

BUT IS IT REALLY WORTH IT?
EXAMINING THE ECONOMIC RETURNS ON
HIGHER EDUCATION FOR CARIBBEANS AND
LATIN AMERICANS IN THE GREATER
TORONTO AREA

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Abstract

My research analyzes the social mobility of Caribbean and Latin American ethnic groups by examining the economic returns on higher education for both groups in the Greater Toronto Area (GTA). Through quantitative data analysis of the 2006 Census Public Use Micro File (PUMF) I investigate both groups' attainment in higher education and the paid labour market. Both groups have struggled to attain upward social mobility in Canada evident by the high proportions living in poverty, as well as high rates of unemployment and precarious work. Studies have drawn attention to Caribbean and Latin American schooling experiences due to their high dropout rates. Nevertheless, systemic racism and discrimination have played major roles in hindering the advancement of these groups in Canada. Despite higher education being a prerequisite for more and more occupations in Canada, post-secondary education participation and attainment rates for both groups are low compared to the rest of the population. Using a critical race framework I examine how economic returns on human capital investment (post-secondary education) are influenced by ethnicity and gender. My findings reveal very encouraging relationships between Caribbean female group and higher education in Toronto. Despite being racialized, gendered, and predominantly from low-socioeconomic background this group yields the greatest economic return on university education attainment compared to all groups observed. With both groups having a high percentage of persons of younger age it is imperative to capture a clearer picture of both groups' returns on human capital acquisition and the impact it may have on successive generations.

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Chapter One: Introduction

In the last four decades, the Canadian labour market has experienced major changes as a result of immigration, specifically in urban centers. Between 2001 and 2011 Canada's populations increased quicker than any other G8 member country. This increase was even greater in census metropolitan areas (CMAs) such as Toronto where the population grew at 9.2% compared to the national average of 5.9% from 2006-2011, resulting mainly from immigration (Statistics Canada, 2011). With the increasing growth of the immigrant population in Canada researchers continue to analyze the impact such changes have on the Canada's economy. Moreover, researchers have also investigated patterns of deprivation, uncovering barriers that impede immigrant groups' ability to attain upward economic mobility.

Various researchers have focused on immigrants and racialized groups in the Canadian context paying particular attention to how they fare compared to non-racialized groups (Block and Galabuzi, 2007; Teelucksingh and Galabuzi, 2005; Al-Waqfi and Jain, 2007; Anisef, Sweet, and Adamuti-Trache; 2010). Studies have also investigated school completion rates, post-secondary education (PSE) participation and labour market earnings; however very few have delved into data with the intention of explaining Caribbean and Latin American (CLA) ethnic groups and their particular relationship with PSE and the Canadian labour market. CLA's largest population resides in the Greater Toronto Area (GTA) and both groups have great influence on the cultural mosaic of Toronto, yet are more recognized for their inability to successfully integrate into Canadian society depicted through their

disproportionately high percentage living in poverty, high dropout rates, and under-representation in university (Simmons and Plaza, 1998; Simmons et al, 2000). Both groups share high numbers in precarious employment and low paying occupations (James; 2009; Lindsey, 2001a, 2001b). Moreover, issues within the labour market and education system are very much gendered in terms of males' underachievement in education and negative stereotypes within the greater society. Furthermore, the criminalization of males in both groups is disproportionately high as well as their risk of violence (James, 2012b; Simmons et al, 2000; Oliver, 2006).

My research interests are geared towards understanding social mobility amongst Caribbeans and Latin Americans in Toronto through their relationship with higher education and whether these attainments incur comparable economic rewards. The following are questions guiding my research:

- Are the returns on higher education for Caribbean and Latin American population similar to the rest of the population in Toronto?
- Looking at economic outcomes, who is more likely to benefit from higher education across gender and ethnic groups?

This investigation is important during a time when educational levels of Canadians have increased and more employers are demanding PSE for labour force entry (Lowe and Lehmann, 2009). Furthermore, PSE has become less exclusive and increasingly accessible to a large proportion of people who would be less likely to have such opportunities in previous

decades. That being said, there has been little if any change in socio-economic status for women and many ethnic groups regardless of educational attainment being more equally distributed than earlier decades (Guppy, 2009). The pressure for young persons to pursue PSE is more than ever before, yet rewards still fail to be distributed equally across different groups; thus the real returns on education are uncertain. Research shows there are ethnic differences in inequalities in the labour market. For instance, Chinese, South Asians, and Japanese seem to do “better” in Canadian society evident by their rates of university completion among the second generation, and earnings compared to other ethnic groups and non-racialized groups (Abada et al, 2009; Block and Galabuzi, 2011). CLAs, have not experienced the same patterns of social mobility. It is important to understand the details of differences among ethnic groups in Canada, and understand how and why some do better than others.

Chapter Two: Literature Review

In this section, I will discuss various debates that provide insight into the social and economic circumstances of particular groups in Canada. Before starting I will clarify concepts that will be central to understanding this investigation (i.e. race and racism) then I will give an overview of up to date research on post-secondary education in Canada and unequal returns to post-secondary education. Next, I will discuss the inequalities in the labour market and the intersecting inequalities in the education system. Lastly, I will problematize the literature.

Race, Racism and Racialization

Before delving into the many debates surrounding ethnic economic return on higher education in Canada, it is imperative to uncover one of the most crucial factors driving inequality, which is race. Race, racism, and racialization are all highly abstruse ideas deeply-rooted in legislations and policies in Canada. Subsequently, they have been ingrained into the everyday lives of individuals and have effectively maintained the interests of one group at the expense of others deemed inferior. Focusing our attention on racism and race relations in society allows us to demystify the social and economic disadvantages of various groups. Taylor, James and Saul (2007) give an in-depth conceptualization of race, which they define as

an arbitrary social construct, a shifting contradictory category that is constantly being constructed and reconstructed, and that is far from ‘innate’ or ‘natural’

biological fact. Nevertheless, it holds social significance and value, in that its multiple and contradictory meanings are related to the social, cultural, political, economic, and historical contexts in which it exists. In all social contexts, capitalism, imperialism, colonialism, and patriarchy inform how, when, and where race takes meaning and mediates its interlocking relationship with gender, sexuality, class, colour, citizenship/immigrant status and nationality (p.155).

Therefore, race is not fixed, factual or legitimate yet the effects of racism are real in their consequences. Culture and ethnic difference is the center of modern racism and through the process of racialization groups are categorized and homogenized. Groups' attributes of cultural difference are attached to their physical appearance. Hence, cultural difference becomes indicative of one's race and vice versa. Consequently, those who are racialized are perceived to be inferior because of cultural deficiency and social inadequacy (Razack, 1994; James, 2003; also see Essed, 1991:14). That being said race, racialization and racism are relational and contextual so that being black or white has different social significance depending on gender, sexuality class, and other ascribed characteristics in relation to space.

The omnipresence of racism allows it to function at every level of society; individual, institutional, and structural (sometimes referred to as cultural or systemic). James (2003) illustrates structural racism as,

the way in which the rooted inequalities of society operate to justify the allocation of racial groups to particular categories and class sites. It explains how the ideas of inferiority and superiority, based on socially selected physical characteristics, and which are found in society's norms and values, operate to exclude racial minority group members from accessing and participating in major social and cultural institutions (pp.137).

This analysis illustrates the extent to which racism has implications for all aspects of an individual's life through excluding groups from resources that are essential to quality of life.

In the same vein, James turns our attention to how privilege and disadvantage are directly associated with an individual's group membership to either the dominant group or minority group in society. Group status is very important in Canada and has influence social, economic, political, and cultural well-being. In Canada, minority groups are groups who are not Anglo-Saxon ethnically and racially. Unlike the dominant group, the minority group comprises of various groups and is not homogenous. Both racialized and non-racialized groups comprise the minority group in Canada. While the former are often referred to as 'visible minorities' (all persons who are non-Aboriginal and non- Caucasian or white in colour, the later are considered to be invisible minorities as they may "pass" racially as white but are ethnically, linguistically different from the dominate group culture (James, 2010). Generally speaking, the commonality between minority groups

(visible and invisible) is that they are characterized by having been oppressed or susceptible to discrimination at some point in history (James, 2003). Invisible minorities, who are ethnically non-Anglo Celtic but white in colour, and have been discriminated in Canada, particularly French-Canadians and Catholics in early years when Protestants were more dominant. However, these groups are not subjected to equivalent racial discrimination faced by visible minorities, who do not have the advantage of “passing” racially.

“Passing” racially and ethnically has its benefits but actual power and privilege comes through representing and exhibiting “whiteness”. Whiteness can be understood as a social construction of normality, a standard by which all else is compared to and thus infers superiority. Whiteness is a possession that comes with power, privilege, and the ability to access resources with very few, if any, obstacles compared to racial minorities (Frankenburg, 1993; Twine, 2000; Wise, 2005). This concept is convoluted as it goes beyond the physical appearance to include attributes in the form of ideas, values, mannerism, behaviour, communication, interests, and culture that symbolizes whiteness and can be acquired by any individual regardless of racial or ethnic affiliation. However, physical characteristics are paramount given that racialized minorities who possess whiteness are more likely to be rewarded socially and economically yet are still not excused from racial barriers. Only those who physically embody “whiteness” (e.g. phenotype) are granted white privilege and power that safeguards from systemic inequalities susceptible to those of color. Whiteness is the epitome of invisibility as its

capital and privileges goes unrecognized (McIntosh, 1989; Solomon et al, 2005). Fusco states “racial identities are not only Black, Latino, Asian, Native American and so on; they are also white. To ignore white ethnicity is to redouble its hegemony by naturalizing it” (Roediger, 2007). McIntosh (1989) and Solomon et al (2005) speak of the invisible systems of racism that uphold white supremacy by neglecting to recognize and examine whiteness subsequently maintaining and acquiescing its dominance.

Post-secondary education in Canada

In the last three decades there has been a tremendous increase in post-secondary participation and attainment in Canada (Frenette et al., 2010). Notably, Canadian post-secondary education (PSE) attainment rate is one of the highest in the world with nearly fifty percent of Canadians holding a post-secondary qualification (Statistics Canada, 2008). In 2008, Canada had the highest proportion of PSE graduates among all the OECD (Organization for Economic Co-operation and Development) countries (Senate committee, 2011). There are several factors responsible for this surge in higher education. One is the growth of the knowledge economy, or the transformation from industrialization and manufacturing to technology and information based industries, which has resulted in the government’s increased promotion of PSE participation. Secondly, the breakdown of barriers (i.e. strict academic admission requirements, tuition financing, etc.) that once made it impossible for a large proportion of the population to participate in PSE, has enabled more students to enrol in PSE and as a result has transformed enrollment demographics. Lastly, the growth in the immigration population in Canada has contributed to the nation’s high education rates especially in university

attainment. Not only do immigrants often arrive with higher education degrees due to immigration policies which selectively give entry to immigrants who are highly skilled, educated, and financially established, but also upon arrival immigrants are more likely to attain PSE over Canadians, particularly university degrees (Anisef et al 2010; Statistics Canada, 2008) This is also the case for the children of immigrants who also have higher university attainment than the Canadian-born population whose parents are Canadian-born (Senate Committee, 2011; Abada and Tenkoreng, 2009).

Interestingly, in the Canadian context a large proportion of PSE participation is mainly a result of the growth in the college sector, which has more enrollment than universities (Senate committee, 2011; Lambert et al., 2001). Differences between the two forms of higher education are not as distinct as once before and in many cases, college certifications are perceived to open more opportunities to students (i.e. specialization, skills training, hands-on, option to transfer into a degree, less expensive, less time, work placements, etc.) (Boothby and Drewes, 2006). In addition, most college programs, public or private, are designed to meet the specific needs of employers which suggest that these graduates are likely to be more readily employable than other graduates depending on the industry (Boothby and Drewes, 2006).

PSE attainment and participation of immigrants is often misinterpreted as data suggests that immigrants are more educated than the Canadian-born. However, this general truth veils specific immigrant groups that are under-represented in the PSE system. Not all

immigrants or children of immigrants are more likely to pursue higher education at rates comparable to white Canadians and/or the rest of the population (Abada et al, 2009; Abada and Tenkorang, 2009). Furthermore, gender and class differences are crucial to understanding demographics in PSE.

Currently, there is debate about what accessibility and inclusion means in the pursuit of PSE today (Canadian Policy Research Network, 2002; Berger and Motte, 2007; Finnie et al, 2010; Finnie et al, 2011; Orders and Duquette, 2010; Reay et al, 2010). In the past, there was more focus on financial barriers as a leading factor. However, researchers are now considering a wider range of factors. Frenette et al, (2010) suggests that financial determinants and financial factors such as tuition, family income, and financial aid have become less relevant or only crucial to a small proportion. They believe other factors such as family background, aspirations, and academic preparation --which directly influence PSE readiness—to be more realistic barriers. In addition, with the increase in government and financial support, other challenges have proven to be much more debilitating such as secondary school experiences and grades (Lambert et al, 2001); family environment (Childs et al, 2010); immigration and generation status (Finnie and Mueller, 2010; Abada et al, 2009); individual motivations and socio-cultural factors (Davies and Maldonado, 2009); urban/rural dwelling (Looker, 2010); debt burdens (Finnie and Carmichael, 2008), age of student (Reay et al, 2010; Warmington, 2003); and Aboriginal heritage (Frenette, 2010). Furthermore, there are other trends in schooling that have transformed PSE patterns. Unlike previous decades, more people are entering PSE from non-traditional

pathways, rather than straight from high school. Instead, many are entering after being out of formal schooling for some time, while there are also many who start and leave only to return (Lambert et al., 2001; Goldrick-Rab, 2006). This results in a much older PSE population than we would have seen in the past, and also means students are more likely to have more responsibilities and obligations at that time requiring more flexibility.

Unequal returns to post-secondary education

Returns on education refers to the benefits associated to human capital investment. There are three forms of estimating returns to education: private returns, social returns, and labour productivity returns (Blundell et al, 2001). Boothby and Rowe (2002) define returns as:

[e]mpirical estimates of rates of return to education include estimates of the private rate of return, based on individuals' earnings and the costs of education to the individual, estimates of the fiscal rate of return, based on government outlays for education and governments tax gain from the higher earnings of graduates, and estimates of the social rate of return, based on all of the costs of education (both direct costs and forgone earnings) and all of the earnings gains from education (p.3).

For the purpose of this study, I focus on private returns by estimating rates of returns to particular education attainment levels. Rate of return to education can be estimated by discounting differences in earnings between groups, thus the results I will provide will represent a weighted average of returns (Mincer, 1974). Boothby and Drewes (2006),

Card (1999), Mincer (1974) have analyzed the private returns to education in different ways. Although, Mincer (1974) focused primarily on the distribution of earnings on human capital investments in relation to age group and time spent in schooling, he did recognize that there were differences in the rates of returns among individuals.

Despite the surge in PSE graduation in Canada, returns on higher education have increased over the last 30 years (Frenette et al. 2010). Riddell (1995) also found that the wage premiums for post-secondary graduates rose from early 1980s to 1992, more so for university graduates. Although returns are greater for university graduates than college graduates, there is greater participation in college than university in Canada (Lambert et al, 2001). This is due to Canada's labour market demands and their taking part in developing non-university curriculums that enables graduates to enter the workforce with specific job-related skills (Boothby and Drewes, 2006). Furthermore, Boothby and Drewes (2006) explain earning premiums for college graduates are approximately one-third of university graduates for women and men; however the rate of return explains why more may be attracted to college in light of its smaller return. Pursuing a college diploma is a lower investment (in terms of cost and time) compared to a university degree and although the rate of return may be significantly lower, such an investment can be reversed easier than a more costly university investment (Boothby and Rowe, 2002).

Boothby and Drewes (2006) analyzed the returns of post-secondary education in Canada and found that there were gender differences in wage gains which afford women with

higher returns on a bachelor degree and college diploma than men, and men higher gains on trades' certifications than women. Women's private rates on education are greater than men but men will earn more than women this is because rates of returns is calculated by comparing rates of return to high school graduates of the same gender -- in this case women have greater difference but men have greater lifetime of earnings (Boothby and Rowe, 2002). That being said, the gap is narrowing between men and women as wage premiums on university education are increasing for men. One explanation is that the increased participation and supply of women compared to men has diminished their value in the workforce (Boothby and Drewes, 2006).

Age has also been noted as affecting returns on education and wage premiums. Mincer (1974) explains that earnings are correlated with age and while there tends to be greater investment in human capital at a younger age returns amass in increments at diminishing rate over one's working life. This means at some point rates of returns declines. For instances, studies by Bar-Or et al. (1995) and Boothby and Drewes (2006) reveal that wage premiums for university education are higher among younger workers compared to older, and lower among women than men.

Nevertheless, other factors such as race/ethnicity and immigration have significant effects on the returns to education as well. Livingston (2005) argues that the increase of educational levels of the Canadian population has resulted in a rise in underemployment for all Canadians because there is an increased supply of educated workers and not

enough adequately paying jobs to attend to the supply. Inevitably, the rise in underemployment raises questions about the economic rewards on investing in PSE , particularly for immigrants who have attained a degree elsewhere, and raises the question of whether the investment is really worth it and for whom.

Inequalities in the labour market

In this section, I proceed to examine findings on the Canadian labour market and some of the disadvantages groups are faced with. I will analyze both immigrants and racialized groups throughout this paper, providing a clearer picture of their disadvantages. Both groups are interrelated because racialized groups have a much higher proportions of immigrants (Hum and Simpson, 2000). In this section, I will cover systemic racism and discrimination in the labour market. First, I will highlight some characteristics of the labour market, and then I will speak of particular issues among immigrants, followed by particular issues among racialized Canadian-born groups.

Many immigrants equate acquiring higher education as instrumental to fulfilling their desire of upward social mobility in Canada. Gilmore and Le Petit (2008) show more than sixty percent of immigrants that resided in Canada for ten or more years had attained a Canadian degree. In general, immigrants and the children of immigrants born in Canada are more likely to pursue higher education compared to white Canadians; however some racial/ethnic groups—Blacks, Hispanics, etc.—are exceptions to this general rule (Guppy, 2009; Abada,

et al 2009). Despite the high levels of PSE attainment amongst immigrants and racialized groups, their human capital does not always translate into jobs or earnings that match their qualifications. Block and Galabuzi (2011) explicate this phenomenon by introducing the Canadian labour market as “colour coded” in which regardless of educational endeavours, racialized groups’ upward social mobility is hampered, inhibiting them from the true benefits of the economy and their investments in education. Their analysis shows racialized groups having greater participation in the labour market yet higher unemployment rates and yielding lower earnings compared to non-racialized groups. Furthermore, many racialized groups are limited to precarious employment opportunities in which there are little, if any, chances to advance (Teelucksingh and Galabuzi, 2005; Anisef, et al 2010). These findings imply that Canada’s labour market is systematically barring certain groups from attaining adequate employment and economic security, inevitably restricting their life chances.

Inequalities for immigrants

While the pursuit of Canadian PSE among immigrant groups and racialized groups has a positive association with employment, many barriers still exist. There are many debates explicating the inequalities in economic outcomes of immigrant groups, specifically those who are racialized. Factors commonly impacting labour outcomes for immigrant groups include length of time in Canada, generation status, level of education, and language proficiency. Anisef et al (2010) look at how Canadian PSE impacts labour outcomes of recent immigrants and uncovers other equally important factors such as region of last permanent residence and entry class. Those whose last permanent residence was Africa were

more than fifty percent less likely to find employment while persons entering Canada with family class status or refugee status were also subjected to less employment opportunities. On the other hand, factors that had a positive association with employment included English proficiency, holding a graduate degree, and field of study in Canada (health, mathematics, computer sciences, engineering). These findings raise concerns for specific groups such as Latin Americans, many of whom have a fairly recent date of arrival to Canada and also have high proportions of members who arrive as refugees (Veronis, 2006).

Goldring and Landolt (2012) recognize immigrant status as a growing concern in Canada with direct implications on socioeconomic status and well-being. They looked at the lived experiences of 300 Latin Americans and Caribbeans in the Greater Toronto Area and how transitioning between precarious legal statuses (i.e. temporary worker, visitor, refugee) have an impact on one's life chances. They emphasized that the status one holds upon entering Canada has long-term effect because

[t]ransition from temporary or other precarious statuses to secure status does not put people on a par with those who entered secure...[T]he shift to secure does not simply erase social and economic relationships that have developed overtime (Goldring and Landolt, 2012:30).

Their study strongly supports the idea that immigrants that enter the country with secure status (Permanent Residence, or in very few cases Canadian citizens) do better (economically and job quality) than those who do not (refugees, visitors, temporary workers,

students and undocumented migrants). Such precarious legal status has many limitations including barriers to adequate employment, education, health and social services.

International credential recognition is another barrier for many immigrants entering the labour market. Teelucksingh and Galabuzi (2005) illustrate the difficulties for racialized immigrant groups to translate their education to appropriate occupations and earnings.

Although immigrants possess higher educational levels compared to the Canadian population, their credentials earned outside of Canada are often not recognized, with the exception of a few Anglo-developed countries such as the United Kingdom and the United States. Gilmore and Le Petit (2008) found that Latin Americans (category defined to include Caribbeans) and Africans have the lowest employment rates among university-educated persons who attained their degree in their referred regions at 59.7% and 50.9% respectively. However, immigrants educated in Europe, United States or South East Asia did not experience the same labour market disadvantages and had comparable employment rates to the Canadian-born population groups. This illustrates certain educated immigrants' limited ability to use their foreign credentials compared to others which is in agreement with Hum and Simpson (2000) argument that not all visible minorities face comparable discrimination in the workforce.

As a result of lack of credential recognition, many immigrants perceive Canadian PSE as a solution to their labour market barriers. However, this does not consistently increase the likelihood of finding employment that reasonably compensates for educational investment (Anisef et al 2010; Anisef et al, 2003; Teelucksingh and Galabuzi, 2005). In 2007, persons

born in Canada with a university degree had an employment rate of 90.7% while recent immigrants (persons who have been in Canada less than five years) who held a Canadian degree had a 75.2% employment rate (Gilmore and Le Petit, 2008). This may also vary by generation status as well.

Field of study (FOS) is also a critical factor to consider when looking at labour market earnings and opportunities (Anisef et al, 2010; Anisef et al, 2003; Finnie and Frenette, 2003). The perception is that graduating from a program that is in high demand or lucrative will increase one's chances for higher earnings. However, this does not always hold true. While there is more value placed on certain skills in the labour market such as health, business, mathematics, computer science, engineering, there still remains structural determinants such as gender and race which impede earnings in the workforce (Finnie and Frenette, 2003). Despite immigrant racial minorities' tendency to graduate from high-paying fields compared to Canadian-born population (engineering, sciences, commerce), earning penalties do not allow them to be rewarded equally to their non-racialized counterparts (Anisef et al, 2003; also see Lavallee, 2000). For example, Anisef et al. (2003) found that immigrant racialized women earned on average \$1000 less than non-immigrant racialized women and \$5000 less than non-immigrant white females despite immigrant racialized women having more work experience, higher education levels than non-immigrant white females, and being more likely to be employed full-time. This finding shows that discrimination is a reality even when persons strategically opt to take advantage of the

appropriate programs, occupations, networks, and opportunities, nevertheless, in actuality their race/ethnicity and immigrant status predispose them to barriers.

Racialization and Systemic racism

According to Reitz (2007), systemic racism and discrimination becomes most evident when making sense of labour outcomes and economic disparities among Canadian-born racialized groups. Abandoning all of the barriers associated with immigration and settlement, Canadian-born racialized groups still struggle to attain upward social mobility, especially Blacks (Block and Galabuzi, 2011; Hum and Simpson, 2000; Mensah, 2010). Henry and Tator (1994) use the concept of “democratic racism” to illustrate how democratic ideologies are used throughout institutions effectively and invisibly perpetuate racism and social disadvantage through streaming in education, through policing and racial stereotyping in the criminal justice system, through excluding minorities’ artistic contributions in the media, and through differential treatment when accessing health and social services. They define democratic racism as,

an ideology that permits and justifies the maintenance of two apparently conflicting sets of values. One set consists of a commitment to a democratic society motivated by egalitarian values of fairness, justice and equality. In conflict with these liberal values a second set of attitudes and behaviours includes negative feelings about people of colour that carry the potential for differential treatment or discrimination (p.1).

Their study points out the shortcomings of democratic nations like Canada, and the illusions that are portrayed in regards to fairness, meritocracy, and equity. The idea that anyone who works hard enough will be rewarded is at the heart of this ideology which ultimately suggests that any contrary experiences are brought on by the individual (Henry and Tator, 1994). What is most concerning is how racism operates invisibly to those who participate in it and those affected by it. Racist practices are normalized in everyday life and as a result it is very difficult to distinguish (Essed, 1991). Consequently, “racism is sometimes visible only to its victims. It remains indiscernible to others who therefore deny its existence” (Henry and Tator, 1994:3).

There is vast literature providing evidence of systemic racial discrimination in the workforce (Reitz, 2007; Reitz and Banerjee, 2009; Das Gupta, 1996:2009). Pendakur and Woodcock (2010) study found earning gaps persisted between visible minorities and non-visible minorities (whites). Their study shows that the gap has not narrowed since the 90's even though the visible minority population has increased (Goldring and Landolt, 2012). Block and Galabuzi (2011) thoroughly investigated the labour outcomes of racialized groups in Canada and found racialized men and women were both over-represented in specific industries such as administrative support, waste management, and remediation services, which include a range of low-wage services that tended to be insecure and have few, if any, benefits. Furthermore, they illustrated the relationship between gender and generation status. Their findings revealed the average income for racialized persons per generation (1st, 2nd, 3rd) for those holding a university degree or certificate. Results showed racialized women earned

the least in each generation compared to racialized men and non-racialized men and women. In addition, there was a positive relationship between generation status and income with income increasing with generation and gaps narrowing. On the other hand, income increases per generation were significantly larger for men. This demonstrates that length of time is limited in explicating the disparities of immigrants because even the children of immigrants are still economically disadvantaged despite higher education participation. Also, although gaps did exist but narrow by generation, Block and Galabuzi (2011) caution about the accuracy of the third generation and beyond, as the sample size for racialized groups are small therefore increasing the risk of estimation error.

In the same vein, Das Gupta (1996; 2009) explores racism and discrimination in the Canadian workplace, particularly among women of colour. She reveals the ways in which institutional practices and procedures covertly sustain barriers for particular groups through complaint procedures, employee evaluations, streaming and assignment of roles, promotions and demotions, scapegoating, underemployment, and lay-offs during restructuring. Her study discloses the indiscernible mechanisms of racism and discrimination and how groups are pathologized through cultural difference. These cultural differences are used to justify a differential treatment and a group's stagnancy in an organization or sector. Practices of marginalization, infantilization, patronization and underestimation of skills were common experiences that women of colour faced. In turn, these marginalizing practices also affect the health and well-being of the employees and overall labour productivity. While racialized women are confronted by a glass-ceiling, the privileged (non-racialized) are assisted by a

glass elevator and while this is difficult to attest, Henry and Tator (1994) argue that despite all the findings that portray under-representation of racialized groups, disparities continue to be overlooked because confronting these issues would only compromise those in power and disrupt the status quo.

Another form of discrimination is English language proficiency and accents which have also been argued as being the basis for racialization warranting discrimination (Munro, 2003; McManus, Gould, and Welch, 1983; Ontario Human Rights Commission, 2009). Perceived language proficiency and accent discrimination are often used as factors justifying lack of employment opportunities for groups. Nevertheless, race seemingly holds more weight than other social factors (i.e. gender). In Goldring and Landolt (2012), which focused on Latin Americans and Caribbeans, findings show that region of origin and gender were strong predictors of precarious work. Also, the ability to speak English significantly lowered the risk of precarity. However, this did not stand true for the English-speaking Caribbeans who scored higher on precarious work indicators than Spanish-speaking Latin Americans which suggests race to be more significant than language competence and ability. Das Gupta (2009) highlights notions of “immigrant” or “foreigner” as opposite of notions of “citizen” or “Canadian” which emulates “whiteness” so that language becomes an indicator of person’s citizenship and belonging in the country. Discrimination towards white minorities because of language proficiency, mother tongue or accent was not uncommon; these whites did not mirror “Canadianness” or “whiteness”. However, race is at greater odds of fitting into the social construction of “citizen”, “Canadian”, or “whiteness” as it does not go

unnoticed and is unchangeable. In addition the author provides evidence that a gendered racialized spectrum of difference exists which works to suppress specific groups over others (i.e. Blacks, Muslims, Aboriginals, Immigrants).

Citizenship and belonging in the new economy

Various studies have looked at how the changes in the global economy have transformed relationships in Canada (Miles, 1982; Arat-Koc, 1989; Sharma, 2000:2002). Many countries have taken advantage of outsourcing labour by recruiting temporary workers from outside the nation. While the numbers of temporary workers/non-permanent residents are increasing in the Canadian labour market, these recruitment programs are being criticized on their inequities and restriction of legal and social entitlement. Migrant programs such as the Live-in Caregiver Program and the Seasonal Agricultural Workers Program (SAWP) contribute to racial and gendered divisions of labour in Canada and globally. Seventy percent of domestic workers in Canada are women from Asia and the Caribbean and in 2006; the majority of non-permanent resident women employed in this field were from the Philippines while the seasonal agricultural workers program has depended on the labour of men from Mexico and the Caribbean (Thomas, 2010; Parliament of Canada, 2007). As such, Canada treats migrants differently according to their legal status and with the increase in permanently temporary migrants, who are restricted from becoming permanent residents or citizens due to terms and conditions of the employment contract, we are seeing a new class emerge. This new class is a result of labour market segregation for temporary migrants and permanent migrants, with

the former being subjected to lower pay rates, differential working conditions and restricted from entitlements (Sharma, 2000; Thomas, 2010; Goldring and Landolt, 2012).

Social inequalities are taking new forms and dichotomies of citizens and non-citizens, immigrants and non-immigrants are socially significant classifications that provoke differential treatment. Sharma (2000) looked at constructions of citizenship in Canada, and similar to Said (1978) she explained how the “foreigner” is constructed as an “outsider” through policies and programs. She recognized ideas of citizenship and immigration as not just a legal right but a social right which has led to an establishment of citizens and non-citizens in Canada who are entitled and not entitled. She found that these constructions are highly complicated by gender, race and class, and although many racialized persons are Canadian-born, constructions of “citizen” are synonymous constructions of “Canadian”, synonymous with white and middle-class. James and Wood (2005) also acknowledge that racial and ethnic minorities are constructed as “foreigners” despite their citizenship, length of residency or generation in Canada. So, these constructions go beyond legalities with immigration or citizenship status, affects persons socially, and is particularly detrimental to Aboriginal women and women of colour (Sharma, 2000). Sense of belonging to a nation impacts well-being and social mobility. Reitz and Banerjee (2009) found evidence of this as second generation racialized groups reported feeling less of a sense of belonging in Canada than their immigrant parents -- even though they were born here.

Caribbean experiences with racism in Canada

For many Caribbean immigrants in Canada, racism and discrimination are perpetual barriers to their social and economic progress. James (2009), Warner (2006), and Plaza (1996) investigated Afro-Caribbean experiences in the Canadian labour market. Their studies concluded that racism and discrimination were major concerns among Caribbeans and even with education they felt they were not rewarded equally compared to their white counterparts. In addition, they were perceived to encounter more obstacles the more integrated and educated they became. The participants in these studies argued that stereotypes relating to their race/ethnicity limited their employment opportunities and subjected them to working in low wage occupations in order to survive. Furthermore, pressures to do well and to work extra hard and long contributed to the constant anxieties individuals felt about losing their job because of the stereotypes associated with their race/ethnicity (James, 2009).

Plaza's (1996) study focused on the experiences of Caribbean-born men in Toronto. His analysis also illustrates the limited mobility of Caribbean men, however, he looked at how these men negotiated and dealt with barriers in Canada. Caribbean-born men compared their earnings and opportunities not to their Canadian counterparts but to their previous lives in the Caribbean, and to their current ability to help family in Canada and abroad. By doing so, these men were able to feel optimistic and grateful about their circumstances and opportunities in Canada. Ogbu and Simons (1998) recognized this as a group's *positive dual frame of reference*, usually held by first generation immigrants, where they compare their situation to that of their host country as well as to their home country. This comparison

almost always exhibits positivity as they acknowledge that they are living much better than they could have “back home” because of the opportunities. Consequently, they are willing to endure the inequalities (Ogbu, 1978). While this is a strategy of Caribbean and other immigrants, do Black Canadian-born Caribbeans experiencing inequalities in the labour market internalize their barriers when their comparison is limited to their Canadian counterparts who often are better off and escape such barriers?

Intersecting inequalities in the Canadian education system: Race, Ethnicity, Class, and Gender

The education system is the fundamental institution for facilitating integration and social mobility while simultaneously producing and reproducing societal inequalities. Parental education and income are strong predictors of a child’s educational achievement (Davies and Maldonado, 2009; Berger and Motte, 2007; Lambert et al, 2001; Coleman, 1990). However, other factors beyond traditional concrete predictors, such as social/ethnic capital, curriculum, differential treatment and structural inequities are now being used to explain the realities of racialized groups schooling outcomes in Canada. In this section, I will elaborate on some of the key debates related to social inequality, low achievement, disengagement and alienation in schooling. Topics most prevalent in understanding this phenomenon are social and ethnic capital possession in relation to academic achievement, family and community’s relevance to education, challenges propagating minority student disengagement in the schooling process, and class and cultural capital. Particularly, I will discuss literature that acknowledges the barriers racial minority groups face in the schooling process focusing particularly on Black/Caribbean and Latin American students.

Social and Ethnic capital

Social capital is “the ability of actors to secure benefits by virtue of membership in social networks or other social structures and to possess social capital, a person must be related to others, and it is those others, not himself, who are the actual source of his or her advantage” (Portes, 1998:6). That is to say, predictors of success are a result of one’s environment and the social networks one belongs to; if these networks do not have access to resources (information, financial capital, and non-economic capital) then persons are less likely to benefit. Portes and Landolt (1996) and Li (2004) acknowledge the downsides to social capital and how it can work to marginalize groups through closed networks and solidarity enforcing conformity. The concept of social capital has been used by many scholars in understanding the educational attainments of students (Coleman, 1988; 1990; Portes, 1998). Abada and Tenkorang (2009) highlight the importance of social capital as a contributing factor to understanding the underachievement of Black students and “success” of South Asian and Chinese students.

Abada, Hou, and Ram (2009) and Chow (2004) expand on the significance of social capital in explaining educational attainment by adding ethnic capital to the analysis as something intrinsic to an ethnic group which works to a group’s advantage or disadvantage in Canada. Chow (2004) defines ethnic capital as an “individual’s degree of ethnic connectedness and internalization of ethnic cultural values that provides the impetus for achieving academic excellence” (p.321). This includes ethnic attachment or retention of ethnic identity, minority

language, and ethnic affiliations (Li, 2004). Not all groups possess the ethnic capital considered “valuable” in Canadian society. Li (2004) suggests that ethnic attachment can create a cohesive group that is beneficial for its members but this cohesiveness comes at a price as it may cut them off from opportunities in mainstream society. In the same vein, Kao and Taggart Rutherford (2007) highlight the complex relationship between ethnicity and social capital. Their study supports significance of social capital but points out that its advantages and disadvantages are ethnic-specific. Their study finds that academic achievement is not merely an outcome of school-specific social capital. That is to say, that even though ethnic groups may possess similar forms of social capital in their schooling experiences (i.e. parental support and involvement) the outcome may not translate into desired academic achievements.

Family and Community

Family and community are integral to the forms of social capital that have significant effects on academic achievement and schooling (Coleman, 1988, 1990; Portes, 1998; Dei et al, 1997; Dei, 2008). They can provide the social and psychological support, resources, and social networks necessary to allow children and youth to meet their full potential. Coleman (1990) argues that “strong” families make more of a difference in a child’s academic achievement than do the schools. Also children who grow up in intact families are more likely to do well. On the other hand, schools are sites that reproduce the interest of society and sometimes conflict with the interests and values of the family and community. In both cases, Coleman highlights characteristics that may explain some of the social disadvantages

immigrant and racialized groups face within the family and the school system. For many immigrant families including Caribbeans and Latin Americans (CLA), the process of migration has not always allowed families to stay intact and has created unique challenges such as family unity, communication and cultural differences impacting relationships (Henry, 1994; James et al, 2010). For instance, in the case of CLA immigrants, many families have endured separation, whether it is temporary or permanent, as a result of immigration policy regulations and eligibility constraints which only permitted workers but not their families (CIC, 2011; Campbell and Flaman, 2009; Bernhard et al 2005;2009). This separation of relationships and resources are disadvantageous to a child psychologically, emotionally, behaviourally and educationally (Tate, 2011).

Furthermore, Caribbeans and Latin American family structures in Canada diverge from the traditional nuclear family. CLAs have higher proportions of lone-parent household and less likelihood of being married not only because of immigration patterns but also historical social and economic circumstances, which in some cases have implications for the economic and social well-being of individuals and their children in Canada (Henry, 1994; Milan and Tran, 2004; Lindsey, 2001a, 2001b). James and colleagues (2010) argue that intact families only do so much for Black children since that does not protect them from the racism that compromises their opportunities. Black families, in particular, have a multitude of social issues and stressors to deal with in society which impedes their progress in comparison to intact families on a whole (see Carol Darling, 2000). Therefore, even though studies provide evidence that intact families have a positive effect on children, children are not raised in a

vacuum and there are numerous other social factors that may overcome this particular positive aspect.

Challenges driving disengagement in schooling

In 2006, racialized students accounted for seventy percent of the Toronto District School Board's student body while the Aboriginals, Blacks, and Hispanics made up the highest proportions of students who did not graduate (TDSB, 2006). According to many, the education system has failed to adequately adjust to meet the needs of immigrants and racialized groups in Canada by not developing an inclusive environment which meet the needs and interests of minority groups, specifically those classified as "at risk" (i.e.

Aboriginals, Blacks, Hispanic) (James, 2007; Dei, 2008; James and Wood, 2005).

According to James (2012b) stigma and stereotyping has contributed to the low achievement and disengagement of Blacks and other marginalized groups in the school system. Not only do they educate Blacks and other racialized groups through Eurocentric discourse focusing on Anglo-British culture, achievement and contributions, they also play a major role in silencing students, especially Blacks by not incorporating their history and contributions to Canadian society thereby not providing curriculum that is relevant to their lives (Codjoe, 2001, see Giroux, 1986). This can result in Black students perceiving themselves and their community to be undervalued in Canada which in some cases can manifest into a self-fulfilling prophecy. James and Wood (2005) argue the education system is

elitist, monocultural and assimilative [...] [W]orking-class, ethnic, and racial minority and immigrant students who lack the necessary social and cultural capital

and may resist assimilation, are less likely to succeed in the school system unless it is responsive to their educational needs, expectations, interests and aspirations, particularly as these relate to their economic, cultural, social, language and religious backgrounds (p.93).

The education system upholds and rewards “whiteness” thereby narrowing students’ opportunity to construct their own identities and preserve their own cultural values without repercussion (Dei et al., 1997; Dei, 2008). It alienates those who do not fit into this category and as a result students begin to believe they are inferior or incapable of competing with their white counterparts in the academic arena (Codjoe, 2001). This has been manifested through the devaluing of interests and contributions of people of colour, the construction of stereotypes and labels, differential treatment, as well as systemic practices of streaming. Unfortunately, those who resist conforming to the structure are often condemned in many ways including suspension and expulsion, which has disproportionately included male racial minorities (Dei, 2008; James, 2007, 2012a, 2012b).

On March 22, 2013, the Toronto Star revealed astonishing statistics released by TDSB on the relationship between race and suspension rates. Data uncovered Aboriginal students had the highest suspension rates and Black students were three times more likely to be suspended than whites between 2006-2007 despite them only making up 12 percent of TDSB’s high school student body (Rushowy and Rankin, 2013; Rankin et al, 2013). Black students in high school had a 31% suspension rate while Black students in grade 7 and 8 had a 37% suspension rate. The study also revealed that students with Caribbean backgrounds were less

likely to feel that school rules were applied fairly -- 42% compared to the 62% average (Rankin et al, 2013). Scholars suggest school disciplinary actions such as suspension and expulsion are factors that encourage some racial minorities to drop out (Ruck and Wortley, 2002; Dei et al., 1997).

Differential treatment within the school and classroom has been the result of stereotypes, labels, and racial profiling. The school system is often the first place racialized groups experience discrimination (Kilbride et al. 2000). Relationships between students, teachers, and peers are often mediated by stereotypes of specific groups. Kilbride et al, (2000) states that teachers' expectations significantly influence students' performance. In the case of Black males, James (2012b) argues that stereotypes of them as immigrants, fatherless, troublemakers, underachievers, athletes -- or to be politically correct "at risk" -- frame the perceptions teachers and students have of Blacks. Thus, these perceptions govern and manifest the relationships and interactions teachers, and others, have with Black male students which in turn contribute to the maintenance of social and educational inequalities for them. James (2007) also speaks to teachers' expectations and how Blacks and other racialized groups negotiate their resistance to schooling. Accordingly, resistance takes on different forms from dropping out, skipping classes, challenging teachers or only participating in school through sports while some choose to resist by countering stereotypes and excelling academically. That being said, resistance among Blacks and Hispanics more often include the former strategies which have detrimental implications on social mobility.

Ruck and Wortley (2002) examined Canadian high school students' perceptions of differential treatment in their schools. The study revealed that all racial and ethnic groups were significantly more likely to perceive differential treatment than white students, especially Blacks. Black students were 32 times more likely than whites to perceive use of police at school as part of their disciplinary action, and also perceived they would be treated worse by the police. Oliver (2006) elaborates on the implications that can arise when youth cannot fit into the expectations of the education system; they are more likely to find other arenas, such as "the streets" where they can feel powerful, gain recognition, and acceptance. The "streets" are a place where, Black males in particular, can reclaim power and dominance rather than submitting to the dominant group's values and feeling inadequate in doing so. This alternative society consisting of crime and delinquency allows them to negotiate their identity in their own realm by their own terms. This may explain the overrepresentation of Aboriginal, Blacks, and Hispanics in the criminal justice system. In the same vein, Dei (2008) demonstrates similarities between policies and authoritarian practices in schools and prisons and surmises that schools may be preparing specific students such as Blacks and Latinos to make an easy transition into the criminal justice system.

In addition to the inequalities of Blacks in education, even within this group, there are groups that face more obstacles than others. In previous decades, Black females were attaining higher education at similar rates as their counterparts, while males -- specifically Caribbean males -- were not (Simmons and Plaza, 1998; Richmond 1993). Today, Black/Caribbean students have one of the lowest high school graduation rates in the Toronto

District School Board (TDSB, 2011). A grade 9 cohort study facilitated by TDSB from 2006-2011 revealed Black/Caribbeans and Latin Americans had graduation rates of 64.5% and 69.9% compared to their East Asian, South Asian and White counterparts, 91.9%, 87%, and 81.9% respectively (TDSB, 2011). When they looked at statistics by region of birth, English-speaking Caribbeans had the lowest graduation rate, 50.8 percent. Scholars suggest systemic racism and discrimination of Caribbean students in Canada has contributed to their low completion rates, disengagement, and underrepresentation in PSE (Henry, 1994; Simmons and Plaza, 1998).

Intentional or otherwise, Caribbean students have been the target of racism and discrimination in schools for decades. For instance, there is a history of Caribbean immigrants being placed in lower grade levels, remedial classes, and vocational schools, while other groups (Chinese and African immigrants) more likely to be placed in advanced classes (Abada, et al, 2009). Caribbean immigrant youth also have had to deal with the peculiar discrimination based on language “ability” even though the majority of Caribbeans in Toronto are from English-speaking countries where English is the language of instruction in schools, yet upon arrival students are often misplaced in ESL (English as a Second Language) classes (Kilbride et al, 2000). School assessment and misplacement (i.e. remedial classes or being placed at least one year behind) was the beginning of differential treatment for Caribbean immigrants in the school system, and the basis by which stereotypes about this group flourished (Henry, 1994). Henry (1994) illustrates the history of disempowered relationships Caribbean youth have had in Canadian schools characterized by teacher’s low

expectations, learning abilities, and misunderstanding of cultural values. Subsequently, the systemic discriminatory practices have facilitated students' negative relationships with the education system discouraging them from full participation in schooling and ultimately leading to a "self-fulfilling prophecy" which leads to an inability to fully participate and compete in the labour market (Dei et al, 1997; Kao & Taggart Rutherford, 2007).

Gaps between educational aspirations and attainment

Academic underachievement of Black students has contributed to misconceptions about Blacks' educational aspirations and their parents' encouragement. James (2012b) argues Black Canadian parents have high educational expectations for their children and perceive education to be the means to prosperity; however despite parents' values and encouragement students still struggle to bridge the gap between aspirations and achievement. Abada et al. (2009) and Simmons and Plaza (1998) suggests that this gap may be due to the low earnings Blacks receive on their education that consciously or unconsciously deters them from pursuing higher education; however there is not enough evidence to confirm youth are aware of the labour market earnings of their elders. Ogbu and Simons (1998) explain that education is highly valued and encouraged among African Americans, however youth are not ignorant to their social realities and grow up hearing the experiences of their family and others in their community which almost always contradicts the message that education is the key to success.

Schneider, Smith, & Ruck (2005), investigated the beliefs and attitudes of Blacks in Canada towards education. Findings showed most Black Canadians (defined as person of African descent) had desires for higher education. They also believed it to be rewarding, however, despite the perceived rewards they failed to pursue PSE. The study suggests a fatalistic mindset exists among Black Canadians, which is more significant amongst Blacks in Halifax due to their longer history of oppression in Canada. The situation of Black Canadians in Halifax is similar to the African American situation discussed in James (2002) which proposes Afro-Caribbeans in the U.S to be more socially mobile due to the circumstances under which they arrived, and their more recent times of arrival in the country. He suggests the stagnancy of African Americans (Blacks who have lived in America since slavery) is a result of years of racism and discrimination not yet felt by first and second generation Afro-Caribbean immigrants as they “have not yet been exposed to discrimination long enough to have internalized its effects or have the effects become an ingrained part of their thinking” (Ogbu and Simons, 1998:172; also see Ogbu, 1978).

It is also important to keep in mind differences in the voluntary and involuntary migration of Blacks to Canada compared to the United States. Ogbu and Simons (1998) notes that voluntary immigrant minorities (those who choose to migrate for better opportunities) and involuntary non-immigrant minorities (colonized or enslaved) have different histories. These histories of adaptation into settler societies have implications on school performance as a result of a group’s historical treatment and relationship with the dominant group. It is theorized that this relationship creates negative perceptions of schooling and consequently is

why involuntary immigrants such as African Americans and some Black Canadians who have been here for generations are generally less successful than voluntary immigrants (Ogbu, 1983; Ogbu and Simons, 1998). A group's perceptions of their circumstances in society influences their attitudes and behaviours so that that "minorities perceive and respond to schooling as a consequence of their treatment" (Ogbu and Simons, 1998:158).

Mensah (2010) also argues there are significant differences between generations and geographical location of Blacks in Canada. Using a geographical approach Mensah embarked on a comprehensive analysis using 2006 Census data. His results showed that Blacks are better educated in comparison to other groups with the exception of those residing in Nova Scotia and Ontario. Blacks' social experiences in Nova Scotia are a result of their long history in Canada and extensive exposure to social exclusion and an oppressive social structure similar to that of the U.S. This is not the case for Blacks in Ontario, the majority of whom are immigrants and/or children of immigrants, with a third generation just emerging. Mensah recommends more research to be done on those in Ontario because whereas explanation can be given for those in Nova Scotia, those in Toronto present a conundrum. Reitz and Banerjee (2009) illustrates second generation Blacks' slower rates of integration into society and greater inequalities. The study showed that second generation Blacks and other visible minority groups were less likely to self-identify as Canadian, less likely to vote and less likely to feel a sense of belonging. They suggest these results are from second generation Canadians' higher expectation of equality and greater perceptions of being affected by discrimination and inequality.

Latin Americans and Inequality in Education

Extensive literature has focused on the long history of Blacks in Canada as well as their relationship to education and other major institutions, however relatively little has been done on Latin American or Spanish-speaking communities in the Canadian context. As fairly recent arrivals there has been an increasing amount of literature on this group in Canada, specifically on youth. The Latin American population in Canada has grown considerably in the last decades and is now the sixth largest ethnic group in Canada, with the majority residing in Toronto (Block and Galabuzi, 2011). The population is very diverse racially/ethnically (Europeans, Africans, Indigenous), geographically (Mexico, Central and South America, and the Caribbean) but also in the motivations and circumstances initiating their migration to Canada which varies from economic reasons (skilled workers, professionals and business) to political refuge (Veronis, 2006). As noted above, numerous scholars have spoken about the effects of immigration status and entry class on immigrant employment opportunities and social mobility in Canada (Teeklucksingh and Galabuzi, 2005; Bernhard et al, 2007; Gilmore and Le Petit, 2008; Goldring and Landolt, 2012). For the large proportion of Latin Americans arriving in Canada due to political and social unrest in their countries of origin, this has had implications on family dynamic and the ease at which they transition and integrate in Canadian society (Bernhard, 2009).

In 2009, the Toronto District School Board (TDSB) revealed startling statistics about the 39% dropout rate among Spanish-speaking students. Guerrero (2009) argued that the early

school-leaving of Spanish-speaking students goes beyond low-socioeconomic status but should be looked at as a process consisting of negative experiences both inside and outside of school that contribute to disengagement. English language proficiency is an obstacle these students maybe confronted with in the schooling system. In addition, similar to other groups (i.e. Blacks/Caribbeans) there is a disconnect between students and teachers due to teachers cultural incompetence, disqualification of family-community values, and insensitivity to students interests and expectations which discourages students from full participation (Dei et al., 1997; Gaztambide-Fernández, 2011). In a 2011 TDSB report called *Proyecto Latino*, showed that Latin American youth experienced differential treatment from teachers. Teachers' perceived preference for specific students (i.e. Asian and white) made youth feel unfavourable and less inclined to do well. In addition, this disconnect with the school system was also facilitated by negative stereotypes from school officials, peers, police and the media which pressured Latin American youths to challenge these representations within their schools, communities and the greater society (Simmons et al., 2000). Simmons et al. (2000) who conducted in-depth interviews and focus groups with Latin American youth in Toronto, also addressed the high dropout rates but instead found that very few permanently gave up on the idea of further studies and ended up returning.

Contrary to the outcomes in the education system in Toronto, the Latin American community in Canada has a somewhat higher percentage of university and post graduate attainment, but also high percentage of those with less than high school diploma compared to the total population (Linsey, 2001b; Badets, 2004). It is important to remember many of

the higher education credentials were attained abroad and as a result are not recognized in the Canadian labour market. Subsequently, Latin Americans are often limited to precarious employment which has social and economic implications for their children. In 2001, 32% of Latin American children and 33% Caribbean children less than 15 years of age lived in families with incomes below the Low-Income Cut-off, compared to 19% of all children (Lindsey, 2001a, 2001b). Poverty is a reality for many immigrant/racialized groups in Canada (Block and Galabuzi, 2011) and consequently, this impedes the transferability of privilege to their children.

Class and Cultural Capital

A significant amount of research sheds light on how racism, sexism, and discrimination intersecting with social class in the education system, play a vital role in students' participation rates in higher education. Lehmann (2007) suggests there is cultural aspects to class that is not always conducive to the pursuit of higher education and the attainment of higher education once there. Academia is a space dominated by (white) middle-class values and those who do not fit in to these values can find the experience isolating and intimidating. With high percentage of Blacks/ Caribbeans and Latin Americans in Canada living in poverty, in urban communities, and coming from low-income/working class families, it is not surprising that their class identities do not align with the majority of students attending PSE. Some of the conflicts that arise from working-class students in PSE have to do with feeling out of place. Lehmann (2009) speaks of "class-cultural discontinuities" which is the discontinuity between student's original culture and the culture they must embrace and

navigate to be “successful” in university and future careers (p.96). Through these investigations we see race and class produce similar social disadvantages except class is an invisible unconscious construction determining one’s life chances (Lehmann, 2009).

Infamous research by Paul Willis (1981) also revealed how class-cultures work to reproduce class positions. In his study of working-class white males in Britain, Willis illustrates how those who do not fit into the “normative” ways of society (white middle-class culture) created alternative cultures or oppositional cultures that challenged the prevailing structure. Individuals who were devalued in the social structure found ways to harbor dignity and worthiness which involved counteracting the dominant culture. The harm in doing so, however, oftentimes exacerbates inequalities further marginalizing groups and reproducing the structure. By reframing their experiences and their inconvenient position in the society they identify themselves by separating themselves from others in their schools and workforce. This study showed that middle-class and working-class have distinct cultures and the power and privilege of the former over the latter is legitimated by “difference”. “Class cultures are created specifically, concretely in determinate conditions, and in particular oppositions. They arise through definite struggles over time with other groups, institutions and tendencies”(p.13). By poor and working-class groups reconstructing their powerlessness through opposition, agency, self-governance and control over their own lives within a system that enforces certain behaviour and expectations, they are also reproducing their life chances.

While Willis (1981) gives relevance to class and culture he is limited in his analysis in terms of race and gender and how different groups fall into this framework. Using his analysis in Canadian contemporary society would fail to capture an accurate picture. His analysis is in agreement with Bourdieu's conception of cultural capital as a predictor of who does well and who does not, portraying working-class children as lacking the cultural capital to be successful in middle class institutions of society. It is true that poor and working class do less well than their affluent peers in schools and it is due to a combination of cultural and structural forces that act as barriers that discourage them from high academic achievement (Davies and Maldonado, 2009). Davies and Maldonado (2009) also explain that disparities in education are associated with cultural capital advantages of the affluent as well as education system that rewards dominant culture over others' culture by validating their knowledge, conversational abilities, taste, attire, leisure, and navigational skills in education. These scholars recognize that although the working-class and the poor are becoming more educated, this is not transforming structures of inequality. Thus, we must recognize there are advantages that middle-class families possess that continue to make them more competitive. These competitive strategies allow them to maintain their hegemony through private schooling for their children, private tutors, educational toys and consultants that typically working-class families cannot afford (Davies and Maldonado, 2009).

Davies and Maldonado (2009) also touch upon motivation and aspiration of the working-class in Canada. They explain that motivation is an individual effort but that it does not happen in a vacuum, but within social contexts or social environments that have great

influence and impact on the social action of individuals. That is to say, within schools motivation is not always facilitated or harboured. The relationships this group have within schools impede their ability to do well. This can be seen through the high proportions of streaming among working-class students over middle-class students. Surprisingly, Davies and Maldonado argue that socioeconomic status cannot adequately predict educational expectations as there is very little difference in the expectations and outlook of the working-class and middle-class today. To clarify, unlike Willis, Davies and Maldonado who do not recognize any clear distinct characteristics in the values and outlooks of poor/working-class and middle-class -- the only difference is in their capital (financial and non economic). The poor and working-class have high expectations but just have more obstacles to overcome which explains why their educational desires are not always converted into reality.

Alternatively, Critical Race Theory (CRT) scholars argue that there is cultural wealth among working-class racialized communities (Yosso, 2005; Codjoe, 2006). Community cultural capital is used to counteract the assumption that racialized students possess cultural shortcomings and the only way to fix the problem is to socialize them through the education system (Yosso, 2005). Yosso (2005), challenges Bourdieu's theory which classifies some as being culturally wealthy and others not. She argues that Bourdieu's conception of cultural capital gives power and legitimates white middle-class as "better" or "normal". In the same vein, Codjoe (2006) illustrates cultural wealth among high achieving Blacks in Alberta. He agrees that Black culture, an oppositional culture created through historical struggles with oppression, often rejects education in North America. Accordingly, he found that Black high

achievers in Alberta were very knowledgeable about their culture and pride in their cultural and racial identity. All students, from a variety of households, socioeconomic statuses, generations and nationalities had parents who compelled their children to be well informed and knowledgeable about their histories and identities. His study raises questions about the underachievement of Blacks in schools and their 'de-culturalization' within in the school system which has implications on their willingness to fully participate.

Problematizing the Literature: Identifying Gaps

The literature review gives an overview on the issues faced by many immigrants and racialized groups in Canada. In many cases, their social mobility and progress have been compromised by an array of social problems that make it difficult to achieve "success" in Canada. The literature also illustrates how these obstacles have implications, and have an impact on the sense of belonging for these groups which in turn, impede their full participation in Canadian society. The literature, however, is not comprehensive and is limited in analyzing the social disadvantages and advantages of particular immigrant groups and racialized groups. Most studies continue to engage binary comparisons which tend to compare racialized groups to non-racialized groups which raise particular concerns especially in a cosmopolitan society such as Toronto. It is no longer convincing to use a black/white binary as there is a range of other racial and ethnic identities that also hold differential positions on the racialized spectrum. In this case, it is important to understand the internal confliction and relationships of those within racialized and immigrant groups.

Generally speaking, the literature reveals that education has many benefits to those who pursue it, and despite economic returns not being equal, racialized groups benefit from awareness and information, cultural capital, social capital, other resources and the ability to pass it down to their offspring. On the other hand, acknowledging gender differences, and looking within racialized and immigrants groups to see who it is that benefits most from university education attainment is something that has yet to be done.

In addition, while there is a tremendous focus on Latin American and Blacks/Caribbean underachievement in education and high dropout rates there are fewer studies tracking their returns to the school system after such an event (Simmons et al, 2000). This implies that certain groups may have common education trajectories which are characterized by stopping-out during high school years when there is more intervention in their education process, and returning at an age when they have more agency or control over their attainment. What do the statistics look like for the CLAs that return compared to those who supposedly dropout permanently? What are the gender differences between those who attend university and how does it compare to other groups or the rest of the population who do not have such a high drop-out rate?

Class has been highlighted as an important feature in the literature. There are many complexities to class and class transitions from home country to host country which has been glossed over. Class consists of aspects of education, income and occupation, as a result it becomes even more complex to define since a large proportion of immigrants are arriving

into Canada as members of middle and upper class echelon of their home countries. Does this impact class distinction in Canada today, and if so, how? There is a need to understand that there are significant proportions of immigrants arriving with precarious status from some regions more than others (i.e. Caribbean and Latin America). What effect does this have on those particular groups and their future in Canada?

Goldring and Landolt (2012) and Goldring et al. (2009) speak of this notion of precarious status in Canada and outline how it affects employment outcomes, job quality, and health and well-being, presently and in the future. However, we must expand and investigate the relationships with precarious status. How does legal status or immigration status effect education? It may be obvious that precarious legal status has implications on education, especially higher education as restriction of rights may prohibit groups from such accessibility of services, funding, etc. But what is the extent of such implications? In problematizing the literature there are a number of concerns that impact education. The full exploration of all these gaps is beyond the scope of this thesis. However, I do intend to investigate differences in education and economic income between selected groups and incorporate class, immigration and precarious legal status into the analysis, which is seldom done.

Chapter Three: Theoretical Considerations

The following are several theoretical frameworks that are fundamental for my investigation: human capital, social capital, ethnic capital, and critical race theory. These theories have been used by many scholars to understand group's relationship with education and intergenerational mobility. Generally speaking, socioeconomic status is a product of human capital exhibited through education. This relationship would assume that anyone with higher education credentials would possess valuable human capital which is transferred in to high paying occupations. However, literature has shown that there is discrepancy in such assumptions, as it obliterates the existence of privilege and power that comes with race, gender, and class. In using these frameworks, I will analyze the intersectionality of race, gender, and class and its affect on higher education and rewards.

Becker (1964) defines human capital as "activities that influence future monetary and psychic income by increasing the resources in people" (p.1) His theory is strongly related to economic rewards, but also demonstrates how such investments benefit individual's offspring and generations to come. However, human capital theory is very limited in its ability to explicate how other forms of capital act to increase one's earning potential. Moreover, this theory fails to consider external issues that reproduce inequalities beyond one's education and skill possession. Although Becker (1964) associates the inequalities in economic returns as consistent with the inequalities in the education system, he does not focus on the sources of inequalities in education, community, and family which provide a more accurate depiction of groups' social disadvantages.

Coleman (1988) expands on Becker's human capital theory by including social capital as a predicting factor of achievement in school and the workforce. For Coleman, social capital exists within the family and community and manifests its self through relationships and social networks (Coleman, 1990). He believes combining economic and social theory allows us to understand social action as not merely a product of self-interest alone but also a product of environment and social context, knowing "persons' actions are shaped, constrained, and redirected by the social context" (Coleman, 1988:95). For instance, in my investigation, social action may take the form of one's decision to pursue higher education and/or attain a university degree such actions are the product of environment (family, community, school system). This decision is a combination of self-interest (better lifestyle, financial security, prestige), but also a reflection environmental factors (family and peer group education, expectations, obligations). Coleman investigated the root of human capital benefits starting within the family and during children's formative schooling years. He introduced social capital as the apparatus of human capital and challenges many other scholars on the strength of human capital as he points out that human capital has little relevance if parents do not have an important relationship with the child to whom they pass on such values (Coleman, 1988:110). Human capital does not work alone but is most beneficial when complimented with social capital within familial relationships which in turn has positive affects on the child's educational success and achievements. Therefore, his theoretical framework can be applied to my research and help explain social mobility taking into consideration the family, community, and schools role in influencing high education participation.

Additionally, a critical race perspective will allow for a deeper understanding of the intersectionality of race, ethnicity, gender, class, and generation status with regard to higher education and economic returns in Canadian society. This theory propels me to acknowledge “historical-race” and how circumstances of the past continue to impact the present (Aylward, 1999, 31). Critical race unveils hegemonic power structures and dynamics which are relatively effective in hindering both groups’ progression in Canada. It brings to light the realities of racialized groups and advances the “acknowledgement and analysis of the centrality of racism, not just the White supremacy form of racism but also the systemic and subtle forms that have the effect of subordinating people of colour” (Aylward, 1999, 34). Rather than conceptualize the social problems of Caribbeans and Latin Americans as shortcomings on their part, this perspective brings to light the reality of systemic racism and discrimination and how it works in the day-to-day lives of racialized groups in Canada. Furthermore, this approach highlights the significant relationship between race and citizenship (Ladson-Billings, 1998). Despite citizenship being a legality which affords all “citizens” the same legal rights, the reality of citizenship in Canada is based on perception of race, ethnicity and culture which often impedes racialized groups’ sense of belonging in society.

Furthermore, critical race theory attributes students’ success or failure not as a consequence of cultural difference, race/ethnicity but as a reflection of social inequalities inherent in society which are produced and reproduced in the school system (James, 2007). I will expand on intersectionality to include race, gender, class as well as generation status and

immigration status. The objective is to get a sense of the circumstances of both ethnic groups. The second generation immigrant is in a peculiar position as they have been socialized in Canadian school system which creates a unique and complex cultural identity stemming from stronger social ties, cultural influences and expectations which impacts transitions and upward mobility differently from those who migrate as adults (Gosine, 2005). Using human capital, social capital, and critical race theory will allow for a multidimensional depiction of Caribbean and Latin American economic and social conditions in Toronto.

Chapter Four: Data and Methods

In this section, I will discuss the ways in which I intend to carry out my research that will contribute to the understanding of returns on education for Caribbeans and Latin Americans in Toronto and explore ethnic and gender dynamics of upward social mobility amongst both groups. First I will share my hypotheses, then I will proceed to discuss the data set and my sample, next I will operationalize the relevant variables to my investigation, and proceed to discuss my analytical techniques. Traditionally racialized groups are compared to whites/non-visible minorities. I have chosen to analyze both populations in the context in which they live, in a metropolis where approximately half the population are visible minorities and/or foreign-born.

Hypotheses

Below are three hypotheses that I have developed as result of findings in the literature surrounding this topic.

- H1: CLAs that attain higher education are rewarded less in the labour market compared to their counterparts.
- H2: Gender is a key factor in predicting earnings and educational attainment. Males will earn more than females while females will be more likely to attain higher education than males, within each ethnic group.
- H3: Gender gaps in higher education are larger within the CLA groups than within all other groups.

Data

For this investigation, I use the 2006 Census Public Use Microdata File (PUMF). The PUMF represents 2.7% sample of the 2006 Census and contains 844,476 records and 123 variables. This data source was chosen as it contains key variables relevant to my investigation such as immigration, citizenship, education and ethnic affiliation. My sub-sample will only focus on residents of Toronto between the ages of 30-59 years of age who worked for wages, salary, tips, commissions, piece-rates, or payments in kind (payments in goods or services rather than money) during the 2005 calendar year. Self-employed persons are excluded from this sample as I am interested in looking at the inequalities and its relation to wage labourers in an organization. This will allow me to observe dynamics of structural racism and discrimination in the labour market. It is worth noting that my study will not look at unemployment and access to work which are very significant topics that adds to the grand picture of structural inequalities.

I chose this age group as it more accurately reflects the labour market today, reflecting the age of the working population who are completed all of their PSE training. In an economy where employers are increasingly demanding post-secondary education, the average age of persons entering the workforce has risen and more persons are spending more years achieving higher education to meet such demands. Moreover, unemployment and underemployment among the youth population (now defined as 15-30 yrs. old) is relatively high compared to other age groups. By choosing to focus on persons 30-59 years of age I can assume the vast majority of participants have previous work experience and/or have

been in the workforce for a number of years therefore increasing their human capital value and earning potential. That being said, there will be exceptions such as immigration that will contradict such assumptions.

Another important feature of my sample is it will only include individuals who are employed for wages. Therefore, persons who are unemployed or self-employed will not be reflected in this study, and so my results will not address issues of access to employment among ethnic groups but strictly look at the association between education and wage of persons participating in the labour market during that period in time. With all these categories, I have imposed, I am left with a sample of 46,015 participants Greater Toronto Area: 1,837 Caribbeans and 570 Latin Americans.

Dependent Variables

The two dependent variables crucial to this investigation are wages and highest educational attainment.

Wages

This variable includes gross reported income from employment wages, salaries, tips, commission, bonuses or other employment related benefits during the year 2005. This variable is a direct product of the question 52 (a) taken directly from the long form census. Respondents are asked to enter the amount in dollars and the actual values are

rounded and used to operationalize this variable. In the case that persons are not available or are under the age of 15 years old the code 8,888,888 and 9,999,999 are used respectively (Statistics Canada, 2006a:2006b). I have recoded these values to missing. The excerpted question from the census long form document can be found in Appendix A.

Highest Educational Attainment

The variable measuring highest educational attainment was constructed from the census variable HDGREE – highest certificate, diploma or degree. This variable measures academic attainment and is arranged in a particular ordinal hierarchy that assumes one must complete the prior level to advance. This, however, is not always the case, as the transformation of the education system has dismantled many barriers making it possible for more students to attain university education and beyond without completing high school. This variable contains 13 categories which have been derived from four questions in the Census 2006 questionnaire. Categories range from none which is coded as 1, high school completion or equivalent is equal to 2, other trades certification equal to 3 register apprenticeship certificate equal to 4, various categories for college, CEGEP or non-university certificates are coded 5, 6, or 7 depending on the length of time of their college program (i.e. less than a year, 1-2 years, more than 2 years), university certificate or diploma below a bachelor's is coded 8 while a Bachelor's degree is coded 9. University diploma or certificate above a bachelor's was coded as 10, Professional degrees in medicine, dentist, veterinary or optometry were coded as 11; master's degree also 11 and

earned doctorate degree were coded as 13. Persons unavailable or under the age of 15 were given the value 88 and 99 which I have recoded to missing. For the purposes of this thesis this variable will be used as an independent variable for Hypotheses 1 and 2 and as a dependent variable for Hypothesis 3. I have recoded HDGREE to create several variables *HigherEd*, *HigherEd2* and *HigherEd3* which will be explained in more detail in the next section. The four questions the HDGREE variable is derived from in the 2006 long form census can be found in Appendix B.

These four questions together measured highest educational attainment and were used in its derivation. It is important to note that questions and categories are ranked from lowest to highest. Although, persons may have completed various levels of education only the highest will be included in this variable. Positive responses to question 26 are coded 2 for high school in the event all other questions are answered “No”. Positive responses to question 27 are coded 3 or 4 depending on the category indicated and in the event that the following two questions are “No”. Positive responses to question 28 are coded 5 if first two categories are selected, 6 for the third category, and 7 for the fourth category, in the event that the following question is answered “No”. Positive responses to question 29 indicate level of university attainment. Categories are coded 8, 9, 10, 11, 12, and 13 respectively.

HigherEd

The variable *HigherEd* has been categorized to include three categories: persons with less than college coded 0, persons with college or less than bachelor's university certificate or diploma coded 1, and persons with a bachelor's degree or above coded 2. The first category will include the original HDGREE categories coded 1-4. The second category includes any college certificates or diplomas completed at the college or university level. This will include HDGREE categories coded 5 – 8. The last category includes bachelor's, professional and graduate degrees. This will comprise of HDGREE categories 9-13. This variable will also be used as an independent variable.

HigherEd2

The variable *HigherEd2* measures highest educational attainment in a specific manner - university educational attainment is coded "1".. The variable has been dichotomized to include two categories: 0= Less than a bachelor's degree and 1= Bachelor's degree and above. In other words, college education is now grouped into the "less than bachelor's degree" category. This divides the HDGREE variable into categories 1-8 in one group and 9-13 in the other.

HigherEd3

Similar to *HigherEd2*, the variable *HigherEd3* variable will operationalize those who have attained general post-secondary education. This variable has been dichotomized to include two categories: 0= less than college and 1 = college or beyond. Variable divides the HDGREE variable into two categories those coded 1-4 versus those coded 5-13.

It is important to acknowledge there are differences in my three higher education variables (*HigherEd*, *HigherEd2*, and *HigherEd3*) which will allow for a more precise analysis. *HigherEd* looks at three levels of education attainment allowing to generate data for those with no higher education, those with college certificate/ diploma or a university certificate, and those with a university bachelor's degree or above. *HigherEd2* distinguishes between persons with a university bachelor's degree or above and those without, while *HigherEd3* allows for the distinguishing between those with any type of post-secondary education and those without.

Independent Variables

The following is a list of variables that are theoretically relevant to my investigation (as determined by the previous literature review) and potentially influence education attainment and employment earnings: Ethnic origin, Sex, Generation Status, Immigrant Status, and Age and Hours worked as control variables.

Ethnic Origin

This variable originates from Census variable ETHDER. This refers to participant's self-identified ethnicity or cultural origin. Persons were asked to specify their ethnic origin by writing it into the blank space. They were also provided with 26 examples of the most frequent single ethnic origin responses from the 2001 Census and were permitted to choose up to six. As a result there was a high proportion of respondents in the multiple ethnic origin categories – for instance, the 2006 Census, which accounts for 20% of the

Canadian population, the amount of persons in Toronto self-identifying as Caribbean and Latin American as a single response was 184,590 and 60,440 respectively. While those who include Caribbean or Latin American origin as a multiple ethnic response was 121,030 and 45,220 respectively. The 2006 census PUMF aggregates single and selected multiple responses to ethnic origin. However, Latin American, Central and South American and all Caribbean origin categories only include single responses.

The ETHDER variable derives¹, from question 17 on the long form 2B². Codes range from 1 – 51. There are 3 categories that reflect Latin American and Caribbean ethnic origin. The first category is Jamaican coded 10, second, is Other Caribbean Origins coded 11, and third is Latin, Central and South American Origins coded 12. Those unavailable were given a value 88 which I recoded as missing as well as recoded ETHDER variable into three categories to include Caribbean, Latin American, and All other. The reference category, coded 0, will include the entire population excluding those of Caribbean and Latin American ethnic origin. The second category coded 1 will comprise of Caribbeans and will combine the ETHDER category Jamaican and other Caribbean origins while the final category coded 2 will comprise Latin Americans by including ETHDER category Latin, Central and South American origins. Hence, these are the three categories in which

¹ Derived variables are variables that have been interpreted by various questions, they are not translated as a direct response to a question. Instead responses to questions are manipulated and classified to create a variable that responds indirectly to an alternate question. Statistics Canada – Catalogue no. 92-566-X 2006 Census Dictionary, pp. 476)

² Form 2B (long form) refers to the long questionnaire which is distributed to 20% of all households in Canada (Statistics Canada – Catalogue no. 92-566-X 2006 Census Dictionary).

I will base the analysis upon. While various studies have used whites as a comparative category, I will compare Caribbean and Latin American ethnic groups to each other and the rest of the population. With increasing immigration, particularly in Toronto, where more than half the population is foreign-born and majority of immigrants are racialized it is imperative to gain a clearer picture of their social and economic mobility compared to *their counterparts* who are not only whites. It is no longer effective to only compare to whites as immigration has contributed to more complexities to racism and discrimination, no longer black-white binaries but continuums and hierarchies of colour, class, region/place of birth and immigration status (Hum and Simpson, 2000; Gilmore and La Petit, 2008). Also, due to the complexity of ethnicity and perception it is highly likely that persons with the same ancestry may choose to self-identify differently. For instances, a Black respondent born in Canada with Jamaican ancestry may choose to identify as African while another may choose to identify as Caribbean or Canadian. A glimpse of how the question was recorded in the 2006 Census 2B long form questionnaire can be found in Appendix C.

According to the Statistics Canada this variable has major limitations as responses to this question are a reflection of one's perception of ethnic ancestry,

consequently, the measurement of ethnicity is affected by changes in the social environment in which the question is asked and changes in the respondent's understanding or views about the topic. Awareness of family background or

length of time since immigration can affect responses to the ethnic origin question as well (Statistics Canada Ethnic Origin Guide, 2006: paragraph 2).

However with Latin American and Caribbean population being fairly recent and majority of their population only in first and second generation we can presume there are still prevailing ethnic ties and cultural cohesion.

As suggested above, there are some issues with measurement of validity. Using Census sample data does not assure that measurements are accurate especially when it comes to survey questions about race and ethnicity. Persons have the option to self-identified but also have the option of choosing other or mixed race which eliminates persons who may be part of the ethnic groups but chose to self-identify in different ways. Also, ethnicity does not always coincide with race while both regions are very diverse in race, culture, and ethnic affiliation; the data will not capture such differences (i.e. Black and Indo Caribbeans, indigenous and white Latin Americans). This will impact how the results are communicated and limit our understanding of how different racial/ethnic groups fare within these ethnic groups. In addition, not all participants' answer all survey questions, and not all residents are included (i.e. institutional residents and undocumented persons). I also have to consider the many people that are not included in the survey for reasons such as being out of the country, refusing to participate, or being fearful of participation due to status as undocumented immigrants. In addition, because the Census does not include a variable for years of work experience it will be difficult to assess whether certain groups are economically disadvantaged because of their more recent waves of migration, younger age population, etc.

Sex

The SEX variable derives from census question titled Sex gives two options: female or male for respondents to select. The original variable is coded 1 for Female and 2 for Male. I have recoded this variable Male = 0 and Female =1 and labelled the new variable *Female*.

Generation Status

The variable GENSTAT looks at place of birth and categorizes length of residency in Canada to indicate an individual's generation status in Canada. Generation status is a derived variable, so responses to questions of respondents' place of birth, and places of birth of both their parents determine their generation status in Canada. Originally the variable had four categories: "first generation" for those born outside of Canada equal to 1; "second generation" for those born in Canada while both parents were born outside of Canada equal to 2; the third category is also second generation but instead includes persons born in Canada who have only one parent born outside of Canada equal to 3; and lastly, "third generation" for persons who were born in Canada to parents who were born in Canada and equal to 4. Values 8 and 9 were recoded to missing to represent those not available or not applicable (e.g. under 15 yrs. of age), respectively. I have recoded GENSTAT and combined the two second generation categories into one category, so that the recoded variable consists of three categories rather than four. Third generation or more is coded 0 and includes those born in Canada with both parents born inside Canada. Second generation, is coded 1 and includes those born in Canada with one or both parents

born outside of Canada. First generation is coded 2, and includes all those born outside Canada. First generation includes a small portion of persons born outside of Canada to parents who are born in Canada. Various studies show a significant relationship between generation status and integration in Canada as well as the effect it has on groups' education, and employment opportunities (Reitz, 2007; Galabuzi and Block, 2011; Mensah; 2010). In the case of Caribbeans and Latin Americans in Toronto, many will fall into the first and second generation categories due to their more recent immigration influx.³ Questions which were asked to derive this variable can be found in Appendix D.

Immigrant Status

Immigrant status is also derived variable, identifying if a respondent is citizen by birth, an immigrant who is either Canadian by naturalization or landed immigrant/permanent resident, or a non-permanent resident who does not have the legal right to permanently stay in Canada (includes, refugees, and those with work or study permits). The original variable is labelled IMMSTAT and consists of three categories coded 1 for non-permanent residents; 2 for non-immigrants, and 3 for immigrants. I have recoded this variable arranging the categories so that non-immigrants (those born in Canada) are coded

³ First generation refers to persons who are born outside of Canada to non-Canadian parents, while second generation refers to those persons born in Canada with one or both parents born outside of Canada. According to Statistics Canada (2001) Latin American and Caribbean community profile in Canada reveal more than half CLA population are born outside Canada. Forty-seven percent of Latin Americans born outside Canada arrived in the between 1991 -2001 while 35% between 1981-1990. Similarly, 28% of Caribbeans born outside of Canada migrated between 1991-2001 and 25% between 1981-90.

0. Immigrants are coded 1 and non-permanent residents are coded 2. Questions from which this variable has derived are found in Appendix E.

Persons who selected the first response for question 10 were coded non-immigrant; persons who selected the second response were coded immigrants. Persons who only specified other country and also selected “Yes” to question 11 were coded immigrant, while persons who specified other country for question 10 and selected “No” for question 11 were coded non-permanent residents.

Control Variables

In order to not overstate any relationship between the independent variables of interest and the dependent variables it was important to include other known determinants of educational attainment and wages in the analyses – namely hours worked and age will be controlled for in my analysis. A control variable has an effect on the dependent variable but is not the main variable of focus; instead it is used to increase accuracy of the analysis by controlling for variation (Haan, 2009).

Hours worked

Hours worked is a continuous variable that is logically highly correlated with wages (Bell and Freeman, 2001; Zabel, 1993; Borjas, 1980). It determines the number of hours one has worked for wages, salaries, tips, commissions, piece rate payments or payments in kind prior to the census day, per week for all weeks worked. Hours which the respondent

was absent with or without pay are excluded from this variable. This variable will be controlled for when predicting wages. To make variable more meaningful I have centered⁴ this variable so that the Y intercept will be mean hours worked which results 35.98 hours worked per week. This variable is established from open ended questions found in Appendix F.

Age Group

Age has been recognized as an important control variable in studies on wages and returns on education (Boothby and Drewes, 2006; Mincer, 1974; Bar-Or et al 1995). Age has an interesting relationship with earnings and employment as persons tend to begin relatively low but this increases with age at a diminishing rate (Becker, 1964), resulting a curvilinear relationship. This ordinal variable determines the age of the respondent based on their last birth date. This variable derives from the date of birth question on the long form census. Ages are grouped and coded. For instance, since my sample will only look at persons between the ages of 30-59 yrs of age I am left with six categories in total. Groups are categorized into intervals of five years: 30-34, 35-39, 40-44, 45-49; 50-54; 55-59 and are coded 10 to 15 respectively.

⁴ By centering a variable I am eliminating the meaningless 0 on the y-axis, in exchange the mean number of the variable will now be the starting point on the y-axis. The mean number is interpretable whereas 0 is not, for some variables.

Chapter Five: Findings

Using STATA statistical software I will address my hypotheses using OLS regressions and logistic regressions. This section will focus on the results from my analyses. Below I will be presenting tables reflecting findings of univariate analyses followed by results from bivariate analyses and then multivariate analyses. In the univariate section, I look at the frequencies and percentages of each variable included in the study while the bivariate section looks at various tests that involve cross tabulations to observe different relationships between two given variables. In the multivariate section, I will share results from OLS regressions and Logistic regressions.

Univariate Results

Below I will examine frequencies and percentages of each variable included in this study.

Figure 1: Frequency and percentages of *ethlac* variable

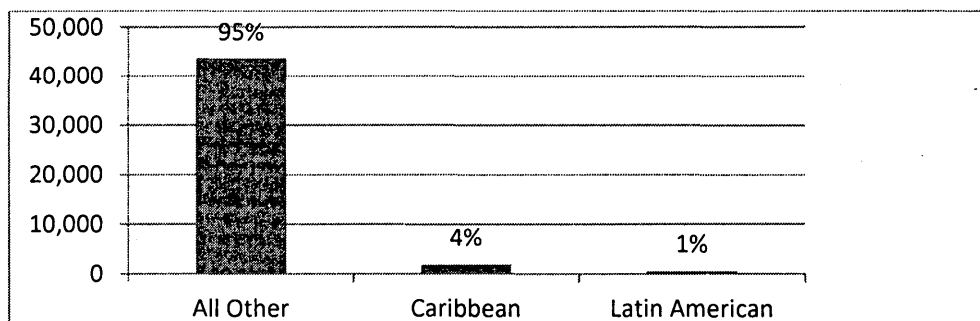


Figure 1 displays the (*ethlac*) variable used to measure ethnicity or ethnic affiliation in my study. This is a nominal variable with three categories: 0- All other; 1- Caribbean; 2-

Latin American. It includes 46,032 observations (1,837 Caribbeans and 570 Latin Americans). Those who identified as Caribbeans and Latin American make up approximately 5% of my subsample.

Figure 2: Frequency and percentages of (Female) variable

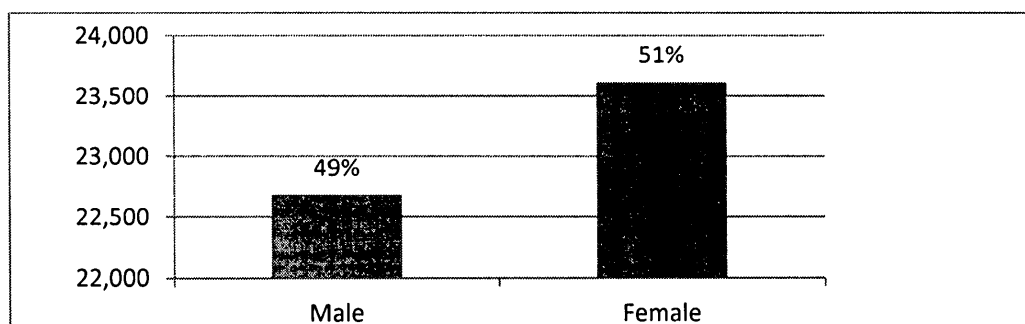


Figure 2 above displays my dichotomous gender variable (*Female*) categorized 0 for Male and 1 for Female. It includes 46,297 observations 49% Male and 51% Female.

Figure 3: Frequency and Percentages of (HigherEd) variable

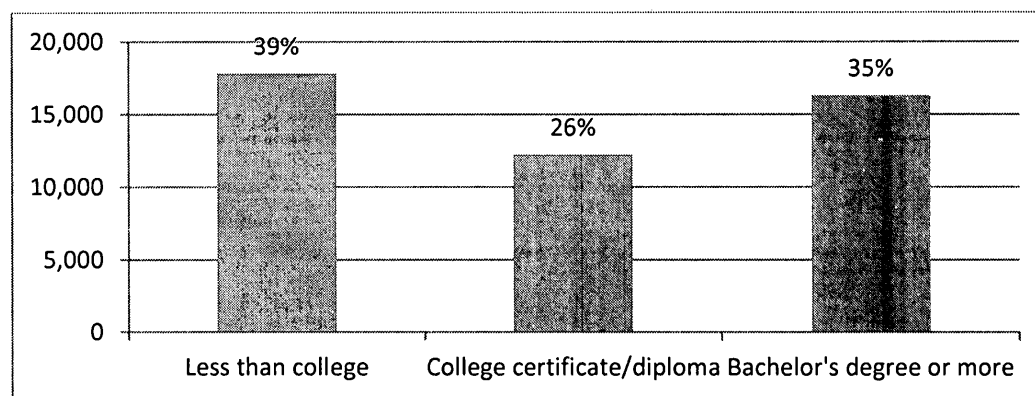


Figure 3 illustrates my ordinal higher education variable (*HigherEd*) which comprises of three categories: 0 for Less than College consists of 39% observations; 1 for College or University certificate/ diploma below a bachelor's degree includes 26% of observations; 2

for Bachelors or above includes 35% of observations. The variable includes 46,276 observations in total.

Figure 4: Frequency and Percentages of (HigherEd2) variable

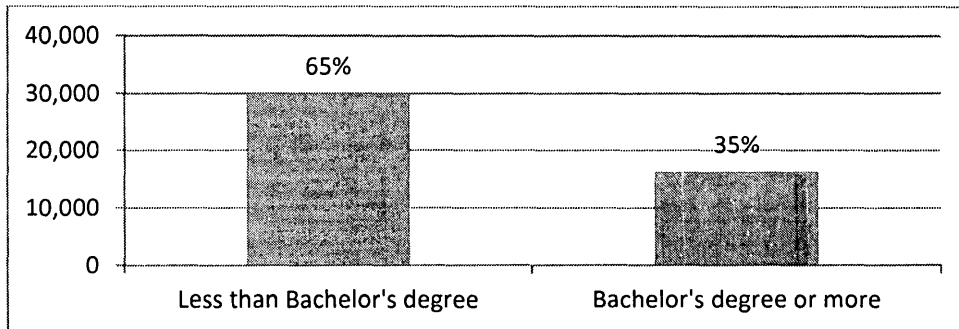
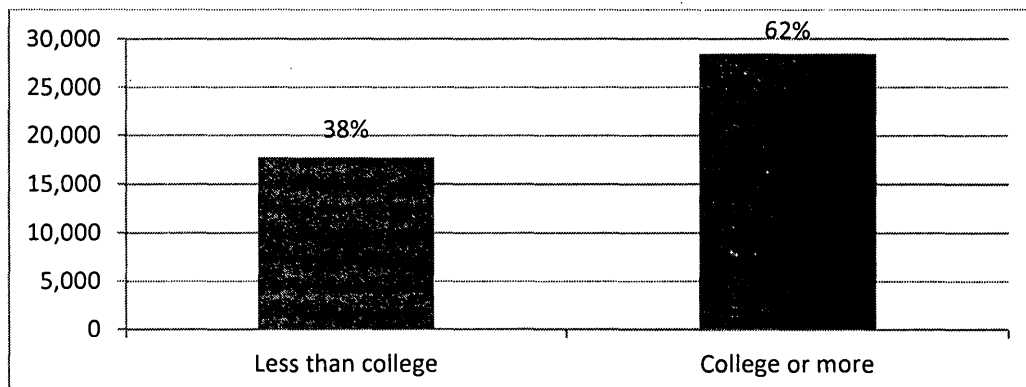


Figure 4 illustrates another higher education attainment variable (HigherEd2) used to compare those who received at least a university degree versus those who have not. The ordinal variable is dichotomized into two categories: less than bachelor's is 0 and includes 35% of observations while bachelor's or more is 1 and includes 65% of observations. Figure 5 illustrates another higher education dichotomized variable (*HigherEd3*).

Figure 5: Frequency and Percentages of (HigherEd3) variable



This variable compares those who have received at least a college or university certificate/diploma compared to those who have not. The original higher education variable was dichotomized to include two categories: 0 for less than college which includes 38% of observations and 1 for College or more and includes 62% of observations.

Figure 6: Frequency and Percentages of (Generation) variable

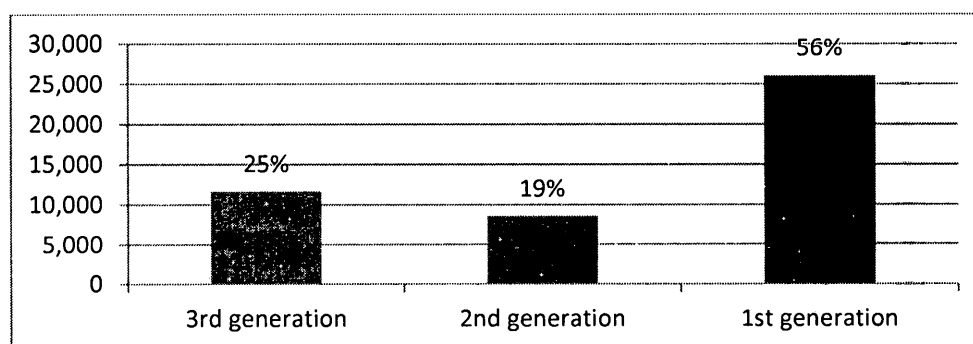


Figure 6 shows generation status variable (*Generation*) which is a nominal variable with three categories: Third generation is 0 and has 25% of observations; second generation is code 1 with 19% of the observation first generation is coded 2 with a frequency of 56%.

Figure 7: Frequency and Percentages of (Immigrant) variable

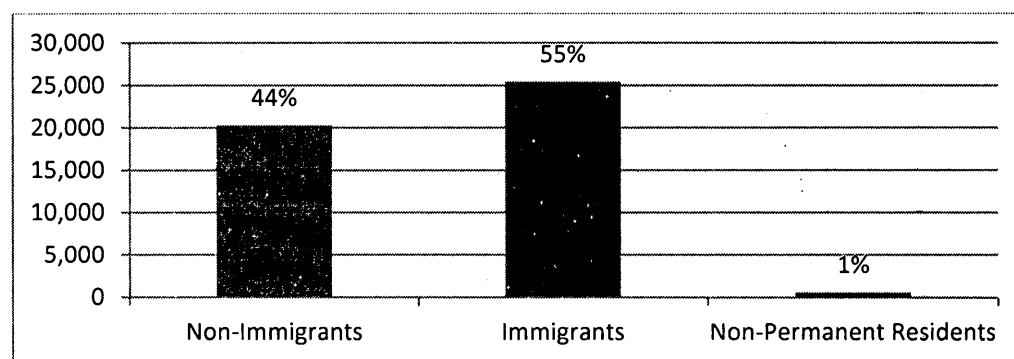


Figure 7 shows immigration status (*Immigrant*) is a nominal variable with three categories: 0 for Non-immigrants with 44%; 1 for Immigrants with 55% of observations and 2 for Non-Permanent Residents with 1%.

Figure 8: Frequency and Percentages of (AGEGRP) variable

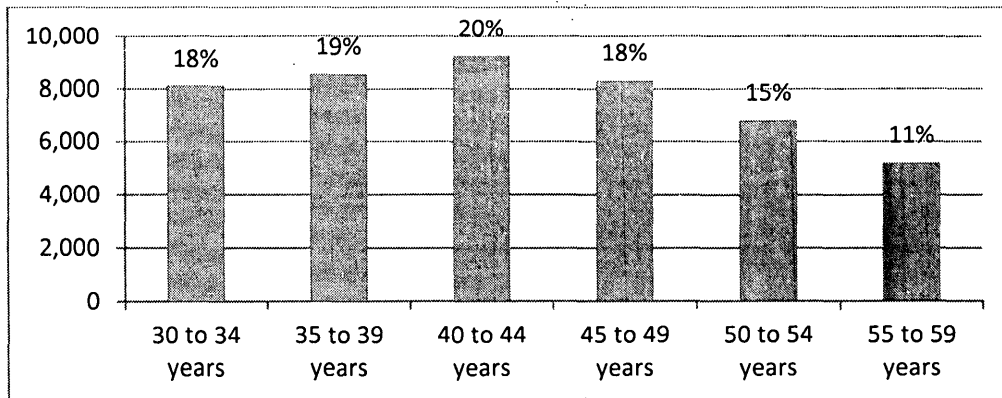
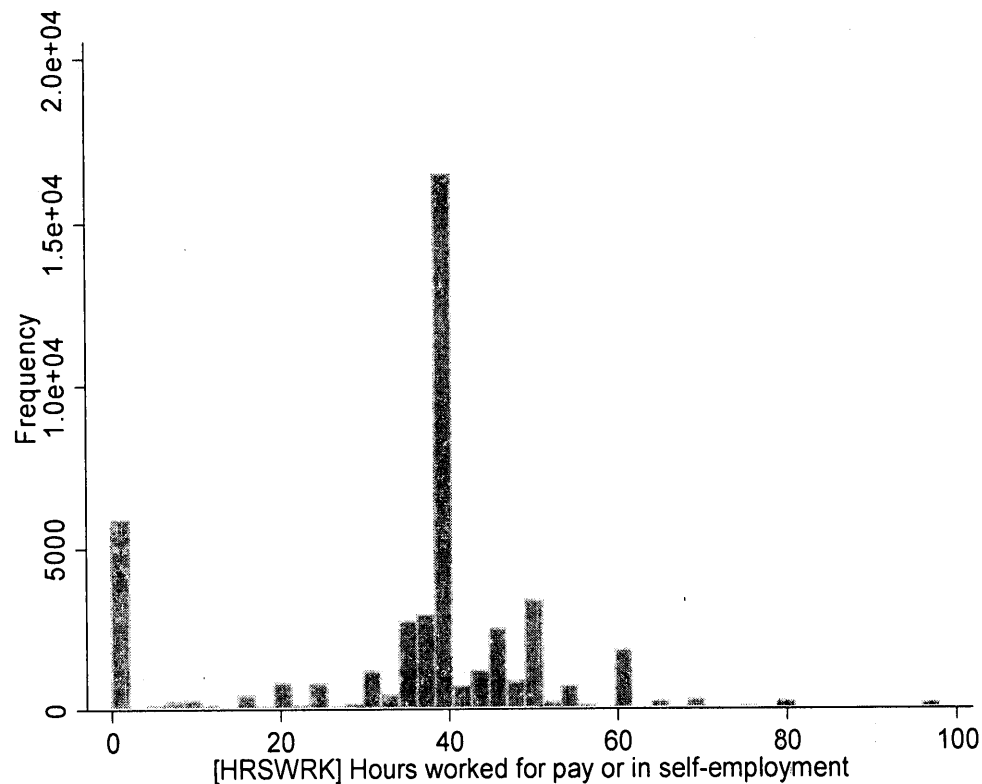


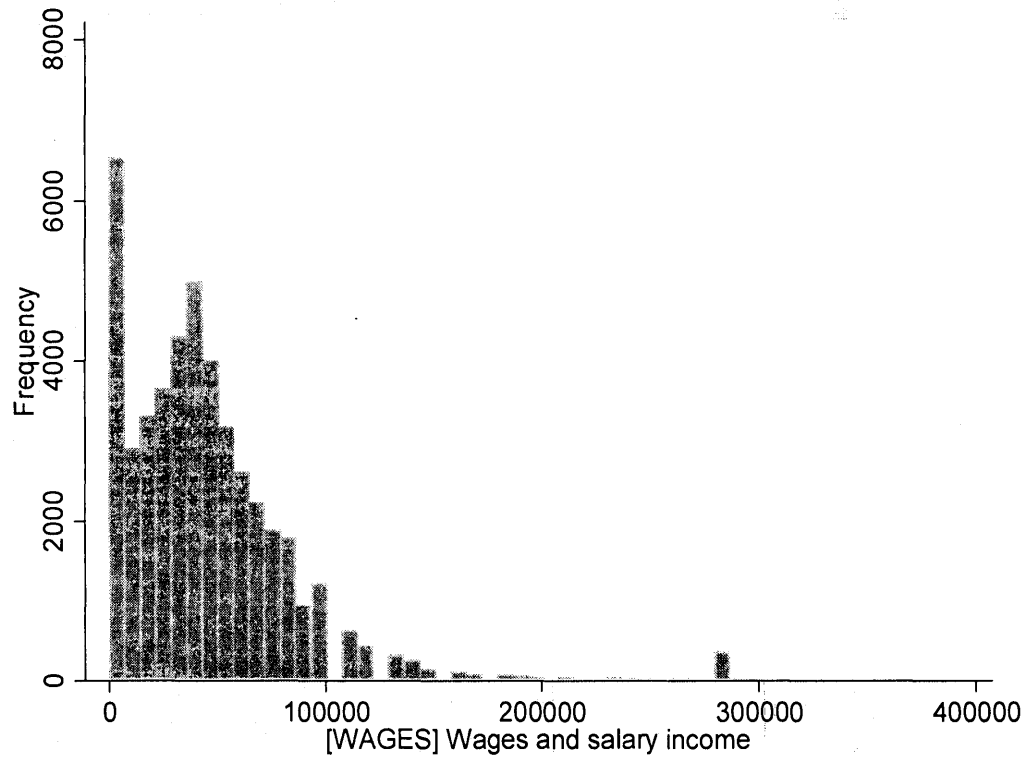
Figure 8 illustrates age groups of participants in the subsample, this ordinal variable manipulated to include only six categories ranging from 30-59 years of age. Grouping includes 30-34 yrs., 35-39 yrs., 40-44 yrs., 45-49 yrs., 50-54 yrs., and 55-59 yrs. The largest frequency is among the 40-44 age group with 20% of observations, followed by 35-39 age group with 19% of observations and 45-49 and 30-34 age groups with 18%. The two age groups with the lowest frequencies are 50-54 and 55-59 with frequencies of 6,819 and 5,215 respectively.

Figure 9: Histogram (HRSWRK) variable



The above histogram in Figure 9 shows the hours worked variable (*HRSWRK*) which is continuous control variable indicating weekly hours worked. There are 46,297 observations ranging from 0 – 98 hours worked with a mean of 35.9 hours worked per week and a standard deviation of 17 hours. The histogram shows that the distribution is not normal and concentration of observations around 40 hours another notable peak surrounding 1 hour.

Figure 10: Histogram of (WAGES)



The above histogram in Figure 10 illustrates my dependent continuous variable (*WAGES*). Variable includes 46,297 observations ranging from \$0-\$330,000. The histogram shows distribution is not normal and it has a negative skew with a wider tail; the greatest concentration of observations around \$0. Note that 310 observations were dropped to enhance accuracy of variable as these observations were considered extreme outliers with wages exceeding \$800,000. The mean wage of this variable is \$46,187.51 and the median is \$40,000 with a standard deviation of \$41,753.36.

Below in Table 1 is a summary of variables displaying descriptive statistics such as unit of measurement, number of categories and observations, mean, standard deviation and range.

Table 1: Summary of variables used in the analyses

Variables	Measurement level	Categories	Observations	Mean	Standard Deviation	Min - Max
Ethlac	Nominal	3	46,032	-	0.2919882	0 - 2
Female	Nominal	2	46,297	0.5100978	0.4999034	0 - 1
HigherEd	Ordinal	3	46,276	-	0.8573141	0 - 2
HigherEd2	Ordinal	2	46,276	0.3515213	0.4774505	0 - 1
HigherEd3	Ordinal	2	46,276	0.6154594	0.4864918	0 - 1
Generation	Nominal	3	46,297	-	0.8472786	0 - 2
Immigration	Nominal	3	46,297	-	0.519444	0 - 2
AGEGRP	Ordinal	6	46,297	-	1.609755	10 - 15
HRSWRK	Continuous	-	46,297	35.90533	17.31431	0 - 98
WAGES	Continuous	-	46,297	\$46,187.51	\$41,753.36	0 - 330,000

Bivariate Results

In this section I will present my bivariate test results. The following tests will be discussed: Two- sample t-tests using wage earnings as the dependent variable and gender as the independent variable to test for earnings differences between the sexes; and two-sample test of proportions using my education attainment variables HigherEd3 and HigherEd2 as dependent variables and gender as the independent variable to test differences in college education and university education between the sexes. I will go on to use the one way analysis of variance between wage earnings and ethnicity, wage

earnings and generation status, and wage earnings and immigrant status as this will allow me to analyze mean differences in wages within and between groups (ethnicity, generation and immigrant). Then, I will proceed to conduct a chi square test between the higher education variables and the ethnicity variables, higher education and immigrant status, and higher education and generation status. Lastly, I will use Pearson's product moment correlations test to analyze associations between wages and higher education and wages and hours worked.

Table 2: Two Sample T-test (WAGES) and (Female)

Two-sample t test with unequal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
Male	22681	52538.34	283.7135	42727.85	51982.24	53094.44
Female	23616	40088.12	259.345	39854.84	39579.79	40596.46
combined	46297	46187.51	194.0506	41753.36	45807.17	46567.85
diff		12450.22	384.3867		11696.81	13203.62

diff = mean(Male) - mean(Female) t = 32.3898
 Ho: diff = 0 Satterthwaite's degrees of freedom = 45743.7

Ha: diff < 0	Ha: diff != 0	Ha: diff > 0
Pr(T < t) = 1.0000	Pr(T > t) = 0.0000	Pr(T > t) = 0.0000

Table 2 shows results from a two sample *t*-test between income and gender to compare the mean income between males and females in my sub-sample and see if differences are statistically significant. The bivariate analysis shows statistically significant differences of \$12,450.22 between the means of males and females. Results demonstrate males earn

more and a difference income between the genders exists in this sample and the greater population with $p = 0.00$.

Table 3: Two-sample test of proportions (HigherEd3) and (Female)

```
. prtest HigherEd3,by (Female)
```

Two-sample test of proportions

Male: Number of obs = 22669

Female: Number of obs = 23607

Variable	Mean	Std. Err.	z	P> z	[95% Conf. Interval]
Male	.5930125	.0032629			.5866173 .5994077
Female	.6370144	.0031297			.6308804 .6431485
diff	-.044002	.0045212			-.0528634 -.0351405
	under Ho:	.0045239	-9.73	0.000	

diff = prop(Male) - prop(Female)

z = -9.7266

Ho: diff = 0

Ha: diff < 0

Ha: diff != 0

Ha: diff > 0

Pr(Z < z) = 0.0000

Pr(|Z| < |z|) = 0.0000

Pr(Z > z) = 1.0000

The test of proportions (pr-test) was used to look at the differences in proportions between males and females who attained less than college or at least college. The dependent variable for education attainment (*HigherEd3*) and the independent variable for gender (*Female*) were tested and results in Table 3 show there was a statistically significant difference of -0.044002 in groups' proportions of educational attainment with $p = 0.00$. Therefore, results demonstrate females 63.7% have higher proportion compared to males 59.3 of attaining higher education therefore difference exists between higher

education attainment and gender as the two groups' proportions are significantly different.

Table 4: Two- sample test of proportions (HigherEd2) and (Female)

. prtest HigherEd2, by (Female)

Two-sample test of proportions Male: Number of obs = 22669
 Female: Number of obs = 23607

Variable	Mean	Std. Err.	z	P> z	[95% Conf. Interval]
Male	.3559045	.00318			.3496719 .3621372
Female	.3473122	.0030988			.3412387 .3533858
diff	.0085923	.0044401			-.0001102 .0172948
	under Ho:	.0044398	1.94	0.053	

diff = prop(Male) - prop(Female) z = 1.9353

Ho: diff = 0

Ha: diff < 0

Ha: diff != 0

Ha: diff > 0

Pr(Z < z) = 0.9735

Pr(|Z| < |z|) = 0.0530

Pr(Z > z) = 0.0265

Another test of proportions was conducted to look at the proportions of males and females who attained university degree. The dependent education attainment variable (*HigherEd2*) measures less than a bachelor's and bachelor's or above. Results in Table 4 show there is not a statistically significant difference between males and females proportions of educational attainment, 35.6% and 34.7% respectively.

Table 5: One-way Analysis of Variance, (WAGES) and (ethlac)

```
. oneway WAGES ethlac
```

Analysis of Variance					
Source	SS	df	MS	F	Prob > F
Between groups	3.0230e+11	2	1.5115e+11	87.09	0.0000
Within groups	7.9889e+13	46029	1.7356e+09		
Total	8.0191e+13	46031	1.7421e+09		

Bartlett's test for equal variances: $\chi^2(2) = 563.6782$ Prob> $\chi^2 = 0.000$

```
. anova WAGES ethlac
```

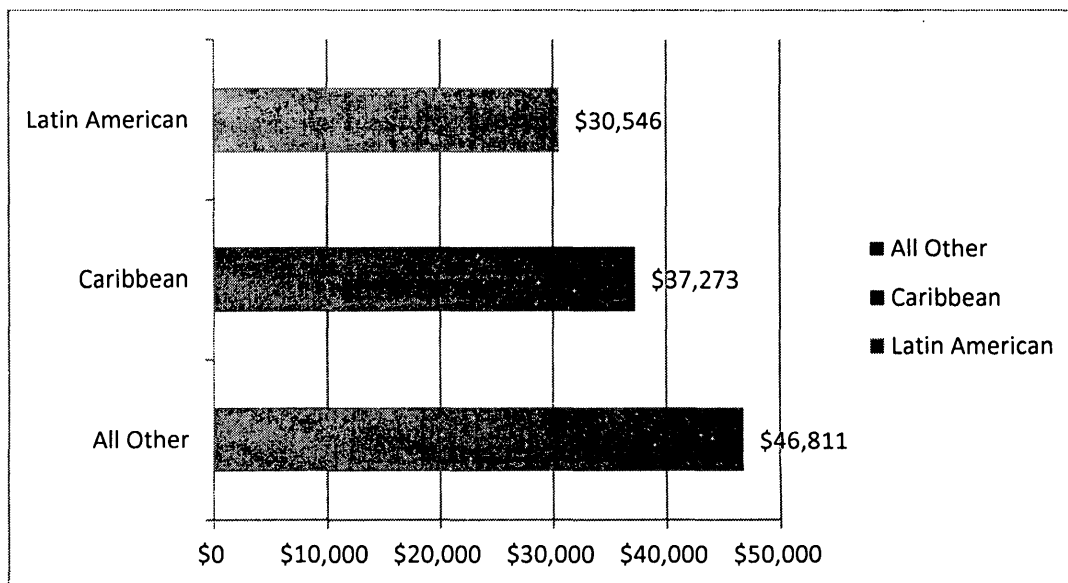
Number of obs = 46032 R-squared = 0.0038
 Root MSE = 41660.7 Adj R-squared = 0.0037

Source	Partial SS	df	MS	F	Prob > F
Model	3.0230e+11	2	1.5115e+11	87.09	0.0000
ethlac	3.0230e+11	2	1.5115e+11	87.09	0.0000
Residual	7.9889e+13	46029	1.7356e+09		
Total	8.0191e+13	46031	1.7421e+09		

The one-way analysis of variance (ANOVA) allows me to look at the mean differences in wages among three ethnic group categories and see whether differences exist between them. Results shown in Table 5 suggest that the probability of generating our test results and the hypothesis being true are highly unlikely. I reject the null hypothesis that there are no differences in the means across ethnic groups at $p=0.00$. Due to the sensitivity of the Bartlett's test for equal variance embedded in this test I used another test to confirm that my ANOVA test of differences in variance was true. The alternate test called the Levene test produced a $p=0.00$. The Scheffe post hoc test revealed differences were statistically

significant between all groups with $p < 0.05$ Figure 11 below shows the mean earnings among each ethnic category. The all other category earns an average of \$46,811, while Caribbeans earn \$37,273 and Latin Americans earn \$30,546. The greatest wage difference is between the all other category and Latin Americans displaying an earning disparity of \$16,265.

Figure 11: Mean wages among ethnic groups



Using one-way analysis of variance (ANOVA) I also examined the mean differences in income among various immigrant statuses. Results shown in Table 6 suggest that the probability of generating our test results and the hypothesis being true are highly unlikely. Therefore, I reject the null hypothesis that there is no statistically significant difference in the means across immigrant statuses (immigrants, non-immigrants, and non-permanent residents) at $p = 0.00$. Due to the sensitivity of the Bartlett's test for equal variance which is embedded in the one-way test, I used another test to confirm the accuracy of this result

and whether the test of differences in variance was true. Using the Levene's test I produced similar results with a $p = 0.00$ confirming there is a statistically significant difference across groups. The Scheffe post hoc test revealed statistically significant differences existed between all groups at $p = 0.00$.

Table 6: One-Way Analysis of Variance, (WAGES) and (Immigrant)

. oneway WAGES Immigrant

Source	Analysis of Variance				
	SS	df	MS	F	Prob > F
Between groups	3.4544e+12	2	1.7272e+12	1035.00	0.0000
Within groups	7.7255e+13	46294	1.6688e+09		
Total	8.0710e+13	46296	1.7433e+09		

Bartlett's test for equal variances: $\chi^2(2) = 1.9e+03$ Prob> $\chi^2 = 0.000$

Comparison of [WAGES] Wages and salary income by Immigration Status
(Scheffe)

Row Mean- Col Mean	Non-Immi	Immigran
Immigran	-17022 0.000	
Non-Perm	-27342 0.000	-10320 0.000

Figure 12: Mean wages among immigrant categories

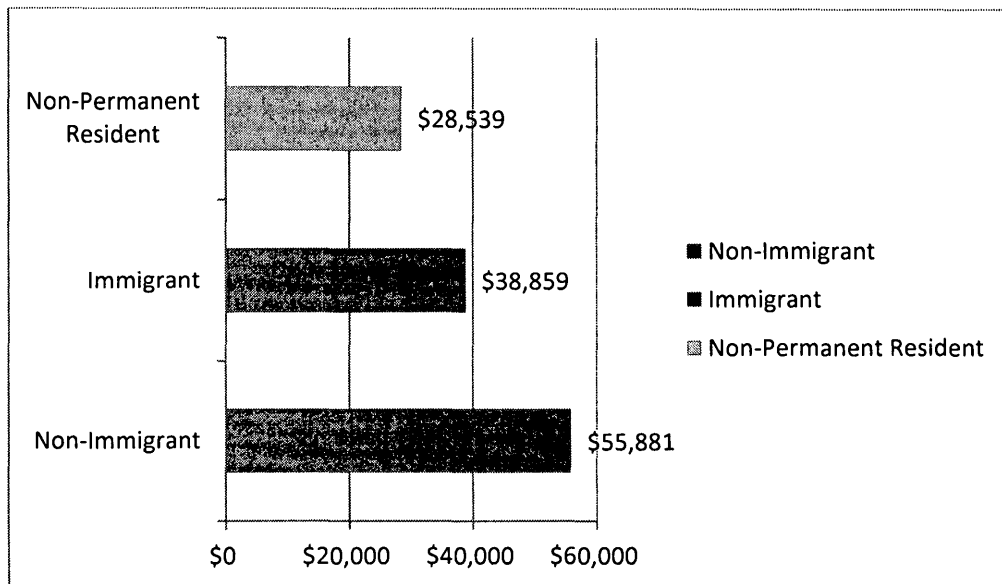


Figure 12 shows the mean wages among each immigrant status category. Mean differences in wages were statistically significant with the non-immigrant category earning an average of \$55,881. The immigrant category earns an average of \$38,859 while the non-permanent resident category has an average earning of \$28,539. As discussed in the previous section, results from the non-permanent resident category are questionable as this population may not disclose information for fear of prosecution.

Table 7 displays a one-way ANOVA analyzing the mean differences in wages among various generation statuses. Results suggest that the probability of generating our test results due to chance alone are highly unlikely. Therefore, we reject the null hypothesis as there is a statistically significant difference in the means across generation statuses (1st, 2nd, and 3rd) at $p = 0.00$. Due to the sensitivity of the Bartlett's test for equal variance

Table 7: One-way Analysis of Variance, (WAGES) and (Generation)

```
. oneway WAGES Generation
```

Source	Analysis of Variance				
	SS	df	MS	F	Prob > F
Between groups	3.3550e+12	2	1.6775e+12	1003.91	0.0000
Within groups	7.7355e+13	46294	1.6709e+09		
Total	8.0710e+13	46296	1.7433e+09		

```
Bartlett's test for equal variances:  chi2(2) = 1.8e+03  Prob>chi2 = 0.000
```

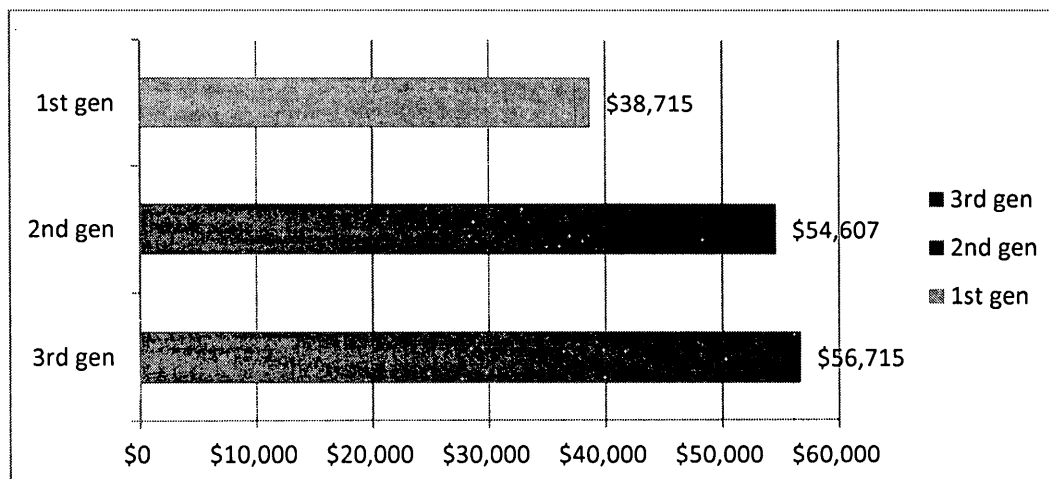
Comparison of [WAGES] Wages and salary income by generation status
(Scheffe)

Row Mean- Col Mean	3rd gene	2nd gene
2nd gene	-2108 0.001	
1st gene	-18000 0.000	-15892 0.000

which is embedded in the one-way test I used another test to confirm the accuracy of this result and whether the test of differences in variance was true. Using the Levene's test I produced similar results with a $p=0.00$ confirming there is a statistically significant difference across generations. The Scheffe post hoc test revealed statistically significant differences existed between all groups at $p=0.00$ with the one exception between second generation and third generation which had a $p=0.001$. That being said all groups had a p value <0.05 therefore statistically significant differences exist. Figure 13 shows the mean wages among each Generation category. Third generation Canadians earn an average

\$56,715 while second generation Canadians earn \$54,607. The first generation category which comprise of immigrants earn significantly less than both groups, \$38,715.

Figure 13: Mean wages among generation status categories



Using Chi-square test of significance I assessed the association between ethnicity (*ethlac*) and educational attainment (*HigherEd*). Results in Table 8 show a Pearson chi-square $p = 0.00$ and likelihood ratio $p = 0.00$ which means there is a very low probability that results are due to chance and therefore there is a statistically significant association between variables. Figure 14 illustrates the association which shows 37.9% of the referent population have less than college, 25.9% have a college or university certificate/diploma while 36.2% have a bachelor's degree or more. In terms of ethnic groups, the most interesting finding is almost half of Caribbean and Latin Americans have less than college, 48.5% and 51.6% respectively-- compared 37.9% of the rest of the population. Also, Caribbeans have the highest percentage who have attained at least a college or

university diploma or certificate ---37.2% compared to 27.5% for Latin Americans, and 25.9% for all others. While the rest of the population has the highest proportion of university attainment or more -- 36.2% compared to Latin Americans and Caribbeans who have significantly lower rates, at 20.9% and 14.3% respectively.

Table 8: Chi-Square, (HigherEd) and (ethlac)

```
. tab HigherEd ethlac, col row chi2 all
```

Key
<i>frequency</i>
<i>row percentage</i>
<i>column percentage</i>

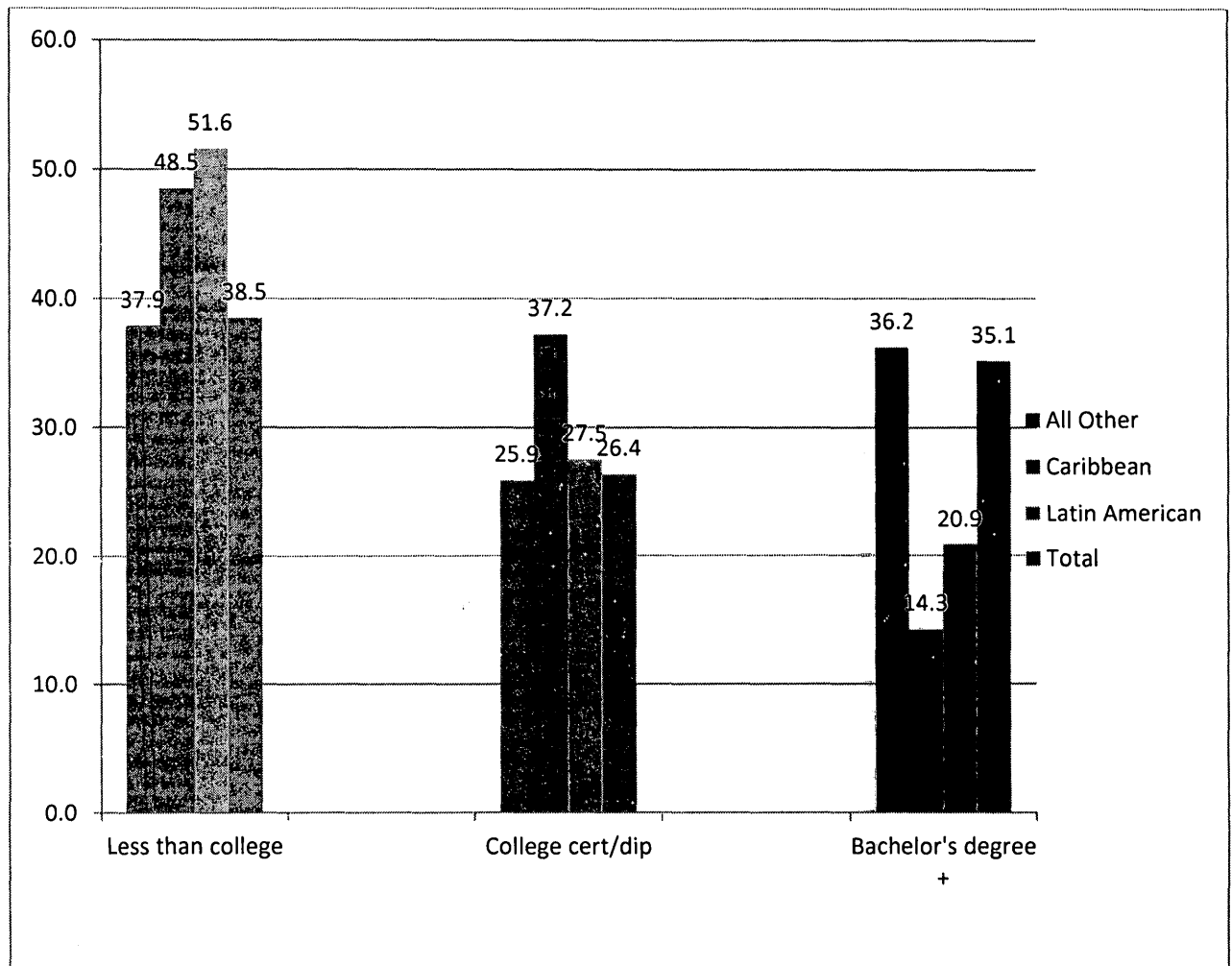
Education Attainment	Ethnic Group			Total
	All Other	Caribbean	Latin Ame	
Less than college	16,524	891	294	17,709
	93.31	5.03	1.66	100.00
	37.89	48.50	51.58	38.49
College certificate/d	11,297	684	157	12,138
	93.07	5.64	1.29	100.00
	25.91	37.23	27.54	26.38
Bachelor's degree or	15,787	262	119	16,168
	97.64	1.62	0.74	100.00
	36.20	14.26	20.88	35.14
Total	43,608	1,837	570	46,015
	94.77	3.99	1.24	100.00
	100.00	100.00	100.00	100.00

```

Pearson chi2(4) = 438.2279    Pr = 0.000
likelihood-ratio chi2(4) = 494.9073    Pr = 0.000
Cramér's V = 0.0690
gamma = -0.2959    ASE = 0.015
Kendall's tau-b = -0.0767    ASE = 0.004

```

Figure 14: Ethnic relationships to Higher Education



Using Chi-square test of significance again, I also assessed the association between Immigrant status (*Immigrant*) and educational attainment (*HigherEd*). Results showed a Pearson chi-square $p=0.00$ and likelihood ratio $p=0.00$ which means there is a very low probability that results are due to chance and therefore there is a statistically significant association between variables that is representative of the population. That being said, Table 9 and Figure 15 show there are very slight differences in educational attainment

amongst each group. Each group has a higher proportion attaining less than college and a bachelor's degree or more compared to a college education. Immigrants and Non-permanent residents have a slightly higher likelihood of attaining a bachelor's degree than non-immigrants, 35.96% and 38.33% respectively, compared to 34.05%. Furthermore, non-immigrants have higher likelihood of attaining college at 27.55% compared to immigrants at 25.57% and non-permanent residents 22.15%.

Table 9: Chi-square (HigherEd) and (Immigrant)

```
. tab HigherEd Immigrant, col row chi2 all
```

Key
<i>frequency</i>
<i>row percentage</i>
<i>column percentage</i>

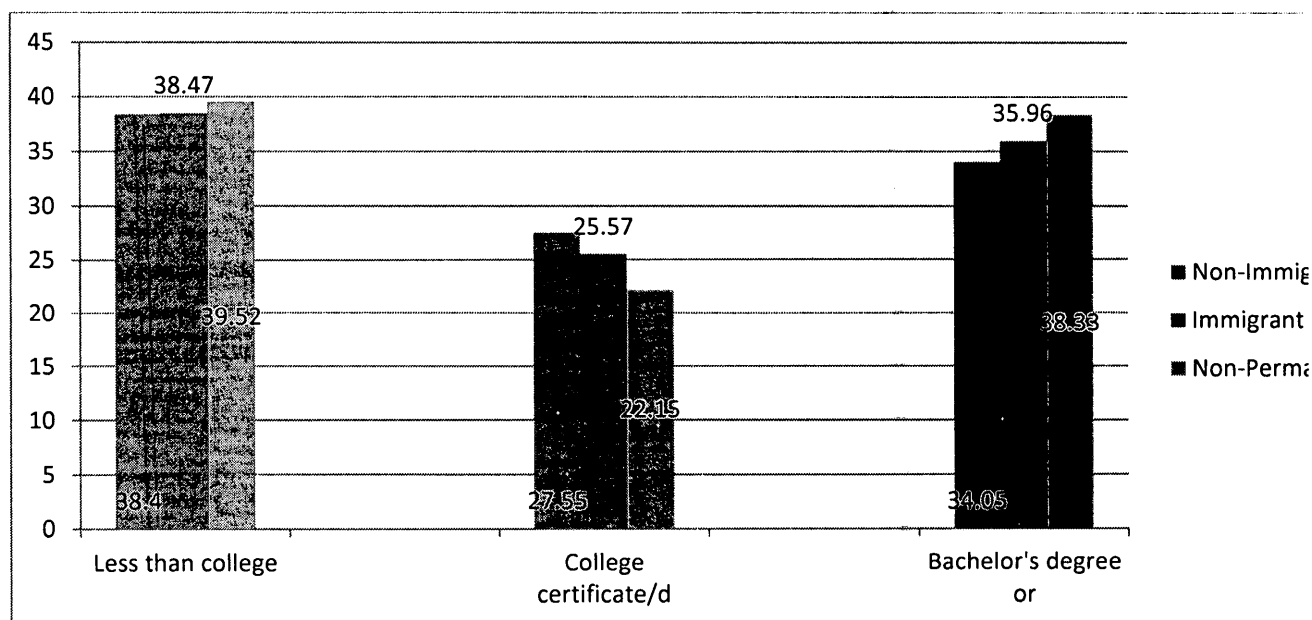
Education Attainment	Immigration Status			Total
	Non-Immig	Immigrant	Non-Perma	
Less than college	7,789	9,774	232	17,795
	43.77	54.93	1.30	100.00
	38.40	38.47	39.52	38.45
College certificate/d	5,587	6,497	130	12,214
	45.74	53.19	1.06	100.00
	27.55	25.57	22.15	26.39
Bachelor's degree or	6,907	9,135	225	16,267
	42.46	56.16	1.38	100.00
	34.05	35.96	38.33	35.15
Total	20,283	25,406	587	46,276
	43.83	54.90	1.27	100.00
	100.00	100.00	100.00	100.00

```

Pearson chi2(4) = 34.2081    Pr = 0.000
likelihood-ratio chi2(4) = 34.3542    Pr = 0.000
Cramér's V = 0.0192
gamma = 0.0172    ASE = 0.008
Kendall's tau-b = 0.0099    ASE = 0.004

```

Figure 15: Immigrant status associations with higher education



Once again using Chi-square test of significance I assessed the association between generation status (*Generation*) and educational attainment (*HigherEd*). Results in Table 10 show a Pearson chi-square $p=0.00$ and likelihood ratio $p=0.00$ which means there is a very low probability that results are due to chance and therefore there is a true statistically significant association between variables that is representative of the population. Figure 16 illustrates third generation Canadians have the highest likelihood of attaining less than college -- 41.9% compared to second generation immigrants at 33.8% and first generation immigrants at 38.4%. Second generation Canadians are more likely to have a bachelor's degree or more at 37.1% compared to third and first generations, who had 31.6% and 36.1% respectively. All groups have lower likelihood of having a college education compared to university education; however of those who do attain college, second

generation Canadians have a higher percentage at 29% compared to third and first generation, which are represented at 26.5% and 25.5%, respectively.

Table 10: Chi-square, (HigherEd) and (Generation)

```
. tab HigherEd Generation, col row chi2 all
```

Key
<i>frequency</i>
<i>row percentage</i>
<i>column percentage</i>

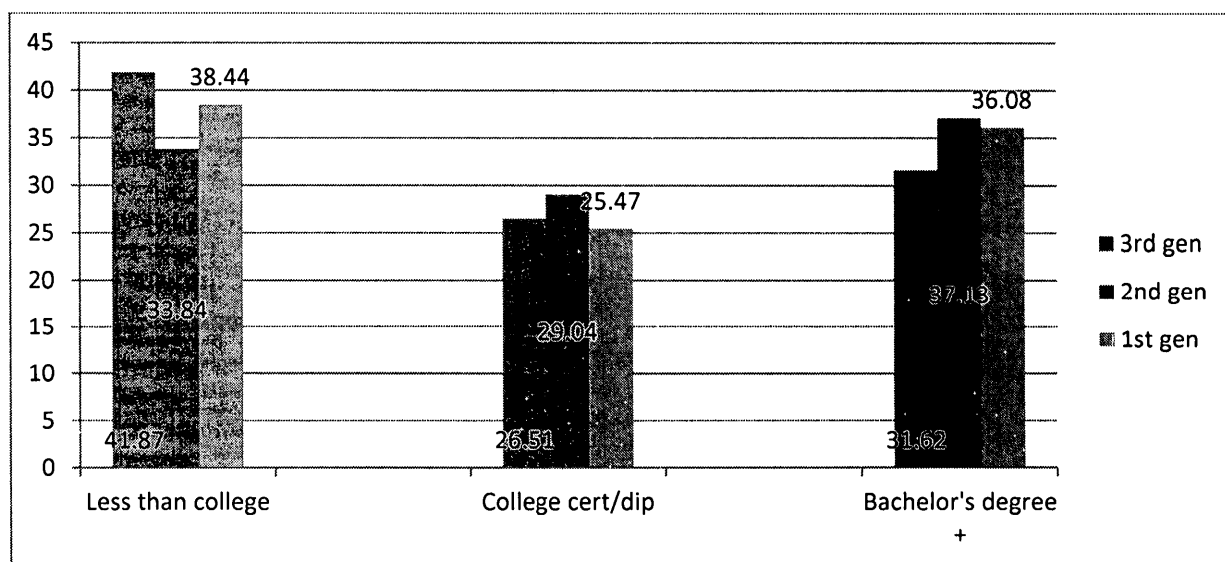
Education Attainment	generation status			Total
	3rd gener	2nd gener	1st gener	
Less than college	4,879	2,898	10,018	17,795
	27.42	16.29	56.30	100.00
	41.87	33.84	38.44	38.45
College certificate/d	3,089	2,487	6,638	12,214
	25.29	20.36	54.35	100.00
	26.51	29.04	25.47	26.39
Bachelor's degree or	3,684	3,180	9,403	16,267
	22.65	19.55	57.80	100.00
	31.62	37.13	36.08	35.15
Total	11,652	8,565	26,059	46,276
	25.18	18.51	56.31	100.00
	100.00	100.00	100.00	100.00

```

Pearson chi2(4) = 171.3954    Pr = 0.000
likelihood-ratio chi2(4) = 173.0277    Pr = 0.000
Cramér's V = 0.0430
gamma = 0.0379    ASE = 0.007
Kendall's tau-b = 0.0236    ASE = 0.004

```

Figure 16: Generation Status associations with higher education



In order to determine whether educational attainment had an association with income, I conducted a Pearson's product moment correlation test to examine whether the two variables are correlated. Test results show a correlation coefficient of $r=0.23$ which reveals a weak positive, which means that an increase in educational attainment will, to some extent be associated with an increase in income. It is important to note that values below 0.3 are considered to be weak and substantively insignificant (see Pevalin and Robson, 2009; Hinkle et al.1988). This suggests that education is not the only determining factor in affecting income and there are other variables that must be included in my analysis. Next, I conducted a Pearson's r correlation test to examine the relationship between hours worked my control variable, and income. Results show a positive weak association of 0.26.

Multivariate Results

In this section, I will discuss my multivariate analyses which include ordinary least squares (OLS) regression and logistic regressions. I have chosen these regressions as they are appropriate to the unit of measurement of my dependent variable and will allow me to use multiple variables to control for the effects of my dependent variable. The OLS regression uses *WAGES* as the dependent variable as it is a continuous variable while the logistic regression uses *HigherEd3* and *HigherEd2* as it requires a dichotomous dependent variable. I ran diagnostics to test a number of assumptions and other technical issues of each of my models. These tests are critical and allow me to understand the effects variables have on my dependent variable more accurately by taking into consideration violation of assumptions, outliers and influence, and multicollinearity. In terms of outliers and influence of earnings (*WAGES*) variable 310 observations that earned \$800,000 or more were dropped from the original variable to avoid influence. First, I examine the multicollinearity of all variables included in my models to see whether any of my independent variables were highly correlated. Highly correlated independent variables violate regression assumptions of independence and have implications on the results, particularly the errors associated with the coefficients. Lastly, I ran both my logistic regressions and carried out diagnostic tests to examine model specification and appropriateness of my model to determine whether my model is effective and includes relevant variables and excludes irrelevant variables. It is important to note that not all the assumptions for OLS regressions apply to logistic regressions given that the dependent variables are different units of measurement.

Results from my multicollinearity test revealed some variables included in the model were highly correlated. Table 11 displays correlation results; focus is on values over 0.7 as this indicates a typical cut off for correlations between independent variables. *AGEGRP* and *AGEGRPsq* have a correlation of 0.9982 because they are the same variables but the latter is a quadratic term. Quadratic term is used for variables that have non-linear or curved relationships such as age. Research has shown that associations between age and wage or income show a positive relationship but there reaches a point where this association transforms and becomes negative (Mincer, 1974; Becker, 1964). To clarify, persons starting out in the labour market start out relatively low and as they age and gain more experience they earn more, however there comes a point where age continues to increase but wage or income decreases, for instance retirees and seniors who either have a fixed income or their labour is no longer as valuable as others. In order to control for these effects in my model I use the quadratic term to reflect the non-linear relationship between age and wage as *AGEGRPsq* reflects the negative association that begins at a certain point in time. Both variables will be used as a control variable in all regression models. While the correlations between age variables are permissible in the effect on the dependent variable the correlation between generation status and immigration status is a concern.

In Table 11 Generation and Immigrant variables are correlated specifically between first generation category and the immigrant category which has a coefficient of $r = 0.97$ indicating an exceptionally high correlation which violates the multicollinearity assumption. As a result I revised my regression models to include only one of these variables. Going forward, I

dropped the immigrant variable from the model. I have chosen to drop this variable over generation status as the non-permanent resident category included in this variable has a very low percentage of observations at 1% so results are questionable and subject to error. Moreover, I also question the validity and reliability of this category as undocumented migrants are vulnerable groups that are sometimes reluctant to provide details on status because of the social and legal implications that may arise. Using generation status allowed me to capture immigrants as well as children of immigrants who are Canadian-born which is primary to this investigation.

Table 11: Variable Correlation Table

	WAGES	HRSWRK	AGEGRP	AGEGRPsq	HigherEd - College	HigherEd - Bachelor's +	HigherEd2 - Bachelor's +	HigherEd3 - College +	ethlac - Caribbean	ethlac - Latin American	Generation - Second	Generation - First	Immigrant - Immigrant	Immigrant - Non-PRs	Female - Female
WAGES	1														
HRSWRK	0.2564	1													
AGEGRP	0.07	-0.0002	1												
AGEGRPsq	0.0665	-0.0036	0.9982	1											
HigherEd – College	-0.0249	0.0091	-0.0095	-0.0099	1										
HigherEd - Bachelor's +	0.2182	0.022	-0.1201	-0.118	-0.4406	1									
HigherEd2 - Bachelor's +	0.2182	0.022	-0.1201	-0.118	-0.4406	1	1								
HigherEd3 - College +	0.1916	0.0298	-0.1264	-0.1248	0.4735	0.5822	0.5822	1							
ethlac – Caribbean	-0.0437	0.0052	0.0015	0.0023	0.0502	-0.089	-0.0892	-0.042	1						
ethlac - Latin American	-0.0421	-0.0003	-0.0096	-0.0097	0.003	-0.034	-0.0335	-0.0301	-0.023	1					
Generation – Second	0.0962	0.0164	-0.1509	-0.1495	0.0288	0.0199	0.0199	0.0455	-0.047	-0.047	1				
Generation – First	-0.2034	-0.035	0.0787	0.0787	-0.0241	0.0219	0.0219	-0.0004	0.1363	0.0933	-0.541	1			
Immigrant - Immigrant	-0.1937	-0.036	0.0897	0.0896	-0.0207	0.0182	0.0182	-0.0009	0.1379	0.0804	-0.523	0.97	1		
Immigrant - Non PR	-0.0488	0.0021	-0.0508	-0.0502	-0.0116	0.0077	0.0077	-0.003	-0.006	0.0542	-0.054	0.0998	-0.1245	1	
Female – Female	-0.1497	-0.1918	0.0059	0.0059	0.06	-0.01	-0.0096	0.0449	0.0236	-0.005	0.0063	-0.012	-0.0072	-0.0192	1

In addition, I have three variables measuring education attainment two of which were shown to be highly correlated in Table 11 (*HigherEd* and *HigherEd2*). These variables, derive from the same variable, were recoded in different ways to capture university degree attainment and college diploma or certificate attainment specifically, while one variable captures a combination of levels. As a result both the *HigherEd* and *HigherEd2* variable have the exact same category which includes those who have attained a Bachelor's or more which explains the coefficient of 1. These variables were not used together in any given model. Instead *HigherEd* will be included in the OLS regression to account for effects on WAGES, while *HigherEd2* and *HigherEd3* were used in the logistic regressions separately to look closer at the likelihood of college attainment and university attainment specifically. In summary, my independent variables included in the OLS and logistic regressions are not suffering from multicollinearity.

OLS Regression

Results from my OLS regression are displayed in Table 12 which show persons with at least a college or university certificate or diploma earn \$9223.98 more than those with less than college while those with at least a bachelor's degree earn \$24,160.67 more than those with less than college education attainment all of which were statistically significant $p=0.00$. Effects of ethnicity show that Latin Americans earn \$4,827.69 less than the rest of the population which was statistically significant with $p=0.003$, while the results for Caribbeans failed to achieve statistical significance. Results for generation status reveal second generation Canadians, earned \$1,454.12 less than third generation Canadians. First

generation Canadians earned \$18,269.55 less than third generation Canadians. In terms of gender females, earned \$9,560.01 less than males, controlling for the other variables in the model. In terms of hours worked per week, each additional hour of worked increased earnings by \$524.14 annually compared to those who worked the average 36 hours per week. The R-squared for this model indicates that 18.5% of the variance in *WAGES* was explained by my independent variables; anything greater than 15% is considered credible (Pevalin and Robson, 2009).

Table 12: OLS Regression of Wages (N= 46015)

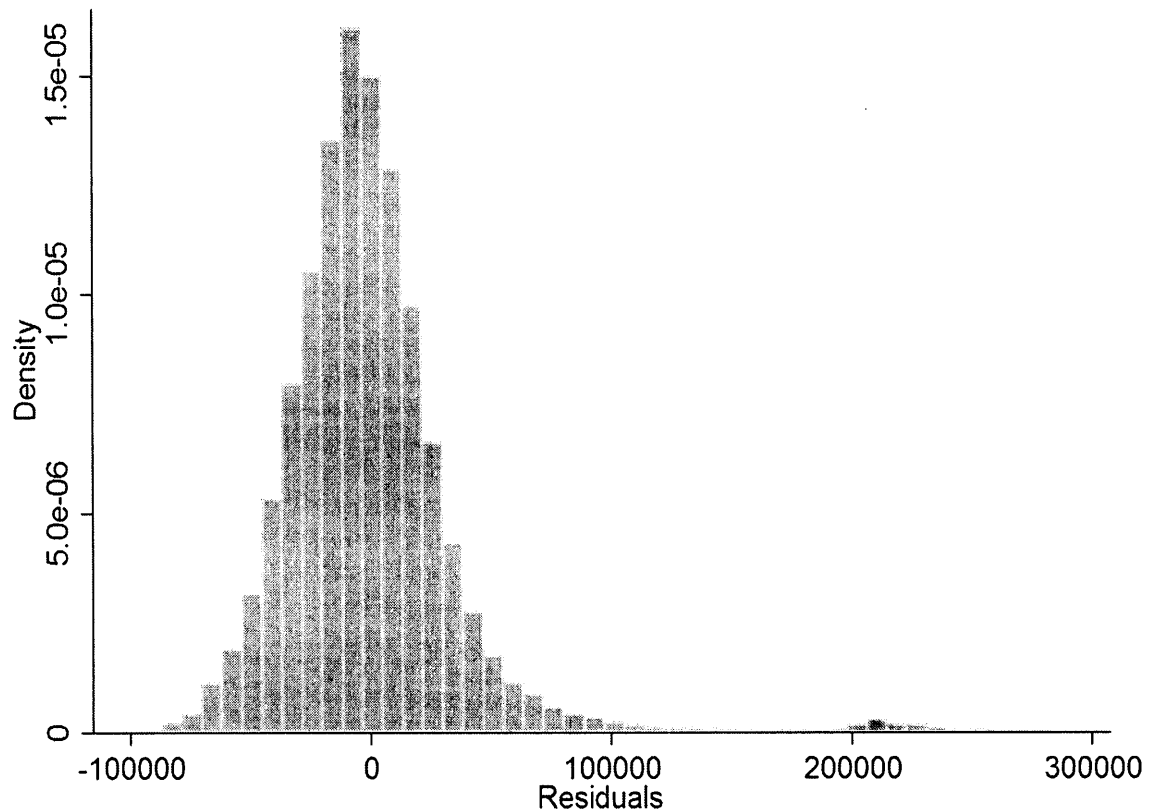
Variable name	<i>B</i>	<i>p</i> value
Hours worked weekly	524.1***	0.00
Age	24556.1***	0.00
Age Sq	-864.9***	0.00
Higher Education (reference= less than college)		
College	9224.0***	0.00
University	24160.7***	0.00
Ethnicity (ref: all other groups)		
Caribbean	1422.6	0.12
Latin American	-4827.7**	0.00
Generation Status (reference=third generation)		
Second Generation	-1454.1**	0.01
First Generation	-18269.6***	0.00
Gender		
Female	-9560.0***	0.00
Constant	-118108.3	
R-squared	18.5%	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 17 shows a histogram of residuals of my dependent variable. The graph shows residuals are normally distributed, however there is evidence the distribution is positively skewed to the right from the wider tail; this is not unusual for this variable. Therefore, my OLS regression meets the assumption of normality and I am not required to transform my

dependent variable into its natural log, which is a common transformation procedure in earnings analysis.

Figure 17: Histogram of Residuals of Wages



Logistic Regression

My first logistic regression tests the likelihood of attaining at least a college credential; all independent variables in the model were statistically significant with a $p=0.00$. Logistic regression results are displayed in Table 13 and are displayed as odds ratios. Odds ratios examines the likelihood of an independent variable being in category 1 of the dependent

variable compared to its reference category 0 (Prevalin and Robson, 2009). Findings reveal that Caribbeans are 39% less likely than the rest of the population to attain at least a college education while Latin Americans are 47% less likely than the rest of the population to attain at least a college education. In terms of generation status, compared to third generation Canadians, second generation Canadians are 28.6% more likely to attain at least a college education, while first generation immigrants are 20.5% more likely. In addition females are 21.8% more likely to attain at least a college education compared to males.

I conducted two diagnostics to test whether my logistic regression model was properly specified. The linktest results revealed a $\chi^2 p=0.005$ which means that my model is not properly specified as there are omitted variables. Unfortunately, this test does not specify which variables are omitted so the only way to attempt to improve this model is to incorporate theoretically relevant variables to this model. However, availability of relevant variables in my data may be a concern. In addition, I carried out Hosmer and Lemeshow's goodness-of-fit test to evaluate the model fit. Results are displayed in Table 14 which show test is statistically significant $p=0.00$ which means it further confirms this model is not complete because relevant variables are excluded or irrelevant variables are included. Adding more variables to this model may improve this test.

Table 13: Logistic Regression of likelihood of attaining at least a college education (N=46015)

Variable name	Odds Ratio	<i>p</i> value
Age	0.478***	0.00
Age Sq	1.024***	0.00
Ethnicity (ref: All other groups)		
Caribbean	0.607***	0.00
Latin American	0.535***	0.00
Generation Status (ref: third generation)		
Second Generation	1.286***	0.00
First Generation	1.205***	0.00
Gender (ref: Male)		
Female	1.218***	0.00
Constant 316.8546		
Pseudo R-squared 1.78%		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 14: Goodness of fit test, HigherEd3

```
. lfit, group(10) table
```

Logistic model for HigherEd3, goodness-of-fit test

(Table collapsed on quantiles of estimated probabilities)

Group	Prob	Obs_1	Exp_1	Obs_0	Exp_0	Total
1	0.5249	2781	2774.9	2805	2811.1	5586
2	0.5435	2349	2214.6	1763	1897.4	4112
3	0.5707	2886	2823.1	2103	2165.9	4989
4	0.5892	2272	2423.4	1888	1736.6	4160
5	0.6087	2688	2645.6	1682	1724.4	4370
6	0.6309	2753	2883.1	1913	1782.9	4666
7	0.6536	3060	3049.3	1613	1623.7	4673
8	0.6967	3863	3903.0	1907	1867.0	5770
9	0.7103	2633	2580.9	1007	1059.1	3640
10	0.7589	3021	3008.1	1028	1040.9	4049

```

number of observations =    46015
  number of groups =      10
Hosmer-Lemeshow chi2(8) =    65.86
      Prob > chi2 =      0.0000

```

My second logistic regression looked at the likelihood of attaining at least a bachelor's degree; all results were statistically significant with a $p=0.00$ with the exception of the effects of being female. Logistic regression results illustrated in Table 15 show Caribbeans are 73% less likely than the rest of the population to attain at least a bachelor's degree while Latin Americans are 59% less likely than the rest of the population to attain at least a bachelor's degree. In terms of generation status, compared to third generation Canadians,

second generation Canadians are 18% more likely to attain a bachelor's degree, while first generation immigrants are 32% more likely.

Table 15: Logistic Regression of likelihood of attaining at least a bachelor's degree (N=46015)

variable name	Odds Ratio	<i>p</i> value
Age	0.468***	0.00
Age Sq	1.024***	0.00
Ethnicity (ref: All other groups)		
Caribbean	0.267***	0.00
Latin American	0.412***	0.00
Generation Status (ref: third generation)		
Second Generation	1.179***	0.00
First Generation	1.319***	0.00
Gender (ref: Male)		
Female	0.973	0.17
Constant 130.3143		
Pseudo R-squared 2.24%		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Again I conducted two diagnostics to test whether my logistic regression model is properly specified. The linktest results revealed $\hat{p} = 0.00$ and $\hat{p}_{\text{hatsq}} = 0.888$ which indicates this model has no omitted variables as it is properly specified. In addition Table 16 displays results from the Hosmer and Lemeshow's goodness-of-fit test used to evaluate the model fit.

The test is statistically significant $p=0.00$ which means this model is not good because relevant variables are excluded or irrelevant variables are included. Adding more variables to this model may improve this test.

Table 16: Goodness of fit test, HigherEd2

```
. lfit, group(10) table
```

Logistic model for HigherEd2, goodness-of-fit test

(Table collapsed on quantiles of estimated probabilities)

Group	Prob	Obs_1	Exp_1	Obs_0	Exp_0	Total
1	0.2596	1030	956.9	3648	3721.1	4678
2	0.2981	1389	1297.4	3215	3306.6	4604
3	0.3149	1411	1540.5	3568	3438.5	4979
4	0.3221	1687	1757.1	3817	3746.9	5504
5	0.3457	1464	1457.4	2789	2795.6	4253
6	0.3751	2039	2136.1	3827	3729.9	5866
7	0.3815	961	888.5	1368	1440.5	2329
8	0.4237	2067	2030.7	2843	2879.3	4910
9	0.4648	2345	2321.5	2905	2928.5	5250
10	0.4928	1775	1782.0	1867	1860.0	3642

```

number of observations =    46015
number of groups      =      10
Hosmer-Lemeshow chi2(8) =    54.05
Prob > chi2           =    0.0000

```

Interactions

In this section, I will proceed to test my hypotheses by including interactions in my regression models. Interactions allow for a more in-depth analysis of the dependent variable it goes beyond presenting the main effects of a predictor variable on an outcome variable

by displaying how a predictor variable effect varies depending on the other predictor variables in the model (Pevalin and Robson, 2009). I will focus on the effects of specific interacting variables such as gender, ethnicity, and education to test my hypotheses.

Using my OLS regression model, I added an interaction between higher education and ethnicity to examine the effects both variables have on *wages*. Results displayed in Table 17 show that there is a statistically significant effect among Latin Americans who attain a bachelor's degree or above, this group earns \$11,850.59 less than reference group (i.e. the rest of the population who have no post-secondary education). The effects of ethnicity alone on wages were not statistically significant for Latin Americans -- however adding the interaction term changed the main effects. The interaction, however, can only be fully understood if the main effects for the composite variables are also taken into account. However, these initial findings suggest that the relationship between ethnicity and education on wages is more complex than a simple linear trajectory. All other interactions between education and ethnicity, however, were not statistically significant. This model accounts for 18.52% of the variance in wages.

Next, I decided to run the same regression incorporating an interaction between ethnicity (*ethlac*) and gender (*Female*) to see whether the effects on wages differ in anyway. This interaction will allow me to combine ethnic affiliation and gender to see whether this increase or lessens the impact of gender on wage and income. Results shown in the second column of Table 17 show a statistically significant effect on wages for Caribbean females

who earn \$ 5580.72 compared to the reference group (i.e. the rest of the population males without post-secondary education), while Latin American females effects on wage are not statistically significant. Similar, to the previous interaction, when analyzing the main effects of ethnicity on wage, being Latin American was statistically significant while being Caribbean was not, however when the interaction term was incorporated results reversed so that being Caribbean was significant when examined by gender but being Latin American did not. All other predictor variables controlled for were statistically significant; hours worked, age, higher education, gender and generation status. This model also accounted for 18.52% of variance in wages.

Results from running both interaction terms has verified that being a Caribbean female and/or a Latin American with a bachelor's degree or higher has unique effect on wages. Next, I proceeded to examine whether combining all three predictors, education, ethnicity, and gender will have an effect on wages. Using the same OLS regression model, I incorporated a three-way interaction between education, gender, and ethnicity. Results reveal a statistically significant three way interaction between attaining a bachelor's degree or above and being a Caribbean female. Table 17 displays the coefficients and *p* values of interactions while Figure 18 visually displays the three-way interaction relationships. The graph illustrates Caribbean females having the greatest return on investment in higher education, while males of the rest of the population earn the most on higher education compared to the other categories. Latin American females are rewarded for college attainment but have a negative relationship with university, resulting in decrease in earnings with a bachelor's degree or above. I conducted an F-test

to verify whether including the interaction terms added significance to my model and results show it is statistically significant $p=0.0004$. In addition, this model's R-squared was increased to explaining 18.57% of variance in wages.

I then conducted a logistic regression model incorporating a two way interaction between ethnicity and gender to display any significant effects these predictor variables have on the likelihood of attaining at least a college education or above. Results displayed in Table 18 reveal a statistically significant interaction between attaining at least college or above and being a Caribbean female. All other predictor variables controlled for in the model were statistically significant. Next, I ran another logistic regression to see whether there would be any changes in results if I only focused on bachelor's degree attainment or more (rather than college attainment). This model revealed a statistically significant interaction for Caribbean females.

Table 17: Regressions of Wages on Independent variables, controls, and interaction terms (N 46015)

Education and Ethnicity Two-way Interaction		Ethnicity and Gender Two-way Interaction		Education, Ethnicity, and Gender Three-way Interaction	
variable name	B	variable name	B	variable name	B
Hours worked weekly	524.28***	Hours worked weekly	523.68***	Hours worked weekly	523.78***
Age	24557.48***	Age	24549.54***	Age	24550.9***
Age Sq	- 865.12***	Age Sq	-864.79***	Age Sq	-864.86***
Higher Education (ref: Less than college)		Higher Education (ref: Less than college)		Higher Education (ref: Less than college)	
College	9366.47***	College	9194.81***	College	10435.2***
University	24356.66***	University	24138.19***	University	24411.16***
Ethnicity (ref: All other groups)		Ethnicity (ref: All other groups)		Ethnicity (ref: All other groups)	
Caribbean	2890.8*	Caribbean	-1729.96	Caribbean	1451.75
Latin American	-2719.39	Latin American	-5988.67**	Latin American	-2675.91
Female	-9545.61***	Female	-9809.98***	Female	-9271.19***
Generation Status (ref: third generation)		Generation Status (ref: third generation)		Generation Status (ref: third generation)	
Second Generation	-1465.45**	Second Generation	-1448.3**	Second Generation	-1470.99**
First Generation	-18278.38***	First Generation	-18274.88***	First Generation	-18299.6***
Interaction (HigherEd X ethlac)		Interaction (ethlac X Female)		Interaction (HigherEd X ethlac X Female)	
College - Caribbean	-2908.76	Caribbean Female	5580.72**	College - Caribbean Female	4554.72
College - Latin American	1435.02	Latin American Female	2362.44	College - Latin American Female	8977.88
University - Caribbean	-2503.87			University - Caribbean Female	12443.19*
University - Latin American	-11850.59**			University - Latin American Female	753.54
R-squared 18.52%		R-squared 18.52%		R-squared 18.57%	

t statistics in parentheses * p<0.05 ** p<0.01

*** p<0.001

Figure 18: Graph of Three-way Interaction

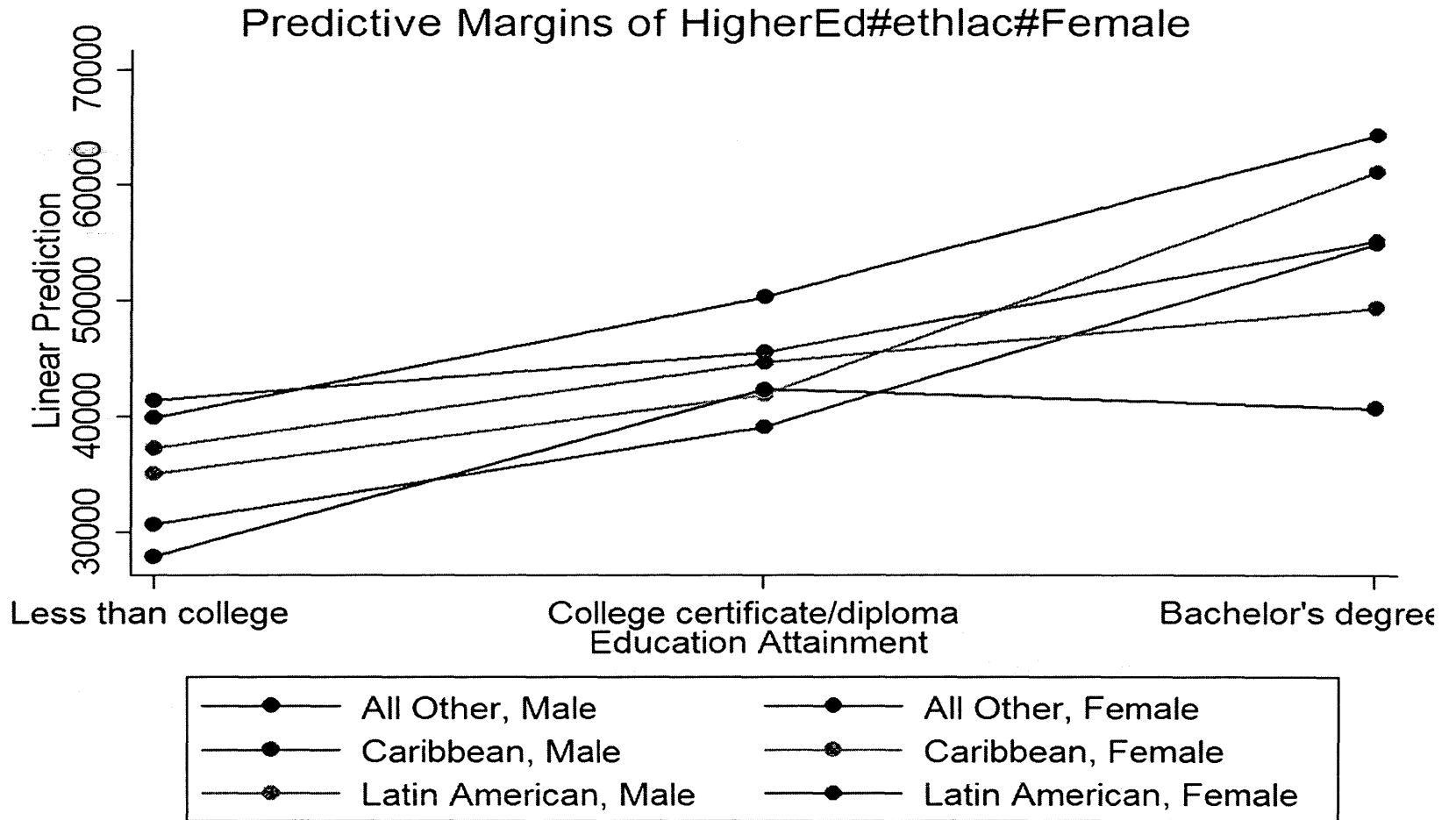


Table 18: Logistic Regressions of Post-Secondary Attainment on Independent Variables, Controls and Interaction Terms (N=46015)

variable name	College Education + Odds Ratio	Bachelor's degree+ Odds Ratio
Age	0.477***	0.468***
Age Sq	1.024***	1.025***
Ethnicity (ref: All other groups)		
Caribbean	0.461***	0.222***
Latin American	0.584***	0.389***
Gender (ref: Male)		
Female	1.196***	0.966***
Generation Status (ref: third generation)		
Second Generation	1.286***	1.179***
First Generation	1.204***	1.319***
Interactions Ethnicity and Gender		
Caribbean Female	1.629***	1.373*
Latin American Female	0.837	1.123
Constant	321.9388	131.2369
	Pseudo R-squared	Pseudo R-squared
	1.82%	2.25%

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 19: Odds Ratio of attaining at least a college education with gender-ethnicity interaction

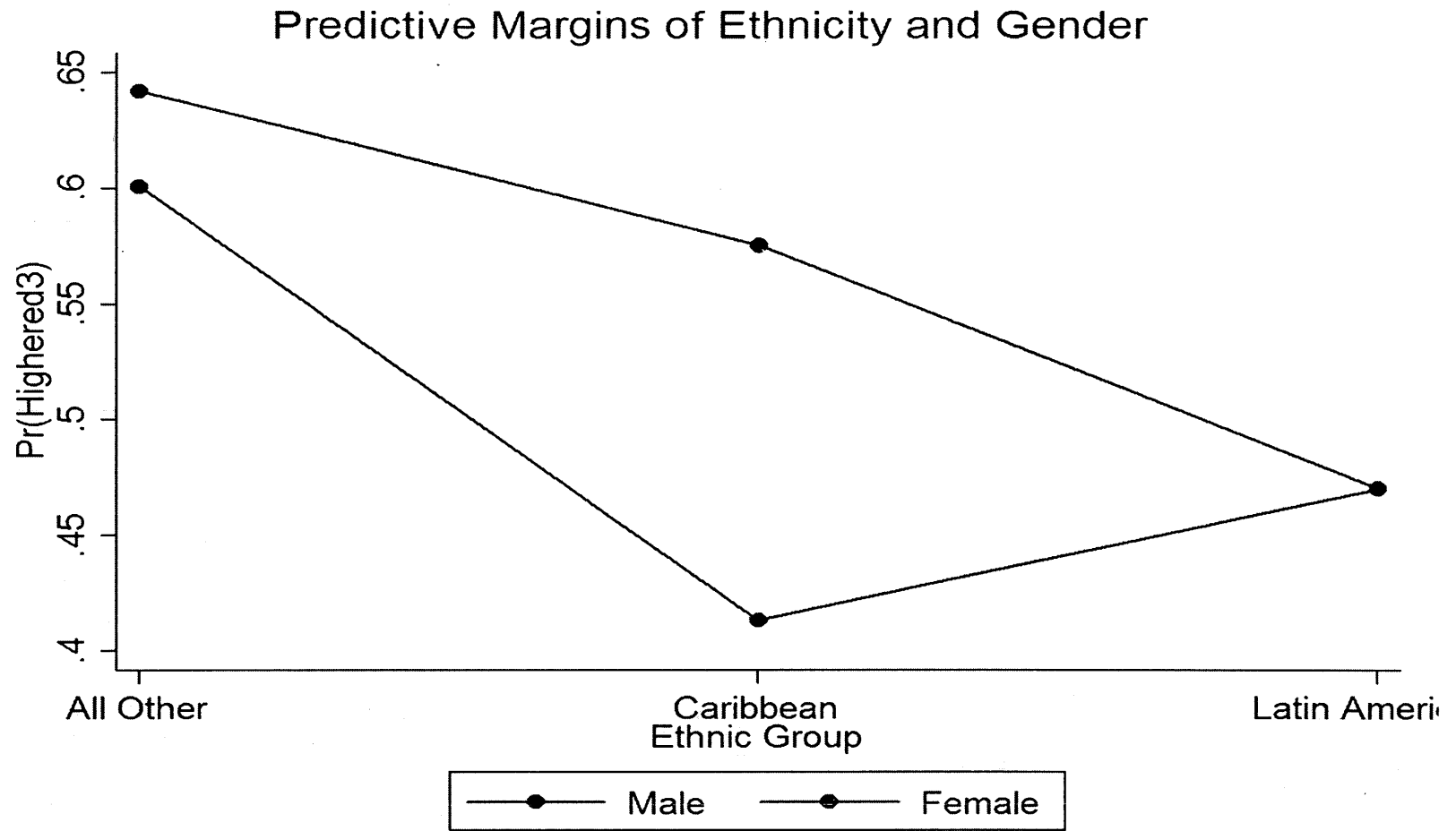
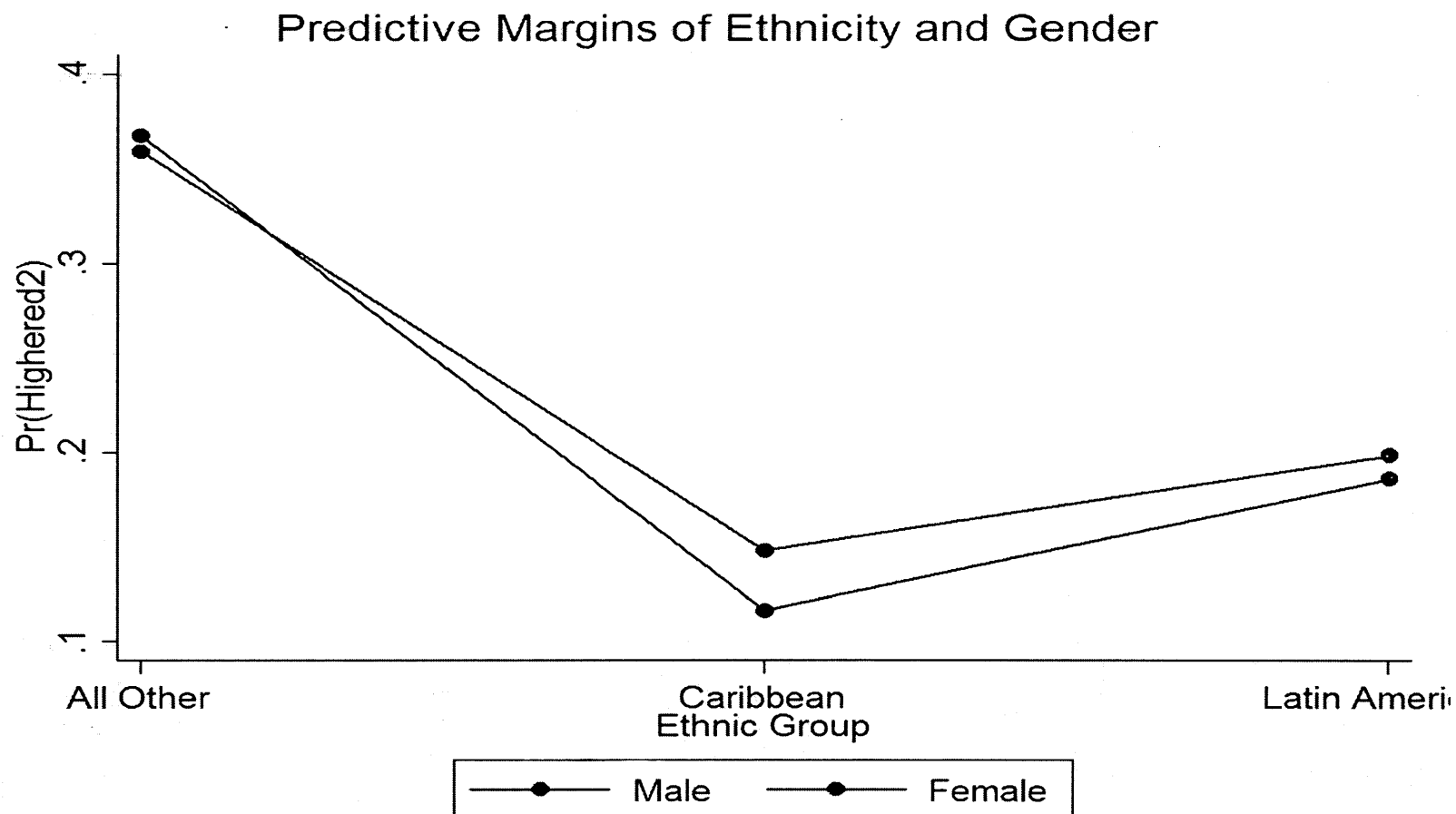


Figure 20: Odds ratio of at least attaining a University degree with gender-ethnicity interaction



Chapter Five: Discussion

This section will consider and discuss findings based on the multivariate regressions conducted. I will analyse how results attempt to respond to my hypotheses and compare and contrast models used.

Findings from my regressions illuminate gender and ethnic association with higher education and employment earnings. Gender disparities in employment and earnings are common features of inequity in the labour market. Likewise, race is also a significant element of discrimination in the workforce which compounded with gender can exacerbate social and economic circumstances for particular groups. In agreement with the literature, my first hypothesis presumes Caribbeans and Latin Americans who attain higher education are rewarded less in the labour market compared to their counterparts. Research has drawn attention to the ethnic differences in the uptake of higher education in Canada (Abada and Tenkorang, 2009; Abada et al; 2009) and groups have different patterned relationship with schooling (Coleman, 1990; James, 2007). In order to capture this phenomenon, I incorporated an interaction term between higher education and ethnicity. Table 17 results show a statistically significant interaction among Latin Americans who earn a bachelor's degree or above. These individuals incur wage penalties upon attaining higher education which results in earning significantly less than males of the rest of the population who attain less than college. While this finding does suggest an important causal association we can overstate ethnicity and education in explaining wage

outcomes. Scholars have identified features that go beyond gender, race and ethnicity to include other social indicators of disadvantage such as place of birth, immigration, citizenship, and generation status (Anisef et al, 2010; Goldring and Landolt, 2012, Block and Galabuzi, 2011). Being that the Caribbean and Latin American population have fairly recent waves of migration, high proportions of foreign-born Canadians and immigrants and the majority are people of colour, this suggests that compounded issues would likely impact their earnings regardless of higher education attainment. One presumption is that a large proportion of Latin Americans in Canada have attained higher education in their home countries and therefore credentials are acknowledged and valued during the immigration application process but are not recognized or rewarded in the labour market in Canada. International credential recognition in Canada is another prevalent form of discrimination hindering the progress and mobility of particular immigrant groups (Zietsma, 2007).

Next, I wanted to test whether ethnicity in combination with gender had an effect on wages. There is extensive scholarship on gender as a predictor of wages but less on ethnic affiliation. To investigate the association, I incorporated an interaction term between gender and ethnicity and results displayed in Table 18 showed that being a Caribbean female had a positive effect on wages. This finding is particularly profound as such a relationship has been overlooked in the literature; instead there is more focus on racial aggregates rather than ethnic affiliation due to the complexities of investigating a racially diverse region such as Latin Americans and Caribbeans.

With regard to employment earnings, I now know there is a statistically significant negative association among Latin Americans with university education and a statistically significant positive relationship among Caribbean females. To address the hypothesis and see whether all three predictors factors were significant, education, gender, and ethnicity, a three way interaction was used. Most notably, there is positive statistically significant interaction among Caribbean females who have a bachelor's or above. Furthermore, Caribbean females gain the most return on investment on a bachelor's degree than any other group and earn the most among all female categories which is displayed in Figure 18. Despite such encouraging results, the Caribbean population has a much higher proportion of college attainment even though a university degree is more economically rewarding.

There are several reasons that may influence the decision to pursue college over university such as cost, time, and opportunities (Boothby and Rowe, 2002). College programs are not only less expensive but require less time investment as well -- ranging from three months to three years in length, depending on the program and school. Another perspective to consider is family structure and dynamics and integral role it plays in decisions to pursue post- secondary education. For instance, for Caribbeans there is a much larger population of lone-parent households , specifically women-headed homes, so the decision to pursue higher education is imperative to improving the circumstances economically disadvantaged household (Henry, 1994). These women must be more cautious and may be more likely to gravitate to programs that prepare for immediate

employment, require the least amount of time, and cost less than university. This is likely reflected in the increase in private colleges and fast track degrees that allow persons to enter the workforce in a short time frame.

In the Figure 19 when focusing on those who attain less than college and those who attain only college, males of each ethnic category earned more than females. This relationship changes when we look at the wages after one attains a bachelor's degree. In terms of college education, Latin American females have the greatest return on investment, which is seen by their placement on the graph. However, this relationship declines with the attainment of a bachelor's degree or above as economic returns on investment diminish, evident by the line inversion. In contrast, Figure 18 shows Caribbean females have a positive statistically significant association with education, earning the greatest economic return on investment in university degree or above and earning more wages than all other groups with a bachelor's degree or above except for males of the rest of the population. Males of the rest of the population who attain higher education continue to earn more than all groups while Latin American and Caribbean males have very little increase in wages from an investment in university education compared to Caribbean women and women of the rest of the population. Interestingly, only when looking at wages of groups who attained college or less do we see males earning higher wages than females in each ethnic group. Therefore, my first hypothesis is rejected as Caribbeans that attain higher education are not rewarded less in the labour

market compared to their counterparts. Caribbean females earn more than all females and Caribbean males earn more than Latin American males.

Similar to labour market gender disparities, these disparities exist in the education system as well but not in the same ways. Females tend to do better in schooling than their male counterparts. Subsequently, because of their academic preparedness, females tend have a higher likelihood of attaining higher education in most industrialized nations (see Lopez, 2003). PSE enrollment and completion rates differ between the genders but these gender-gaps are more apparent among marginalized groups such as Blacks/Caribbeans and Latinos (Lopez, 2003). Differences in race-gender disparities need to be taken into account when understanding why some females have higher likelihood of PSE outcomes than other females and males. For instance, a major finding when looking at odds ratio for those who attain any PSE, refer to Figure 19 shows that Latin American males and females have similar likelihoods, while females of the rest of the population have higher likelihood of attainment than their male counterparts. Furthermore, the disparity between Caribbean male and female likelihood is significantly larger than all other groups. Scholars have made mention to Caribbean trajectories in education but tend to gloss over gender differences and focus disproportionately on the underachievement of males without giving adequate attention to females. In addition, Caribbean females' educational attainments are not always accounted for in studies on education that focuses mainly on university education as the higher education trajectory of interest, dismissing the significant proportion of Caribbeans who attend and attain college. Results from looking

at university education alone displayed in Figure 20 show a significantly narrower gap between males and females of each ethnic category, however a tremendous difference now exists within the Caribbean group where women had a much greater likelihood to attain at least college than their males has now transformed to females still having a higher likelihood of university attainment than males but a much narrower disparity between the two. Consequently, I reject my second hypothesis; males will earn more than females while females will be more likely to attain higher education than males within each ethnic group, because females are not more likely to attain higher education than males within each group. The odds ratio of attaining at least college reveals Latin American females and males had equivalent likelihoods while results from examining just university attainment show males of the rest of the population have a higher likelihood than females. As result, my third hypothesis was also rejected because gender gaps within the Caribbean and Latin American population were not always larger than the rest of the population. In terms of college attainment there were no disparities between Latin American females and males.

Limitations

Before coming to firm conclusions about the findings of my research, I would like to review some limitations that may impact the validity and reliability of this study. In my data and methods section, I elaborated on possible shortcomings of using Census data due to the indefinite responses to survey questions regarding ethnicity. Respondent's self-identification and permission to choose up to six ethnic affiliations complicate how to

interpret findings to the greater population. Concurrently, I must consider the size of my sample. Using the public use micro-data file --which is only twenty percent sample of the Canadian census --means my sample is relatively small and therefore is subjected to large degree of sampling error (Haan, 2009).

In addressing the changes in immigration policies, increase in temporary foreign workers to fill labour needs raises concerns about increases in undocumented population. Due to the difficulty in monitoring and researching this population there is no accurate number of how many are residing in Canada although it is estimated there is anywhere from 40,000 to 600,000 (see Bernhard and Young , 2009). Using census data does not reasonably reflect this group either. Non-permanent residents make up less than one percent of the entire PUMF data set and less than one percent in my working sample which is not only very small but also a dubious depiction of the current population. For instance, Canadian Immigrant Council reveals there were over one million temporary residents in Canada in 2011 -- 446,847 which were foreign workers --but it is unknown how many continue to reside in Canada undocumented. This population including students, tourists, and refused refugee claimants are difficult to capture accurately in the census. Unfortunately due to the vulnerability and subjection to persecution of this group, there are many concerns about disclosing legal status as the consequences are life changing involving imprisonment and/or deportation (Goldring, et al, 2012; Bernhard and Young, 2009). As such, this growing population, which presumably includes a significant number who are Caribbean and Latin American, as the region is popular for recruitment of foreign

workers, compromises the ability to understand the greater circumstance of both groups in Canada.

In terms of the findings, due to the quantitative approach I can only elaborate on trends, patterns, and associations in my research. Understanding the true subjective meaning of the circumstances for the individual requires a deeper insight into understanding motives and other unexpected factors that may only be obtained through qualitative research. In addition, my research design categorizes my sample into three groups (i.e. Caribbeans, Latin Americans, all other) therefore findings may present Caribbean and Latin Americans as doing either better or worse compared to the rest of the population which can be a overstated generalization. With that in mind, it is important to remember that all other ethnic groups have been collapsed into one category and there are likely to be sub-groups who are more disadvantaged than the ones I have focused upon.

Chapter Six: Conclusion

To conclude, this study gives insight to the ethnic and gender differences in economic rewards to education attainment. Research suggests pursuing higher education may have notable social rewards (i.e. social and cultural capital) but in terms of economic rewards my findings show concerns about whether it is really worth it and what particular type of education provides greater economic returns and for whom. The peculiar case of Caribbean females reveals despite the odds of being racialized and gendered with predominantly low socioeconomic status, this group compared to all female groups and both Caribbean and Latin American males earned the highest earnings on an investment in a university education. In addition this group also had a higher likelihood of attaining higher education than Caribbean males and Latin American males and females. The promising circumstances and upward social mobility of Caribbean females in Toronto are distinct from the other groups investigated. As other groups warrant legitimate concern for their future in a changing economy where post-secondary education has become a prerequisite for many employment opportunities yet has also lost its competitive advantage in the labour market as educational attainment continues to increase (Livingston, 2005). Both Latin American and Caribbeans both have high proportions of persons who have less than a college education -- approximately fifty percent. Furthermore, findings also revealed that Latin American males and females had very low and diminishing economic rewards to attaining higher education, specifically university education and particularly for females.

The Caribbean and Latin American population is increasing and beginning the establishment of their third generation in Canada. Both groups have unique but similar migration patterns and socio-cultural elements that intertwine with their integration and settlement in Canada. However, the real concern for social mobility stems from the policies that exist that work against particular group progress. Multiple layers of obstacles are faced ranging from immigration and citizenship policies that require persons to have certain qualifications, but upon arrival, credentials are not recognized or valued, to the multicultural policies in education that delude students about equity, where success is equated to whiteness and curriculums are not relevant to the lives of persons of colour, inevitably diminishing or eliminating sense of belonging to Canada. These institutions have strategically and diligently made accessing education difficult and less rewarding for such groups. In the same vein, negative stereotypes have been produced and reproduced about Blacks and Latino/as, which impede their full participation in education and the labour market.

Features of underachievement and disproportionate under-representation in schooling and PSE have often been associated with lack of academic and education aspiration. Rather, it is the larger historical, political, and socio-cultural relationships that inhibit the social mobility of these groups and not merely a lack of aspiration. Blacks and Latino/as do place value on education and perceive that it increases their life chances but instead are confronted with obstacles that make manoeuvring through these desires difficult.

Alternatively, there are groups that manage to successfully navigate through the unjust

system; overcoming structural barriers and attaining upward social mobility, as seen with Caribbean females, who despite the many inequities still thrive.

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Appendices

Appendix A: Statistics Canada Long form 2B Census question: Income and Wages

52. During the year ending December 31, 2005, did this person receive any income from the sources listed below?

Answer "Yes" or "No" for all sources. If "Yes", also enter the amount; in case of a loss, also mark "Loss".

PAID EMPLOYMENT:

- (a) Total wages and salaries, including commissions, bonuses, tips, taxable benefits, research grants, royalties, etc., before any deductions

☐ Yes → \$ _____ .00

☐ No

(Statistics Canada, 2006a)

Appendix B: Statistics Canada Long form 2B Census questions: Education

EDUCATION

26. Has this person completed a **secondary (high) school** diploma or equivalent?

Examples of secondary (high) school equivalency certificates are General Educational Development (GED) and Adult Basic Education (ABE).

Secondary (high) school diploma or certificate

☐ Yes, secondary (high) school diploma

☐ Yes, secondary (high) school equivalency certificate

☐ No

27. Has this person completed a **Registered Apprenticeship** or other trades certificate or diploma?

Mark as many circles as applicable.

For example:

- hairdressing
- CNC machinist

Registered Apprenticeship or trades certificate or diploma

- ☐ Yes, Registered Apprenticeship certificate
- ☐ Yes, other trades certificate or diploma
- ☐ No

28.

Has this person completed a **college, CEGEP, or other non-university** certificate or diploma?

Mark as many circles as applicable.

For example:

- *accounting technology*
- *real estate agent*
- *industrial engineering technology*

College, CEGEP and other non-university certificate or diploma

- ☐ Yes, certificate or diploma from a program of less than 3 months
- ☐ Yes, certificate or diploma from a program of 3 months to less than 1 year
- ☐ Yes, certificate or diploma from a program of 1 to 2 years
- ☐ Yes, certificate or diploma from a program of more than 2 years
- ☐ No

29. Has this person completed a **university** degree, certificate or diploma?

Mark as many circles as applicable.

University degree, certificate or diploma

- ☐ Yes, certificate or diploma below bachelor level
- ☐ Yes, bachelor's degree (including LL.B.)
- ☐ Yes, certificate or diploma above bachelor level
- ☐ Yes, master's degree
- ☐ Yes, degree in medicine, dentistry, veterinary medicine or optometry
- ☐ Yes, earned doctorate

☐ No

(Statistics Canada, 2006a)

Appendix C: Statistics Canada Long form 2B Census questions: Ethnicity

The census has collected information on the ancestral origins of the population for over 100 years to capture the composition of Canada's diverse population.

17. What were the ethnic or cultural origins of this person's **ancestors**?

An ancestor is usually more distant than a grandparent.

For example, Canadian, English, French, Chinese, Italian, German, Scottish, East Indian, Irish, Cree, Mi'kmaq (Micmac), Métis, Inuit (Eskimo), Ukrainian, Dutch, Filipino, Polish, Portuguese, Jewish, Greek, Jamaican, Vietnamese, Lebanese, Chilean, Salvadorean, Somali, etc.

Specify as many origins as applicable using capital letters.

(Statistics Canada, 2006a)

Appendix D: Statistics Canada Long form 2B Census questions: Generation status

9. Where was this person born?

Specify one response only, according to present boundaries.

Born in Canada

☐ Nfld.Lab.

☐ Manitoba

☐ P.E.I.

☐ Sask.

☐ N.S.

☐ Alberta

☐ N.B.

☐ B.C.

☐ Quebec

☐ Yukon

☐ Ontario

☐ N.W.T.

☐ Nunavut

Born outside Canada

Specify country

PLACE OF BIRTH OF PARENTS

25. Where was **each** of this person's parents born?

(a) **Father**

Mark or specify country according to present boundaries.

Father

☐ Born in Canada

Born outside Canada

Specify country

(b) **Mother**

Mark or specify country according to present boundaries.

Mother

☐ Born in Canada

Born outside Canada

Specify country

(Statistics Canada, 2006a)

Appendix E: Statistics Canada Long form 2B Census questions: Immigrant status

10. Of what country is this person a citizen?

*Indicate **more than one** citizenship, if applicable.*

"Canada, by naturalization" refers to the process by which an immigrant is granted citizenship of Canada, under the Citizenship Act.

☐ Canada, by birth

☐ Canada, by naturalization

Other country — *Specify*

11. Is this person now, or has this person ever been, a **landed immigrant**? A *"landed immigrant"* (permanent resident) is a person who has been granted the right to live in Canada permanently by immigration authorities.

☐ No → Go to Question 13

☐ Yes

(Statistics Canada, 2006a)

Appendix F: Statistics Canada Long form 2B Census questions: Hours worked

34. Last week, how many hours did this person spend working for pay or in self-employment?

Please enter the total number of hours worked for pay or in self-employment at all jobs held last week.

Include:

- *working for wages, salary, tips or commission;*
- *working in his / her own business, farm or professional practice, alone or in partnership;*
- *working directly towards the operation of a family farm or business without formal pay arrangements (e.g., assisting in seeding, doing accounts).*

Number of hours (to the nearest hour)

_____ → Go to Question 40

OR

☐ None → Continue with the next question

(Statistics Canada, 2006a)