the economic recovery, though we cannot tell from this study as it was not possible for us to

compare the economic outcomes of Canadian-born and other newcomer women. This result could also be an indication of differences in employment opportunities in the Canadian labour market over the years such that the job types which are accessible also have implications on wages (Crossman, 2013); negative economic periods and aftermath do influence the extent to which there is competition in the labour market leaving refugee women vulnerable to employers who will readily cut wages to survive.

In a meritocratic labour market, language knowledge would increase labour market access and employment outcomes (Daley and Warman, 2019). My research findings confirm this. Knowledge of official language actually has a positive influence on the employment income of refugee women. As an example, those arriving in 2005 experience a positive effect of knowledge of official language<sup>74</sup> but only during or after the recession - this is the same for arrival year 2008 and arrival year 2011. It is not surprising that the effect of language knowledge continues to have positive influence, even six years after arrival since language use and accent are supposed to improve. This finding supports several previous studies which have explored the advantages of language fluency when integrating into a new society. Both Bonikowska et. al. (2008) and Crossman (2013)'s studies reveal that immigrants who arrive in Canada and are knowledgeable in at least one of the country's official language have better returns in the Canadian market as it reduces labour market barriers and presents superior integration of immigrants. My results reveal that for refugee women, the longer they have been in Canada, we can assume their accent gets better as well fluency in at least one of Canada's official languages which perhaps makes them more employable and positively affects income.

Various factors account for why refugee women with skill level have decreased employment income in the host country's labour market. Businesses that usually struggle during recessions are for instance retail stores, construction and manufacturing (Papademetriou and Terrazas, 2010) which are the areas where refugee women are most likely to be employed (Rosenbaum et. al, 2021). For refugee women with skilled and technical experience, their income is always negatively affected, regardless of the time period they enter the labour market. This negative economic outcome can be associated with the possibility of the refugee women not being able to

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<sup>74</sup> The language variable is self-assessed language knowledge so people over- and under estimate their language ability—so the findings might not mean much and in addition, there is no measure of accent.

translate their skill level to the Canadian labour market - this has been confirmed by other research (Crossman, 2013; Green and Worswick, 2017). Some could argue that first year arrivals may lack “Canadian work experience” and this legitimates employers’ lower pay scale for this group (Papademetriou and Terrazas, 2010).

I will like to point out that employers use “lack of Canadian experience” as a convenient way to discriminate against newcomers (Li, 2003). Pan-Canadian Sector Council and Immigrant Dialogue (2005) explains Canadian work experience as not just existence of current or previous work in Canada but also includes language and communication skills, knowledge of Canadian standards, ability to fit onto Canadian workplace culture, doing things the “Canadian way” and barriers which preserve prejudice and discrimination. Recent research has suggested this is a ruse by some employers to avoid hiring immigrants (Bauder, 2003; Hakak, Holzinger and Zikic, 2010). For such reasons, refugee women struggle in the Canadian labour market which is built on how much employers place value on Canadian work experience.

Out of all refugee women, those with skilled and technical training arriving in 2011 after the recession have the most positive employment of all groups. This finding does not support existing studies which have pointed out that highly skilled immigrants have higher labour market returns, are often protected from job loss and wages even during recession due to investments that employers make in employees in such positions (Papademetriou and Terrazas, 2010) - a small proportion of the refugee women in my dissertation fall in the highly skilled immigrant category. We should note, however, that Papademetriou and Terrazas’ study on immigrants in the US was published before 2011 so the labour markets have likely changed during that short period of time. Barriers exist in the Canadian labour market but in periods of economic downturns, we need to also recognize a much stricter access to opportunities where refugee women even with recognized skill level can be disadvantaged based on the economic conditions.

The economic conditions of the host society have varying effect on the income of refugee women. As such, when additional variables were included in the models, the results changed. The results in this study support research indicating that country of origin has an influence on economic integration (Sweetman and Warman, 2014; Mata and Pendakur, 2017; Wilkinson and

Garcea, 2017). It supports previous research that the Canadian labour market conditions are experienced differently dependent upon world area of birth in the labour market (Sweetman and Warman, 2014; Wilkinson and Garcea, 2017). The results show that refugee women from developed countries like the Europe, US<sup>75</sup> and Eastern Asia typically have positive employment incomes compared to those from Asia, Africa or Latin America. Refugee women from Europe have higher employment incomes regardless of the period of arrival compared with women from the Middle East and Africa. Based on these findings, I can argue that there is also some element of ethnic preference accompanied by a lack of foreign credentials recognition because it has been obtained from a developing country<sup>76</sup>. This finding supports Sweetman's (2004) research where he points out in his findings that the Canadian labour market is more favourable to immigrants from source countries such as Europe and the US - he goes on to state that those from developed countries receive lower income levels.

A key factor that also influences the employment income for refugee women is their age at arrival. Existing studies have pointed out the poor economic outcomes of older immigrants in the labour market. According to Crossman (2013), immigrants who arrive in Canada at older ages experience lower income. This finding is further supported by Palameta's (2004) research which argues that immigrants who arrived in Canada in their late forties to fifties are at a higher risk of experiencing low income even after seven to sixteen years after arrival. Picot, Hou, and Coulombe's (2007) research reaches a similar conclusion that low income increases with immigrant age at landing. My findings also support these observations and indicate that refugee women above 50 years of age at landing have a higher probability of low employment income compared to the lower age groups - arrival during the 2008 recession has the worst influence on employment income for refugee women above 50 years of age compared to those arriving before or after the recession. Similarly, my findings also indicate that the labour market outcome is no better for those who arrive in Canada between 35 to 49 years of age - the effect on employment income is poor in each arrival year period. Papademetriou and Terrazas (2010) find that such employees are easily expendable in the labour market due to less experience and job tenure. As such, this may explain why the adult refugee women also do not fare as well when there is

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<sup>75</sup> as secondary refugees

<sup>76</sup> What researchers find is that where education was attained has a great deal of influence on job outcomes. I could not really measure 'quality' of job versus quality of education in this study and as such there is a likely devaluation of education once refugee women arrive to Canada or even determine where education was obtained before arrival in Canada.

economic crisis - with recession typically being associated with economic turnover such that businesses either collapse, decrease in earnings or earnings for employees not significantly increased, it goes to confirm the impact that economic conditions have on the employment income of refugee women.

There is little to no research on marital status and refugee women's income which makes my dissertation a beneficial contribution to the economic integration of refugee's literature. According to the results from this study, single refugee women who arrived before the recession have better economic success compared to those in some other form of relationship. During the recession however, those who are married or common law partner have better employment incomes than those who are single. This finding supports similar studies which have focused on the economic outcomes of immigrants in terms of their family status. Chiswick and Miller's (2003) studies on the Australian labour market reveals that married immigrants earn 8% more than immigrants who are single. Similarly, in Danzer and Ulku's (2008) examination of the German labour market, they predict positive economic success for those who are married compared to other marital status. None of these studies has taken into consideration the local economies and whether or not they are in recession.

Program of entry has been studied broadly but little especially in regards to focused studies on refugee women. Even though all refugees face similar barriers in the labour market, protected persons in this study have the poorest economic outcomes in terms of employment income compared to other immigration categories regardless of whether it is arrival before, during or after the recession. Government assisted refugees and privately sponsored and blended visa office-referred refugee women have a higher employment income at the year of arrival - this is most significant in the recession arrival period compared to arrivals before and after the recession. For privately sponsored and blended visa office-referred refugee women in particular, literature sources have linked their successful economic integration to the strong support from private sponsors which goes beyond the year of arrival (Schmidtke, 2018). But that is about all we know from existing research - we rarely discuss refugee women as economic 'beings' and access how they contribute to the Canadian economy because of their diverse skill sets. Furthermore, the 'security' and access to services provided to GARs and PSRs likely partly

explains their relatively stronger economic outcomes as they are given access to various programs to assist in their labour market entry whereas protected persons have more limited access to such services.

However, for all arrival groups, employment income decreases with time. Some factors can also be considered to explain why government assisted refugees and privately sponsored refugees and blended visa office-referred refugee women have poor employment income outcomes in the subsequent years after arrival. One assumption is the benefits that government assisted refugees receive in their year of arrival end and puts them in a precarious position, especially if they are not aware they can transition to provincial government assistance. According to DeVoretz et al (2004), government assisted refugees receive social assistance, approximately 73% more compared to the other refugee resettlement programs. For privately sponsored refugees and blended visa office-referred refugee women, if they do not have strong connections and continued support from their sponsors in the continuing years, it can sometimes have negative implications for their market outcomes and integration process. In short, GARS are “on their own” in terms of their integration in Canada. They depend on accessing and locating services, whereas BVOR and PSRs have actual ‘real’ sponsors who take a personal interest in guiding them through the integration system which often includes finding them a job. That is why they are most likely more successful in the short term.

### *7.2.2 Canada’s segment labour markets and implication for refugee women’s economic success*

Intersectional and segmented labour market theories can be used to better understand the outcomes of refugee women.

#### *7.2.2.1 Intersectional theory*

Intersectional theory assists in contextualizing the differences that exists between the women in the different groups (McCall, 2005; Tastsoglou and Preston, 2012). Newcomers in a host country’s labour market usually have a less privileged position compared to citizens and sometimes other immigrant groups (Anderson, 2019). For the refugee women in this study, their economic integration and successful outcomes are influenced by their low class position. According to Staunæs (2003), using an intersectional lens is useful to acknowledge the power

and privilege some groups enjoy compared to others. According to the results, if a checklist were created of factors needed to find employment, some refugee women would meet most if not all of the factors. However, based on the ideas of intersectionality, the struggles and barriers refugee women face are beyond their control and impact how successful their economic integration is - this is evident in the decline on employment income for refugee women with graduate education and skill levels.

The results support intersectional theory in the sense that refugee women arrive in Canada with human capital that is different from what Canadian employers may be used to. This difference most often serves as the basis for the inferior positions refugees are subjected to in the labour market. Refugee women's credentials are seen as foreign to the labour market and refugees may also come from groups that some employers have negative perceptions about (Krahn et al., 2000; Garcea, 2016). These differences may prompt unequal treatment compared to other members of the Canadian society (Phoenix and Pattynama, 2006; Vivar & Lutz, 2016). Hence, labour market accessibility has varying implications for my study participants' upward employment mobility, income, and expected benefits from their human capital. This provides a basis for understanding wage disparity among refugee women compared to other members of the Canadian society since some occupations that are dominated by refugees offer weak wage bargaining power during recession and aftermath of the recession.

Intersectional theory makes it obvious that race is an important factor that cannot be ignored (Boston, 2013). Refugee women are seen differently from Canadians simply based on their skin colour, accent, mannerisms and behaviors. Though these factors do nothing to indicate one's suitability for a job, there is constant racialization and discrimination from employers towards refugees because of widely accepted stereotypes. Racial profiling and stereotyping have repercussions for the successful economic integration of refugee women and the sectors where they are overrepresented, such as in service-related jobs (Bauder, 2006). Similarly, some immigrant women are marked as more suited for domestic jobs because of their country of origin, causing them to follow a similar path to refugee women who accept jobs Canadians will not do. A process of cultural segmentation becomes evident as their foreign credentials are undermined in the labour market.

#### 7.2.2.2 Segmented theory

Evidence from the results and discussions indicate that refugee women have varying levels of human capital which is relevant when assessing their wage differences in the labour market. Segmented labour theory addresses the wages individuals enjoy in the labour market sectors (Dickens and Lang, 1985; 1993). However, because this research is unable to determine job-match and thereby whether the income refugee women receive is from employment in either the primary or secondary sectors, this theory provides some insight. In this case, because refugee women with university level education qualification have increased income as well as those who are fluent in any of the country's official language, segmented labour market theory predicts this group working in the primary sector and therefore, providing reasons as to why before the recession, during recession and aftermath, they still have moderately high employment income (Fichtenbaum et. al, 1994).

Kalleberg and Sorensen (1979) assert that to determine the economic success and integration of individuals in a segmented labour market of a country, it should not be based on skilled and unskilled workers but rather 'good' and 'bad' jobs should be the determining factor. This sheds some light as to why there is decrease in the employment income of skill refugee women. From this perspective, segmented labour market theory helps to not only draw out the line between the different sectors in the labour market but also the different rules which govern the sectors which influence the outcomes for refugee women. Skill level is essential to compete in the labour market however through this theoretical lens, refugee women having these varying levels of skills plays little role for their economic success in the Canadian labour market when impacted by certain economic conditions.

Nevertheless, Piore (1970) makes an interesting observation pointing out that sometimes, it is not really about the human capital that immigrants possess that affects their success in the labour market regardless of period of arrival but rather, the relevance of where these are obtained from. The results in this dissertation highlight the need to address discrimination that exists in the economic structure. The results for the world area of birth indicate that refugee women from areas such as Europe are more likely to have increased employment income compared to those from Africa and the Middle East or even Asia. Racial discrimination therefore is embedded in

the operations of segmented markets which create varying degrees of economic success and outcomes even during recession and aftermath (Bonacich et. al, 2008). As such, Bonacich et. al (2008) points out that ascribed status work favourable for immigrants who are from developed countries in order to preserve a racialized labour market setting.

Backing LaRoche-Côté and Gilmore's contribution (2009) using this theoretical lens, the secondary sector has typically been more welcoming in terms of giving immigrants their first chance to get foreign work experience. The point here is that for refugee women in Canada who often take jobs in the secondary sector, aside their skill levels not matching job-type, one can also attribute lack of foreign credential recognition, racial and gender discrimination creating income gaps, decrease in employment and even in cases where there is increase in employment income, this by a very little margin. The tenets of segmented labour market theory therefore presents on one hand how human capital qualifications are instrumental in wage determination while and when all other factors are considered, there could be evidence of systemic barriers at play.

### 7.3 Conclusion

Recession period and aftermath create a decline and instability in labour market outcomes more than arrival before recession. Comparing the effects on employment income of refugee women in Canada, it is evident that the deterioration of the labour market impacts overall, poorly on the economic outcome of refugee women and even worse in the aftermath of the recession. In addition, in spite of shifts in the human capital and demographic characteristics these women possess during a particular economic condition in the labour market, these factors are also sensitive to the economic conditions thereby having implications for refugee women's employment income. In addition, I draw attention to covert measures in Canada's segmented labour markets which preserve income inequality and systemic discrimination. This helps in understanding the differences in the success levels that refugee women have in the labour market either with positive or negative increase or decrease in employment income and which members in this group achieve better economic outcomes. These issues which I believe boil down to ideas of racialized capitalism will be addressed in my conclusion chapter.

## CHAPTER 8: CONCLUSION

*Measuring success: Predictors of successful economic integration of resettled female refugees.*

Examining the economic integration of refugee women is important for the Canadian labour market. This is because Canada is one of the major resettlement developed country destination for refugees with past and recent migration trends suggesting an increase in the rates and number (UNHCR, 2017). It is important to note that of the refugee population resettled in Canada over the years, higher portions are women (Hudon, 2015). Hence, the objective of this dissertation has been - *Measuring success: Predictors of successful economic integration of resettled female refugees* and as a result, the primary focus has been on human capital characteristics, demographic characteristics, years in Canada as well as economic conditions in the Canadian labour market to arrive at a conclusion whether this economic integration over time can be called a success. Again, I will like to restate in this chapter as well that in as much as there is an extensive amount of studies on the labour market of immigrants in Canada, refugee women are very little discussed or the sole focus to determine what they also contribute to the economy of this country, recognizing that they may face more labour market barriers and at higher rates.

I employed Critical Race theory, Intersectional theory and Segmented Labour Market theory informed by a quantitative research design to address my main research question - *What are the characteristics that predict economic success among refugee women in Canada?* which is answered under three sub-questions: First, the univariate and cross-tabulations analyses addressed question (1) *what are the human capital and demographic characteristics of refugee women who enter the Canadian labour market?*; eight univariate tables were created examining the human capital and demographic characteristics of refugee women while comparing them against Canadian women and other immigrant women. The nine cross-tabulations also allowed for comparison among the various variables and how they may differ from other categories of the variables. Again, this was compared against Canadian women and immigrant women. Secondly, multiple logistic regression models addressed question (2) *Does education contribute to the income of refugee women in Canada?*; twelve binary multiple logistic regression models examined the impact of education only in the first set of models while the second set of models included additional human capital variables and the third set focused on both the human capital and demographic characteristics of refugee women to allow for a more situated implications of

education on the income of refugee women in Canada. Furthermore, the interactions allowed for an analysis of whether the same set of predictors have an impact on employment income. Lastly, multiple ordinary least regression models addressed question (3) *Does the year (or period) of arrival and economic conditions in the Canadian labour market affect the economic success of refugee women?*; sixteen main multiple ordinary least regression models measured arrival before recession, recession period and its aftermath in the Canadian labour market. Then, compared the arrival periods to three and six years after arrival. This was to examine the implications on the employment income of refugee women in the Canadian labour market as well as the changes that occur when their human capital and demographic characteristics were introduced in the models.

This chapter presents the conclusion of this dissertation highlighting some of the relevant findings and concluding comments on this research. The subsections include revisiting the research questions to highlight the findings, summary of theoretical contributions and critique within the context of refugee women's economic integration. This is followed by a discussion of academic, policy, and practical implications as well as limitations of the study and, suggestions for future research. Lastly, my concluding comments on examining the economic integration of refugee women in Canada.

## 8.1 Revisiting the Research Questions

### 8.1.1 Question (1) *what are the human capital and demographic characteristics of refugee women who enter the Canadian labour market?*

My research questions began with a portrait of refugee women in Canada examining their demographic characteristics and human capital with the view that this shapes their experiences in the Canadian labour market and predictors for successful economic integration.

Based on demographic attributes, my findings indicated that a large number of refugee women in Canada come from Africa and the Middle East, then America compared to other world areas of birth. The majority of this population arrived in Canada as young adults between 25 to 49 years of age which is ideal for Canadian labour market integration while a lesser portion of this sample population were under 24 years upon arrival in Canada - their labour market outcomes will be impacted differently since they will have more Canadian experience (education, jobs, social

networks). In addition, a significant proportion of refugee women arrived in Canada single (48%) compared to those who were married or in common law partnerships (43%).

Within an economic context, human capital plays a key role in attaining positive outcomes. The interaction between demographic attributes and the human capital of refugee women highlights what their employment integration experience may look like. My dissertation showed that the level of education at arrival for refugee women in Canada varies. Based on the sample population in my research, there was a much higher low level of education compared to those with graduate-level education. Of those with university degrees, a significant number (62%) had skilled and technical skill sets.

One of the key findings relates to refugee women from Africa and the Middle East, and America having the most university-level education in comparison to those from other world regions - this creates expectations of success in the labour market. Those from Eastern Asia had the lowest education qualifications which present a labour market disadvantage for this group. Furthermore, my findings in this chapter also revealed that refugee women between the ages of 25 to 34 years and 35 to 49 years are well educated - these age categories in my study had some university-level education. However, those who arrived in Canada at age 24 or younger represent the majority of those with no or less than high school education level. Aside from this, dependant protected persons, government-assisted refugees, and privately sponsored refugees and blended visa office-referred immigration categories, protected persons had the highest level of education at the graduate level (14%).

The Canadian labour market can be complex especially since there are several interconnecting factors needed to have successful outcomes. Hence, having desirable skills is beneficial. The most dominant skill levels among the refugee women in Canada were elemental and labourers as well as intermediate and clerical. Very few refugee women arrived in Canada with managerial and professional skills - this was most evident among protected persons refugee women category, then dependant protected persons as well as government assisted refugees. My findings also revealed that refugee women with high skill levels are from Africa and the Middle East, and America which also serves as origin for those with the lowest skill levels.

The refugee women in my study who were single at arrival in Canada had higher skill levels in relation to those who were married or in common law partnerships or even separated, divorced, or widowed. This to an extent is not surprising as some studies have pointed out that married women tend to play supporting role while their partners invest in their human capital qualifications. My findings revealed that refugee women in Canada between 35 to 49 years had managerial and professional skill levels and also represented the majority in the skilled and technical as well as intermediate and clerical categories. The age therefore of refugee women in Canada in relation to their skill integration in the Canadian labour market should present positive outcomes in terms of skill to job match.

Language fluency is depicted as an integral component in the economic integration of refugees. Even though a good number of refugee women are fluent in at least one of Canada's official languages - this was evident among those from Africa and the Middle East, America and Europe, my findings also affirmed that an equally high majority of the refugee women arrive in Canada not fluent in either of Canada's official languages (44%). This is a disadvantage for refugee women since lack of language proficiency is one of the major labour market barriers.

In conclusion, the economic integration of refugee women is beneficial for both Canada and this group and as such, it is useful to understand the position of these women in the Canadian labour market. Answering this research question highlighted the fact that refugee women arrive in Canada with varying levels of human capital characteristics most of which should make their economic integration successful as well as have positive outcomes. However, exploring this question brings to bear the possible challenges refugee women will be faced with in the Canadian labour market - chapter 5 not only painted a portrait of these refugee women but also, compared them to Canadian women and immigrant women recognizing that aside existing labour market barriers such as racism, discrimination, lack of foreign credential recognition, they have to compete for the same or similar jobs as these women who are more preferred in the Canadian labour market. Most Canadian women have Canadian education, more Canada based work experience and social networks to aid their transition to the labour market while immigrant women are selected to resettle in Canada based on having high human capital and demographic

scores unlike refugee women. It is no doubt that employers would have preference in regard to hiring Canadian women and immigrant women compared to refugee women.

#### 8.1.2 Question (2) *Does education contribute to the income of refugee women in Canada?*

Certainly education contributes to the income of refugee women in Canada. This was evident across the models for five, ten and fifteen years after arrival. The trend here was refugee women with university level education earn significantly more than those with a high school diploma or less and as time in Canada and education increased, so did the chance of earning an income higher than median employment income. What this also means is that, education has a positive influence on the odds of refugee women getting a job in Canada.

Aside the research question in chapter 6 confirming education as a predominant indicator of income, additional models exploring other human capital and demographic characteristics highlighted some patterns which contribute in determining the predictors of successful economic integration. Here, the effect of language knowledge on income was relatively small. My findings revealed that five years after arrival in Canada regardless of the level of education of these refugee women, having knowledge of Canada's official languages has no influence on earning above median employment income. However between ten and fifteen years after arrival in Canada, the higher the level of education with fluency in either or both of Canada's official languages, the more likely refugee women are to have employment income above median employment income compared to those with high school diploma or less and no knowledge of official language. As such, it is more beneficial for refugee women to be knowledgeable in at least one of Canada's official languages and have some university level education as this is a marker for successful economic integration.

Refugee women with higher levels of education (specific in my findings for trade/apprenticeship certificate or college/trade diploma or university level) and work in an intermediate and clerical or skilled and technical or professionals jobs obtain higher wages than those with high school diploma or less and are new workers. This was evident in my analysis for five and ten years after arrival in Canada for refugee women. Hence, refugee women with higher levels of education and with these skill types are significantly more likely to work in a job that pays higher than median

employment income. This pattern however cannot be generalized since after fifteen years of arrival, the education and skill levels at arrival of refugee women do not contribute to their income above median employment income.

Some of the models also pointed out the relevance of country of origin in the Canadian labour market for newcomers. The influence of education with world area of birth in the models on refugee women's propensity to earn a wage above median income signified that those from developed countries fare better than those whose institutions are not the same or similar to Canada. My findings confirmed this by indicating that refugee women with a bachelor's degree from America are more likely to have employment income above median employment income five years after arrival compared to those from Oceania and other Asia. Nonetheless, after ten and fifteen years of arrival in Canada, refugee women's education at arrival in relation to world area of birth does not present any income disparities. As a result, we can assume that after years of resettling in Canada, some refugee women do get additional Canadian education such that, barriers in the labour market due to lack of foreign credential recognition becomes nullified.

Refugee women between the ages of 25 years and older with trade/apprenticeship certificate or college/trade diploma or incomplete university were less likely to have their education at arrival contribute to their employment income above median employment income compared to those with high school diploma or less and 15 to 24 years of age. This trend persisted even after several years of being in Canada. There are several reasons why this may be the case; we need to recognize that the Canadian labour market is populated with Canadian women as well as immigrant women who have the same qualifications and are in the same age brackets as these females in my study thereby, creating competition in the labour market. The implications are delays in finding a job or underemployment resulting in low wages.

After fifteen years of arrival, single refugee women in Canada with incomplete university are more likely to have their education contribute to their employment income above median employment income while those who are married/common law partner with trade/apprenticeship certificate or college/trade diploma holders were less likely to have their education contribute to their employment income above median employment income. Chances are that, because single

refugee women have less family responsibilities, they are able to invest more in their human capital and advance in the labour market. Similarly, privately sponsored and blended visa office-referred refugee women with bachelor's degrees who had been in Canada for over fifteen years were more likely to have their education contribute to their employment income above median employment income compared to those with high school diploma or less and dependant protected persons.

In conclusion, there are factors that predict the successful economic integration of refugee women as a result of their level of education at arrival with other interconnected characteristics. The impact on refugee women's income in the labour market is also influenced by knowledge of official language and skill levels such that these factors become part of predictors for success in the labour market in the initial years in the labour market. Demographic characteristics are also significant predictors in that refugee women resettling from developed countries experience upward income mobility in their early years in the Canadian labour market. Also, refugee women who arrival in Canada at a working age experience less upward income mobility over the years than younger refugee women do and as well, the relationship status and immigration categories do influence their economic integration to an extent. Basically, these aforementioned predictors intersect in some ways giving grounds to their necessity for employment income above median employment income for refugee women.

### 8.1.3 Question (3) *Does the year (or period) of arrival and economic conditions in the Canadian labour market affect the economic success of refugee women?*

It is important to understand the labour market conditions when exploring predictors of economic success. The relevance of this is that it helps us to see how both the human capital and demographic characteristics interact in such particular conditions in spite of barriers such as discrimination, foreign credentials, language fluency, etc. Hence as explored in chapter 7, the year (or period) of arrival and economic conditions in the Canadian labour market does affect the economic success of refugee women. In the year of arrivals, this effect was predominantly positive for before recession, during recession period and its aftermath however, we realize a decline three and six years after arrival - the employment income of refugee women is impacted negatively during recession and its aftermath in the Canadian labour market.

Breaking this down, the labour market outcomes for refugee women are influenced by a variety of factors. The models informed by education qualification achieved by the refugee women at arrival revealed that for those with at least some university level education and higher, there is a positive effect on employment income at arrival years (2005, 2008 and 2011). While after three years and six years after arrival, there are significant declines and in some cases no significant relationship on employment income.

Language fluency in either or both of Canada's official languages is also relevant for refugee women when finding employment and upward income mobility especially during recession and its aftermath - my findings shed light on this pattern indicating that refugee women fluent in either or both official languages' employment income at arrival years was predicted to increase compared to those neither fluent in English nor French but only in the short term. As such, what was interesting here is that there was a decline in the predictability of income increase over the arrival years (2005, 2008 and 2011). This could be as a result of refugee women's accent improving such that language is less of significance for their economic integration. Again, considering the models which examined the relevance of skill levels of refugee women in the labour market, surprisingly, this predictor of successful labour market integration has a negative effect both in the short term and long term on the employment income for refugee women regardless of the economic condition in the Canadian labour market.

Economic integration is further impacted by demographic characteristics. Employment income at the arrival years was predicted to increase for refugee women from Europe compared to those from Oceania and other Asia during recession period and its aftermath while those from Africa and the Middle East or Eastern Asia's employment income at arrival was predicted to decrease. In the years after the recession, my findings indicated no significance. To an extent, one can say that refugee women who arrive from developing world areas experience less employment success than those from developed world areas with respect to employment income and regardless of whether it is before, during or after the recession. In addition, very little evidence is provided in support of landing age as a predictor of successful economic integration when influenced by period of arrival and economic conditions. For instance, even though employment income at arrival predicted a negative decrease for refugee women 50 to 64 years of age before

recession, during recession period and aftermath, this relationship was not significant mostly for refugee women 49 years of age or less in the short and long term in the labour market.

Existing studies present arguments that newcomers who receive resettlement support have better integration outcomes. However, these expected positive outcomes can be affected by the economic conditions in the labour market such that, my findings indicated a decrease in the employment income for government assisted refugee women during year of arrival, three years after arrival and six years after arrival compared to privately sponsored refugees and blended visa office-referred refugee women who have a better impact on their employment income during the same economic periods. This is not surprising as privately sponsored refugees and blended visa office-referred refugee women tend to have more advantage where their networks link them to employment opportunities, in addition to other supports that would make it easier for them to transition to the workforce faster (Wilkinson, 2017; Kaida & Stick, 2020).

In conclusion, the year (or period) of arrival and economic conditions in the Canadian labour market do affect the economic success of refugee women. Evidently, differences in the human capital qualities and demographic factors that refugee women possess influence their economic success even during recession and aftermath. In addition, we can successfully debate that the implications in the Canadian labour market goes beyond these factors drawing attention to covert measures in Canada's segmented labour markets before recession, during recession and its aftermath which preserves income inequality. This helps in understanding the differences in the success levels that refugee women have in the labour market either with positive or negative increase or decrease in employment income and which members in this group achieve better economic outcomes.

## 8.2 Summary of theoretical contributions and critique

### 8.2.1 *Summary*

The theoretical perspectives used in this dissertation helped to understand the findings. The tenets of intersectional theory, segmented labour market theory and critical race theory suggest that the barriers in the Canadian labour market help to sustain existing racism, discrimination and inequality refugee women experience. As such, right from the first research question, we come to

the understanding that refugee women arrive in Canada with human capital that is different from what Canadian employers may be used to and are faced with competition in the labour market against Canadian women and immigrant women. This difference most often serves as the basis for the inferior positions refugees are subjected to in the labour market.

In addition, refugee women's credentials are seen as foreign to the labour market as well as they come from countries that some employers have negative perceptions about (Krahn et al., 2000; Garcea, 2016). These differences may prompt unequal treatment compared to other members in the Canadian society (Phoenix and Pattynama, 2006; Vivar & Lutz, 2016). Thus, the ascribed and achieved characteristics of refugee women impose barriers and discrimination against this group which in turn impacts their labour market outcomes. The theoretical perspectives further raised arguments that some jobs are 'race-typed' which fosters the prejudice against refugee women who enter the labour market (Bonacich, 1972). This is because after examining the human and demographic characteristics of the refugee women, there is evidence of this group fitting into the Canadian labour market since some have university level education and others lower, most are knowledgeable in at least one of Canada's official language as well as a range of high to low skill levels. However, because certain types of jobs are associated with groups from some countries for example, grocery stores workers usually being Indians, taxi drivers usually being Pakistanis, cooks usually being Africans, this has played a role in devaluing refugees in the Canadian labour market and consequently their employment income.

This dissertation pointed out that education contributes to refugee women's income above median employment income. This is true to an extent since it is a predictor of successful economic integration. However, it also shed light on the fact that in the Canadian labour market, this factor alone may not be enough for refugee women to attain that desirable income gap. Employers have created a stage where additional factors are considered in order to preserve the income inequalities that exist in the Canadian labour market. The theories on these findings helped to question the differences in the price for the same labour done by groups from different world area of birth, age, and different skillsets in the labour market and come to some conclusion that possibly, employers play a key role in determining which factors are relevant such that it influences the income gap. Bauder (2003, 2006) attributes this to employer's perceptions of

immigrants for inclusion and exclusion when offering job vacancies. Hence, the theories provide the basis to question labour market practices, employment income and the overall economic outcomes of refugee women in Canada by recognizing the way discrimination has been ingrained in the system. Success therefore in the labour market recognizes not only the human capital an individual possesses but goes beyond this factor.

The year (or period) of arrival and economic conditions in the Canadian labour market do affect the economic success of refugee women. Even though refugee women arrive in Canada with diverse human capital qualifications and experiences, a higher proportion of these refugee women are faced with lack of foreign credential recognition, language barriers, lack of Canadian work experience (Kristyn and Hou, 2013; Wilkinson and Garcea, 2017). Evidently, differences in the human capital qualities and demographic factors that refugee women possess influence their economic success even during recession and aftermath. The theories employed successfully debate that the implications in the Canadian labour market go beyond these factors drawing attention to interconnecting limitations affecting employment income.

### *8.2.2 Critique*

The truth is, the realities of refugee women in the Canadian labour market are more complex than suggested by these theories. From my perspective, the structure of the Canadian labour market is set up to embrace inequality, marginalization and indirect exclusion such that, immigrants such as refugee women are faced with low paying jobs, higher unemployment rates and limited access to regulated professions. Such a structure of the economy has a lot to do with capitalism which is set up to make refugee women fail.

The Canadian economic system is characterized by the purchase of labour for wages, profit maximization and wealth expansion. As a result, competition in the labour market is unavoidable - refugee women are up against men who have more job options, Canadian women who are more preferred by employers and immigrant women who arrive in Canada more prepared for the Canadian labour market and usually have higher human capital than refugee women. With the odds against their favour, refugee women are often willing to accept less in exchange for their skills and experiences. This is a loss for refugee women as there is the constant recreation of

under-skilling, under-utilization and high poverty rates while the labour market maintains and accumulates more wealth (Little et. al, 2016).

Provincial governments play an important role in the regulation of paid work. Governments set a broad range of labour market laws and regulations which present the basis for established practices impacting pay structures in the overall labour market conditions. In essence, there is the determination of minimum wage which varies across the provinces, overtime pay, health and retirement coverage, unemployment insurance and workers' compensation (Rodriguez & Mearns, 2012). However, despite the federal government's ability to influence to an extent the labour market through laws, regulations, policies and guidelines for wages and even employment, there is still marginalization of refugee women in the labour market to the extent that one will think these legislation furthers the activities of capitalism as it safeguards the prosperity of those in power (Camfield, 2015) - I will like to point out that until laws, regulations and policies are actually enforced, all they will be is exist on paper and not make any difference in the realities refugee women face in the labour market. This applies to the existing Office of the Fairness Commissioner existing in only four provinces. In addition to the request that other provinces do the same, all provinces should consider giving more power to the Commissioner, perhaps to compel reluctant professions to provide pathways for reviewing previously acquired skills and education so that more refugees have a chance at working in a profession for which they have training and experience.

Most of the job opportunities are in the low sectors because the capitalist economy of this country places a higher demand on low paying jobs, low skill requirements and little job security making it harder for refugee women to escape. For this group, it is already difficult finding a job in an economy which forces people into poverty. Furthermore, focusing on the intersecting barriers refugee women face in the Canadian labour market, these experiences create concern for their successful economic integration - refugee women's economic integration is hindered when the structures in the capitalist economy enables discrimination, racism and marginalization such that it becomes difficult to access the private sectors, well-paying jobs and catching up in the labour market even after years of arrival in the country (Canadian Women Foundation, no date).

Morris (2002:411) asserts that “access to employment readily illustrates a stratified system of inclusion and exclusion...”. The opportunities therefore created in a capitalist economy are such that refugee women are not fully embraced, included as well as excluded. My dissertation shows that refugee women in Canada generally arrive with lower human capital characteristics than demanded in the labour market. This means that the majority will be faced with difficulties in integrating in the labour market - based on the level of education, skill, language proficiency, world area of birth and age, refugee women will have varying degrees of access to the labour market. The problem here is that a stratified system of hierarchy is produced since not all refugee women are well positioned to earn income above median employment income (Cohen and Margalit 2015). Hence in an ideal world, the role of various stakeholders such as the government, NGOs, settlement agencies is essential in intervening and supporting refugee women to gain access to a rather closed labour market while addressing some of the barrier issues that persists - economic equality is integral in preserving the economy and a sense of stability (Olsen, 2011).

Capitalism not only enforces the marginalization of refugee women but also grants institutional power for exclusion in the labour market which has existed in the past to date (Aho, 2017). I tend to agree with Galabuzi (2011, p. 76) who argues that, “Canadian society is becoming more ‘bottom heavy’ with economically marginalized racialized peoples...” Refugee women are increasingly experiencing racialization - understanding of their common experiences in the labour market is recognized in the disadvantages which persist for this group. There is therefore a need to challenge the practices which anchor capitalism that is inequality, discrimination, racism and poverty.

### 8.3 Potential Academic, Policy, and Practical Implications

There is a growing political and practical interest in refugee integration in Canada. The challenge however is that not much of the existing research focuses specifically on refugee women in order to draw out their unique experiences beyond mental and physical health. Hence, my dissertation contributes to the little existing literature which examines their successes or limitations in economic integration while resettling in Canada. Filling in this knowledge gap is necessary as seen in my findings and discussions - women play significant roles in the economy of a country

when barriers are removed and there is no racial discrimination in participating in the job market and wages earned (Gould & Schieder, 2017; Yellen, 2020).

Labour market barriers are unavoidable for immigrants in the Canadian labour market. For refugee women, my study confirms a higher proportion of this group have low level human capital characteristics which impacts their labour market experience and income. As such, the role of settlement agencies is crucial since they typically assist refugees on arrival in Canada (Shields and Praznik, 2018). Providing employment programs which addresses the barriers newcomers usually face will be helpful - for instance how and where to look for jobs including entry-level employment, resume writing, providing foreign credential recognition assessment such that there is job to skill match to prevent over or under qualification in the labour market.

In addition to this, there is a need going forward to develop appropriate and strategic programs that will equip refugee women to succeed in the labour market. This will allow easy access to various sectors of the Canadian job market without having to compromise their level of education and qualifications for lower paying jobs or barriers entering self-regulated professions or even language training schedules which takes into consideration their unavoidable challenges (such as caring for their kids, older parents etc). It is typical for refugee women on arrival to accept any first job opportunity they are handed in order to meet the demands of living in Canada since there is pressure not only to support oneself but also meet family obligations (Freedman, 2009). My dissertation therefore proposes employment programs tailored to meet refugee women's needs on arrival. This will allow refugee women to have a more structured and guided approach in navigating the Canadian labour market, employment-related services and supports (for instance IRCC's childcare programming offered by settlement agencies) which address concerns about underpaying of newcomers, job security and knowing their rights in the labour market.

Education as pointed out plays a vital role in accessing well-paying jobs in the Canadian society. Highlighting this is necessary as it helps to understand some of the economic gaps and poverty between refugees and other immigrants groups. Such concerns can contribute to policy and decision making processes on how to ensure that the right avenues are being made available for

not just economic integration but one that has positive outcomes and growth for refugee women at all levels - by this I propose partnership proposals and research to the government for projects which opens channels for further engagement with stakeholders such as settlement providers, non-governmental organizations and academics to identify areas of high concern affecting refugee women's successful economic integration.

Regarding practical implications, this research is beneficial in advancing the welfare of refugee women in the Canadian society. Language proficiency and fluency also plays a key role in the economic integration of refugee women. My findings provide evidence that refugee women fluent in either or both of Canada's official languages experience success in the labour market compared to those who are not. This means attention should be given to existing language programs such as English as a second language and making such opportunities even more accessible for refugee women.

Despite some refugee women having high levels of education and skills as portrayed in my findings, they still face barriers in the labour market which is rooted in discrimination, racism and lack of foreign credential recognition by employers. It is a difficult battle when employers demand Canadian work experience and yet, most employers are unwilling to give refugee women an opportunity to gain this experience (OECD, 2016). Even those who arrive in Canadian with qualifications in regulated professions like medical doctors, the system is such that they have to reinvest in themselves by spending huge sums of money and time to gain Canada qualifications to succeed in the labour market despite having the same qualifications from their country of origin. The implications of such perceptions are that it slows their economic integration even after years of being in Canada.

Not all refugee women experience success in the labour market and this is sometimes as a result of discrimination in the labour market. Refugee women from world areas of birth such as Africa experience less employment success than those from regions such as Europe and America even with the same levels of education and skills. Hence, my research presents further emphasis on the need to examine policies and regulations which guide the Canadian labour market operations in order to prevent some of these institutionalized discrimination; for instance more

accountability for workplaces to hire newcomers to foster their integration and foreign credential recognition. In addition, there is the need to educate employers better since their discriminatory hiring practices has negative implications on the economic outcomes of refugee women - understanding that some of these women arrive in Canada with university level education, managerial and professional skills which is beneficial for the Canadian labour market.

The diverse human capital and demographic characteristics of refugee women in my study highlights the fact that a one-size-fits-all model cannot be adopted by the federal government, settlement agencies and other stakeholders in economic integration service delivery for this group. To ensure that as many if not all refugee women benefit from existing services, provinces can use a management database which tracks the initial entry and progress of refugee women in the Canadian labour market. For instance, the National Client Support Services (CSS, no date) management database which collects information on refugees' human capital and demographic characteristics such as their education, skills, needs and training. This is a useful tool to adopt to know the extent of their needs and address the unique barriers refugee women face in the labour market in order to ensure their labour market outcomes are positive and can be considered as successful.

#### 8.4 Limitations of study and Suggestions for Future Research

As pointed out in the methodology chapter, the limitations for this study mainly relates to variables from the IMDB not measured in a way that is most beneficial to fully address my research questions, in addition to variables that might have been useful not available. Another challenge was no fertility or change in family unit measure as well as no way to measure change in education attained in Canada. Furthermore, the responses for some of the categories of the variables of interest were too small or 'skipped' or 'not stated' and sample size reducing especially when I examine income by year such that it affected ability to perform some interaction models of interest. Also, I could not really measure 'quality' of job versus education in this study and as such, there is a likely devaluation of education once refugee women arrive in Canada. Hence, even though some generalizations can be made based on my findings, some of these claims also require further in depth examining. Nonetheless, the findings in my dissertation

are relevant in addressing systemic barriers, economic integration and outcomes of not just refugee women but other immigrants in the Canadian labour market.

My research brings to light the predictors of successful economic integration for refugee women in Canada by examining the impact of human capital, demographic characteristics and the economic conditions in the Canadian labour market. However, further research will be beneficial to build on the findings of this dissertation. Further research can explore the economic outcomes of refugee women who arrive in Canada at less than 24 years old - a significant number of refugees resettled in Canada are in this age bracket and will have longer Canadian experience which we can expect will influence their economic integration differently. In addition, future research can examine the economic outcomes of refugee women with foreign credentials in regulated professions - one can expect possible barriers in gaining employment in such vocations even with some additional Canadian education. In understanding refugee resettlement in Canada, we realize that settlement agencies play a key role in their arrival to Canada right from the onset such that, future research can also explore the context and conditions under which refugee women are referred for employment programs, counselors and how this impacts the labour market outcomes for this group.

### 8.5 Concluding Comments

Being an immigrant myself, the idea of economic integration has simply been the opportunity to have a job in the Canadian labour market, with success being evident through education-job match and upward wage mobility. However, my dissertation makes us realize that for refugee women, this is not that simple. Their economic success is tied into the broader mandate of resettlement and integration which we expect to recognize their need for economic success, rebuilding their self-esteem and identity, providing opportunities to develop language skills as well as finding employment (Tomlinson and Egan 2002).

My dissertation addressed a research question which is not very popular in existing studies when focusing only on refugee women in host countries - often studies are interested in the mental and physical health of refugees resettled in host countries. Economic integration as it exists in most countries aims at employment success, job match and income mobility. My findings provide

insight into the characteristics that predict economic success among refugee women in Canada. Overall, human capital, demographic factors and economic conditions are predictors which play a role in refugee women attaining economic success - the likelihood and rate of this integration varies among the refugee women.

Successful economic integration of refugee women in Canada is a complex issue to examine especially since the idea of labour market 'success' is very objective. Even though my research could not examine education/skill with job-match or even the point of view of these women on successful economic integration, employment for these refugee women was determined by presence of employment income as a way to examine and understand their multi-faceted experiences in the Canadian labour market. The predictors of successful economic integration of refugee women therefore provide information regarding different aspects of this success recognizing differences between the attained human capital characteristics and demographic characteristics. As such, the processes which are implemented to achieve economic integration for this group must recognize that a very small proportion of refugee women arrive in Canada with high level of education, skills and language fluency while a much higher proportion arrive with little to no level of education, skills and language fluency and thereby do need additional support in order to achieve economic success.

While notions of successful economic integration goes beyond presence of employment income and income above median employment income, my findings also highlight these components as a basis to provide a more comprehensive understanding of the discrimination, racism, lack of human capital recognition and overall barriers experienced by refugee women in Canada. These experiences go beyond the first few years of arrival as revealed in my data analysis models and to an extent, signify why refugee women usually occupy low job positions and slow income mobility in comparison to Canadian women and immigrant women. It should therefore be an issue of concern when refugee women are faced with barriers in the Canadian labour market - this is not a new issue but unfortunately, it still persists regardless of how much researchers have addressed it in their findings.

As a country which strives to present itself as a multicultural society, Canada must not just recognize the needs and challenges which refugee women face but rather, have a system in place which actually works to prevent the constant repetition of labour market barriers affecting immigrants. The Canadian government, settlement agencies, immigration policy makers and various stakeholders must realize that economic integration of refugee women goes beyond having structures in place to achieve objectives - for refugee women, it is essentially planning their future as every other aspect of their integration relies on this.

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## APPENDICES

### I. Summary of Independent variables, categories and recodes used for the statistical models

VARIABLE	INITIAL CATEGORIES (Independent variables)	NEW CATEGORIES and RECODES
Education_qualification	None	High School Diploma or Less <i>(reference category)</i>
	Secondary or Less	
	Formal Trade Certificate or Apprenticeship	2 = Trade/Apprenticeship Certificate
	Non-University Certificate or Diploma	3 = College/Trade Diploma
	Some University - No Degree	4 = Incomplete University
	Bachelor's Degree	5 = Bachelor's Degree
	Some Post-Graduate Education - No Degree	6 = Graduate Degree
	Master's Degree	
	Doctorate	
	Not stated	<i>Removed</i>
Official_language	English only	1 = English only or French only or English and French
	French only	
	English and French	
	Neither English nor French	Neither English nor French <i>(reference category)</i>
	Not stated	<i>Removed</i>
Skill_level_cd11	Managerial	1 = Managerial
	Professionals	2 = Professionals
	Skilled and Technical	3 = Skilled and Technical
	Intermediate and Clerical	4 = Intermediate and Clerical
	Elemental and Labourers	5 = Elemental and Labourers
	New Workers	New Workers <i>(reference category)</i>
	Other Non-Workers	
	Retired	

VARIABLE	INITIAL CATEGORIES (Independent variables)	NEW CATEGORIES and RECODES
	Students	<i>Removed</i>
	Not stated	
World_area_birth	Europe	1 = Europe
	Africa and the Middle East	2 = Africa and the Middle East
	Southern Asia	3 = Southern Asia
	Eastern Asia	4 = Eastern Asia
	Oceania and other Asia	Oceania and other Asia ( <i>reference category</i> )
	South and Central America	6 = Americas
	United States or other miscellaneous	
Landing_age_6_groups	Under 15 years of age	<i>Removed</i>
	15 to 24 years of age	15 to 24 years of age ( <i>reference category</i> )
	25 to 34 years of age	2 = 25 to 34 years of age
	35 to 49 years of age	3 = 35 to 49 years of age
	50 to 64 years of age	4 = 50 to 64 years of age
Marital_status_rollup	Single	1 = Single
	Married, common law partner	2 = Married, common law partner
	Separated, divorced, widowed	Separated, divorced, widowed ( <i>reference category</i> )
	Not stated	<i>Removed</i>
Immigration_category_census	Protected Persons	1 = Protected Persons
	Dependant Protected Persons	Dependant Protected Persons ( <i>reference category</i> )
	Government Assisted Refugees	3 = Government Assisted Refugees
	Privately Sponsored Refugees	4 = Privately Sponsored Refugees or Blended Visa Refugees
	Blended Visa Refugees	

## II. Summary of Dependent variables, categories and recodes used for the statistical models

VARIABLE	CATEGORIES/RECODES (Dependent variables)
Adjusted employment income: ➤ 5 years after arrival ➤ 10 years after arrival ➤ 15 years after arrival	income below median employment income ( <i>reference category</i> ) 1=income above median employment income
Adjusted employment at income	newlog_ei__i_adj2005 newlog_ei__i_adj2008 newlog_ei__i_adj2011
Adjusted employment income 3 years after arrival	newlogemp_2005_3y newlogemp_2008_3y newlogemp_2011_3y
Adjusted employment income 6 years after arrival	newlogemp_2005_6y newlogemp_2008_6y

### III. Effect of education on likelihood of having an income above median employment income at five, ten, and fifteen years after arrival for refugee women in Canada.

#### 1. Income above median employment income at five years after arrival

```

Logistic regression      Number of obs   =    12,300
                        Wald chi2(5)           =    334.85
                        Prob > chi2           =    0.0000
Log pseudolikelihood = -4526.7653          Pseudo R2       =    0.0364
  
```

	emp_5ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
-----							
M_education_qualification							
Trade/Apprenticeship Certificate		1.211127	.1224596	1.89	0.058	.9933975	1.476579
College/Trade Diploma		2.030725	.1624543	8.86	0.000	1.736027	2.375449
Incomplete University		2.160464	.2371078	7.02	0.000	1.742324	2.678953
Bachelor's Degree		3.352424	.2570439	15.78	0.000	2.884655	3.896045
Graduate Degree		4.237923	.5143929	11.90	0.000	3.340684	5.376141
_cons		.081464	.0045612	-44.79	0.000	.0729973	.0909128

Note: \_cons estimates baseline odds.

#### 2. Income above median employment income at ten years after arrival

```

Logistic regression      Number of obs   =    11,300
                        Wald chi2(5)           =    399.11
                        Prob > chi2           =    0.0000
Log pseudolikelihood = -6430.6658          Pseudo R2       =    0.0311
  
```

	emp_10ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
-----							
M_education_qualification							
Trade/Apprenticeship Certificate		1.51722	.1054286	6.00	0.000	1.324038	1.738589
College/Trade Diploma		1.988919	.1198403	11.41	0.000	1.767376	2.238234
Incomplete University		2.272765	.1915503	9.74	0.000	1.926702	2.680985
Bachelor's Degree		3.054551	.1866047	18.28	0.000	2.70986	3.443086
Graduate Degree		3.146563	.3545223	10.17	0.000	2.523084	3.924109
_cons		.2220296	.0088571	-37.73	0.000	.2053314	.2400858

Note: \_cons estimates baseline odds.

### 3. Income above median employment income at fifteen years after arrival

```

Logistic regression      Number of obs   =      8,000
                        Wald chi2(5)           =      294.02
                        Prob > chi2            =      0.0000
Log pseudolikelihood = -5120.4712          Pseudo R2       =      0.0285
    
```

	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]
-----					
emp_15ybinary					
-----					
M_education_qualification					
Trade/Apprenticeship Certificate	1.422091	.0991962	5.05	0.000	1.240374 1.630429
College/Trade Diploma	1.652964	.11127	7.47	0.000	1.448653 1.88609
Incomplete University	2.336469	.2178404	9.10	0.000	1.946248 2.804928
Bachelor's Degree	3.011022	.2057067	16.13	0.000	2.633672 3.442439
Graduate Degree	2.274722	.3380387	5.53	0.000	1.699942 3.043844
_cons	.3629842	.0153829	-23.91	0.000	.3340524 .3944218
-----					

Note: \_cons estimates baseline odds.

#### IV. Influence of human capital characteristics contributing to income at five, ten, and fifteen years after arrival for refugee women in Canada.

##### 4. Income above median employment income at five years after arrival

Logistic regression      Number of obs      =      12,300  
                                  Wald chi2(11)      =      478.49  
                                  Prob > chi2        =      0.0000  
 Log pseudolikelihood = -4436.295      Pseudo R2        =      0.0554

	emp_5binary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
-----							
M_education_qualification							
Trade/Apprenticeship Certificate		1.439884	.1492285	3.52	0.000	1.175194	1.76419
College/Trade Diploma		1.873532	.1547089	7.60	0.000	1.593575	2.202673
Incomplete University		1.933554	.215551	5.91	0.000	1.55405	2.405733
Bachelor's Degree		2.896944	.2497502	12.34	0.000	2.446564	3.430233
Graduate Degree		3.135149	.3992147	8.97	0.000	2.442701	4.02389
merge_official_language							
English only/French only/English and French		2.050781	.1297358	11.35	0.000	1.811635	2.321494
newskill_level_cd11							
Managerial		.9211213	.2045674	-0.37	0.711	.5960431	1.423495
Professionals		.8419606	.1407416	-1.03	0.303	.6067439	1.168364
Skilled and Technical		1.23649	.1437112	1.83	0.068	.9845999	1.552822
Intermediate and Clerical		.8326209	.0990152	-1.54	0.123	.6595118	1.051168
Elemental and Labourers		1.271161	.1441188	2.12	0.034	1.017876	1.587472
_cons							
		.0494902	.0058189	-25.57	0.000	.039304	.0623162

Note: \_cons estimates baseline odds.

### 5. Income above median employment income at ten years after arrival

Logistic regression                      Number of obs        =     11,300  
    Wald chi2(11)        =     454.59  
    Prob > chi2         =     0.0000  
 Log pseudolikelihood = -6399.4406      Pseudo R2            =     0.0352

```
-----+-----
```

	emp_10ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----							
M_education_qualification							
Trade/Apprenticeship Certificate		1.532024	.1092694	5.98	0.000	1.332155	1.76188
College/Trade Diploma		1.853165	.1160586	9.85	0.000	1.639101	2.095185
Incomplete University		2.097471	.1811993	8.57	0.000	1.770766	2.484453
Bachelor's Degree		2.649193	.1841608	14.01	0.000	2.311755	3.035887
Graduate Degree		2.627188	.3129262	8.11	0.000	2.080194	3.318015
merge_official_language							
English only/French only/English and French		1.168073	.0535076	3.39	0.001	1.067771	1.277798
newskill_level_cd11							
Managerial		.9339745	.1621608	-0.39	0.694	.6645774	1.312576
Professionals		.6207285	.0910295	-3.25	0.001	.4656648	.8274275
Skilled and Technical		1.24186	.112654	2.39	0.017	1.039577	1.483503
Intermediate and Clerical		.92818	.0808503	-0.86	0.392	.7825051	1.100974
Elemental and Labourers		1.155083	.0989607	1.68	0.092	.976534	1.366278
_cons							
		.2011772	.016988	-18.99	0.000	.1704908	.2373869
-----+-----							

Note: \_cons estimates baseline odds.

## 6. Income above median employment income at fifteen years after arrival

Logistic regression                      Number of obs        =        8,000  
    Wald chi2(11)        =        328.25  
    Prob > chi2         =        0.0000  
 Log pseudolikelihood = -5093.9963       Pseudo R2            =        0.0324

	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
-----						
emp_15binary						
-----						
M_education_qualification						
Trade/Apprenticeship Certificate	1.424316	.1010704	4.98	0.000	1.23938	1.636847
College/Trade Diploma	1.524213	.1059643	6.06	0.000	1.330055	1.746714
Incomplete University	2.100364	.2013416	7.74	0.000	1.740597	2.534493
Bachelor's Degree	2.502664	.1955406	11.74	0.000	2.147315	2.916819
Graduate Degree	1.808848	.2809141	3.82	0.000	1.334168	2.452413
merge_official_language						
English only/French only/English and French	1.157108	.0567957	2.97	0.003	1.050978	1.273956
newskill_level_cd11						
Managerial	1.288595	.2565151	1.27	0.203	.8723111	1.903538
Professionals	.8929353	.3605863	-0.28	0.779	.4046566	1.970395
Skilled and Technical	1.625074	.1730349	4.56	0.000	1.318982	2.002201
Intermediate and Clerical	1.20674	.1212753	1.87	0.061	.9909901	1.46946
Elemental and Labourers	1.390301	.1400308	3.27	0.001	1.141237	1.69372
_cons	.268911	.0259111	-13.63	0.000	.2226334	.324808
-----						

Note: \_cons estimates baseline odds.

## 7. Interaction with official language: Income above median employment income at five years after arrival

Logistic regression      Number of obs      =      12,300  
                                  Wald chi2(16)      =      489.83  
                                  Prob > chi2        =      0.0000  
 Log pseudolikelihood = -4435.7507      Pseudo R2         =      0.0555

	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
-----						
emp_5binary						
-----						
M_education_qualification						
Trade/Apprenticeship Certificate	1.479156	.2287238	2.53	0.011	1.092425	2.002795
College/Trade Diploma	1.831632	.2819697	3.93	0.000	1.354566	2.476715
Incomplete University	1.87755	.4204661	2.81	0.005	1.210515	2.912145
Bachelor's Degree	2.757687	.4183083	6.69	0.000	2.048461	3.712463
Graduate Degree	2.231977	.9963631	1.80	0.072	.9304864	5.353889
merge_official_language						
English only/French only/English and French	1.99782	.2461818	5.62	0.000	1.569159	2.543583
newskill_level_cd11						
Managerial	.9188566	.2037611	-0.38	0.703	.5949623	1.419077
Professionals	.8450642	.1422939	-1.00	0.317	.6075226	1.175485
Skilled and Technical	1.242011	.1444843	1.86	0.062	.9887911	1.560079
Intermediate and Clerical	.8328906	.0988925	-1.54	0.124	.6599656	1.051126
Elemental and Labourers	1.270867	.1440166	2.12	0.034	1.017749	1.586936
M_education_qualification#merge_official_language						
Trade/Apprenticeship Certificate #English only/French only/English and French	.9337907	.1955722	-0.33	0.744	.6194051	1.407746
College/Trade Diploma #English only/French only/English and French	1.031369	.1866525	0.17	0.864	.7233815	1.470485
Incomplete University #English only/French only/English and French	1.040404	.2679551	0.15	0.878	.6280237	1.723567
Bachelor's Degree #English only/French only/English and French	1.067014	.1845488	0.38	0.708	.7602345	1.497588
Graduate Degree # English only/French only/English and French	1.447153	.6713422	0.80	0.426	.5829582	3.592456
-----						
_cons	.0503664	.0068065	-22.11	0.000	.0386465	.0656405
-----						

Note: \_cons estimates baseline odds.

## 8. Interaction with official language: Income above median employment income at ten years after arrival

Logistic regression      Number of obs      =      11,300  
                                  Wald chi2(16)      =      471.07  
                                  Prob > chi2        =      0.0000  
 Log pseudolikelihood = -6392.7271      Pseudo R2         =      0.0362

	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
emp_10ybinary						
M_education_qualification						
Trade/Apprenticeship Certificate	1.340393	.1243456	3.16	0.002	1.117552	1.607668
College/Trade Diploma	1.665235	.1592449	5.33	0.000	1.380626	2.008516
Incomplete University	1.723968	.2513841	3.74	0.000	1.295417	2.294294
Bachelor's Degree	2.295417	.238583	7.99	0.000	1.872357	2.814067
Graduate Degree	4.821565	1.485439	5.11	0.000	2.636015	8.819181
merge_official_language						
English only/French only/English and French	.998044	.0819537	-0.02	0.981	.849677	1.172318
newskill_level_cd11						
Managerial	.9286155	.1614056	-0.43	0.670	.6605198	1.305527
Professionals	.6406835	.0949427	-3.00	0.003	.4791861	.8566096
Skilled and Technical	1.23458	.1122511	2.32	0.020	1.03306	1.475409
Intermediate and Clerical	.9196629	.0801878	-0.96	0.337	.7751935	1.091056
Elemental and Labourers	1.151195	.0988172	1.64	0.101	.972933	1.362119
M_education_qualification#merge_official_language						
Trade/Apprenticeship Certificate #English only/French only/English and French	1.349085	.1941642	2.08	0.037	1.017494	1.788738
College/Trade Diploma #English only/French only/English and French	1.214531	.1508611	1.56	0.118	.9520897	1.549313
Incomplete University #English only/French only/English and French	1.383122	.2485987	1.80	0.071	.9724514	1.967221
Bachelor's Degree #English only/French only/English and French	1.284343	.1631435	1.97	0.049	1.001284	1.647422
Graduate Degree #English only/French only/English and French	.5316824	.1760245	-1.91	0.056	.2778717	1.017326
_cons	.2198486	.0200926	-16.57	0.000	.1837934	.2629768

Note: \_cons estimates baseline odds.

## 9. Interaction with official language: Income above median employment income at fifteen years after arrival

Logistic regression                      Number of obs        =        8,000  
    Wald chi2(16)        =        345.00  
    Prob > chi2         =        0.0000  
 Log pseudolikelihood = -5085.5032       Pseudo R2            =        0.0340

	emp_15ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
-----							
M_education_qualification							
Trade/Apprenticeship Certificate		1.261986	.1078873	2.72	0.006	1.067297	1.492189
College/Trade Diploma		1.343859	.1232644	3.22	0.001	1.122737	1.608531
Incomplete University		1.68881	.2343471	3.78	0.000	1.286661	2.216652
Bachelor's Degree		2.008399	.2076292	6.75	0.000	1.640033	2.459505
Graduate Degree		2.432499	.827622	2.61	0.009	1.248659	4.738725
merge_official_language							
English only/French only/English and French		.8934133	.0791096	-1.27	0.203	.7510702	1.062733
newskill_level_cd11							
Managerial		1.271161	.2532133	1.20	0.228	.860285	1.878272
Professionals		.9670365	.3972738	-0.08	0.935	.4322708	2.163365
Skilled and Technical		1.617486	.1729428	4.50	0.000	1.311685	1.994581
Intermediate and Clerical		1.193286	.1202532	1.75	0.080	.9794111	1.453866
Elemental and Labourers		1.384061	.1398063	3.22	0.001	1.135465	1.687083
M_education_qualification#merge_official_language							
Trade/Apprenticeship Certificate #English only/French only/English and French		1.399347	.2107185	2.23	0.026	1.041714	1.879759
College/Trade Diploma #English only/French only/English and French		1.367635	.1873338	2.29	0.022	1.045624	1.788813
Incomplete University #English only/French only/English and French		1.606157	.3067209	2.48	0.013	1.104683	2.335276
Bachelor's Degree #English only/French only/English and French		1.619196	.2262012	3.45	0.001	1.231365	2.129179
Graduate Degree #English only/French only/English and French		.7967996	.3023847	-0.60	0.549	.3787206	1.676406
_cons		.2989983	.0299612	-12.05	0.000	.2456823	.3638846

Note: \_cons estimates baseline odds.

### 10. Interaction with skill level: Income above median employment income at five years after arrival

Logistic regression                      Number of obs        =     12,300  
    Wald chi2(36)        =     494.90  
    Prob > chi2         =     0.0000  
 Log pseudolikelihood = -4418.2906       Pseudo R2            =     0.0593

	emp_5binary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
M_education_qualification							
Trade/Apprenticeship Certificate		1.097708	.3751968	0.27	0.785	.5617539	2.145002
College/Trade Diploma		1.327116	.377669	0.99	0.320	.7597578	2.318157
Incomplete University		.9013071	.4034579	-0.23	0.816	.3748383	2.167213
Bachelor's Degree		1.791428	.6112647	1.71	0.088	.9178155	3.496579
Graduate Degree		.4354634	.4511332	-0.80	0.422	.0571637	3.317286
merge_official_language							
English only/French only/English and French		2.037567	.12879	11.26	0.000	1.800153	2.306293
newskill_level_cd11							
Managerial		.6880482	.3371468	-0.76	0.445	.2633457	1.797676
Professionals		.4219613	.1118457	-3.26	0.001	.2509874	.7094036
Skilled and Technical		.5972886	.1731118	-1.78	0.075	.3384395	1.054114
Intermediate and Clerical		.6163641	.1106658	-2.70	0.007	.4335183	.8763291
Elemental and Labourers		1.103211	.1696698	0.64	0.523	.8161066	1.491318
M_education_qualification#newskill_level_cd11							
Trade/Apprenticeship Certificate #Managerial		2.079388	1.823174	0.83	0.404	.3729202	11.59459
Trade/Apprenticeship Certificate #Professionals		1.880278	1.601134	0.74	0.458	.3543147	9.978267
Trade/Apprenticeship Certificate #Skilled and Technical		2.994283	1.404767	2.34	0.019	1.193856	7.509895
Trade/Apprenticeship Certificate #Intermediate and Clerical		1.357875	.5279051	0.79	0.431	.633776	2.90927
Trade/Apprenticeship Certificate #Elemental and Labourers		1.039785	.3970687	0.10	0.919	.4919151	2.197844
College/Trade Diploma #Managerial		1.549086	1.059431	0.64	0.522	.4054457	5.918594
College/Trade Diploma #Professionals		3.01114	1.41273	2.35	0.019	1.200534	7.55244
College/Trade Diploma #Skilled and Technical		2.452059	.9741302	2.26	0.024	1.125573	5.341804
College/Trade Diploma #Intermediate and Clerical		1.533116	.5076516	1.29	0.197	.8011645	2.933785
College/Trade Diploma #Elemental and Labourers		1.189599	.3728804	0.55	0.580	.643563	2.198924
Incomplete University #Managerial		1.326094	1.323184	0.28	0.777	.1876034	9.373628
Incomplete University #Professionals		5.72501	3.532926	2.83	0.005	1.708034	19.18916
Incomplete University #Skilled and Technical		4.055041	2.199315	2.58	0.010	1.40066	11.73972
Incomplete University #Intermediate and Clerical		2.237916	1.146902	1.57	0.116	.8196236	6.11045
Incomplete University #Elemental and Labourers		1.8099	.8761167	1.23	0.220	.7008328	4.674068
Bachelor's Degree #Managerial		1.664245	1.146502	0.74	0.460	.4313426	6.421139
Bachelor's Degree #Professionals		4.399125	2.289327	2.85	0.004	1.586342	12.19933
Bachelor's Degree #Skilled and Technical		2.515453	1.090684	2.13	0.033	1.075327	5.884258
Bachelor's Degree #Intermediate and Clerical		1.920865	.7520983	1.67	0.095	.8916943	4.137876
Bachelor's Degree #Elemental and Labourers		1.640268	.610938	1.33	0.184	.7904501	3.403732
Graduate Degree #Managerial		9.343199	11.69654	1.79	0.074	.8033334	108.6664
Graduate Degree #Professionals		10.66448	12.79038	1.97	0.048	1.016382	111.8981
Graduate Degree #Skilled and Technical		12.56406	13.518	2.35	0.019	1.525105	103.5047
Graduate Degree #Intermediate and Clerical		10.12687	11.23209	2.09	0.037	1.151798	89.03782
Graduate Degree #Elemental and Labourers		5.819863	6.24025	1.64	0.100	.7115842	47.59915
_cons		.0626129	.0085559	-20.28	0.000	.0479015	.0818425

Note: \_cons estimates baseline odds.

## 11. Interaction with skill level: Income above median employment income at ten years after arrival

Logistic regression                      Number of obs                      =            11,300  
    Wald chi2(36)                        =            461.95  
    Prob > chi2                            =            0.0000  
 Log pseudolikelihood = -6381.1778      Pseudo R2                            =            0.0380

	emp_10binary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]
M_education_qualification						
Trade/Apprenticeship Certificate	1.118235	.2750533	0.45	0.650	.6904981	1.81094
College/Trade Diploma	1.958822	.4145645	3.18	0.001	1.29374	2.965808
Incomplete University	1.659023	.5064388	1.66	0.097	.9120356	3.017817
Bachelor's Degree	2.300663	.6440435	2.98	0.003	1.329135	3.982326
Graduate Degree	1.998071	1.113465	1.24	0.214	.6702882	5.956076
merge_official_language						
English only/French only/French	1.166299	.0535093	3.35	0.001	1.066	1.276035
newskill_level_cd11						
Managerial	.6539302	.2447362	-1.13	0.256	.314026	1.361749
Professionals	.4229832	.0877678	-4.15	0.000	.2816444	.6352505
Skilled and Technical	1.420297	.2432737	2.05	0.041	1.015271	1.9869
Intermediate and Clerical	.7974172	.1016625	-1.78	0.076	.6211066	1.023776
Elemental and Labourers	1.139332	.1348374	1.10	0.270	.9034671	1.436773
M_education_qualification#newskill_level_cd11						
Trade/Apprenticeship Certificate #Managerial	1.757514	1.1789	0.84	0.401	.4719899	6.544327
Trade/Apprenticeship Certificate #Professionals	4.224298	3.878779	1.57	0.117	.6985147	25.54663
Trade/Apprenticeship Certificate #Skilled and Technical	1.363031	.4348376	0.97	0.332	.7293788	2.547171
Trade/Apprenticeship Certificate #Intermediate and Clerical	1.436858	.3899952	1.34	0.182	.844071	2.445958
Trade/Apprenticeship Certificate #Elemental and Labourers	1.328124	.3616364	1.04	0.297	.7788683	2.264714
College/Trade Diploma #Managerial	1.703884	.87589	1.04	0.300	.6221222	4.666641
College/Trade Diploma #Professionals	1.659612	.7047609	1.19	0.233	.7220053	3.814808
College/Trade Diploma #Skilled and Technical	.7435079	.1977522	-1.11	0.265	.4414585	1.252222
College/Trade Diploma #Intermediate and Clerical	1.051809	.2523	0.21	0.833	.6572901	1.683126
College/Trade Diploma #Elemental and Labourers	.8707294	.2052296	-0.59	0.557	.5486007	1.382007
Incomplete University #Managerial	.6313533	.4950116	-0.59	0.558	.1357967	2.935321
Incomplete University #Professionals	2.847314	1.495126	1.99	0.046	1.017347	7.968961
Incomplete University #Skilled and Technical	.8499444	.3070562	-0.45	0.653	.418678	1.725444
Incomplete University #Intermediate and Clerical	1.738844	.6037429	1.59	0.111	.8804718	3.434043
Incomplete University #Elemental and Labourers	1.279218	.4322617	0.73	0.466	.6596511	2.480703
Bachelor's Degree #Managerial	1.642684	.9232828	0.88	0.377	.5459213	4.942859
Bachelor's Degree #Professionals	3.336478	1.669349	2.41	0.016	1.251423	8.895536
Bachelor's Degree #Skilled and Technical	.9366619	.2973094	-0.21	0.837	.5028052	1.744882
Bachelor's Degree #Intermediate and Clerical	1.349521	.4251649	0.95	0.341	.7277963	2.502359
Bachelor's Degree #Elemental and Labourers	.9993096	.3107034	-0.00	0.998	.543308	1.838036
Graduate Degree #Managerial	3.495349	2.941028	1.49	0.137	.6718612	18.18451
Graduate Degree #Professionals	2.026423	1.834237	0.78	0.435	.3437611	11.94548
Graduate Degree #Skilled and Technical	1.117666	.6580002	0.19	0.850	.3525227	3.54354
Graduate Degree #Intermediate and Clerical	2.148962	1.423985	1.15	0.248	.5863948	7.875308
Graduate Degree #Elemental and Labourers	.742049	.4650985	-0.48	0.634	.21723	2.534809
_cons	.2145603	.0225248	-14.66	0.000	.1746583	.2635781

Note: \_cons estimates baseline odds.

## 12. Interaction with skill level: Income above median employment income at fifteen years after arrival

Logistic regression  
 Number of obs = 8,000  
 Wald chi2(33) = 358.59  
 Prob > chi2 = 0.0000  
 Pseudo R2 = 0.0354

Log pseudolikelihood = -5077.2517

	emp_15binary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
-----							
M_education_qualification							
Trade/Apprenticeship Certificate		1.757801	.4242013	2.34	0.019	1.095351	2.820888
College/Trade Diploma		1.388837	.388174	1.18	0.240	.8030528	2.401919
Incomplete University		1.993363	.8352684	1.65	0.100	.8768232	4.531697
Bachelor's Degree		1.688364	.6565662	1.35	0.178	.7878675	3.618086
Graduate Degree		4.330703	3.349871	1.89	0.058	.9509111	19.72318
merge_official_language							
English only/French only/English and French		1.156144	.0570215	2.94	0.003	1.049616	1.273484
newskill_level_cd11							
Managerial		.9527421	.3618583	-0.13	0.899	.452567	2.005708
Professionals		1.025693	.4964265	0.05	0.958	.3972312	2.648448
Skilled and Technical		1.918955	.3549375	3.52	0.000	1.335437	2.757442
Intermediate and Clerical		1.248126	.1740525	1.59	0.112	.9496366	1.640436
Elemental and Labourers		1.345297	.1849876	2.16	0.031	1.027477	1.761425
-----							
M_education_qualification#newskill_level_cd11							
Trade/Apprenticeship Certificate #Managerial		1.45258	.8947839	0.61	0.544	.4343134	4.858219
Trade/Apprenticeship Certificate #Skilled and Technical		.7574439	.2414162	-0.87	0.383	.4055565	1.414652
Trade/Apprenticeship Certificate #Intermediate and Clerical		.7125309	.1884271	-1.28	0.200	.4243317	1.19647
Trade/Apprenticeship Certificate #Elemental and Labourers		.8996966	.2419138	-0.39	0.694	.5311557	1.523949
College/Trade Diploma #Managerial		1.793831	1.06224	0.99	0.324	.5619936	5.725739
College/Trade Diploma #Professionals		.9120339	.9109071	-0.09	0.927	.1287838	6.458935
College/Trade Diploma #Skilled and Technical		.9908498	.3231136	-0.03	0.978	.5229174	1.877511
College/Trade Diploma #Intermediate and Clerical		.9661529	.2922036	-0.11	0.909	.5340823	1.747767
College/Trade Diploma #Elemental and Labourers		1.229012	.3747307	0.68	0.499	.6761163	2.23404
Incomplete University #Managerial		.7051574	.5715939	-0.43	0.666	.1439827	3.45352
Incomplete University #Professionals		1.588605	2.458571	0.30	0.765	.0765018	32.98832
Incomplete University #Skilled and Technical		.6741894	.3126061	-0.85	0.395	.2717061	1.672879
Incomplete University #Intermediate and Clerical		1.393932	.6304365	0.73	0.463	.574469	3.382332
Incomplete University #Elemental and Labourers		1.235256	.5576757	0.47	0.640	.5098809	2.992577
Bachelor's Degree #Managerial		3.727459	2.577161	1.90	0.057	.9613757	14.45216
Bachelor's Degree #Skilled and Technical		1.236464	.5175067	0.51	0.612	.5444044	2.808286
Bachelor's Degree #Intermediate and Clerical		1.742509	.7298096	1.33	0.185	.7667767	3.959872
Bachelor's Degree #Elemental and Labourers		1.434547	.6063095	0.85	0.393	.6265501	3.284536
Graduate Degree #Managerial		.3148806	.3762457	-0.97	0.333	.0302733	3.275161
Graduate Degree #Skilled and Technical		.3909948	.3144611	-1.17	0.243	.0808322	1.891288
Graduate Degree #Intermediate and Clerical		.6205759	.5638855	-0.53	0.600	.1045567	3.683308
Graduate Degree #Elemental and Labourers		.1896014	.1688506	-1.87	0.062	.0330978	1.086136
-----							
_cons		.2662982	.0325691	-10.82	0.000	.2095384	.3384332

Note: \_cons estimates baseline odds.

## V. Influence of human capital characteristics and world area of birth contributing to income five, ten, and fifteen years after arrival for refugee women in Canada.

### 13. Income above median employment income at five years after arrival

Logistic regression

Wald chi2(16) = 502.79  
 Prob > chi2 = 0.0000  
 Pseudo R2 = 0.0583

Log pseudolikelihood = -4422.6612

emp_5ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
M_education_qualification						
Trade/Apprenticeship Certificate	1.386573	.1462956	3.10	0.002	1.127544	1.705109
College/Trade Diploma	1.81425	.1513571	7.14	0.000	1.54058	2.136536
Incomplete University	1.883504	.2115058	5.64	0.000	1.511408	2.347206
Bachelor's Degree	2.843143	.2478167	11.99	0.000	2.396655	3.372811
Graduate Degree	3.190333	.4087733	9.05	0.000	2.481834	4.101091
merge_official_language						
English only/French only/English and French	2.068497	.1387562	10.84	0.000	1.81366	2.359142
newskill_level_cd11						
Managerial	.9404323	.2090697	-0.28	0.782	.608268	1.453986
Professionals	.8627634	.1458485	-0.87	0.383	.6194378	1.201671
Skilled and Technical	1.228648	.1439978	1.76	0.079	.9764871	1.545925
Intermediate and Clerical	.8206722	.0977041	-1.66	0.097	.6498767	1.036355
Elemental and Labourers	1.27063	.144537	2.11	0.035	1.016701	1.587981
merge_world_area_birth						
Europe	1.101853	.1627511	0.66	0.511	.8248887	1.47181
Africa and the Middle East	1.236442	.188309	1.39	0.163	.9173531	1.666522
Southern Asia	.7326007	.1364539	-1.67	0.095	.5085374	1.055387
Eastern Asia	.5894404	.1513666	-2.06	0.040	.3563311	.9750481
Americas	1.063109	.1654035	0.39	0.694	.7836888	1.442154
_cons	.0465617	.0084355	-16.93	0.000	.0326452	.0664109

Note: \_cons estimates baseline odds.

## 14. Income above median employment income at ten years after arrival

Logistic regression

Wald chi2(16) = 544.85  
 Prob > chi2 = 0.0000  
 Pseudo R2 = 0.0425

Log pseudolikelihood = -6350.8692

emp_10ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
M_education_qualification						
Trade/Apprenticeship Certificate	1.393632	.1007165	4.59	0.000	1.209575	1.605697
College/Trade Diploma	1.755337	.1113075	8.87	0.000	1.55019	1.987631
Incomplete University	1.970055	.1731073	7.72	0.000	1.658379	2.340306
Bachelor's Degree	2.542454	.1797181	13.20	0.000	2.213525	2.920263
Graduate Degree	2.783023	.3355901	8.49	0.000	2.197227	3.524996
merge_official_language						
English only/French only/English and French	1.361174	.0691961	6.07	0.000	1.23209	1.503782
newskill_level_cd11						
Managerial	.9180107	.1592495	-0.49	0.622	.653413	1.289756
Professionals	.6359474	.094332	-3.05	0.002	.4755102	.850516
Skilled and Technical	1.155676	.106344	1.57	0.116	.9649601	1.384085
Intermediate and Clerical	.8715313	.0764853	-1.57	0.117	.7338069	1.035104
Elemental and Labourers	1.11754	.096452	1.29	0.198	.9436218	1.323512
merge_world_area_birth						
Europe	2.036808	.2662318	5.44	0.000	1.576483	2.631546
Africa and the Middle East	1.728869	.2340895	4.04	0.000	1.325895	2.254317
Southern Asia	.9904163	.1616345	-0.06	0.953	.7192882	1.363743
Eastern Asia	.8463926	.1741872	-0.81	0.418	.5654511	1.266919
Americas	1.452682	.2030851	2.67	0.008	1.104517	1.910595
_cons	.1156844	.0173729	-14.36	0.000	.0861877	.1552759

Note: \_cons estimates baseline odds.

## 15. Income above median employment income at fifteen years after arrival

Logistic regression

Wald chi2(16) = 452.92  
 Prob > chi2 = 0.0000  
 Pseudo R2 = 0.0460

Log pseudolikelihood = -5022.2255

emp_15binary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
M_education_qualification						
Trade/Apprenticeship Certificate	1.261276	.0911034	3.21	0.001	1.09478	1.453093
College/Trade Diploma	1.402796	.0993981	4.78	0.000	1.220902	1.611789
Incomplete University	1.885025	.1837484	6.50	0.000	1.557198	2.281868
Bachelor's Degree	2.299464	.1829764	10.46	0.000	1.967404	2.687569
Graduate Degree	2.037246	.3244655	4.47	0.000	1.490992	2.78363
merge_official_language						
English only/French only/English and French	1.45151	.0789933	6.85	0.000	1.304657	1.614893
newskill_level_cd11						
Managerial	1.202592	.2414691	0.92	0.358	.8113438	1.782508
Professionals	.8687638	.3684399	-0.33	0.740	.378364	1.994773
Skilled and Technical	1.449859	.1575322	3.42	0.001	1.171763	1.793956
Intermediate and Clerical	1.090723	.1110255	0.85	0.394	.8934492	1.331554
Elemental and Labourers	1.291864	.1317109	2.51	0.012	1.057873	1.577613
merge_world_area_birth						
Europe	3.129445	.5304917	6.73	0.000	2.244786	4.362745
Africa and the Middle East	2.092657	.3709958	4.17	0.000	1.478404	2.962122
Southern Asia	1.084532	.2346769	0.38	0.708	.7096675	1.65741
Eastern Asia	1.474443	.4325588	1.32	0.186	.8296793	2.620269
Americas	1.639712	.3089458	2.62	0.009	1.133414	2.372173
_cons	.1088115	.0204265	-11.82	0.000	.0753154	.1572048

Note: \_cons estimates baseline odds.

## 16. Interaction with world area birth: Income above median employment income at five years after arrival

Logistic regression

Wald chi2(41) = 543.81  
 Prob > chi2 = 0.0000  
 Pseudo R2 = 0.0619

Log pseudolikelihood = -4405.923

	emp_5ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----							
M_education_qualification							
Trade/Apprenticeship Certificate	2.312266	1.5628	1.24	0.215	.6147988	8.69646	
College/Trade Diploma	1.64563	.6086411	1.35	0.178	.7970997	3.397438	
Incomplete University	2.840656	1.3881	2.14	0.033	1.090122	7.402225	
Bachelor's Degree	1.473448	.5823949	0.98	0.327	.6790299	3.19728	
Graduate Degree	1.744196	.9425528	1.03	0.303	.6047992	5.030132	
merge_official_language							
English only/French only/English and French	2.07952	.1405813	10.83	0.000	1.82146	2.374142	
newskill_level_cd11							
Managerial	.9401163	.208803	-0.28	0.781	.6083127	1.452902	
Professionals	.8846058	.1524678	-0.71	0.477	.6310147	1.24011	
Skilled and Technical	1.217053	.1435584	1.67	0.096	.9658402	1.533605	
Intermediate and Clerical	.8170083	.0975428	-1.69	0.090	.6465488	1.032409	
Elemental and Labourers	1.267936	.1450499	2.08	0.038	1.013261	1.586622	
merge_world_area_birth							
Europe	1.01508	.259584	0.06	0.953	.6149288	1.675622	
Africa and the Middle East	.966696	.25099	-0.13	0.896	.5811477	1.608027	
Southern Asia	.5709855	.1793446	-1.78	0.074	.3085074	1.05678	
Eastern Asia	.5611594	.2136312	-1.52	0.129	.2660952	1.183411	
Americas	.7750099	.2179638	-0.91	0.365	.4465965	1.344928	
M_education_qualification#merge_world_area_birth							
Trade/Apprenticeship Certificate #Europe	.542209	.3743093	-0.89	0.375	.1401352	2.097907	
Trade/Apprenticeship Certificate #Africa and the Middle East	.6990505	.4969449	-0.50	0.615	.1735408	2.815888	
Trade/Apprenticeship Certificate #Southern Asia	.5873286	.5972486	-0.52	0.601	.0800392	4.309824	
Trade/Apprenticeship Certificate #Eastern Asia	3.596341	3.549794	1.30	0.195	.5196084	24.89118	
Trade/Apprenticeship Certificate #Americas	.4936938	.3681098	-0.95	0.344	.1144937	2.128794	
College/Trade Diploma #Europe	.8558219	.3354357	-0.40	0.691	.3969709	1.84505	
College/Trade Diploma #Africa and the Middle East	1.424659	.5640673	0.89	0.371	.6556825	3.095483	
College/Trade Diploma #Southern Asia	1.520117	.7629008	0.83	0.404	.5684397	4.065082	
College/Trade Diploma #Eastern Asia	1.08716	.7281958	0.12	0.901	.2925138	4.040553	
College/Trade Diploma #Americas	1.215339	.5136189	0.46	0.644	.5308452	2.782447	
Incomplete University #Europe	.6314519	.3253501	-0.89	0.372	.2300203	1.733462	
Incomplete University #Africa and the Middle East	.6092736	.3307561	-0.91	0.361	.2102427	1.765647	

emp_5ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Incomplete University #Southern Asia	.2985558	.2680363	-1.35	0.178	.0513851	1.734659
Incomplete University #Eastern Asia	.3879488	.4686744	-0.78	0.433	.0363456	4.140917
Incomplete University #Americas	.8000935	.4373556	-0.41	0.683	.2740615	2.335789
Bachelor's Degree #Europe	1.846424	.7579074	1.49	0.135	.825916	4.127877
Bachelor's Degree #Africa and the Middle East	1.771318	.7509694	1.35	0.177	.7716498	4.066049
Bachelor's Degree #Southern Asia	2.254628	1.152515	1.59	0.112	.8278655	6.140306
Bachelor's Degree #Eastern Asia	.7218613	.5610262	-0.42	0.675	.1573639	3.311329
Bachelor's Degree #Americas	2.563874	1.115978	2.16	0.031	1.092431	6.017267
Graduate Degree#Europe	1.660504	.9865053	0.85	0.393	.5182521	5.320332
Graduate Degree#Africa and the Middle East	2.048347	1.198761	1.23	0.220	.650507	6.44993
Graduate Degree#Southern Asia	1.957726	1.262903	1.04	0.298	.5529083	6.931874
Graduate Degree#Eastern Asia	1.097687	1.378014	0.07	0.941	.093734	12.85464
Graduate Degree #Americas	2.241882	1.332607	1.36	0.174	.6992724	7.187524
_cons	.0555337	.0145531	-11.03	0.000	.033227	.0928158

Note: \_cons estimates baseline odds.

## 17. Interaction with world area birth: Income above median employment income at ten years after arrival

Logistic regression

Wald chi2(41) = 561.94  
 Prob > chi2 = 0.0000  
 Log pseudolikelihood = -6335.2389 Pseudo R2 = 0.0449

emp_10ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
M_education_qualification						
Trade/Apprenticeship Certificate	1.502928	1.205737	0.51	0.612	.3119279	7.24139
College/Trade Diploma	2.353828	.8128943	2.48	0.013	1.196223	4.631664
Incomplete University	6.244523	2.768915	4.13	0.000	2.618567	14.89137
Bachelor's Degree	2.166004	.8160059	2.05	0.040	1.035102	4.532473
Graduate Degree	3.628472	1.70615	2.74	0.006	1.443706	9.11945
merge_official_language						
English only/French only/English and French	1.363251	.0698775	6.05	0.000	1.232949	1.507324
newskill_level_cd11						
Managerial	.9111504	.1580289	-0.54	0.592	.6485727	1.280034
Professionals	.6566397	.0992194	-2.78	0.005	.4883251	.8829684
Skilled and Technical	1.162348	.1073769	1.63	0.103	.9698463	1.39306
Intermediate and Clerical	.8690652	.0765464	-1.59	0.111	.7312727	1.032822
Elemental and Labourers	1.114303	.0966805	1.25	0.212	.9400485	1.320858
merge_world_area_birth						
Europe	2.687461	.6473414	4.10	0.000	1.676136	4.308986
Africa and the Middle East	1.861511	.4616632	2.51	0.012	1.14489	3.026686
Southern Asia	1.048065	.2987069	0.16	0.869	.5994993	1.832261
Eastern Asia	1.055021	.3441216	0.16	0.870	.5566993	1.99941
Americas	1.636621	.4286871	1.88	0.060	.9794662	2.734683
M_education_qualification#merge_world_area_birth						
Trade/Apprenticeship Certificate #Europe	.848895	.6850526	-0.20	0.839	.1745581	4.128269
Trade/Apprenticeship Certificate #Africa and the Middle East	1.104313	.9073022	0.12	0.904	.2206714	5.52635
Trade/Apprenticeship Certificate #Southern Asia	.4164232	.4598755	-0.79	0.428	.0478094	3.627074
Trade/Apprenticeship Certificate #Eastern Asia	2.050993	2.191913	0.67	0.501	.2525097	16.65905
Trade/Apprenticeship Certificate #Americas	.8559181	.7183374	-0.19	0.853	.1652164	4.434158
College/Trade Diploma #Europe	.6047278	.2148667	-1.42	0.157	.3013826	1.213393
College/Trade Diploma #Africa and the Middle East	.9442766	.3451126	-0.16	0.875	.4613214	1.932836
College/Trade Diploma #Southern Asia	1.125555	.5065878	0.26	0.793	.4658643	2.719406
College/Trade Diploma #Eastern Asia	.9174317	.492646	-0.16	0.873	.3202523	2.628181
College/Trade Diploma #Americas	.86162	.3317774	-0.39	0.699	.4050887	1.832658
Incomplete University #Europe	.2732843	.1252198	-2.83	0.005	.1113247	.6708695
Incomplete University #Africa and the Middle East	.3088768	.1500867	-2.42	0.016	.1191728	.8005595
Incomplete University #Southern Asia	.5185132	.3229199	-1.05	0.292	.1529848	1.757403
Incomplete University #Eastern Asia	.110103	.1290874	-1.88	0.060	.0110619	1.095894

emp_10ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]
Incomplete University #Americas	.3560747	.1741065	-2.11	0.035	.1365643 .9284212
Bachelor's Degree #Europe	1.075067	.4128568	0.19	0.850	.5064648 2.282031
Bachelor's Degree #Africa and the Middle East	1.285774	.5142167	0.63	0.530	.5871455 2.815683
Bachelor's Degree #Southern Asia	1.448524	.6817376	0.79	0.431	.5758559 3.643659
Bachelor's Degree #Eastern Asia	.717126	.4219186	-0.57	0.572	.226357 2.27194
Bachelor's Degree #Americas	1.30203	.5324467	0.65	0.519	.5841631 2.902069
Graduate Degree#Europe	.7035152	.3639849	-0.68	0.497	.2551988 1.939404
Graduate Degree#Africa and the Middle East	.9666404	.5013066	-0.07	0.948	.3498047 2.671186
Graduate Degree#Southern Asia	.7926856	.4552968	-0.40	0.686	.2571546 2.443474
Graduate Degree#Eastern Asia	1.214255	1.307697	0.18	0.857	.1470974 10.02339
Graduate Degree #Americas	.6923555	.3665431	-0.69	0.487	.2452961 1.954194
_cons	.0965592	.0238359	-9.47	0.000	.0595213 .1566444

Note: \_cons estimates baseline odds.

## 18. Interaction with world area birth: Income above median employment income at fifteen years after arrival

Logistic regression

Wald chi2(40) = 461.81  
 Prob > chi2 = 0.0000  
 Pseudo R2 = 0.0494

Log pseudolikelihood = -5003.688

emp_15ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]
M_education_qualification					
Trade/Apprenticeship Certificate	4.531938	3.105063	2.21	0.027	1.183266 17.35744
College/Trade Diploma	4.17557	1.807622	3.30	0.001	1.787422 9.754489
Incomplete University	3.465791	2.265561	1.90	0.057	.9624505 12.48034
Bachelor's Degree	1.514545	.8201323	0.77	0.443	.5240261 4.37735
Graduate Degree	2.827656	1.882122	1.56	0.118	.7671079 10.42309
merge_official_language					
English only/French only/English and French	1.448591	.0796563	6.74	0.000	1.300587 1.613438
newskill_level_cd11					
Managerial	1.182358	.2379548	0.83	0.405	.7969681 1.754111
Professionals	.9153335	.3971474	-0.20	0.838	.3910729 2.142402
Skilled and Technical	1.457136	.1589858	3.45	0.001	1.176594 1.804568
Intermediate and Clerical	1.093723	.1118641	0.88	0.381	.8950517 1.336493
Elemental and Labourers	1.293646	.1327747	2.51	0.012	1.057917 1.581901
merge_world_area_birth					
Europe	4.844782	1.498567	5.10	0.000	2.642313 8.883091
Africa and the Middle East	2.551262	.8173007	2.92	0.003	1.361669 4.78012
Southern Asia	1.432991	.5204699	0.99	0.322	.7032061 2.920145
Eastern Asia	1.704285	.8416194	1.08	0.280	.6474365 4.486289
Americas	1.928782	.6733186	1.88	0.060	.9730546 3.823219
M_education_qualification#merge_world_area_birth					
Trade/Apprenticeship Certificate #Europe	.2475229	.1707382	-2.02	0.043	.0640423 .9566731
Trade/Apprenticeship Certificate #Africa and the Middle East	.4352425	.3101164	-1.17	0.243	.1077056 1.758832
Trade/Apprenticeship Certificate #Southern Asia	.2203744	.209214	-1.59	0.111	.0342821 1.416626
Trade/Apprenticeship Certificate #Eastern Asia	.3462292	.3921951	-0.94	0.349	.0375972 3.188393
Trade/Apprenticeship Certificate #Americas	.2626672	.2020985	-1.74	0.082	.0581412 1.186665
College/Trade Diploma #Europe	.2827673	.1244997	-2.87	0.004	.1193035 .670201
College/Trade Diploma #Africa and the Middle East	.4514002	.2092913	-1.72	0.086	.1819294 1.120006
College/Trade Diploma #Southern Asia	.565754	.3314461	-0.97	0.331	.1794537 1.783622
College/Trade Diploma #Eastern Asia	.8273396	.6380718	-0.25	0.806	.1824773 3.751101
College/Trade Diploma #Americas	.4355149	.2194787	-1.65	0.099	.1621952 1.169413
Incomplete University #Europe	.501709	.3327642	-1.04	0.298	.136736 1.840861
Incomplete University #Africa and the Middle East	.6016846	.4227066	-0.72	0.470	.1518333 2.384354
Incomplete University #Southern Asia	.4360337	.4164071	-0.87	0.385	.0670861 2.83405
Incomplete University #Eastern Asia	.4250136	.6189716	-0.59	0.557	.0244765 7.38
Incomplete University #Americas	.6928918	.509395	-0.50	0.618	.1640157 2.927153

emp_15ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]
Bachelor's Degree #Europe	1.402257	.7656154	0.62	0.536	.4809296 4.088589
Bachelor's Degree #Africa and the Middle East	1.570943	.8946518	0.79	0.428	.5145188 4.796446
Bachelor's Degree #Southern Asia	1.565845	1.069158	0.66	0.511	.4107228 5.969646
Bachelor's Degree #Eastern Asia	1.927765	1.635974	0.77	0.439	.3653362 10.17222
Bachelor's Degree #Americas	2.407625	1.431736	1.48	0.140	.7505975 7.722727
Graduate Degree#Europe	.5447986	.3874321	-0.85	0.393	.1351781 2.195663
Graduate Degree#Africa and the Middle East	1.143013	.8266453	0.18	0.853	.2769798 4.716869
Graduate Degree#Southern Asia	.8098377	.6507394	-0.26	0.793	.1676567 3.911785
Graduate Degree #Americas	.8031648	.625282	-0.28	0.778	.1746325 3.693894
_cons	.0765402	.0241344	-8.15	0.000	.0412564 .1419999

Note: \_cons estimates baseline odds.



emp_5ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]
Government Assisted Refugees	1.393416	.2100236	2.20	0.028	1.03701 1.872314
Privately Sponsored Refugees & Blended Visa Refugees	1.411653	.2386043	2.04	0.041	1.01357 1.966084
_cons	.0431808	.0111037	-12.22	0.000	.0260861 .0714781

Note: \_cons estimates baseline odds.

## 20. Income above median employment income at ten years after arrival

Logistic regression                      Number of obs        =     11,100  
    Wald chi2(24)        =     611.28  
    Prob > chi2         =     0.0000  
 Log pseudolikelihood = -6202.0174      Pseudo R2            =     0.0558

	emp_10ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
-----							
M_education_qualification							
Trade/Apprenticeship Certificate		1.317188	.0962405	3.77	0.000	1.141444	1.519991
College/Trade Diploma		1.747466	.1121684	8.70	0.000	1.540887	1.98174
Incomplete University		1.809475	.1595153	6.73	0.000	1.522349	2.150754
Bachelor's Degree		2.468766	.1786259	12.49	0.000	2.142356	2.844906
Graduate Degree		2.816022	.3442275	8.47	0.000	2.216083	3.578376
merge_official_language							
English only/French only/English and French		1.402469	.0828824	5.72	0.000	1.249078	1.574698
newskill_level_cd11							
Managerial		1.024032	.1790688	0.14	0.892	.7268866	1.442647
Professionals		1.056331	.1679765	0.34	0.730	.7734696	1.442637
Skilled and Technical		1.285847	.1210057	2.67	0.008	1.069267	1.546295
Intermediate and Clerical		.9087085	.0812709	-1.07	0.284	.7626001	1.08281
Elemental and Labourers		1.173869	.1027556	1.83	0.067	.9888015	1.393575
merge_world_area_birth							
Europe		1.708129	.2296405	3.98	0.000	1.312457	2.223084
Africa and the Middle East		1.569796	.2157436	3.28	0.001	1.19911	2.055074
Southern Asia		.9756483	.1623817	-0.15	0.882	.7040829	1.351957
Eastern Asia		.8560021	.1799111	-0.74	0.459	.5669865	1.292341
Americas		1.435062	.205454	2.52	0.012	1.083943	1.899918
landing_age_6_groups							
25 to 34 years of age		.8711883	.0676342	-1.78	0.076	.7482204	1.014366
35 to 49 years of age		.757918	.062467	-3.36	0.001	.6448621	.8907947
50 to 64 years of age		.1357229	.0261228	-10.38	0.000	.0930724	.1979181
marital_status_rollup							
Single		1.040289	.0886474	0.46	0.643	.8802771	1.229386
Married, common law partner		1.01276	.0761047	0.17	0.866	.874062	1.173467
M_newimmigration_category_census							
Protected Persons		1.358136	.158488	2.62	0.009	1.080469	1.707161
Government Assisted Refugees		1.560072	.1872752	3.70	0.000	1.233003	1.9739
Privately Sponsored Refugees & Blended Visa Refugees		1.799056	.2334818	4.53	0.000	1.395005	2.320138
_cons		.1053673	.0222398	-10.66	0.000	.0696695	.1593561

Note: \_cons estimates baseline odds.

## 21. Income above median employment income at fifteen years after arrival

Logistic regression                      Number of obs        =        8,000  
    Wald chi2(24)        =        616.27  
    Prob > chi2         =        0.0000  
 Log pseudolikelihood = -4827.3721       Pseudo R2            =        0.0808

	emp_15binary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
M_education_qualification							
Trade/Apprenticeship Certificate		1.19268	.0879922	2.39	0.017	1.032107	1.378234
College/Trade Diploma		1.45926	.106434	5.18	0.000	1.264878	1.683514
Incomplete University		1.772562	.1757349	5.77	0.000	1.459526	2.152737
Bachelor's Degree		2.30592	.1910359	10.08	0.000	1.960315	2.712456
Graduate Degree		2.324884	.3762493	5.21	0.000	1.692959	3.192685
merge_official_language							
English only/French only/English and French		1.527441	.095764	6.76	0.000	1.35082	1.727154
newskill_level_cd11							
Managerial		1.457281	.3050079	1.80	0.072	.9669133	2.196339
Professionals		2.945687	1.701876	1.87	0.061	.9492994	9.140498
Skilled and Technical		1.620358	.1802159	4.34	0.000	1.302989	2.01503
Intermediate and Clerical		1.11761	.1160305	1.07	0.284	.9118394	1.369816
Elemental and Labourers		1.351355	.1400358	2.91	0.004	1.102968	1.65568
merge_world_area_birth							
Europe		2.289093	.3987424	4.75	0.000	1.627012	3.220596
Africa and the Middle East		1.743151	.316416	3.06	0.002	1.221308	2.487968
Southern Asia		1.063521	.2381158	0.28	0.783	.6857526	1.649396
Eastern Asia		1.584293	.4785406	1.52	0.128	.8764505	2.863806
Americas		1.62573	.3173116	2.49	0.013	1.108945	2.383344
landing_age_6_groups							
25 to 34 years of age		.930712	.0805597	-0.83	0.407	.7854849	1.10279
35 to 49 years of age		.5752615	.0531114	-5.99	0.000	.4800401	.6893711
50 to 64 years of age		.0342357	.0122034	-9.47	0.000	.0170242	.068848
marital_status_rollup							
Single		1.035629	.1109192	0.33	0.744	.8395335	1.277529
Married, common law partner		1.128392	.1072064	1.27	0.204	.9366752	1.359349
M_newimmigration_category_census							
Protected Persons		1.059283	.1391762	0.44	0.661	.8187952	1.370406
Government Assisted Refugees		1.512725	.1933455	3.24	0.001	1.177513	1.943365
Privately Sponsored Refugees & Blended Visa Refugees		1.660864	.2278032	3.70	0.000	1.269357	2.173124
_cons		.1190395	.0304256	-8.33	0.000	.0721324	.1964498

Note: \_cons estimates baseline odds.

## 22. Interaction with landing age: Income above median employment income at five years after arrival

Logistic regression                      Number of obs        =     12,200  
    Wald chi2(39)        =     581.41  
    Prob > chi2         =     0.0000  
 Log pseudolikelihood = -4355.992        Pseudo R2            =     0.0693

	emp_5ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
M_education_qualification							
Trade/Apprenticeship Certificate		2.393906	.5952523	3.51	0.000	1.47046	3.897275
College/Trade Diploma		2.023157	.5159354	2.76	0.006	1.227328	3.335023
Incomplete University		2.865912	.6909477	4.37	0.000	1.786674	4.597064
Bachelor's Degree		2.185257	.9293023	1.84	0.066	.9495561	5.029033
Graduate Degree		.9111015	1.013502	-0.08	0.933	.1029668	8.061876
merge_official_language							
English only/French only/English and French		1.875247	.1452716	8.12	0.000	1.611082	2.182726
newskill_level_cd11							
Managerial		.9915116	.2212299	-0.04	0.970	.6402866	1.535399
Professionals		1.099356	.1947677	0.53	0.593	.7768464	1.555757
Skilled and Technical		1.365621	.1624099	2.62	0.009	1.08168	1.724096
Intermediate and Clerical		.8790783	.1058954	-1.07	0.285	.694209	1.113179
Elemental and Labourers		1.329625	.1522565	2.49	0.013	1.062325	1.664183
merge_world_area_birth							
Europe		1.036711	.1586399	0.24	0.814	.7680774	1.399299
Africa and the Middle East		1.133533	.1752729	0.81	0.418	.8371765	1.534799
Southern Asia		.6917798	.1306305	-1.95	0.051	.4777859	1.001619
Eastern Asia		.5406157	.140759	-2.36	0.018	.3245362	.9005632
Americas		1.002828	.1592668	0.02	0.986	.7345826	1.369028
landing_age_6_groups							
25 to 34 years of age		1.067307	.1778505	0.39	0.696	.7699272	1.479548
35 to 49 years of age		1.176019	.1994528	0.96	0.339	.8434327	1.639752
50 to 64 years of age		.1964946	.0929946	-3.44	0.001	.0777149	.4968175
marital_status_rollup							
Single		.9837064	.0990043	-0.16	0.870	.8076014	1.198213
Married, common law partner		.8471479	.0750316	-1.87	0.061	.7121454	1.007743
M_newimmigration_category_census							
Protected Persons		1.601485	.2338007	3.23	0.001	1.202973	2.132012
Government Assisted Refugees		1.428203	.2158221	2.36	0.018	1.06209	1.92052
Privately Sponsored Refugees & Blended Visa Refugees		1.463334	.2478714	2.25	0.025	1.049929	2.039515
M_education_qualification#landing_age_6_groups							
Trade/Apprenticeship Certificate #25 to 34 years of age		.4221852	.1265046	-2.88	0.004	.2346643	.7595547
Trade/Apprenticeship Certificate #35 to 49 years of age		.5995732	.1751024	-1.75	0.080	.3382619	1.062751
Trade/Apprenticeship Certificate #50 to 64 years of age		1.452703	1.135589	0.48	0.633	.3138962	6.723071

emp_5ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]
College/Trade Diploma #25 to 34 years of age	.8077205	.2298196	-0.75	0.453	.4624555 1.410757
College/Trade Diploma #35 to 49 years of age	.8185923	.2326566	-0.70	0.481	.4689678 1.428868
College/Trade Diploma #50 to 64 years of age	3.112324	1.804226	1.96	0.050	.9991718 9.694591
Incomplete University #25 to 34 years of age	.5582469	.1650316	-1.97	0.049	.3127448 .996466
Incomplete University #35 to 49 years of age	.5473094	.169282	-1.95	0.051	.2985091 1.003479
Incomplete University #50 to 64 years of age	.5510537	.6312205	-0.52	0.603	.0583661 5.202684
Bachelor's Degree #25 to 34 years of age	1.5793	.6953473	1.04	0.299	.6663318 3.743163
Bachelor's Degree #35 to 49 years of age	.9523002	.4211411	-0.11	0.912	.40026 2.265716
Bachelor's Degree #50 to 64 years of age	1.822175	1.315779	0.83	0.406	.4425313 7.503024
Graduate Degree#25 to 34 years of age	3.566199	4.030976	1.12	0.261	.3891064 32.68457
Graduate Degree#35 to 49 years of age	3.01481	3.395496	0.98	0.327	.3315703 27.41223
Graduate Degree#50 to 64 years of age	8.558402	11.15029	1.65	0.099	.6658973 109.9963
_cons	.0364741	.0100895	-11.97	0.000	.0212092 .0627257

Note: \_cons estimates baseline odds.

### 23. Interaction with landing age: Income above median employment income at ten years after arrival

Logistic regression                      Number of obs        =     11,100  
    Wald chi2(39)        =     651.07  
    Prob > chi2         =     0.0000  
 Log pseudolikelihood = -6187.7088      Pseudo R2            =     0.0580

	emp_10ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
M_education_qualification							
Trade/Apprenticeship Certificate		1.302684	.2445622	1.41	0.159	.9016477	1.882094
College/Trade Diploma		1.442113	.2855045	1.85	0.064	.9783212	2.125775
Incomplete University		3.096963	.6379448	5.49	0.000	2.06822	4.637409
Bachelor's Degree		1.713275	.5961386	1.55	0.122	.8662617	3.38848
Graduate Degree		.6340255	.7020278	-0.41	0.681	.0723785	5.553972
merge_official_language							
English only/French only/English and French		1.397454	.0830059	5.63	0.000	1.243878	1.569991
newskill_level_cd11							
Managerial		1.021611	.1788875	0.12	0.903	.7248317	1.439905
Professionals		1.062858	.1698683	0.38	0.703	.7770239	1.453839
Skilled and Technical		1.300726	.1229774	2.78	0.005	1.080709	1.565535
Intermediate and Clerical		.913192	.0819526	-1.01	0.312	.7659011	1.088808
Elemental and Labourers		1.1813	.1037641	1.90	0.058	.9944694	1.403229
merge_world_area_birth							
Europe		1.707984	.2305316	3.97	0.000	1.310976	2.22522
Africa and the Middle East		1.58474	.2184383	3.34	0.001	1.209566	2.076283
Southern Asia		.9830451	.163925	-0.10	0.918	.7089794	1.363055
Eastern Asia		.8573534	.1799762	-0.73	0.463	.5681657	1.293733
Americas		1.445114	.2074218	2.57	0.010	1.090753	1.914599
landing_age_6_groups							
25 to 34 years of age		.8016081	.0945146	-1.88	0.061	.6362095	1.010006
35 to 49 years of age		.8680357	.104079	-1.18	0.238	.6862417	1.097989
50 to 64 years of age		.1464268	.0492991	-5.71	0.000	.0756898	.2832721
marital_status_rollup							
Single		1.037706	.0886095	0.43	0.665	.8777893	1.226756
Married, common law partner		1.014585	.0761189	0.19	0.847	.875845	1.175302
M_newimmigration_category_census							
Protected Persons		1.367877	.1599808	2.68	0.007	1.087663	1.720283
Government Assisted Refugees		1.580011	.1899231	3.81	0.000	1.248368	1.999759
Privately Sponsored Refugees & Blended Visa Refugees		1.83579	.2384005	4.68	0.000	1.423259	2.367894
M_education_qualification#landing_age_6_groups							
Trade/Apprenticeship Certificate #25 to 34 years of age		1.137904	.2440752	0.60	0.547	.7473542	1.732544
Trade/Apprenticeship Certificate #35 to 49 years of age		.8716917	.1894148	-0.63	0.527	.5693778	1.334521
Trade/Apprenticeship Certificate #50 to 64 years of age		2.035463	1.208209	1.20	0.231	.6359274	6.515069

emp_10ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]
College/Trade Diploma #25 to 34 years of age	1.381872	.3016439	1.48	0.138	.9008697 2.119696
College/Trade Diploma #35 to 49 years of age	1.080903	.2365988	0.36	0.722	.7038292 1.659993
College/Trade Diploma #50 to 64 years of age	1.164376	.5875224	0.30	0.763	.4331045 3.130355
Incomplete University #25 to 34 years of age	.5978554	.1445668	-2.13	0.033	.3721928 .9603386
Incomplete University #35 to 49 years of age	.4505398	.1146333	-3.13	0.002	.273626 .7418378
Incomplete University #50 to 64 years of age	.2402091	.2628382	-1.30	0.192	.0281319 2.051064
Bachelor's Degree #25 to 34 years of age	1.73239	.6237539	1.53	0.127	.8553956 3.508521
Bachelor's Degree #35 to 49 years of age	1.19182	.4300254	0.49	0.627	.5876046 2.417331
Bachelor's Degree #50 to 64 years of age	1.230134	.7445866	0.34	0.732	.3756034 4.028797
Graduate Degree#25 to 34 years of age	5.660887	6.352318	1.54	0.122	.6276472 51.05678
Graduate Degree#35 to 49 years of age	3.794567	4.246387	1.19	0.233	.4232605 34.01862
Graduate Degree#50 to 64 years of age	2.435389	3.338181	0.65	0.516	.1658932 35.75263
_cons	.1014543	.0225387	-10.30	0.000	.0656403 .1568086

Note: \_cons estimates baseline odds.

## 24. Interaction with landing age: Income above median employment income at fifteen years after arrival

Logistic regression                      Number of obs        =        8000  
    Wald chi2(37)        =        618.76  
    Prob > chi2         =        0.0000  
 Log pseudolikelihood = -4821.3575      Pseudo R2            =        0.0795

	emp_15ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
M_education_qualification							
Trade/Apprenticeship Certificate		1.368505	.2632786	1.63	0.103	.9386174	1.99528
College/Trade Diploma		1.585985	.3603273	2.03	0.042	1.016039	2.47564
Incomplete University		2.667294	.7168959	3.65	0.000	1.575038	4.517006
Bachelor's Degree		2.329468	.9573374	2.06	0.040	1.040974	5.21283
Graduate Degree		1.394177	1.784198	0.26	0.795	.1134992	17.12549
merge_official_language							
English only/French only/English and French		1.521379	.0957365	6.67	0.000	1.344849	1.721081
newskill_level_cd11							
Managerial		1.46467	.3064029	1.82	0.068	.9720125	2.207027
Professionals		2.993784	1.765453	1.86	0.063	.9424573	9.509971
Skilled and Technical		1.631222	.1820616	4.38	0.000	1.31072	2.030094
Intermediate and Clerical		1.115593	.1160387	1.05	0.293	.9098459	1.367867
Elemental and Labourers		1.35315	.1406306	2.91	0.004	1.103778	1.65886
merge_world_area_birth							
Europe		2.301356	.4022271	4.77	0.000	1.63385	3.24157
Africa and the Middle East		1.759	.3201568	3.10	0.002	1.231227	2.513007
Southern Asia		1.074637	.2408168	0.32	0.748	.6926513	1.66728
Eastern Asia		1.591595	.482149	1.53	0.125	.87897	2.881979
Americas		1.640057	.3209641	2.53	0.011	1.117574	2.406809
landing_age_6_groups							
25 to 34 years of age		.996669	.1298795	-0.03	0.980	.7720187	1.286691
35 to 49 years of age		.6658512	.0907739	-2.98	0.003	.5097237	.8698001
50 to 64 years of age		.0308768	.0223603	-4.80	0.000	.0074681	.12766
marital_status_rollup							
Single		1.03999	.1114204	0.37	0.714	.8430141	1.282991
Married, common law partner		1.13178	.1072032	1.31	0.191	.9400161	1.362663
M_newimmigration_category_census							
Protected Persons		1.065161	.1400636	0.48	0.631	.8231637	1.378301
Government Assisted Refugees		1.517303	.1939164	3.26	0.001	1.181098	1.94921
Privately Sponsored Refugees & Blended Visa Refugees		1.680119	.2304072	3.78	0.000	1.284128	2.198223
M_education_qualification#landing_age_6_groups							
Trade/Apprenticeship Certificate #25 to 34 years of age		.9125603	.1982227	-0.42	0.674	.5961656	1.396871
Trade/Apprenticeship Certificate #35 to 49 years of age		.7701633	.1726092	-1.17	0.244	.4963767	1.194963
Trade/Apprenticeship Certificate #50 to 64 years of age		2.791756	2.882373	0.99	0.320	.3690175	21.12068

	emp_15ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
College/Trade Diploma #25 to 34 years of age		.8986222	.2227312	-0.43	0.666	.5528402	1.460679
College/Trade Diploma #35 to 49 years of age		.9070111	.227484	-0.39	0.697	.5547866	1.482857
College/Trade Diploma #50 to 64 years of age		1.00864	1.052865	0.01	0.993	.1303803	7.802974
Incomplete University #25 to 34 years of age		.7206275	.2163401	-1.09	0.275	.4001023	1.297928
Incomplete University #35 to 49 years of age		.5024045	.15887	-2.18	0.029	.2703256	.933727
Bachelor's Degree #25 to 34 years of age		1.026072	.4339248	0.06	0.951	.447925	2.350445
Bachelor's Degree #35 to 49 years of age		.9095105	.3857826	-0.22	0.823	.3960571	2.088612
Bachelor's Degree #50 to 64 years of age		1.601817	1.638389	0.46	0.645	.215763	11.89183
Graduate Degree#25 to 34 years of age		1.609437	2.093085	0.37	0.714	.1257999	20.59055
Graduate Degree#35 to 49 years of age		1.702213	2.209381	0.41	0.682	.1337213	21.66843
	_cons	.1077884	.0290084	-8.28	0.000	.0636054	.1826628

Note: \_cons estimates baseline odds.

## 25. Interaction with marital status: Income above median employment income at five years after arrival

Logistic regression                    Number of obs        =    12200  
    Wald chi2(34)        =    553.98  
    Prob > chi2         =    0.0000  
 Log pseudolikelihood = -4375.36            Pseudo R2            =    0.0652

	emp_5binary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]
-----+-----						
M_education_qualification						
Trade/Apprenticeship Certificate	1.222304	.365736	0.67	0.502	.6799606	2.197225
College/Trade Diploma	1.62557	.3484789	2.27	0.023	1.067901	2.474461
Incomplete University	1.541077	.5165949	1.29	0.197	.7988909	2.972771
Bachelor's Degree	2.447826	.5511083	3.98	0.000	1.574488	3.805588
Graduate Degree	3.382602	.9893543	4.17	0.000	1.906728	6.000854
merge_official_language						
English only/French only/English and French	1.886727	.1454067	8.24	0.000	1.622215	2.194369
newskill_level_cd11						
Managerial	.9897029	.2202064	-0.05	0.963	.6399037	1.530718
Professionals	1.045405	.1834795	0.25	0.800	.7411225	1.474618
Skilled and Technical	1.357876	.1611016	2.58	0.010	1.076147	1.71336
Intermediate and Clerical	.8716459	.1050913	-1.14	0.255	.6881984	1.103994
Elemental and Labourers	1.314474	.1502426	2.39	0.017	1.050657	1.644535
merge_world_area_birth						
Europe	1.062373	.1619141	0.40	0.691	.7880384	1.432211
Africa and the Middle East	1.138281	.1751206	0.84	0.400	.8419668	1.538877
Southern Asia	.7007736	.1321666	-1.89	0.059	.4842173	1.01418
Eastern Asia	.5546657	.1445041	-2.26	0.024	.3328683	.9242517
Americas	1.00753	.159266	0.05	0.962	.7391012	1.373448
landing_age_6_groups						
25 to 34 years of age	.8981203	.0958673	-1.01	0.314	.7285769	1.107117
35 to 49 years of age	.8762418	.0983387	-1.18	0.239	.7032269	1.091824
50 to 64 years of age	.3238929	.0641856	-5.69	0.000	.219644	.477621
marital_status_rollup						
Single	.896483	.1709956	-0.57	0.567	.6168555	1.302869
Married, common law partner	.7763561	.1340708	-1.47	0.143	.5534329	1.089073
M_newimmigration_category_census						
Protected Persons	1.574761	.2290833	3.12	0.002	1.184102	2.094308
Government Assisted Refugees	1.388109	.2092121	2.18	0.030	1.033077	1.865152
Privately Sponsored Refugees & Blended Visa Refugees	1.417288	.2396015	2.06	0.039	1.017553	1.974055
M_education_qualification#marital_status_rollup						
Trade/Apprenticeship Certificate #Single	.9525327	.3560234	-0.13	0.896	.4578578	1.98166
Trade/Apprenticeship Certificate #Married, common law partner	1.227425	.3975155	0.63	0.527	.6506149	2.315615
College/Trade Diploma #Single	1.100571	.2899454	0.36	0.716	.6567032	1.844451
College/Trade Diploma #Married, common law partner	1.12692	.2690627	0.50	0.617	.7057664	1.799391
Incomplete University #Single	1.173406	.4488893	0.42	0.676	.554395	2.483576
Incomplete University #Married, common law partner	1.198438	.440447	0.49	0.622	.583155	2.462902
Bachelor's Degree #Single	1.324187	.3560825	1.04	0.296	.7817284	2.243071
Bachelor's Degree #Married, common law partner	1.134368	.277311	0.52	0.606	.7025327	1.831644
Graduate Degree #Single	.849425	.323893	-0.43	0.669	.4023042	1.793476
Graduate Degree #Married, common law partner	.9203556	.3062315	-0.25	0.803	.4794396	1.766759
_cons	.0473424	.0134842	-10.71	0.000	.02709	.0827353

Note: \_cons estimates baseline odds.

## 26. Interaction with marital status: Income above median employment income at ten years after arrival

Logistic regression                      Number of obs        =     11,100  
    Wald chi2(34)        =     619.92  
    Prob > chi2         =     0.0000  
 Log pseudolikelihood = -6197.6873      Pseudo R2            =     0.0565

	emp_10ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
M_education_qualification							
Trade/Apprenticeship Certificate		1.898256	.4239199	2.87	0.004	1.225361	2.940666
College/Trade Diploma		2.025066	.3704926	3.86	0.000	1.414846	2.898474
Incomplete University		1.471217	.4425058	1.28	0.199	.8159367	2.652755
Bachelor's Degree		2.392511	.486658	4.29	0.000	1.605876	3.564478
Graduate Degree		3.642417	1.07432	4.38	0.000	2.043292	6.493054
merge_official_language							
English only/French only/English and French		1.40307	.0829696	5.73	0.000	1.249523	1.575486
newskill_level_cd11							
Managerial		1.01562	.178076	0.09	0.930	.7202511	1.432117
Professionals		1.046801	.1665646	0.29	0.774	.7663428	1.429899
Skilled and Technical		1.281855	.1206286	2.64	0.008	1.06595	1.541491
Intermediate and Clerical		.9063201	.0810991	-1.10	0.272	.7605269	1.080062
Elemental and Labourers		1.166763	.102212	1.76	0.078	.9826862	1.385322
merge_world_area_birth							
Europe		1.702132	.2290073	3.95	0.000	1.30759	2.215722
Africa and the Middle East		1.573221	.2161927	3.30	0.001	1.201759	2.059502
Southern Asia		.9778233	.1626514	-0.13	0.893	.7057831	1.35472
Eastern Asia		.8644234	.1817133	-0.69	0.488	.5725225	1.30515
Americas		1.438037	.2058612	2.54	0.011	1.086218	1.903809
landing_age_6_groups							
25 to 34 years of age		.8659558	.0683424	-1.82	0.068	.7418528	1.01082
35 to 49 years of age		.7532675	.0627494	-3.40	0.001	.6397962	.8868635
50 to 64 years of age		.1347397	.025967	-10.40	0.000	.0923533	.1965798
marital_status_rollup							
Single		1.15144	.1782285	0.91	0.362	.8501313	1.559541
Married, common law partner		1.10776	.1570186	0.72	0.470	.8390597	1.46251
M_newimmigration_category_census							
Protected Persons		1.357233	.1584389	2.62	0.009	1.079662	1.706164
Government Assisted Refugees		1.564758	.1880186	3.73	0.000	1.236427	1.980278
Privately Sponsored Refugees & Blended Visa Refugees		1.812365	.235386	4.58	0.000	1.405056	2.337749
M_education_qualification#marital_status_rollup							
Trade/Apprenticeship Certificate #Single		.5488588	.1508432	-2.18	0.029	.3202759	.9405825

emp_10ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]
Trade/Apprenticeship Certificate #Married, common law partner	.6997651	.1664681	-1.50	0.133	.4389942 1.115439
College/Trade Diploma #Single	.8843983	.1945819	-0.56	0.577	.5746055 1.361213
College/Trade Diploma #Married, common law partner	.8366933	.1655346	-0.90	0.367	.5677554 1.233023
Incomplete University #Single	1.191701	.4003678	0.52	0.602	.6168716 2.302183
Incomplete University #Married, common law partner	1.286422	.4124901	0.79	0.432	.6861929 2.411684
Bachelor's Degree #Single	1.045637	.2488338	0.19	0.851	.6558695 1.667033
Bachelor's Degree #Married, common law partner	1.034794	.2233803	0.16	0.874	.6778066 1.579801
Graduate Degree#Single	.7928454	.3017417	-0.61	0.542	.3760431 1.671627
Graduate Degree#Married, common law partner	.7229302	.2369628	-0.99	0.322	.380267 1.374371
_cons	.0975922	.0230419	-9.86	0.000	.0614389 .1550198

Note: \_cons estimates baseline odds.

## 27. Interaction with marital status: Income above median employment income at fifteen years after arrival

Logistic regression                      Number of obs            =        8,000  
    Wald chi2(34)            =        637.24  
    Prob > chi2             =        0.0000  
 Log pseudolikelihood = -4817.1488      Pseudo R2                =        0.0827

	emp_15ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
-----+-----							
M_education_qualification							
Trade/Apprenticeship Certificate		2.094602	.5374219	2.88	0.004	1.26679	3.463365
College/Trade Diploma		2.349061	.5631384	3.56	0.000	1.468373	3.75796
Incomplete University		.9367126	.3759851	-0.16	0.871	.4265248	2.057162
Bachelor's Degree		2.096085	.5725931	2.71	0.007	1.227111	3.580419
Graduate Degree		3.14458	1.46618	2.46	0.014	1.260912	7.842247
merge_official_language							
English only/French only/English and French		1.521012	.0956355	6.67	0.000	1.344659	1.720493
newskill_level_cd11							
Managerial		1.429558	.3010926	1.70	0.090	.9460677	2.160137
Professionals		2.927831	1.673916	1.88	0.060	.9547558	8.978418
Skilled and Technical		1.605385	.1788849	4.25	0.000	1.290422	1.997225
Intermediate and Clerical		1.104826	.1149273	0.96	0.338	.9010513	1.354685
Elemental and Labourers		1.330319	.1380344	2.75	0.006	1.085513	1.630335
merge_world_area_birth							
Europe		2.290656	.4008313	4.74	0.000	1.625594	3.227808
Africa and the Middle East		1.753514	.3190014	3.09	0.002	1.227602	2.504729
Southern Asia		1.070827	.2401265	0.31	0.760	.6899895	1.661866
Eastern Asia		1.627231	.4918577	1.61	0.107	.8998277	2.942653
Americas		1.64363	.3215325	2.54	0.011	1.120183	2.411676
landing_age_6_groups							
25 to 34 years of age		.9211397	.0812757	-0.93	0.352	.7748554	1.095041
35 to 49 years of age		.5681342	.0530811	-6.05	0.000	.4730671	.682306
50 to 64 years of age		.0332666	.0118698	-9.54	0.000	.0165307	.0669461
marital_status_rollup							
Single		1.176557	.2265557	0.84	0.398	.8066907	1.716006
Married, common law partner		1.396803	.2450516	1.90	0.057	.9903818	1.970008
M_newimmigration_category_census							
Protected Persons		1.068768	.1404981	0.51	0.613	.8260119	1.382868
Government Assisted Refugees		1.520646	.1944484	3.28	0.001	1.18354	1.953768
Privately Sponsored Refugees & Blended Visa Refugees		1.67424	.229808	3.75	0.000	1.279324	2.191061
M_education_qualification#marital_status_rollup							
Trade/Apprenticeship Certificate #Single		.5786923	.1770021	-1.79	0.074	.3177565	1.053904
Trade/Apprenticeship Certificate #Married, common law partner		.5327175	.1432587	-2.34	0.019	.3144787	.9024074
College/Trade Diploma #Single		.6209226	.1766467	-1.68	0.094	.3555319	1.084417

emp_15ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]
College/Trade Diploma #Married, common law partner	.5857664	.1480222	-2.12	0.034	.3569663 .9612176
Incomplete University #Single	2.46143	1.077031	2.06	0.040	1.044079 5.802857
Incomplete University #Married, common law partner	1.767423	.7413562	1.36	0.175	.7767817 4.021445
Bachelor's Degree #Single	1.237011	.3838586	0.69	0.493	.6733423 2.272537
Bachelor's Degree #Married, common law partner	1.073825	.3042956	0.25	0.802	.6162027 1.871298
Graduate Degree#Single	.5148744	.2924843	-1.17	0.243	.1691063 1.567627
Graduate Degree#Married, common law partner	.7961776	.3990036	-0.45	0.649	.2981475 2.126125
_cons	.100997	.0289418	-8.00	0.000	.0575953 .1771045

Note: \_cons estimates baseline odds.

## 28. Interaction with immigration category census: Income above median employment income at five years after arrival

Logistic regression

Wald chi2(39) = 548.04  
 Prob > chi2 = 0.0000  
 Log pseudolikelihood = -4374.2168  
 Pseudo R2 = 0.0654

	emp_5ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]
M_education_qualification						
Trade/Apprenticeship Certificate		1.683075	.813638	1.08	0.282	.6525483 4.341045
College/Trade Diploma		2.750294	1.164889	2.39	0.017	1.199091 6.308211
Incomplete University		2.100443	1.464768	1.06	0.287	.5354461 8.239596
Bachelor's Degree		3.58765	1.338979	3.42	0.001	1.726337 7.455806
Graduate Degree		1.921068	1.578502	0.79	0.427	.3838205 9.615178
merge_official_language						
English only/French only/English and French		1.869946	.145397	8.05	0.000	1.605626 2.17778
newskill_level_cd11						
Managerial		.9961737	.2217547	-0.02	0.986	.6439499 1.541055
Professionals		1.046011	.1831867	0.26	0.797	.7421067 1.474369
Skilled and Technical		1.346276	.1597157	2.51	0.012	1.066969 1.6987
Intermediate and Clerical		.8809327	.1056244	-1.06	0.290	.6964392 1.1143
Elemental and Labourers		1.326736	.1513025	2.48	0.013	1.060993 1.659039
merge_world_area_birth						
Europe		1.058566	.1602208	0.38	0.707	.7868335 1.42414
Africa and the Middle East		1.132021	.173332	0.81	0.418	.8385344 1.528228
Southern Asia		.7039992	.1326228	-1.86	0.062	.4866522 1.018417
Eastern Asia		.5559831	.1441584	-2.26	0.024	.3344701 .9241996
Americas		1.004185	.1580038	0.03	0.979	.7377028 1.36693
landing_age_6_groups						
25 to 34 years of age		.9061125	.0943578	-0.95	0.344	.7388266 1.111276
35 to 49 years of age		.8794874	.0974517	-1.16	0.246	.7078026 1.092816
50 to 64 years of age		.3254121	.0636956	-5.74	0.000	.2217282 .4775804
marital_status_rollup						
Single		.9805401	.0986114	-0.20	0.845	.8051213 1.194179
Married, common law partner		.8477515	.0752527	-1.86	0.063	.7123764 1.008852
M_newimmigration_category_census						
Protected Persons		1.891927	.6108339	1.97	0.048	1.004807 3.562265
Government Assisted Refugees		1.664649	.5533479	1.53	0.125	.8677082 3.193534
Privately Sponsored Refugees & Blended Visa Refugees		1.8648	.6631346	1.75	0.080	.9288368 3.743905
M_education_qualification#M_newimmigration_category_census						
Trade/Apprenticeship Certificate #Protected Persons		.974485	.5045234	-0.05	0.960	.353248 2.688256
Trade/Apprenticeship Certificate #Government Assisted Refugees		.779113	.3978959	-0.49	0.625	.2863444 2.119885
Trade/Apprenticeship Certificate #Privately Sponsored Refugees & Blended Visa Refugees		.7237796	.3994549	-0.59	0.558	.2453731 2.13494
College/Trade Diploma #Protected Persons		.6805427	.2980172	-0.88	0.379	.2884727 1.605484
College/Trade Diploma #Government Assisted Refugees		.5975285	.2695703	-1.14	0.254	.2468003 1.446677
College/Trade Diploma #Privately Sponsored Refugees & Blended Visa Refugees		.5629159	.2909516	-1.11	0.266	.2044029 1.550243
Incomplete University #Protected Persons		.8165155	.5826649	-0.28	0.776	.2016265 3.306597
Incomplete University #Government Assisted Refugees		.9176251	.6619299	-0.12	0.905	.2231773 3.772945
Incomplete University #Privately Sponsored Refugees & Blended Visa Refugees		.7977936	.6478247	-0.28	0.781	.1624417 3.918173
Bachelor's Degree #Protected Persons		.7542921	.2932528	-0.73	0.468	.3520549 1.616102

	emp_5ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Bachelor's Degree #Government Assisted Refugees		.8578206	.3406314	-0.39	0.699	.3939067	1.868098
Bachelor's Degree #Privately Sponsored Refugees & Blended Visa Refugees		.682125	.3139207	-0.83	0.406	.2767786	1.681107
Graduate Degree#Protected Persons		1.663098	1.386098	0.61	0.542	.3247054	8.518166
Graduate Degree#Government Assisted Refugees		1.767857	1.574696	0.64	0.522	.3084963	10.13081
Graduate Degree #Privately Sponsored Refugees & Blended Visa Refugees		1.519446	1.463135	0.43	0.664	.2301599	10.03093
_cons		.0363326	.0138774	-8.68	0.000	.0171861	.0768097

Note: \_cons estimates baseline odds.

## 29. Interaction with immigration category census: Income above median employment income at ten years after arrival

Logistic regression

Wald chi2(39) = 620.79  
 Prob > chi2 = 0.0000  
 Log pseudolikelihood = -6193.8199  
 Pseudo R2 = 0.0570

	emp_10ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
M_education_qualification							
Trade/Apprenticeship Certificate		1.459629	.4638703	1.19	0.234	.7829435	2.721162
College/Trade Diploma		1.646382	.5365023	1.53	0.126	.8692638	3.11824
Incomplete University		.9044437	.5397326	-0.17	0.866	.2808158	2.913007
Bachelor's Degree		2.972746	.8428931	3.84	0.000	1.705328	5.182123
Graduate Degree		1.967107	1.190418	1.12	0.264	.6007765	6.440845
merge_official_language							
English only/French only/English and French		1.40213	.0837575	5.66	0.000	1.247214	1.576288
newskill_level_cd11							
Managerial		1.022087	.1783756	0.13	0.900	.7259976	1.438932
Professionals		1.060026	.1694557	0.36	0.715	.7748957	1.450072
Skilled and Technical		1.279349	.1208904	2.61	0.009	1.063055	1.539651
Intermediate and Clerical		.9069416	.0812745	-1.09	0.276	.7608515	1.081082
Elemental and Labourers		1.169949	.1027246	1.79	0.074	.984984	1.389648
merge_world_area_birth							
Europe		1.726852	.2333379	4.04	0.000	1.325067	2.250465
Africa and the Middle East		1.582352	.2187766	3.32	0.001	1.206746	2.074869
Southern Asia		1.004923	.1686867	0.03	0.977	.7231858	1.396419
Eastern Asia		.8745739	.1849642	-0.63	0.526	.577797	1.323786
Americas		1.440966	.207388	2.54	0.011	1.086792	1.910562
landing_age_6_groups							
25 to 34 years of age		.8750716	.0680653	-1.72	0.086	.7513374	1.019183
35 to 49 years of age		.7620592	.0630226	-3.29	0.001	.6480283	.8961555
50 to 64 years of age		.1346752	.0260314	-10.37	0.000	.0922059	.1967054
marital_status_rollup							
Single		1.043076	.0891156	0.49	0.622	.8822532	1.233215
Married, common law partner		1.012664	.0762761	0.17	0.867	.8736772	1.173761
M_newimmigration_category_census							
Protected Persons		1.32942	.2875703	1.32	0.188	.8700349	2.031364
Government Assisted Refugees		1.637379	.3612484	2.23	0.025	1.062556	2.523169
Privately Sponsored Refugees & Blended Visa Refugees		1.888979	.4445088	2.70	0.007	1.191037	2.995914
M_education_qualification#M_newimmigration_category_census							
Trade/Apprenticeship Certificate #Protected Persons		.9746313	.3489296	-0.07	0.943	.4831702	1.965987
Trade/Apprenticeship Certificate #Government Assisted Refugees		.8690536	.2895661	-0.42	0.674	.4523022	1.6698
Trade/Apprenticeship Certificate #Privately Sponsored Refugees & Blended Visa Refugees		.8425979	.3026073	-0.48	0.633	.4167957	1.703404
College/Trade Diploma #Protected Persons		1.167055	.3946843	0.46	0.648	.601485	2.264424
College/Trade Diploma #Government Assisted Refugees		.9663865	.3287308	-0.10	0.920	.4961374	1.882347
College/Trade Diploma #Privately Sponsored Refugees & Blended Visa Refugees		1.046772	.3975178	0.12	0.904	.4972826	2.203438
Incomplete University #Protected Persons		2.337944	1.427695	1.39	0.164	.7063777	7.738043
Incomplete University #Government Assisted Refugees		1.958592	1.195685	1.10	0.271	.5919713	6.480182
Incomplete University #Privately Sponsored Refugees & Blended Visa Refugees		1.157202	.781401	0.22	0.829	.3080597	4.346937
Bachelor's Degree #Protected Persons		.8346587	.2497034	-0.60	0.546	.4643618	1.500242

	emp_10ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Bachelor's Degree #Government Assisted Refugees		.795264	.2368994	-0.77	0.442	.4435564	1.42585
Bachelor's Degree #Privately Sponsored Refugees & Blended Visa Refugees		.8928215	.3092005	-0.33	0.743	.4528745	1.760157
Graduate Degree#Protected Persons		1.324296	.82083	0.45	0.650	.3929978	4.462518
Graduate Degree#Government Assisted Refugees		2.591081	1.757386	1.40	0.160	.6857387	9.790469
Graduate Degree #Privately Sponsored Refugees & Blended Visa Refugees		1.893968	1.409239	0.86	0.391	.440577	8.141859
_cons		.1024708	.0284248	-8.21	0.000	.0594952	.1764892

Note: \_cons estimates baseline odds.

### 30. Interaction with immigration category census: Income above median employment income at fifteen years after arrival

Logistic regression

Wald chi2(39) = 626.89  
 Prob > chi2 = 0.0000  
 Log pseudolikelihood = -4817.8077  
 Pseudo R2 = 0.0826

emp_15ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
M_education_qualification						
Trade/Apprenticeship Certificate	1.049149	.3287284	0.15	0.878	.5677167	1.938845
College/Trade Diploma	1.173303	.396799	0.47	0.637	.6047036	2.276553
Incomplete University	1.879808	.9209383	1.29	0.198	.7196155	4.910507
Bachelor's Degree	1.635149	.4972488	1.62	0.106	.9009627	2.967616
Graduate Degree	1.724302	1.157228	0.81	0.417	.4627512	6.425087
merge_official_language						
English only/French only/English and French	1.533801	.0969493	6.77	0.000	1.355082	1.736089
newskill_level_cd11						
Managerial	1.396053	.2935904	1.59	0.113	.9244721	2.10819
Professionals	2.889813	1.750181	1.75	0.080	.8817583	9.470872
Skilled and Technical	1.595277	.1785247	4.17	0.000	1.28109	1.986519
Intermediate and Clerical	1.099472	.1148044	0.91	0.364	.8959906	1.349164
Elemental and Labourers	1.327838	.138618	2.72	0.007	1.082144	1.629316
merge_world_area_birth						
Europe	2.375477	.4177489	4.92	0.000	1.682904	3.353067
Africa and the Middle East	1.81608	.3333079	3.25	0.001	1.267397	2.6023
Southern Asia	1.149172	.2611729	0.61	0.541	.7360917	1.794064
Eastern Asia	1.643356	.5005561	1.63	0.103	.9046091	2.985399
Americas	1.673973	.3300124	2.61	0.009	1.13747	2.463526
landing_age_6_groups						
25 to 34 years of age	.921983	.0802698	-0.93	0.351	.7773481	1.093529
35 to 49 years of age	.569094	.0528426	-6.07	0.000	.4744021	.6826865
50 to 64 years of age	.0324998	.0117558	-9.47	0.000	.0159951	.0660352
marital_status_rollup						
Single	1.044851	.1126028	0.41	0.684	.845904	1.290589
Married, common law partner	1.134345	.1085154	1.32	0.188	.9404082	1.368277
M_newimmigration_category_census						
Protected Persons	.7786764	.1702826	-1.14	0.253	.5072412	1.195362
Government Assisted Refugees	1.435131	.3031313	1.71	0.087	.948635	2.171121
Privately Sponsored Refugees & Blended Visa Refugees	1.278858	.2912476	1.08	0.280	.8184071	1.998367
M_education_qualification#M_newimmigration_category_census						
Trade/Apprenticeship Certificate #Protected Persons	1.192708	.4702774	0.45	0.655	.5506946	2.583198
Trade/Apprenticeship Certificate #Government Assisted Refugees	1.028526	.3353865	0.09	0.931	.5428148	1.948853
Trade/Apprenticeship Certificate #Privately Sponsored Refugees & Blended Visa Refugees	1.346681	.4745088	0.84	0.398	.6750565	2.686514
College/Trade Diploma #Protected Persons	1.741382	.6352196	1.52	0.128	.8519097	3.559545
College/Trade Diploma #Government Assisted Refugees	1.059039	.3709467	0.16	0.870	.5330447	2.104069
College/Trade Diploma #Privately Sponsored Refugees & Blended Visa Refugees	1.359321	.5323668	0.78	0.433	.6308935	2.928789
Incomplete University #Protected Persons	1.171886	.6213073	0.30	0.765	.41457	3.312631
Incomplete University #Government Assisted Refugees	.8548974	.43185	-0.31	0.756	.3176369	2.300896
Incomplete University #Privately Sponsored Refugees & Blended Visa Refugees	.896351	.5031294	-0.19	0.845	.2983263	2.693176
Bachelor's Degree #Protected Persons	1.87483	.6368707	1.85	0.064	.9634136	3.648471

	emp_15ybinary	Odds Ratio	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
Bachelor's Degree #Government Assisted Refugees		1.214985	.3840824	0.62	0.538	.6538646	2.257635
Bachelor's Degree #Privately Sponsored Refugees & Blended Visa Refugees		2.042195	.7538634	1.93	0.053	.9905614	4.210298
Graduate Degree#Protected Persons		1.372101	.9640199	0.45	0.653	.3462129	5.437872
Graduate Degree#Government Assisted Refugees		1.542176	1.152273	0.58	0.562	.3565653	6.67005
Graduate Degree #Privately Sponsored Refugees & Blended Visa Refugees		2.8882	2.326562	1.32	0.188	.5955934	14.00569
_cons		.1351537	.0413893	-6.54	0.000	.0741578	.2463195

Note: \_cons estimates baseline odds.

**VII. The likelihood of human capital factors contributing to the increase or decrease of Employment Income at 2005 year of arrival, three and six years after arrival for refugee women in Canada before recession, during recession and aftermath.**

31. Effect of economic conditions on employment income at 2005 arrival with human capital characteristics

Prob > F = 0.0000  
R-squared = 0.0241  
Root MSE = 4.2932

newlog_ei__i_adj2005	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
-----						
M_education_qualification						
Trade/Apprenticeship Certificate	.7612346	.1249146	6.09	0.000	.5163804	1.006089
College/Trade Diploma	.5931575	.1145021	5.18	0.000	.3687136	.8176013
Incomplete University	.9639661	.1565179	6.16	0.000	.6571641	1.270768
Bachelor's Degree	1.085986	.1318665	8.24	0.000	.827505	1.344467
Graduate Degree	-.0713956	.2582199	-0.28	0.782	-.5775512	.43476
merge_official_language						
English only/French only/English and French	-.4507263	.0847948	-5.32	0.000	-.6169387	-.284514
newskill_level_cd11						
Managerial	-.7106002	.3265659	-2.18	0.030	-1.350726	-.0704747
Professionals	-2.941864	.2977393	-9.88	0.000	-3.525485	-2.358244
Skilled and Technical	-.3996651	.1619398	-2.47	0.014	-.7170951	-.0822351
Intermediate and Clerical	-.340298	.1493257	-2.28	0.023	-.6330021	-.0475938
Elemental and Labourers	-.0199951	.1459209	-0.14	0.891	-.3060252	.2660349
_cons	7.396775	.1422392	52.00	0.000	7.117961	7.675588
-----						

### 32. Effect of economic conditions on employment income three years after 2005 arrival with human capital characteristics

Prob > F = 0.0000  
 R-squared = 0.0256  
 Root MSE = 1.8783

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
newlogemp_2005_3y						
-----						
M_education_qualification						
Trade/Apprenticeship Certificate	-.0505954	.0387016	-1.31	0.191	-.1264559	.0252651
College/Trade Diploma	.1213105	.0485362	2.50	0.012	.0261728	.2164481
Incomplete University	.1578209	.076477	2.06	0.039	.0079155	.3077263
Bachelor's Degree	.1429577	.0576081	2.48	0.013	.030038	.2558773
Graduate Degree	.2564628	.1121156	2.29	0.022	.0367008	.4762248
merge_official_language						
English only/French only/English and French	.5017428	.0293376	17.10	0.000	.444237	.5592485
newskill_level_cd11						
Managerial	-.0334181	.1556847	-0.21	0.830	-.3385814	.2717452
Professionals	-.1170119	.1054587	-1.11	0.267	-.3237253	.0897015
Skilled and Technical	-.3937708	.0753431	-5.23	0.000	-.5414536	-.2460881
Intermediate and Clerical	-.2831886	.0688555	-4.11	0.000	-.4181547	-.1482224
Elemental and Labourers	-.0950922	.0725212	-1.31	0.190	-.2372436	.0470592
_cons	.2387006	.0639985	3.73	0.000	.1132547	.3641465

### 33. Effect of economic conditions on employment income six years after 2005 arrival with human capital characteristics

Prob > F = 0.0000  
 R-squared = 0.0251  
 Root MSE = 1.8911

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
-----						
newlogemp_2005_6y						
-----						
M_education_qualification						
Trade/Apprenticeship Certificate	-.0460371	.0390249	-1.18	0.238	-.1225313	.030457
College/Trade Diploma	.0844401	.0476266	1.77	0.076	-.0089146	.1777948
Incomplete University	.1501129	.077524	1.94	0.053	-.0018447	.3020705
Bachelor's Degree	.1710946	.0580025	2.95	0.003	.0574018	.2847874
Graduate Degree	.2252383	.1109156	2.03	0.042	.0078286	.4426481
merge_official_language						
English only/French only/English and French	.4759804	.0294127	16.18	0.000	.4183275	.5336332
newskill_level_cd11						
Managerial	.0116672	.1548983	0.08	0.940	-.2919547	.3152891
Professionals	.0555656	.1098125	0.51	0.613	-.159682	.2708133
Skilled and Technical	-.3677498	.074526	-4.93	0.000	-.513831	-.2216686
Intermediate and Clerical	-.2749335	.0679651	-4.05	0.000	-.4081544	-.1417127
Elemental and Labourers	-.0708042	.0719784	-0.98	0.325	-.2118917	.0702833
_cons	.2289666	.0634569	3.61	0.000	.1045823	.3533508
-----						

**VIII. The likelihood of human capital and demographic factors contributing to the increase or decrease of Employment Income at 2005 year of arrival, three and six years after arrival for refugee women in Canada before recession, during recession and aftermath.**

**34. Effect of economic conditions on employment income at 2005 arrival with human capital characteristics and demographic factors**

Prob > F = 0.0000  
R-squared = 0.0957  
Root MSE = 4.1357

newlog_ei__i_adj2005	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
M_education_qualification						
Trade/Apprenticeship Certificate	.3128224	.1234765	2.53	0.011	.070787	.5548578
College/Trade Diploma	.4967979	.1124156	4.42	0.000	.2764438	.7171519
Incomplete University	.5676437	.1526363	3.72	0.000	.2684501	.8668373
Bachelor's Degree	.8423403	.1296156	6.50	0.000	.5882713	1.096409
Graduate Degree	.187617	.2546718	0.74	0.461	-.3115838	.6868177
merge_official_language						
English only/French only/French	.6516646	.1049302	6.21	0.000	.4459832	.857346
newskill_level_cd11						
Managerial	-.6587988	.3183796	-2.07	0.039	-1.282878	-.0347198
Professionals	-2.616056	.3003925	-8.71	0.000	-3.204877	-2.027235
Skilled and Technical	-.5806739	.1632997	-3.56	0.000	-.9007696	-.2605783
Intermediate and Clerical	-.5450038	.1493597	-3.65	0.000	-.8377747	-.252233
Elemental and Labourers	-.0915422	.1454674	-0.63	0.529	-.3766835	.193599
merge_world_area_birth						
Europe	1.360389	.2394221	5.68	0.000	.8910804	1.829698
Africa and the Middle East	.1502748	.2396897	0.63	0.531	-.3195584	.620108
Southern Asia	.2958897	.2828785	1.05	0.296	-.2586011	.8503805
Eastern Asia	1.254544	.3209402	3.91	0.000	.6254456	1.883642
Americas	.4619278	.2483293	1.86	0.063	-.0248406	.9486961
landing_age_6_groups						
25 to 34 years of age	-.2043551	.1393232	-1.47	0.142	-.4774527	.0687424
35 to 49 years of age	-.3714752	.1482532	-2.51	0.012	-.6620771	-.0808734
50 to 64 years of age	-3.752372	.2364565	-15.87	0.000	-4.215868	-3.288877
marital_status_rollup						
Single	.650319	.1562263	4.16	0.000	.3440885	.9565495
Married, common law partner	.3475427	.1363202	2.55	0.011	.0803316	.6147539
M_newimmigration_category_census						
Protected Persons	.0266027	.2071008	0.13	0.898	-.3793507	.4325562
Government Assisted Refugees	.9522384	.2132553	4.47	0.000	.5342211	1.370256
Privately Sponsored Refugees & Blended Visa Refugees	1.219651	.2281598	5.35	0.000	.7724182	1.666884
_cons	5.715134	.3659798	15.62	0.000	4.997751	6.432518

35. Effect of economic conditions on employment income three years after 2005 arrival with human capital characteristics and demographic factors

Prob > F = 0.0000  
R-squared = 0.0526  
Root MSE = 1.8661

	newlogemp_2005_3y	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
M_education_qualification							
Trade/Apprenticeship Certificate		.0284922	.0398792	0.71	0.475	-.0496765	.106661
College/Trade Diploma		.0821652	.049865	1.65	0.099	-.0155772	.1799076
Incomplete University		.149693	.0760409	1.97	0.049	.0006421	.2987439
Bachelor's Degree		.1447807	.0585986	2.47	0.013	.0299191	.2596422
Graduate Degree		.0930398	.1117591	0.83	0.405	-.1260237	.3121034
merge_official_language							
English only/French only/English and French		.0800404	.0306357	2.61	0.009	.0199902	.1400906
newskill_level_cd11							
Managerial		.0142472	.154624	0.09	0.927	-.2888376	.317332
Professionals		-.0969863	.1332616	-0.73	0.467	-.3581979	.1642252
Skilled and Technical		-.2196094	.075133	-2.92	0.003	-.3668807	-.072338
Intermediate and Clerical		-.1425021	.0683425	-2.09	0.037	-.276463	-.0085412
Elemental and Labourers		-.0257906	.0722453	-0.36	0.721	-.1674017	.1158204
merge_world_area_birth							
Europe		-.0732169	.0954487	-0.77	0.443	-.2603099	.113876
Africa and the Middle East		-.0852379	.1005204	-0.85	0.396	-.282272	.1117961
Southern Asia		.0248587	.127227	0.20	0.845	-.2245241	.2742415
Eastern Asia		.1316881	.1585965	0.83	0.406	-.1791834	.4425595
Americas		.3348718	.1155512	2.90	0.004	.1083752	.5613683
landing_age_6_groups							
25 to 34 years of age		-.0731235	.0639781	-1.14	0.253	-.1985296	.0522825
35 to 49 years of age		-.0401814	.0665621	-0.60	0.546	-.1706525	.0902897
50 to 64 years of age		-.2866192	.0878978	-3.26	0.001	-.4589112	-.1143273
marital_status_rollup							
Single		.0132188	.0733707	0.18	0.857	-.1305981	.1570358
Married, common law partner		-.0546533	.0616739	-0.89	0.376	-.1755427	.0662362
M_newimmigration_category_census							
Protected Persons		.565251	.064218	8.80	0.000	.4393746	.6911274
Government Assisted Refugees		-.0635555	.0594168	-1.07	0.285	-.1800207	.0529097
Privately Sponsored Refugees & Blended Visa Refugees		-.0065625	.0641201	-0.10	0.918	-.1322469	.1191219
_cons		.2686014	.1497625	1.79	0.073	-.0249541	.5621569

36. Effect of economic conditions on employment income six years after 2005 arrival with human capital characteristics and demographic factors

Prob > F = 0.0000  
R-squared = 0.0504  
Root MSE = 1.8606

newlogemp_2005_6y	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
M_education_qualification						
Trade/Apprenticeship Certificate	.0389384	.0401585	0.97	0.332	-.0397779	.1176547
College/Trade Diploma	.0578521	.0489212	1.18	0.237	-.0380402	.1537445
Incomplete University	.1552904	.0772487	2.01	0.044	.003872	.3067088
Bachelor's Degree	.1788108	.0588938	3.04	0.002	.0633706	.294251
Graduate Degree	.0832223	.1103589	0.75	0.451	-.1330966	.2995412
merge_official_language						
English only/French only/English and French	.0664405	.0319607	2.08	0.038	.0037929	.129088
newskill_level_cd11						
Managerial	.0587199	.1542323	0.38	0.703	-.2435972	.3610369
Professionals	-.0735798	.1333318	-0.55	0.581	-.3349291	.1877694
Skilled and Technical	-.2063062	.074215	-2.78	0.005	-.351778	-.0608344
Intermediate and Clerical	-.1441049	.0673428	-2.14	0.032	-.2761063	-.0121035
Elemental and Labourers	-.0047735	.0717383	-0.07	0.947	-.1453907	.1358437
merge_world_area_birth						
Europe	-.1786774	.1023971	-1.74	0.081	-.3793902	.0220355
Africa and the Middle East	-.1738005	.1079102	-1.61	0.107	-.3853197	.0377186
Southern Asia	-.1440022	.1307604	-1.10	0.271	-.4003109	.1123066
Eastern Asia	.0324786	.161309	0.20	0.840	-.2837097	.3486669
Americas	.2467299	.1219604	2.02	0.043	.0076704	.4857894
landing_age_6_groups						
25 to 34 years of age	-.0449966	.0638466	-0.70	0.481	-.1701449	.0801516
35 to 49 years of age	-.0219592	.0658805	-0.33	0.739	-.1510943	.1071758
50 to 64 years of age	-.2845981	.0852743	-3.34	0.001	-.4517478	-.1174484
marital_status_rollup						
Single	.0486175	.072193	0.67	0.501	-.092891	.1901261
Married, common law partner	-.0110799	.0596511	-0.19	0.853	-.1280045	.1058447
M_newimmigration_category_census						
Protected Persons	.5125513	.0684501	7.49	0.000	.3783795	.646723
Government Assisted Refugees	-.0987141	.0633278	-1.56	0.119	-.2228456	.0254173
Privately Sponsored Refugees & Blended Visa Refugees	-.0393462	.0687635	-0.57	0.567	-.1741322	.0954399
_cons	.3358357	.1556142	2.16	0.031	.03081	.6408615

**IX. The likelihood of human capital factors contributing to the increase or decrease of Employment Income at 2008 year of arrival, three and six years after arrival for refugee women in Canada before recession, during recession and aftermath.**

37. Effect of economic conditions on employment income at 2008 arrival with human capital characteristics

Prob > F = 0.0000  
R-squared = 0.0188  
Root MSE = 4.3048

newlogei__i_adj2008	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
M_education_qualification						
Trade/Apprenticeship Certificate	.9018256	.1233054	7.31	0.000	.6601266	1.143525
College/Trade Diploma	.7451118	.1122523	6.64	0.000	.5250787	.9651449
Incomplete University	.8223602	.1633301	5.03	0.000	.5022061	1.142514
Bachelor's Degree	1.13194	.1277447	8.86	0.000	.8815392	1.382341
Graduate Degree	.4675473	.2363408	1.98	0.048	.0042803	.9308142
merge_official_language						
English only/French only/English and French	-.2351209	.0845648	-2.78	0.005	-.4008819	-.06936
newskill_level_cd11						
Managerial	-.1326004	.3176162	-0.42	0.676	-.7551807	.4899799
Professionals	-1.51112	.2404522	-6.28	0.000	-1.982446	-1.039794
Skilled and Technical	.0637663	.162245	0.39	0.694	-.2542607	.3817934
Intermediate and Clerical	-.0024577	.1521266	-0.02	0.987	-.300651	.2957356
Elemental and Labourers	.1953452	.149369	1.31	0.191	-.0974427	.4881331
_cons	7.155205	.1461515	48.96	0.000	6.868724	7.441686

38. Effect of economic conditions on employment income three years after 2008 arrival with human capital characteristics

Prob > F = 0.0000  
R-squared = 0.0020  
Root MSE = .76647

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
-----						
newlogemp_2008_3y						
-----						
M_education_qualification						
Trade/Apprenticeship Certificate	-.0322156	.0145709	-2.21	0.027	-.0607765	-.0036547
College/Trade Diploma	.004252	.0192383	0.22	0.825	-.0334576	.0419615
Incomplete University	-.0059431	.027302	-0.22	0.828	-.0594587	.0475724
Bachelor's Degree	.0217962	.0237725	0.92	0.359	-.0248011	.0683936
Graduate Degree	-.0044684	.0365719	-0.12	0.903	-.0761543	.0672176
merge_official_language						
English only/French only/English and French	.0442227	.0126999	3.48	0.000	.0193291	.0691163
newskill_level_cd11						
Managerial	-.0306313	.0553545	-0.55	0.580	-.1391336	.0778709
Professionals	.0040696	.0428277	0.10	0.924	-.0798785	.0880178
Skilled and Technical	-.0481677	.0297472	-1.62	0.105	-.1064762	.0101408
Intermediate and Clerical	-.0435789	.027339	-1.59	0.111	-.0971671	.0100092
Elemental and Labourers	-.0184619	.0289006	-0.64	0.523	-.0751109	.0381872
_cons	.0650339	.0267817	2.43	0.015	.0125381	.1175296
-----						

39. Effect of economic conditions on employment income six years after 2008 arrival with human capital characteristics

Prob > F = 0.0001  
R-squared = 0.0024  
Root MSE = .80243

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
-----						
newlogemp_2008_6y						
-----						
M_education_qualification						
Trade/Apprenticeship Certificate	-.0371234	.0162771	-2.28	0.023	-.0690287	-.005218
College/Trade Diploma	-.0031479	.0200456	-0.16	0.875	-.0424399	.0361442
Incomplete University	-.0262822	.0264788	-0.99	0.321	-.0781843	.0256199
Bachelor's Degree	.0013563	.0236358	0.06	0.954	-.044973	.0476857
Graduate Degree	.006741	.0424681	0.16	0.874	-.0765022	.0899843
merge_official_language						
English only/French only/English and French	.0525121	.0132388	3.97	0.000	.0265623	.0784618
newskill_level_cd11						
Managerial	-.0577049	.0444043	-1.30	0.194	-.1447434	.0293337
Professionals	.037394	.0462289	0.81	0.419	-.053221	.1280089
Skilled and Technical	-.0421194	.0281557	-1.50	0.135	-.0973083	.0130696
Intermediate and Clerical	-.0240215	.0274375	-0.88	0.381	-.0778028	.0297597
Elemental and Labourers	-.0147986	.0280564	-0.53	0.598	-.069793	.0401958
_cons	.0622552	.0267773	2.32	0.020	.0097681	.1147424
-----						

**X. The likelihood of human capital and demographic factors contributing to the increase or decrease of Employment Income at 2008 year of arrival, three and six years after arrival for refugee women in Canada before recession, during recession and aftermath.**

**40. Effect of economic conditions on employment income at 2008 arrival with human capital characteristics and demographic factors**

Prob > F = 0.0000  
R-squared = 0.1001  
Root MSE = 4.1279

newlogei__i_adj2008	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
M_education_qualification						
Trade/Apprenticeship Certificate	.4821206	.1214213	3.97	0.000	.2441148	.7201265
College/Trade Diploma	.6733281	.1098498	6.13	0.000	.4580041	.888652
Incomplete University	.4679602	.1592338	2.94	0.003	.1558356	.7800849
Bachelor's Degree	.9337063	.1250844	7.46	0.000	.6885201	1.178892
Graduate Degree	.7283657	.2332667	3.12	0.002	.2711243	1.185607
merge_official_language						
English only/French only/English and French	.6780247	.1035709	6.55	0.000	.4750086	.8810408
newskill_level_cd11						
Managerial	-.0428831	.3113232	-0.14	0.890	-.6531281	.567362
Professionals	-1.332575	.2489534	-5.35	0.000	-1.820565	-.8445852
Skilled and Technical	.0051506	.1621479	0.03	0.975	-.3126861	.3229874
Intermediate and Clerical	-.1455584	.1521727	-0.96	0.339	-.4438421	.1527252
Elemental and Labourers	.1593992	.1482187	1.08	0.282	-.1311341	.4499325
merge_world_area_birth						
Europe	1.495566	.2326058	6.43	0.000	1.03962	1.951511
Africa and the Middle East	.6097062	.2334031	2.61	0.009	.1521974	1.067215
Southern Asia	.6007388	.2740992	2.19	0.028	.0634589	1.138019
Eastern Asia	1.566399	.3056838	5.12	0.000	.9672078	2.16559
Americas	.7126963	.2402674	2.97	0.003	.2417324	1.18366
landing_age_6_groups						
25 to 34 years of age	-.1276515	.1397732	-0.91	0.361	-.40163	.1463271
35 to 49 years of age	-.5727523	.1488206	-3.85	0.000	-.8644652	-.2810393
50 to 64 years of age	-4.396621	.2281882	-19.27	0.000	-4.843907	-3.949334
marital_status_rollup						
Single	.3670127	.1548004	2.37	0.018	.0635782	.6704473
Married, common law partner	.3904787	.1350042	2.89	0.004	.1258481	.6551093
M_newimmigration_category_census						
Protected Persons	.3822106	.1969177	1.94	0.052	-.0037808	.7682021
Government Assisted Refugees	1.109128	.2049197	5.41	0.000	.7074518	1.510805
Privately Sponsored Refugees & Blended Visa Refugees	1.446123	.2182532	6.63	0.000	1.01831	1.873935
_cons	5.178288	.3579335	14.47	0.000	4.476679	5.879897

41. Effect of economic conditions on employment income three years after 2008 arrival with human capital characteristics and demographic factors

Prob > F = 0.0000  
R-squared = 0.0072  
Root MSE = .76532

newlogemp_2008_3y	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
M_education_qualification						
Trade/Apprenticeship Certificate	-.0156381	.0152806	-1.02	0.306	-.0455902	.014314
College/Trade Diploma	.0084	.0200592	0.42	0.675	-.0309189	.0477188
Incomplete University	-.000746	.0282594	-0.03	0.979	-.0561384	.0546464
Bachelor's Degree	.0219036	.0246803	0.89	0.375	-.0264732	.0702803
Graduate Degree	-.0230011	.0365079	-0.63	0.529	-.0945618	.0485595
merge_official_language						
English only/French only/English and French	-.0002483	.0152583	-0.02	0.987	-.0301567	.0296602
newskill_level_cd11						
Managerial	-.029541	.0562813	-0.52	0.600	-.1398602	.0807782
Professionals	-.0115818	.0543498	-0.21	0.831	-.1181149	.0949514
Skilled and Technical	-.0332769	.0300541	-1.11	0.268	-.0921872	.0256335
Intermediate and Clerical	-.0308162	.0273578	-1.13	0.260	-.0844414	.0228089
Elemental and Labourers	-.0127372	.0290579	-0.44	0.661	-.0696948	.0442203
merge_world_area_birth						
Europe	-.1204833	.055314	-2.18	0.029	-.2289065	-.0120602
Africa and the Middle East	-.0796244	.0533769	-1.49	0.136	-.1842505	.0250017
Southern Asia	-.0575663	.0607343	-0.95	0.343	-.1766141	.0614815
Eastern Asia	-.0393666	.072034	-0.55	0.585	-.1805634	.1018301
Americas	-.0052058	.0558153	-0.09	0.926	-.1146117	.1042001
landing_age_6_groups						
25 to 34 years of age	.0017806	.0260022	0.07	0.945	-.0491873	.0527486
35 to 49 years of age	.0140048	.0268277	0.52	0.602	-.0385812	.0665909
50 to 64 years of age	-.0172512	.0342535	-0.50	0.615	-.0843929	.0498906
marital_status_rollup						
Single	.0528221	.0233355	2.26	0.024	.0070811	.098563
Married, common law partner	.044632	.0180641	2.47	0.013	.009224	.0800401
M_newimmigration_category_census						
Protected Persons	-.0430803	.0408235	-1.06	0.291	-.1231001	.0369394
Government Assisted Refugees	-.0781211	.0365554	-2.14	0.033	-.1497748	-.0064675
Privately Sponsored Refugees & Blended Visa Refugees	-.0722427	.03875	-1.86	0.062	-.148198	.0037127
_cons	.1726983	.0728891	2.37	0.018	.0298255	.3155711

42. Effect of economic conditions on employment income six years after 2008 arrival with human capital characteristics and demographic factors

Prob > F = 0.0000  
R-squared = 0.0084  
Root MSE = .80295

newlogemp_2008_6y	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
M_education_qualification						
Trade/Apprenticeship Certificate	-.0237441	.0170713	-1.39	0.164	-.0572063	.0097181
College/Trade Diploma	-.0043311	.0209814	-0.21	0.836	-.0454575	.0367954
Incomplete University	-.0258882	.0271419	-0.95	0.340	-.0790902	.0273137
Bachelor's Degree	-.0040754	.0249735	-0.16	0.870	-.0530268	.0448761
Graduate Degree	-.0245796	.0423596	-0.58	0.562	-.1076103	.0584511
merge_official_language						
English only/French only/English and French	.0074797	.0158805	0.47	0.638	-.0236482	.0386077
newskill_level_cd11						
Managerial	-.0574381	.0455456	-1.26	0.207	-.1467139	.0318377
Professionals	.042376	.0614117	0.69	0.490	-.0779996	.1627515
Skilled and Technical	-.0248257	.0285416	-0.87	0.384	-.0807713	.0311199
Intermediate and Clerical	-.009713	.0275999	-0.35	0.725	-.0638126	.0443867
Elemental and Labourers	-.0092085	.0282868	-0.33	0.745	-.0646546	.0462375
merge_world_area_birth						
Europe	-.0966924	.0517798	-1.87	0.062	-.1981881	.0048033
Africa and the Middle East	-.0674256	.0502835	-1.34	0.180	-.1659883	.0311371
Southern Asia	-.0030735	.0621505	-0.05	0.961	-.1248972	.1187502
Eastern Asia	-.0331425	.0699083	-0.47	0.635	-.1701726	.1038876
Americas	.0432443	.0549526	0.79	0.431	-.0644704	.1509591
landing_age_6_groups						
25 to 34 years of age	.0017359	.0272178	0.06	0.949	-.0516147	.0550866
35 to 49 years of age	.0250126	.0282064	0.89	0.375	-.0302759	.0803012
50 to 64 years of age	-.0166106	.0356185	-0.47	0.641	-.0864277	.0532066
marital_status_rollup						
Single	.0394671	.0238069	1.66	0.097	-.0071977	.0861319
Married, common law partner	.0383484	.0200939	1.91	0.056	-.0010384	.0777352
M_newimmigration_category_census						
Protected Persons	-.019035	.0418511	-0.45	0.649	-.101069	.062999
Government Assisted Refugees	-.0568751	.0376109	-1.51	0.131	-.1305979	.0168476
Privately Sponsored Refugees & Blended Visa Refugees	-.0487712	.0401947	-1.21	0.225	-.1275584	.030016
_cons	.1290373	.0720859	1.79	0.073	-.0122611	.2703358

**XI. The likelihood of human capital factors contributing to the increase or decrease of Employment Income at 2011 year of arrival, three and six years after arrival for refugee women in Canada before recession, during recession and aftermath.**

43. Effect of economic conditions on employment income at 2011 arrival with human capital characteristics

Prob > F = 0.0000  
R-squared = 0.0550  
Root MSE = 1.1174

newlogei__i_adj2011	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
M_education_qualification						
Trade/Apprenticeship Certificate	.1275058	.0369205	3.45	0.001	.0551332	.1998784
College/Trade Diploma	.1556217	.034386	4.53	0.000	.0882173	.2230262
Incomplete University	.2770378	.0485096	5.71	0.000	.1819478	.3721278
Bachelor's Degree	.3787398	.0372939	10.16	0.000	.3056352	.4518444
Graduate Degree	.2738435	.0725379	3.78	0.000	.1316525	.4160345
merge_official_language						
English only/French only/English and French	-.1127834	.0249876	-4.51	0.000	-.1617649	-.063802
newskill_level_cd11						
Managerial	.1453778	.0835452	1.74	0.082	-.0183899	.3091455
Professionals	-.6687615	.0709532	-9.43	0.000	-.8078461	-.5296769
Skilled and Technical	.233698	.0493167	4.74	0.000	.137026	.3303701
Intermediate and Clerical	.0920808	.0458385	2.01	0.045	.0022267	.1819348
Elemental and Labourers	.1087719	.0455211	2.39	0.017	.0195402	.1980036
_cons	9.848635	.0431253	228.37	0.000	9.7641	9.93317

44. Effect of economic conditions on employment income three years after 2011 arrival with human capital characteristics

Prob > F = 0.0000  
 R-squared = 0.0101  
 Root MSE = .83479

	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
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newlogemp_2011_3y						
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M_education_qualification						
Trade/Apprenticeship Certificate	.021651	.0193921	1.12	0.264	-.0163602	.0596621
College/Trade Diploma	.0547311	.0215893	2.54	0.011	.0124133	.097049
Incomplete University	-.0041184	.022659	-0.18	0.856	-.0485332	.0402964
Bachelor's Degree	.0742532	.0281908	2.63	0.008	.0189954	.1295111
Graduate Degree	.1183439	.0613733	1.93	0.054	-.0019561	.2386439
merge_official_language						
English only/French only/English and French	.0637395	.0114232	5.58	0.000	.0413485	.0861305
newskill_level_cd11						
Managerial	-.0167347	.0563865	-0.30	0.767	-.1272598	.0937904
Professionals	.2411287	.0599135	4.02	0.000	.1236901	.3585672
Skilled and Technical	-.0580723	.0276989	-2.10	0.036	-.1123659	-.0037787
Intermediate and Clerical	-.0234287	.0244707	-0.96	0.338	-.0713946	.0245371
Elemental and Labourers	.0067292	.0254616	0.26	0.792	-.043179	.0566375
_cons	.006524	.0229118	0.28	0.776	-.0383862	.0514343
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**XII. The likelihood of human capital and demographic factors contributing to the increase or decrease of Employment Income at 2011 year of arrival, three and six years after arrival for refugee women in Canada before recession, during recession and aftermath.**

**45. Effect of economic conditions on employment income at 2011 arrival with human capital characteristics and demographic factors**

Prob > F = 0.0000  
R-squared = 0.0739  
Root MSE = 1.1013

newlogei__i_adj2011	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
M_education_qualification						
Trade/Apprenticeship Certificate	.031145	.0375483	0.83	0.407	-.0424584	.1047484
College/Trade Diploma	.1216998	.0345394	3.52	0.000	.0539946	.1894049
Incomplete University	.2050195	.0480908	4.26	0.000	.1107504	.2992886
Bachelor's Degree	.3262128	.0375443	8.69	0.000	.2526171	.3998084
Graduate Degree	.3273107	.0720165	4.54	0.000	.1861417	.4684798
merge_official_language						
English only/French only	.1334846	.031336	4.26	0.000	.0720588	.1949104
newskill_level_cd11						
Managerial	.1436393	.0825024	1.74	0.082	-.0180844	.3053631
Professionals	-.4776459	.078905	-6.05	0.000	-.632318	-.3229739
Skilled and Technical	.1579238	.0496706	3.18	0.001	.0605578	.2552898
Intermediate and Clerical	.0094163	.0462013	0.20	0.839	-.0811489	.0999815
Elemental and Labourers	.06829	.0452409	1.51	0.131	-.0203927	.1569728
merge_world_area_birth						
Europe	.2371986	.0679533	3.49	0.000	.1039943	.3704029
Africa and the Middle East	.2038107	.0684285	2.98	0.003	.069675	.3379464
Southern Asia	.0351856	.0830026	0.42	0.672	-.1275188	.19789
Eastern Asia	-.163899	.0897881	-1.83	0.068	-.3399046	.0121066
Americas	.0659243	.0713996	0.92	0.356	-.0740356	.2058841
landing_age_6_groups						
25 to 34 years of age	.0272139	.0420906	0.65	0.518	-.0552933	.1097212
35 to 49 years of age	-.0394568	.0446722	-0.88	0.377	-.1270247	.0481111
50 to 64 years of age	-.3511221	.0997636	-3.52	0.000	-.5466818	-.1555623
marital_status_rollup						
Single	-.027224	.0507062	-0.54	0.591	-.12662	.072172
Married, common law partner	.0184339	.0439382	0.42	0.675	-.0676952	.1045629
M_newimmigration_category_census						
Protected Persons	.0318564	.0624369	0.51	0.610	-.0905344	.1542472
Government Assisted Refugees	.3389707	.0640254	5.29	0.000	.2134661	.4644753
Privately Sponsored Refugees & Blended Visa Refugees	.3407405	.0678909	5.02	0.000	.2076586	.4738225
_cons	9.437837	.1100389	85.77	0.000	9.222135	9.653538

## 46. Effect of economic conditions on employment income three years after 2011 arrival with human capital characteristics and demographic factors

Linear regression

Prob > F = 0.0000  
R-squared = 0.0162  
Root MSE = .83394

	Coefficient	Robust std. err.	t	P> t	[95% conf. interval]	
newlogemp_2011_3y						
M_education_qualification						
Trade/Apprenticeship Certificate	.023158	.0190264	1.22	0.224	-.0141364	.0604525
College/Trade Diploma	.0460872	.020785	2.22	0.027	.0053457	.0868288
Incomplete University	-.0090777	.0234661	-0.39	0.699	-.0550744	.0369191
Bachelor's Degree	.0639704	.0275722	2.32	0.020	.009925	.1180159
Graduate Degree	.0946212	.061322	1.54	0.123	-.0255785	.2148209
merge_official_language						
English only/French only/English and French	.0424214	.0149536	2.84	0.005	.0131103	.0717326
newskill_level_cd11						
Managerial	-.017139	.0568616	-0.30	0.763	-.1285958	.0943177
Professionals	.3626582	.0854692	4.24	0.000	.1951265	.5301898
Skilled and Technical	-.0478971	.0290965	-1.65	0.100	-.1049303	.0091361
Intermediate and Clerical	-.0182779	.0254583	-0.72	0.473	-.0681798	.031624
Elemental and Labourers	.0096795	.0259009	0.37	0.709	-.0410899	.0604488
merge_world_area_birth						
Europe	.0023013	.0307654	0.07	0.940	-.0580032	.0626058
Africa and the Middle East	.080693	.0351319	2.30	0.022	.0118295	.1495566
Southern Asia	.0332137	.045029	0.74	0.461	-.0550494	.1214768
Eastern Asia	.012882	.0476578	0.27	0.787	-.0805339	.1062979
Americas	.0799315	.0407636	1.96	0.050	.000029	.1598339
landing_age_6_groups						
25 to 34 years of age	.0155725	.0259195	0.60	0.548	-.0352333	.0663783
35 to 49 years of age	.0305637	.0278437	1.10	0.272	-.0240139	.0851412
50 to 64 years of age	-.0138886	.041203	0.34	0.736	-.066875	.0946523
marital_status_rollup						
Single	-.0294789	.0298958	-0.99	0.324	-.0880788	.029121
Married, common law partner	-.0318782	.025197	-1.27	0.206	-.0812678	.0175114
M_newimmigration_category_census						
Protected Persons	-.1015191	.0496025	-2.05	0.041	-.1987469	-.0042913
Government Assisted Refugees	-.0891452	.0420149	-2.12	0.034	-.1715003	-.00679
Privately Sponsored Refugees & Blended Visa Refugees	-.1063005	.0421203	-2.52	0.012	-.1888621	-.0237389
_cons	.0811099	.058584	1.38	0.166	-.033723	.1959428