Ethno-racial groups and income attainment in Canada: Investigating the mosaic.

Tamara Rayvon Ferron

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Ethno-racial Groups and Income Attainment in Canada: Investigating the Mosaic

by

Tamara Rayvon Ferron

A Thesis
Submitted to the Faculty of Graduate Studies and Research
Through the Department of Sociology and Anthropology
in Partial Fulfillment of the Requirements for the
Degree of Master of Arts at the
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Abstract

This paper looks at income inequality, based on ethno-racial origins. While Canada is proclaimed to be largely egalitarian, in light of its liberal policies and ideologies such as liberalism and multiculturalism, this thesis examines the extent to which economic inequality, manifested in income attainment is present in Canada. Building on past research, which have identified links between ethno-racial origin and identity, it provides a snapshot of the socio-economic standing of different ethno-racial groups, speaking to a part of the everyday lived experiences of different people residing in Canada.

Using cycle 14 of the General Social Survey and factors related to income attainment such as human capital, social capital and socio-demographics, ordinary least squares regression showed that race and not ethnicity is an important predictor of income. That is, while all ethno-racial groups make comparable incomes with the British, visible minorities suffer significant income gaps in relation to this group. This difference is unexplained even after their higher educational attainments are considered. Finally, this project shows that human capital and socio-demographics are still the best predictors of income, while some factors of social capital improve income.
Dedication

This thesis is dedicated to the One who sustains me,

The Father, Son and the Holy Spirit.
Acknowledgements

Throughout this journey I have been blessed to work with many individuals who have been most helpful in many more ways than one. I am forever indebted to these people who have supported my career as an academic. Without them this work would not be possible. Thank you.

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Chapter 1

General Introduction and Thesis Outline
1.1 Income Inequality in Canada

Canada is often seen in a favourable light with regards to equality, fairness and humanitarianism. This high regard and international esteem is largely attributed to its national policies surrounding immigration and the dynamics of its people, solidified in the policy of Multiculturalism (Fleras and Elliott, 2003). Enacted by the Federal government in 1971, Multiculturalism serves as the socio-political framework responsible for congealing Canada as a nation. Moreover, it is responsible for contextualizing the dreams of Canada’s multi-ethnic population, ensuring freedom of opportunity, and equality without grudge or prejudice.

With this policy as the framework for a great nation and a new life, a vast array of ethnic groups now reside in Canada, having journeyed from far and wide. Burrowing from a biblical story, much like the children of Israel they seek respite in the ‘Promised Land’, hoping to partake in the overflow of milk and honey, which metaphorically speaking translates into economic prosperity. They journeyed with the hopes and intentions of potential social mobility, seemingly embedded in Canada’s promises.

Placing all metaphors aside, despite the possibilities and the maybes of a better life, evidence show that there may be an endemic structural inequality within Canada’s Mosaic with a hierarchy of power based on ethnicity and immigration status. Past studies found that despite Canada’s pretext of a “classless society with a general uniformity of possession” some ethnic groups were economically disadvantaged; they were found in
low paying occupations, possessed the lowest levels of human capital and were under represented or absent from Canada’s political, educational or corporate elites (Porter, 1965).

While past studies may be construed as a challenge to the reality of Multiculturalism, recent studies indict this policy, showing that economic inequality and particularly, income inequality in Canada is based on race or colour. Visible minorities as well as Aboriginals are among the most disadvantaged groups in Canada. On average, these groups are over-represented in the lowest income quintiles and are least likely to be found in the upper level income brackets (Canadian Council on Social Development, 2000). Studies conducted on poverty speak of the ‘racialization of poverty’, showing that visible minorities and Aboriginals are overwhelmingly found below the poverty line (Halli and Kazempur, 2001).

On other fronts, research on Canada’s labour market show that ‘visibility’ and not mere ethnicity has become a marker for inequality. Studies that examine the dimensions of socio-economic position, looking at occupation, education and income report that social inequality is primarily manifested in income inequality (Balakrishnan and Hou, 1996), where educational attainments have not translated into economic gains (Lian and Mathews, 1998). Earnings of visible minorities have been incommensurate with their documented high levels of human capital as such returns on their levels of schooling for some groups have been significantly low. This has led researchers to speak of an ethno-
racial penalty or cost that racialized groups incur in labour market outcomes (Li, 1998; Geschwender and Guppy, 1986).

Researchers have also found out that even when immigration status and country of birth are taken into consideration, race is still important in employment outcomes. On average, Canadian born white males earn 8% more than Canadian born visible minority males and 13% more than Aboriginal males. Yet when immigration status is used as a comparative measure, Canadian born white males earn only 2% more than their foreign born white male counterparts (Pendakur and Pendakur, 1998).

The inclination to attribute patterns of inequality or income disparity to a potential undercurrent of discrimination based on the idea that some ethnic groups receive different treatment as a result of physical traits seems justified where human capital seems to be of no avail in securing socio-economic equality. However, these differences can also be due to different forms of capital embedded in social relations or social capital. That is, social capital has been argued to influence socio-economic positions. Social capital entails networks, norms, values and ties which allows information pertinent to employment to flow, hence creating opportunities for employment (Smith, 2002; Lin, 2000; Aguilera, 2002). Research endeavours conducted in the United States by Lin (2000) and Aguilera (2002) found that social networks and ties were positively related to labour force participation along ethno-racial lines.
As a theory, social capital espouses that there is utility and benefits in the interaction between individuals. This interaction potentially creates bonds and ties that facilitate trust, mutual obligation and norms of reciprocity (Bourdieu, 1986; Coleman, 1990; Putnam, 2000). Herein, social capital is a resource, which can be mobilized and used to achieve an end or a goal. Similar to human and financial capital it is productive and imbued with extrinsic value for both individuals and groups. Therefore, the purpose of this thesis is to examine the impact of human and social capital for ethno-racial income inequality in Canada.

1.2 Thesis Overview

Social inequality and particularly economic inequality has been a site for theoretical and empirical excavation. Prolific research and subsequent writings have focused on fairness and equality within Canada’s multicultural labour force. Yet more research is needed, particularly, as the ‘face of Canada’ changes with individuals from non source countries¹ and in response to the charge that these individuals are disadvantaged based on their skin colour. To the extent that Canada stands on the principles and tenets of multiculturalism, which includes fairness, it is crucial to ensure that this is extended to all individuals without grudge. More specifically, while ubiquitous notions of freedom and equality contextualize the dreams of Canadians, it is important to use measures of economic well-being, captured by income attainment, to recount a part of their daily realities.

¹ Immigrants from non-source countries originate from countries in Africa, Asia, Middle East, West Indies, Latin America and South America
While there is a substantial volume of literature on income attainment, there is a lack of consensus regarding factors which influences income attainment, as human capital, socio-economic background and socio-demographics have all been shown to be related to it. Furthermore, much of the writings have not considered the utility of social capital in the employment process. Studies done in Canada have focused on market forces and human capital without regards to the idea that income attainment is a social process that cannot be divorced from the social. Herein, who one knows may be just as important as what one knows. As such, this study wishes to add to the literature on economic standing by broadening the analysis of income attainment to include social capital theory.

Overall, this thesis reports on the milieu of factors, which are influential in the process of income attainment of ethno-racial groups in Canada. In doing so, it presents a snapshot of the economic standing of various groups, addressing the idea of equality and fairness in Canada’s mosaic. Is ethno-racial identity correlated with income attainment in Canada? If so, how do forms of capital affect this correlation? Do forms of capital mediate the relationship between ethno-racial groups and income?

Using data from the General Social Survey Cycle 14, collected in 2001 by Statistics Canada from a national cross sectional survey, the following research goals will be to:

1. examine and document the relationship between ethno racial origin, human capital, social capital, socio-demographics and income.
2. to the extent that these relationships are present, the study will explore the complexity of the income attainment process and address whether or not ethno-racial origin is important in predicting an individual’s income.

Throughout the following chapters detailed discussions and consideration is given to the aforementioned research questions and objectives. We begin in Chapter 2 by reviewing the previous literature on economic inequality and income attainment within the Canadian context, charting the degrees of inequality from the 1960’s to the present day. After which, in Chapters 3 and 4 we look at the theoretical overview, outlining the theories of human capital and social capital and their importance in income attainment. Chapter 5 presents a description of the methodology used in this investigation along with the research hypotheses guiding the study. In Chapter 6 findings from bivariate and multivariate analyses of research questions are presented. Finally, Chapter 7 presents the conclusions, and limitations of the study, along with its implications for future research and social policy.
Chapter 2

Literature Review
2.1 Past Research

The idea that various forms of inequality and particularly economic inequality exist in Canada need not be construed as a grand revelation, in that inequality within the economic sphere has been a reality interwoven within the landscape of the human condition. More specifically, the idea that Canada’s mosaic is unequal dates back to its long standing history of immigration (see Henry et al., 1992). That is, before discriminatory immigration policies were relaxed in 1967, allowing immigrants from non-traditional source countries, inequality was a daily reality for newcomers.

Issues of social and economic inequality were brought to the forefront of the Canadian consciousness by John Porter (1965). Porter (1965: 4) asserted that despite the pretext held by the Canadian constituency of a “classless society with a general uniformity of possession”, there was an existing structure of inequality. This inequality referred to the positions of class relations that ethnic groups held in Canada, manifested in income attainment, occupational status, educational opportunities and political clout. In his study based on the 1931 and 1961 Canadian Censuses, he found that individuals of British and French descent, classified as the Charter groups were positioned at the top of the hierarchy, possessing an overwhelming amount of power, Europeans were found in the middle, divided by their immigration status, while Aboriginals and visible minorities sat the bottom of the superstructure. Herein, Porter concluded that Canadian society was stratified by ethnicity, with cultural and economic barriers for the ‘unassimilated’.
Since Porter’s publication, which turned the image of Canada’s egalitarian mosaic on its head, challenges to Porter’s assertions have been mounted on a variety of fronts. Some scholars have raised objections with respect to the blocked mobility thesis (Herberg, 1990; Darroch, 1979; Isajiw et al., 1990). Darroch (1979) argues that a re-analysis of his work suggests degrees of exaggeration with respects to the generality and strength of the correlation between ethnic status and socio-economic position. Pineo and Porter (1985) contend that while the link between ethnicity and socio-economic position may not be as strong as earlier works have relayed, the Vertical Mosaic did exist. In fact they note that this relationship can still be seen in the older cohorts of their sample. Lautard and Guppy (1990) conclude that a historical comparison of ethnic inequality as measured by occupation between the years of 1931 and 1991 conveys that there has been a moderate decline in the significance in the role of ethnicity. In a similar vein, Ogmundson and McLauaglin’s analysis of Canadian elites, (1992) shows that there has been a decline in the amount of power the Charter groups possess.

More generally, in regards to the idea that ethnicity is linked to class positions, researchers point out that no specific ethnic group can be perceived as dominating the Canadian class structure without equivocation (Nakhaie, 1995; Li, 1988). While examining ethnicity in a Marxist framework, Nakhaie (1995: 184) contends that “the relationship between class and ethnicity is in flux”. Meanwhile, Li (1988: 140-141) avers that “primordial cultures of ethnic groups have never been the primary force in producing social classes in Canada”. 

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Notwithstanding the theoretical and empirical admonishment that the idea of a Canadian vertical mosaic has received, several scholars have revisited and revived Porter's (1965) work, following up on the current existence of a nexus between ethnicity and structural inequality. Using the Public Use Microdata Files for Individuals, which comprises of a 3% sample of the 1991 Canadian Census Pendakur and Pendakur (1998), Balakrishnan and Hou (1996) and Lian and Mathews (1998) discovered vestiges of economic inequality, thus reinforcing aspects of the Vertical Mosaic thesis.

Balakrishnan and Hou (1996), examined the dimensions of socio-economic position, operationalized as education, occupation and income among ethno-racial groups, while controlling for immigration status. They assert that “ethnic differences in socio-economic status still exist in contemporary Canadian society”, where “social inequality is primarily manifested in income inequalities” (1996:323-24). Regression analysis conducted by Geschwender and Guppy (1986), which encompasses control variables such as, region, gender, age, occupation, immigration history and human capital and utilizes the 1986 Canadian Census, reveals that ethnic membership and affiliation plays an important role in the Canadian Mosaic. Geschwender and Guppy (ibid) discovered that human capital and more specifically educational attainments of various ethnic groups have translated into small economic gains, thereby speaking to incurred ethnic penalties.

While the aforementioned studies and findings points to a nexus between ethnicity and income attainment, recent literature point to a paradigmatic shift from ethnicity to race in a re-aligned Vertical Mosaic. This may not be confounding to many, as Breton (1998)
notes that while Porter (1965) viewed ethnicity as the problematic in social advancement, he would be even more so inclined to contend that race would heighten this predicament. Agocs and Boyd (1993) assert that Census data on Aboriginals and visible minorities suggest that the Mosaic has been re-aligned on the dimension of race. In concurrence with this statement, Boyd (1992:279) regards that “past-preoccupations with the socio-economic position of European origin groups” has been re-directed to illumine the plight of “immigrants from the Caribbean, Africa, South America and South Asian countries”.

In her study on earnings inequality, Boyd (ibid: 304) found that while controlling for “income related characteristics” such as age, geographical location, education, and occupation, “the pattern of lower incomes for visible minority ethnic groups is enhanced”. Similarly to Boyd’s promulgation Herberg (1990:218) found that “visible minorities suffer from brutal income inequalities”. He noted that while occupational and educational processes within the Canadian system are largely egalitarian the same cannot be said about income allocation. Herberg (ibid: 217) found that “five of the seven visible minority groups in his study possessed educational and occupational resources that were conspicuously better than the income positions the groups held”.

Lian and Matthews (1998) build on Porter’s original methodological formulation using aggregated data from the 1991 Canadian Census. Here, they focus on education as a vehicle to social mobility unperturbed by control variables such as age, marital status, occupation, period of immigration and official language. They contend that ethnicity now intersects with race and has become the fundamental basis of income inequality in
Canada. Having analyzed the relationship between education and income, using a more extensive list of ethnic groups in Canada than employed in past studies, they note that members of visible minority groups possess significantly lower levels of income than all of their Canadian counterparts, at all educational levels; thereby, pointing to discrepancies between education and income among visible minorities and European ethnic groups. This in turn, challenges the theory of human capital and its universal exchange value.

In looking at education and mobility as a manifestation in income attainment, Lian and Mathews (ibid) discovered that members of European ethno-racial groups received above average income for their educational accomplishments, with the exception of two groups. In direct contrast to these findings, this study revealed that visible minority groups exhibited the largest discrepancies between income and education; all 10 visible minority groups earned less than the national average at all educational levels.

Using the same data set as Lian and Mathews (ibid) Pendakur and Pendakur (1998) found that white/visible minority distinctions correlate with ethnically based earning differentials. In their study, Pendakur and Pendakur (ibid) examine earning differentials between whites, visible minorities and Aboriginals; dividing their sample by sex, region and immigration status. Additionally, Pendakur and Pendakur (ibid) employed dummy variables accounting for occupation, education, and full/time part time status, while including measures of labour market experience for several regions outside Canada. In looking at earning differences between ethnic groups, Pendakur and Pendakur (ibid)
found that in comparison to Canadian born white men, Canadian born visible minority men and Aboriginals face earnings gaps of 8% and 13% respectively.

A link between income disparity and race or skin colour was also found in a study conducted by Gee and Prus (2000), leading them to conclude that there is a "racial divide" in Canada. Using Multiple Classification analysis these researchers measured differences in income across five ethno-racial groups. Their analysis yielded income gaps between whites and non-whites that were not accounted for by other factors. They found that visible minorities "lose a considerable amount of money yearly because, and only because they are not white" (Prus and Gee, 2000:250). Similarly, Nakhaie (2005) found that when factors such as forms of capital, and socio-demography are taken into consideration, skin colour is still important in accessing resources in Canada.

In light of the aforementioned studies one gathers that the act of acclimatization has proven difficult for many ethno-racial groups in Canada. Explanations for such difficulties have varied as much as evidence of the degrees of inequality. Balakrishnan and Hou (1996) suggest that differences tied to ethnicity are predicated on integration patterns in that visible minorities integrate into Canadian society at large, in a different manner than European ethnic groups. Porter (1965) spoke of ethnicity as a liability with the capacity to pre-empt social mobility contingent on affiliations and loyalties manifested in ethnic enclaves (see Darroch, 1979). Yet other scholars identify discrepancies in occupation and income as discriminatory undercurrents within Canadian society, where human capital is downgraded and devalued in light of perceived
differences (Li, 1998, Lian Mathews, 1998, Agocs and Boyd; 1993, Geshwender and Guppy; 1986). Statistical analysis led Lian and Mathews (ibid: 475) to conclude that "educational achievement at any level fails to protect persons of visible minority background from being disadvantaged in income attainment". Li (1988:137) contend that the persistence of discrimination against some visible minority groups suggest that "the problem of racial discrimination is more pervasive in the Canadian labour market than is assumed". Still other scholars are beginning to attribute a portion of inequality to lack of access based on connections and ties.

More recently, inequality in economic outcomes, are being framed in the context of social capital. More specifically, social capital has been argued to influence socio-economic positions and economic well-being. (Potocky-Tripodi, 2004; Tiepoh, 2004; Ooka and Wellman, 2003). Social capital as been described as an instrumental tool in social mobility and economic attainment, based on its utility in providing useful information about the labour market and employment opportunities. The World Bank (1999a, p.1) summarizes social capital’s utility stating:

social capital forms the underpinnings of poverty and prosperity...virtually all economic behaviour is embedded in networks of social relations. Social capital can make economic transactions more efficient by giving parties access to more information, enabling them to coordinate activities of mutual benefit.

Studies conducted in the United States show that social capital is a network through which, information pertinent to employment flows, creating opportunities for employment (Smith 2002; Lin 2000; Aguilera 2002). Examples of this can be seen in
instances where job seekers are informed about available job positions. Sanders et al. (2002) documents this process among Asian immigrants; in-depth interviews of 164 individuals showed that Asian immigrants relied on interpersonal ties in job searches. Interviewees reported that family members, acquaintances and friends oftentimes inform job seekers about job openings.

While the importance of social capital in income attainment might not be well researched in Canada, a few studies highlight the importance of social capital in economic well-being. Nakhaie (2005) found that social capital tends to improve the earnings of some ethno-racial groups but has less effect on others. Similarly, Lamba (2003) found that among Canadian refugees, individuals who enlisted the help of in-group ties, such as family and friends found higher quality employment than individuals who relied solely on their human capital and their own efforts. This supports the claim that social capital can be mobilized to achieve an end that would have otherwise been more costly (Coleman, 1990). It has also been documented that social capital formed in educational institutions is responsible for improving employment outcomes. Buerkle and Guseva (2002:674) found that social capital amassed in schools improves an individual’s income as it “endows individuals with networks of friends and acquaintances”, which reduces the uncertainty in the hiring process replacing lack of information with personal in-depth knowledge and trust.

While the evidence is incongruent, a common theme emerges from the literature-the importance of forms of capital in mitigating, buffering, or eliminating inequality both
directly and indirectly. In the case of human capital, studies emphasize its importance by using it as a yardstick in measuring and predicting inequality. Conversely, social capital is conceived as important in predicting income. In light of these tendencies, both forms of capital and their relevance are used as theoretical cornerstones in this project and are explored in the subsequent chapters.
3.1 Human Capital Theory

"The work which he learns to perform, it must be expected, over and above the usual wages of common labour, will replace him the whole expense of his education, with at least the ordinary profits of an equally valuable capital".

The aforementioned words expressed by Adam Smith formed the basis of what would be later termed human capital theory. In Smith’s words, the idea of capital refers to skills in which individuals acquire as investments towards their future. Although the concept of human capital was present since the early eighteenth century, this terminology first appeared in the work of Theodore Shultz in 1961, who wrote about investing in human capital (Crawford, 1991: 5). Since Smith’s conception of this term and Shultz’s label, human capital theory has broadened, encompassing different schools of thought regarding what and who should be considered capital. On one hand some scholars hold that human capital refers only to skills and talents, whereas, other scholars hold that individuals themselves should be considered as capital. Irregardless of this theoretical tension, modern human capital theory holds that some human behaviour is based on the self-interest of individuals operating within freely competitive markets. Moreover, such competition is fuelled by educational attainment and training, which are now the key to participating in the global economy. Based on this and loosely defined, human capital refers to education, training, experience and ability that enables productivity, thereby, equipping individuals to earn income in exchange for labour (Becker, 1975; Lowe, 1993).

The idea of capital itself speaks to an investment or past investment used to produce some type of profit. Gary Becker (1975) notes that the term was coined with the intention of making a “useful illustrative analogy between investing resources to increase
the stock of ordinary physical capital, in an attempt to increase the productivity of labour and investing in the education or training of the labour force as an alternate mean of accomplishing the same general objective of higher productivity". This productivity is not merely an outcome for a company or an organization but is also an outcome for the individual, as individuals must compete against each other in a free and open market. As such, skills or investments in themselves aid in the process of economic survival, placing them above their counterparts who stand as their competitors. Hence, there is a link between training or education and higher earnings suggested by the theory and subsequent findings. According to Febrero and Schwartz (1995), there are numerous ways to invest in human capital and while each means differs on relative effects on earnings, all improve income”.

In conceptualizing income and earnings as a function of training or accumulated skills, human capital theory acknowledges and maintains that capital has an exchange value and must necessarily produce a return (Mincer, 1974). According to Chiswick (1974), on the basis that human capital is created at a cost, individuals do not willingly invest in it unless it promises to generate sufficient benefit for compensation for the cost incurred. Similarly, Becker (1975) points out that investment in human capital make economic sense insofar as future benefits or value exceeds the extra costs that have to be incurred to obtain them. Davenport(1999) adds that people should not be considered as “costs or factors of production” but instead, as “investors paying human capital and expecting a return on their investments”. Eastman (1987:5) posits that typically “costs are incurred at the start of the investment period, but higher earnings and or better jobs are to be
expected at the end”. In this respect, modern human capital theory, values the idea of merit based on capital, while pushing the market agenda with the intention of ensuring that productivity is increased through efficient labour.

3.2 Human Capital and Structural Functionalism

The theory of human capital has its roots in neoclassical theories and has largely been the business of Economics; however, its employment in the social sciences is evident in works surrounding social inequality, stratification and social mobility. Moreover, the theory of human capital can be seen in wider theoretical frameworks, namely, in structural functionalism.

Structural functionalism stands as one of the theoretical cornerstones in Sociology, as it is entrenched in the growth of the discipline. Derived from the work of Emile Durkheim and later reformulated by thinkers such as Talcott Parson and Robert Merton, functionalism broadly views society as a set of interdependent parts. According to Edward Grabb (1990:98), this perspective is hard to precisely define based on the theoretical differences in conceptual definitions. Nonetheless, as a preliminary statement, it is safe to say that functionalism is characterized by a particular strategy of inquiry that investigates society as if it were “a system of parts that are interconnected to form various structures, each of which fulfils some function for the system. Burrowing from Durkheim, Parson argues that structures refer to organized patterns of relationships among individuals or social position. Herein, Parson highlights the importance of institutions
and systems, as well as the individuals who make up these structures and the roles that
they play in continued stability or functionality. For Parson and other functionalists these
individuals have roles and statuses that they must necessarily play in within a system in
order to maintain equilibrium or a continued balance. Based on this idea of roles and
their functional importance, broad parallels between human capital theory and the
structural functionalist perspective can be drawn.

As discussed in the previous section, human capital theorists purport that individuals
must necessarily compete in the economic sphere for limited resources, and as such
investment such in education and skills are important in enhancing one’s competitive
dge and securing limited resources. This idea also runs as an undercurrent of structural
functionalism, as this perspective encourages the idea of reward and incentives based on
work, sacrifice and merit (Davis and Moore, 1999). More specifically,
functionalists aver that “as a functioning mechanism, a society must somehow distribute
its members in social positions and induce them to perform. This distribution in a
competitive system centers around the idea of motivation to achieve positions, which are
scarce based on their functional importance and the special skills and talents required in
performing them. In this view, positions are not only scarce but talents and skilled
required for certain positions are scarce. Based on this the harder one works and the
more skills and talent they have developed to fill a certain position the more deserving
they are of certain rewards, otherwise termed motivation.
The idea of reward or incentive in the functionalist literature is contingent on sacrifice with regard to education and the development of special skills, similar to human capital and the idea of investment and return on capital. Davis and Moore (1999) propound that rewards are built into positions and consist in the "rights associated with the position plus what might be called its accompaniments or prerequisites".

3.3 Human Capital’s Relevance in Studying Income Attainment

The question arises as to why human capital is deserving of further analysis outside of economics. As mentioned before, there is a nexus or link between human capital and structural functionalism, speaking to human capital’s place in Sociology. Albeit, and more specifically, it is not contentious to assume that there is a link between human capital and income attainment. In fact studies conducted on inequality with respect to stratification, and mobility use human capital as a measure of quantitative and qualitative outcome. This section runs with this line of thought and makes a case for the usage of human capital in looking at income, focusing on the link between human capital and socio-economic position.

In conjunction with the broad theoretical parallels between sociology and economics, the importance of human capital in determining socio-economic outcomes have been emphasized by other sociologists. Max Weber’s work on rationalization is perhaps one the first sociological works to make the connection between skills and socio-economic position. Later, theoretical battles among social scientists about the nature of social
inequality in modern societies have in some way addressed the role that human capital plays in reducing structured inequality. Ralf Dahrendorf, who finds inadequacy within conflict theory and structural functionalism, argues that present day society is a fluid system of power relations, with a plurality of skills among workers that speaks to life chances (Grabb, 2002). Dahrendorf (cited in Grabb 2002: 137) adds that public education would weaken class barriers and promote social mobility; “no stratum, group, or class can remain completely stable for more than one generation”. This idea is reinforced by Giddens (cited in Grabb, 2002) who borrows from Max Weber, maintaining that an important factor in uprooting structured inequality would be the possession of skills and educational qualifications. Empirical findings substantiate these theories, showing that human capital has changed the nature of inequality. Studies conducted on mobility among generations show intergenerational changes in ethno-racial communities are largely attributed to educational attainment (Jones, 1985; McRoberts, 1985).

Finally, human capital’s theoretical relevance to income attainment is appropriated by the economic structure in contemporary society. Perhaps one of the greatest lessons that academics have learned from Karl Marx is that the economic organization in a society is relevant to an individual’s economic standing. In this wise, it seems unreasonable to look at economic positions in a structure without looking at the way in which that structure is organized. For example, in early industrialized societies, social and economic organization centred on material and physical capital, which served as propellants in the continuation of the system (see Morrison, 1995); therefore analysis of socio-economic
position would necessarily focus on these forms of capital. In the same wise, now that we have moved to a knowledge based society fuelled by technological advancement requiring skills and training, human capital now more or less assumes the place of physical capital (see Crawford, 1991). This does not imply that physical capital (labour) and material capital (finance) serves no purpose in modern societies; they are interlinked with human capital. Nonetheless, by and large human capital is central in a knowledge based economy. Crawford (1991) asserts that one of the defining characteristic of a knowledge base society is its reliance on education and training. He notes that “basic scientific knowledge and research become the economy’s driving force, generating new technologies, creating new industries.....and education plays a central role when knowledge services are the largest in the economy (pg. 19).

In sum, throughout this chapter, it has been shown that human capital theory espouses a direct relationship between skills or education and employment trajectories, maintaining the idea that the hand of the market is perfect and ensures that people are rewarded based on this form of capital. Likewise, theories of social inequality have reinforced this relationship by proclaiming human capital’s utility in loosening the grip of inequality. Finally, human capital has been presented as part and parcel of the present economic structure based on its role in fuelling Post Industrial societies. As a result of these arguments, this project uses Human Capital Theory as its principal theoretical framework in studying income distribution and socio-economic standing.
Chapter 4

Social Capital Theory
4.1 Introduction

For many, the proverbial saying one hand washes the other may be common place, therefore warranting no thought or analysis. Yet, for social scientist and theorist this saying speaks to the idea of social exchange under the rubric of social capital. Here, the concept speaks of obligations and reciprocity based on ties, networks and connections. It "consists of the stock of active connections among people- the trust, mutual understanding and shared values and behaviour that bind members of human networks and communities and make cooperative actions possible" (Cohen and Prusak, 2001:4). This concept, which is now widely used by many academics, was given theoretical life by scholars who were concerned with social theory, social organization, human behaviour and social fabric.

Among the roster of scholars most influential in the popularization of this term are Pierre Bourdieu, James Coleman and Robert Putnam. These thinkers illuminated the importance of social capital; Putnam saw its importance in creating a connected society imbued with civic engagement and civic virtue; Coleman highlighted its ability to facilitate cooperation and action; Bourdieu stressed its relevance in advancing social positions. Following Emile Durkheim's idea of social cohesion and solidarity, these scholars saw the merit of social capital in producing relationships and interactions based on trust, expectation and long term benefits. Throughout the remainder of this section, the contributions of each of these authors whom I acknowledge as the ‘contemporary fathers of social capital’ will be highlighted, adding to the overall analysis of social capital.
4.2 Pierre Bourdieu

Bourdieu’s work on social capital emanated from his pre-occupation with the ideas of capital and class, taken from Karl Marx. Bourdieu (1986) emphasizes the importance of capital, maintaining that capital is germane to the organization of society. He notes that it is “a force inscribed in the objectivity of things so that everything is not equally possible or impossible” and that it is “impossible to account for the structure and functioning of the social world unless one reintroduces capital” (Bourdieu, 1986:245). While Bourdieu found utility in this Marxist concept his worked diverged from it. For Bourdieu this conception was limited and in his own words reduced the “universe of exchanges to mercantile exchanges, oriented toward the maximization of profit” (ibid). Here, he argued that capital was not embodied in a single theoretical space but assumed different forms. Therein, he identifies three forms of capital: economic, cultural and social, paying particular attention to the ways in which they were accumulated and converted.

In the eyes of Bourdieu, social capital along with other forms of capital was crucial in defining an individual’s position and the possibilities open to them. This belief is seen in his definition of social capital, defined as, “the aggregate of the actual or potential resources which are linked to possession of a durable or more or less institutionalized relationships of mutual acquaintance and recognition – or in other word, to membership in a group- which provides each member with the backing of the collectivity- owned capital”. (ibid: 249). This backing or reinforcement provided by social capital was to be
used for an individual’s personal end in improving his or her social position. Herein, social capital was then to be used as a resource in the daily social struggles of individuals.

Despite the fact that individuals could advance their social positioning based on their level of connectedness, Bourdieu conceives of social capital as a resource based on group membership. This is noted in the aforementioned definition in the idea of collectivity and group membership. This is also portrayed in Bourdieu’s statement regarding the mobilization of capital, in which he states that the “volume of social capital is dependent on the size of the network of connection he can effectively mobilize”. Further adding, that social capital is not independent of these connections as the “exchanges instituting mutual acknowledgement presuppose the re-acknowledgement of a minimum of objective homogeneity” and because such networks exert a “multiplier effect” on the capital the individual possesses in his own right. (249). Simply put, Bourdieu argues that social capital is contained within group membership and finds its potential power in these connections.

Relationships, according to Bourdieu, existed in material or symbolic exchanges instituted through a family name, class, tribe or party and as such were not natural or social given. Instead, he propounds that they were constituted in the actions of institutions, which defined the characteristics of social formation. In this view, Bourdieu asserts that the accumulation of social capital is a “product of investment strategies in which individuals and groups reproduce social relationships that have direct immediate or long term use.
Based on this conceptualization that social capital is a resource present in groups, which is in turn used to advance social position, Bourdieu sets the tone for analyzing and assessing the accumulation and conversion of social capital. Particularly, his idea that forms of capital are inextricably linked to each other and the human condition undergirds the intention of this study. To the extent that ‘capital’ in all its form speaks to socio-economic standing, any analysis of income attainment that neglects social capital would be remised.

4.3 James Coleman

James Coleman’s contribution to social capital rests largely in his work on education and its relationship with this concept. His approach to social capital, unlike Bourdieu’s did not centre on class, conflict or capital as espoused by Marx. Instead, he approached the idea of capital by looking at social organization and their effects on individual actors. His theoretical treatment of social capital focused on the rational choices about social exchanges from which cooperative relationships and trust emerge (Putnam 2002: 63). Coleman defines social capital as “a variety of different entities with two elements in common they all consist of some aspect of social structure and they facilitate certain actions of actors- whether personal or corporate actors- within the structure” (Grootaert, 2001:11).

According to this social theorist, modern society could not exist without an extensive component of what he called “constructed social organization”, which is characterized by complex social relations of rational actors (Bourdieu and Coleman, 1991).
of this organization, Coleman argued consisted of relations between actors based on obligations and expectations, sustained by outside incentives. In light of this, Coleman noted that “such relations must be actively built”, as they do not flourish by themselves without effort and labour. Furthermore, he contended that this form of organization was distinguishable from a “primordial organization” (ibid), where relations are simple, as they are established by childbirth. Herein, simple relations were postulated to be “self-sustaining in the sense that incentives to both parties to continue the relationships are intrinsic to the relations”.

While this overview of Coleman’s work on social organization is simplistic, it documents a part of Coleman’s vision of social capital. That is, Coleman’s idea that relations are an integral feature of organization speaks to social capital. More importantly, Coleman’s differentiation of simple and complex relations alludes to the different types and structure of social capital. The notion of simple relations formed from childbirth, manifested in “friendships and all other forms of informal relationships” mirrors the bonding type of social capital. Conversely, complex relations, which are built and sustained by outside incentives, speak of bridging social capital which has a substantially different structure than bonding social capital.

In looking at social organization, Coleman’s analysis was not limited to merely highlighting social relations but also focused on the choices made by individuals. Coleman maintained that social capital exists in relations among persons (Krishna, 2002) but more importantly, he contended that individuals were rational agents who made
choices pertinent to social exchanges. In Coleman’s view, while individuals were rational actors they were not to be considered as independent beings, each acting to achieve goals independently arrived at, thereby propelling the functioning of the social system. This, Coleman argues was the ‘great fiction’ of modern society, compatible with the development of political philosophy of natural rights and classical economic theory. Instead, Coleman believed that certain actions of individuals were facilitated by structures of relations between people; individuals use social resources in facilitating their goals, resources characterized as social capital based on their functions and productive nature. “Social organization constitutes social capital, facilitating the achievement of goals that could not be achieved in its absence or could be achieved only at a higher cost (Coleman, 1990: 304). This is in turn accomplished through the creations of relations based on obligations and expectations. For example, “if A does something for B and B must reciprocate in the future, this creates an expectation in A and an obligation on the part of B to keep the trust” (Coleman, 1990: 306). In addition to obligation or “credit slips”, Coleman writes that social capital has the potential for information inherent in social relation, which in turn facilitates action.

4.4 Robert Putnam

Robert Putnam is arguably the most influential theorist, in popularizing social capital as a useful concept related to the everyday. This is evidenced by his characterization and definition of social capital, which is often used by many scholars. According to Putnam, social capital refers to “features of organization such as networks, norms of generalized
reciprocity and social trust that facilitate coordination and cooperation for mutual benefit” (Krishna, 2002: 2).

Burrowing from Judson Hanifan, Putnam argues that this form of capital is important to democracies. In one of his most prominent works, “Bowling Alone”, Putnam (2000) contends that civic engagement, which is a measure of social capital, is integral in keeping the wheels of democracy turning. More specifically, this renewed civic engagement would foster social interaction, which “helps to resolve dilemmas of collective action, encouraging people to act in a trustworthy way when they might not otherwise do so” (Putnam, 2002: 7). In this respect, social capital or social connections have “externalities that affect communities” (Putnam 2000: 20). For example, he posited that service clubs may mobilize local energies to establish scholarships while at the same time providing members with friendships and business connections that pay off personally. Putnam argued that when economic and political affairs are embedded in dense networks of social interactions, “incentives for opportunism and malfeasance are reduced” (Ibid).

In a study conducted on the importance of ‘connectedness’ in Italy, Putnam found that well performing regions show higher levels of civic involvement and trust, where community members were civically engaged (Putnam, 1990). This idea of social capital’s benefit to communities, to the larger society and to politics is a key identifier of Putnam’s work and can be seen throughout his career. As such, Putnam’s critics have charged him with focusing almost exclusively on the “benign macro effects of social
capital (Dekker, 2001:3). However, if one plays close attention it is evident that Putnam’s analysis of social capital extends to individual effects both positive and negative.

In addition to illuminating the benefits of social capital to civil society and the public good, Putnam spoke of social capital as a private good. He argued that “dense networks of social interaction foster norms of generalized reciprocity” and that some benefits from this capital serve the immediate interest of the individual making the decision to invest” in social capital (Putnam, 2002:). Here, networks create value for the individual, akin to “credit slips” or a “favour banks” (Putnam, 2000). In this wise, Putnam adds that networks and norms are to be considered a form of capital because like physical and human capital, social networks create value for the individual and communities.

While Putnam theorized about the importance of social capital to democracies, civil society and the individual, he also acknowledged the potential vice in social capital. Putnam warned that networks are generally good for those found inside of them; however, the external effects of social capital are by no means always positive. Putnam provides the example of the Oklahoma bombing, noting that Timothy McVeigh was able to bomb the Alfred P. Murrah building in Oklahoma because of his networks of friends, as he was unable to carry out this task on his own. As such, while some measures of social capital are good for democracies and communities, others may be destructive. Additionally, Putnam contended that social capital may also be employed to widen political economic inequalities. Therefore, he notes that it is important when talking about social capital to ask “who benefits and who does not?” (Putnam, 2002).
In a similar light, Putnam (2000) distinguishes between bonding and bridging types of social capital, arguing that these types of social capital had different external effects. For Putnam, bonding social capital brings together people who are alike with respect to characteristics such as ethnicity and social class, whereas, bridging social capital is encompassed in the relations of individuals who are unalike. Herein, the “external effects of bridging networks are likely to be positive, while bonding networks are at a risk of producing negative externalities” (Putnam, 2002). Putnam’s identification of different types of capital is prudent and useful in present day analysis of social capital, making it possible for researchers to understanding the dynamic of social capital with respect to quantity and quality.

As mentioned earlier, the theories of the aforementioned scholars have contributed to the prominence of social capital in academic discourse. Yet while this is the case, it is important to highlight that the theoretical conceptualization of social capital differs with regards to measurement and usage. Wall, Ferazzi and Schyrer (1998: 306) explain that Bourdieu’s version of social capital speaks to a “universal conceptual tool leading to a context-sensitive, historically oriented comparative investigation, which provides insight into how social reality is constituted. In this light, Bourdieu analyzes social capital at the individual level as a function of class based on networks and associations. On the other hand they note that Coleman employs social capital as a way to explain differences in individual chances, geared towards improving education. As such, Coleman analyzes social capital from the perspective of the family and the community, measuring social capital by family size, church affiliation and home structure. Lastly, Putnam relies on the
idea of social capital to address questions about the necessary conditions for creating strong, responsive and effective representative institutions (Wall, Ferazzi and Schyrer, 1998: 310). As such, Putnam explores social capital at the community and regional levels, measured by membership in voluntary organizations and voting. While these differences exist, each theory adds to the overall usage and understanding of social capital, showing that this form of capital is a resource, which is goal oriented.

4.5 Why study Social Capital in Income Attainment?

The significance of social capital in community outcomes and individual profitability has been documented and examined broadly. Proclamations of its relevance in community building, the knitting of social fabric and the creation of feelings of belonging encourage its use in many contemporary problems. However, it is of the utmost importance that social capital’s particular relationship and relevance to employment and income attainment be explored, before it can be recommended as a social panacea to income inequality. This section delves into the literature on social capital, speaking to its structure and utility in income attainment. It discusses social capital as the ‘missing link’ in income analysis based on its value and empirically tested mechanisms that influence economic activities.
Social Capital’s Value

As previously noted in the latter section, social capital, which refers to ties, connections, and networks, is productive and imbued with value. This concept is fuelled with resources, which are useful in producing positive outcomes and gains. It represents a stock of assets that produces a host of benefits (Grootaert and Van Bastkaer, 2002), so much so that some economic sociologists have calculated the cash value of an individual’s address book (Putnam 2002:7). Krishna (1990) notes that while social capital may not be readily seen, it is carried around with people in their heads and used as a means of reaching individual goals.

Regardless of its intangibility, social capital, much like human capital, has value as depicted in its outcome. Studies done on social capital examine this utility and value with regards to a myriad of subject matters including: Education, Health, Housing, Homelessness, Employment and Migration among others (Hebert, Sun and Kowch, 2004; Potocky-Tripodi, 2004; Knack and Keefer, 1997; Anucha, forthcoming). In all cases, evidence of the benefits and fruitfulness of social capital have been documented and widely disseminated. In a study on settlement patterns within immigrant communities, Anucha (forthcoming) found that social ties acted as a buffer in the social and economic acclimatization of immigrant women. That is, women with existing social ties, namely family and friends, had a smoother transition in settling in their new surroundings. Other studies in health show that overall well being is improved with extensive networks and connections, due to information channels and emotional support.
Social Capital as Missing link

Contrary to classical economic theories grounded in the notion of the 'invisible hand' of the market, economic standing is not merely a function of market forces, created in a vacuum. It is instead a process; a social and an economic process entrenched in society at large. Following this view, Grootaert (2001) avers that social capital is indeed the ‘missing link’ in the analysis of economic development, be it personal or collectively oriented. In saying this, he identifies a complex system, which determines the economic process of growth, which theories centred on traditional capital have not been able to capture. Such theories have overlooked the ways in which economic actors interact and organize themselves in order to generate growth. While Grootaert detects a short sightedness in economic theories, Granovetter (1973) insists that labour economists have long been aware that American blue-collar workers gain more information regarding employment through personal contacts than through any other means, making networks crucial to gainful employment.

The argument that social capital is the missing link in analyzing income attainment and inequality has been framed by Arrow and Borzokowski (2004) in a different light. They argue that social capital is worth studying as income disparity has risen in the past decade. Using a model of income based on social ties, Arrow and Borzokowski argue that “workers’ net worth has a lot to do with their networks”, so that, similar workers can have markedly different wages based on their social connections. They further contend that social capital warrants studying, as effects based on age, education and experience among others only explain half of the variation in income attainment.
In line with Arrow and Borzokowski’s argument, Fernandez et al. (2000) show that an individual’s network is important in finding employment through referrals and information channels. Looking at employment from the side of the employer, they found that companies invest in the social capital of their employees by using them in recruitment strategies. To this end, they found that firms that invested in the social capital of their employees obtained significant returns. More importantly, Fernandez et al. (2000) were able to show that “social networks are deeply implicated in an organizational routine”, where individuals found gainful employment based on informational channels, again implicating social capital as the ‘missing link’.

**Social Capital and Income Attainment: Information Channels**

When looking at social capital’s relevance to income attainment, there is a growing body of evidence that show the positive outcome of having extensive networks. This growing body of knowledge comes from the American literature on social capital. Smith (2002), Lin (2000) and Aguilera (2002) show that networks through which, information pertinent to employment flows creates opportunities for employment. Examples of this can be seen in instances where job seekers are informed about available job positions. Sanders et al. (2002) documents this process among Asian immigrants; in-depth interviews of 164 individuals showed that Asian immigrants relied on interpersonal ties in job searches. Interviewees reported that family members, acquaintances and friends oftentimes inform job seekers about job openings.
Social capital, the ‘missing link’ has been described as an instrumental tool in social mobility and economic attainment based on its utility in providing useful information about the labour market and employment opportunities. Lin (2000: 786) note that social capital conceptualized as “quantity or quality of resources possessed” that can be “accessed through social networks, enhances the likelihood or instrumental returns such as better employment opportunities, and higher wages”. Aguilera (2002) note that social capital refers to the resources possessed by individuals based on their relationships with others, which has been linked with business startups, earnings, and formal labour participation. Both Lin (ibid) and Aguilera (ibid) point to creation of personal networks that social capital can provide, which allow for the transmission and exchange of information that may be useful in social mobility. In this regard, social capital encompasses resources that are utilitarian and integral in enhancing the life chances of an individual.

Local studies conducted in Canada reinforces the idea that networks and ties influence and substantially improves income. Tiepoh and Reimer (2004) assert that people’s ability to organize and use social capital affects their income level based on income related knowledge, which networks facilitate. Using a set of empirical formulations on data generated from the New Rural Economy Project, they found that different types of social capital are positive determinants of household incomes for individuals in rural Canada.
Research endeavours conducted in the United States by Lin (2000) and Aguilera (2000) found that social networks and ties were positively related to labour force participation along ethno-racial lines. Aguilera (2003) found that immigrant Mexican workers who enlisted the help of their personal connections in finding their most recent job increased their job tenure by 26%. Similarly, in another study, Auguilera and Massey (2003) found that social capital affects the wages of documented and undocumented male Mexican workers directly and indirectly. Aguilera’s study of this group revealed that having family and friends with migratory experiences enhanced the efficacy of job searches, yielding higher wages for workers.

Notwithstanding the benefits that social capital affords in material outcomes, Lin (ibid) posits that there is clear evidence which points to a difference in social capital among social groups and gender, where minorities and females tended to have lower levels of social capital or deficient social networks. Smith (2002) notes that pertinent literature to employment and social capital implicates four aspects of job contacts important in the usefulness of a social network: race and gender of contact, strength of relationship and the contact’s influence. In her study, Smith (ibid) found that Blacks and Latinos generally had poor connections to the labour market and lacked information about job opportunities in relation to their white counterparts. Lin (ibid: 793) notes, “social groups have different access to social capital because of their advantage or disadvantaged structural position and associated networks”. This inequality is further worsened by what Lin refers to as homophily, where social group customarily interact and form networks with people that share in group commonalities with themselves. While these bonds may
provide communities with a sense of identity, bridging ties are also needed to transcend social divides, in order to facilitate social cohesion and personal development seen in material outcomes (Cote, 2001).

It is worth noting that the mechanisms through which social capital work are by and large universal; however, the outcome of different mechanisms is contingent on the structure and type of social capital. Granovetter (1973) reinforces the idea of structure in social capital by introducing the terminologies weak and strong ties. He argues that the strength of a tie depends on time, emotional intensity, intimacy and the reciprocal services. While strong ties require more time and breed local cohesion among groups of people who are usually alike, they are limited in channeling diffuse information. On the other hand weak ties are said to be “generative of alienation”, provide more opportunity to gain more and new information, as people are connected or linked to a larger group of people unlike themselves.

The accumulation of human and social capital, as well as the employment process must be seen as social affairs born within society. Recent studies that look at social capital as a predictor of income and employment status must necessarily be contextualized in the idea that personal experiences of individuals are bounded up with aspects of the social structure. As such they must draw on some aspect of social capital in their analysis.
5.1 Methodology

This chapter presents a description of the methodological orientation of this research, documenting the methods employed in testing relevant research questions outlined in a former chapter. It begins by providing an overview of the data set used, its origins and relevance to the project’s aim. After this, the research hypotheses to be tested are outlined, followed by the ways in which variables are conceptualized and operationalized for the purposes of this analysis. Finally, the statistical and analytical instruments used are outlined along with their limitations and parameters.

In exploring the relationship between ethno-racial grouping, human capital, social capital and income attainment, information was drawn from the public use microdata file from Cycle 14 of the General Social Survey. This survey is a part of the GSS program first established in 1985 by Statistics Canada with the objectives of documenting current trends and changes in the living conditions of Canadians, as well as providing information on current social policy issues.

The General Social Survey Cycle 14 was generated in the year 2001 with the intention of providing information about the use of Information Communication technology by Canadians in the various facets of their lives. This cycle was the first of the General Social Surveys to collect information regarding the use of ICT in the places of employment and the homes of Canadians. As such questions pertinent to computer access, levels of computer literacy and their use of technology in the workplace were raised.
Additionally, this data set amassed information regarding the impact of technology on work, civic participation and socio-demographic variables such as: education, income, language and employment which are relevant to this study.

The target population for this survey was all persons aged 15 years and over, residing in private residences found throughout Canada, with the exceptions of Yukon territories, Nunavut and the Northwest Territories. As well individuals institutionalized on a full-time basis were not included in the sample frame. Individuals were randomly selected by Random Digit Dialing from a sample frame provided by the Canadian Census. Selected respondents were contacted by telephone and interviewed between the months of January and December in 2002, creating a sample of 25,090, with a response rate of 80.8%. The ultimate sample size relevant to this study is 15,912. This reduction in the sample was caused by missing or unreported data by some the respondents on several variables. These complications were remedied and did not threaten the strength of the sample or the validity of the findings due to the robust nature of the statistical instrument (SPSS) used and the size of the sample (Cohen and Cohen, 2003).

Even still, while the sample was reduced, for the purposes of this study, final regression analyses focused on a subset of the reduced population. Here individuals over the age of 25, who were working on a full-time basis were used in the final analysis, providing a sample size of 9,064. The central reason for looking at this sub-sample, was to ensure that individuals had ample time to acquire or attain human capital and were actually a part of the labour force, therein we had the opportunity to compare ‘apples with apples’
as opposed to comparing people who had no opportunity of obtaining human capital with those who did and were in the labour force.

5.2 Research Model and Study Hypotheses

This analysis finds its utility and strength in the preceding large volume of writings on social inequality in Canada. Its methodological underpinnings, including its research model are a reflection of the breadth of empirical studies dating back to the early 1960s. Herein, research questions and study hypotheses attempt to speak to uniformity in uncovering the complexities of economic standing, further muddled by the cloak of multiculturalism. Additionally, the research model uses convention but forges ahead by adding social capital, hoping to add something new to the body of knowledge on economic standing in general, setting the stage for future studies.

Here, the following hypotheses propelling this inquiry are outlined:
1) Ethno racial origin is correlated with an individual’s income.
   *Null: Ethno-racial origin is not correlated with an individual’s income*
   a) Individuals categorized as visible minorities receive lower incomes than individuals of British, French, and European descent.
      *Null: Visible minorities do not receive lower incomes than the British, French and Europeans.*
2) Human Capital is associated with income attainment.
   *Null: Human Capital is not associated with income attainment.*
   a) Human capital mediates the relationship between ethno-racial origin and income.
      *Null: Human capital does not mediate the relationship between ethno-racial origin and income*
b) Visible minorities with high levels of education will have lower levels of return in income than the British.

Null: Visible minorities with high levels of education will not have lower returns in income levels than the British.

3) Measures of Social capital are correlated with income; individuals with high levels of social capital will have greater returns seen in higher income levels.

Null: Measures of social capital are not correlated with income

a) Social capital mediates the relationship between income and ethno-racial origin.

Null: Social capital does not mediate the relationship between income and ethno-racial origin.

Based on the previous study hypotheses, this endeavour is positioned to illumine how income inequality works in Canada and what it looks like. Is income inequality pronounced along racial lines? Are some ethno-racial groups better off than others? If so, is it a matter of meritocracy at work, where individuals found in the higher income brackets have more human capital? Does social capital matter in income attainment? If so, for whom does it matter? Finally, which measures of social capital matter?

While the theory of social capital, highlighted in Chapter 3 suggests that social capital establishes information channels that people use to gain information about employment, the GSS provides limited information which can be used to assess how many people gained information about employment from these channels. Therein, information surrounding social capital’s utility may provide limited answers, as the GSS provides limited information on the ways in which social capital work with respect to income attainment. This in turn means that this analysis will focus on correlation without unraveling how social capital works for different groups of people in terms of the
strength of ties and the structure of the enlisted social capital. However for the purposes of this paper, correlation will suffice, hopefully setting the stage for other large studies.

5.3 Conceptualization and Operationalization of Variables

Conceptualization of Income
In the past income has been examined at different levels including family, individual and household. More specifically, these levels entail monies gained from earnings, money transfers, Employment insurance, Social Assistance and other sources. Based on the objectives of this study, income is conceptualized as that which an individual earns from gainful employment before taxes have been deducted. Income is among one of the least reported variable within large scaled surveys. Individuals for one reason or the other, often opt to skip this question. Rubin (1987) notes that non-response in census or sample survey is a common phenomenon whenever the population in question comprises of such units as individuals, households or businesses. As such, there are a several ways in which item-non response for income can be remedied; the remedy used in this study will be further discussed in the following section on measurement and coding. For the purposes of this paper income, was based on personal income reported before taxes.

Conceptualization of Ethno-racial origins
The independent variable, ethno-racial origin has been a problematic concept within academic discourse, as ethnicity itself has been hard to define and oftentimes confused with subjective identity. Ethnicity has been undermined based on the ambivalence
surrounding its meanings. Li (1999) Kalbach ((1999) and Olzack (1985) speak of several explanations and interpretations including the primordialist, legal and unequal relations accounts. While the primordialist explanation views ethnicity as that which is based on ascription, encompassing a shared cultural background; legal accounts take into consideration roles that the government plays in constructing and legitimizing ethnic identities. As well, they consider the ways in which actions and policies of the state influences the composition of race and ethnic groups vis a vis aggregation instruments that measure these concepts.

In a similar vein, the idea of race has been the subject of much debate in terms of its validity and its scientific merit. Michael Banton (1998), traces the historical beginnings of the word race and finds that the term has undergone a specific transformation, as its meaning as evolved from its reference to lineage, to groups of people to its present reference to patterns of genotype and phenotype. While past accounts have declared that race is based on biology and ascription, more recent arguments call for the abandonment of the term. Satzewich (1998:29) states that “racial classifications have no scientific validity”, but instead speak of “arbitrary labels” employed as descriptive categories with the intention to explain patterns of physical and or genetic variations. Yet others, point to the importance of race irrespective of biology in its social consequences for those deemed inferior or superior (see West, 1993).

Notwithstanding the debates surrounding ethnicity, race and their many conceptualizations, for the purposes of this paper the concept ethno-racial origin will be
defined as that which reflects ancestral origins. Here, this concept speaks to a self-proclamation, which individuals make as a result of the origins of their ancestors; this conceptualization stems from the GSS data set, as individuals were given categories from which to choose their ethnic origin. More specifically, individuals were asked to choose from six categories: British, French, Canadian, Other European, Multiple ethnicity and Visible Minority².

**Conceptualization of Human Capital**

Human capital, in this analysis refers to: acquired skills and educational attainment that are marketable in the economic sphere. This form of capital has been documented as one of the best predictors of income (see Stelcner and Kyriazis, 1995). Indicators such as highest level of education completed by an individual, reported knowledge of technology and experience in the labour force will measure human capital. These variables when combined refer to the earning potential of an individual, derivative of the idea that higher measures of capital are associated with higher income.

**Conceptualization of Social Capital**

While there are distinctions between social capital as a micro or macro level explanation (see Gyamartí and Kyte, 2003) or a public/private good (see Buerkle and Guseva, 2002), this project looks at social capital from a micro level focusing on its benefit as a private asset that individuals possess as a result of their relationships and interactions. Herein, the

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² For legislative, census, and other government purposes, visible minority status includes the following groups: Chinese, Japanese, Filipinos, Koreans, South Asians, South Asians, West Asians, Blacks, Latin Americans, Arabs and Other Pacific Islanders. (Gee and Prus, 2000)
idea of generalized reciprocity and beneficial ties in relationships seen in social capital will be measured by four elements: religious attendance, voluntarism, trust and family interaction, which speak of networks and connection that interaction embodied in relationships can form (see Cote, 2001). These indicators illumine social engagement, which lays at the foundation for the formation of bridges among individuals. Each bridge acts as an information channel or a conduit for resources, which are accessible based on norms of generalized reciprocity (Putnam, 2000).

Likewise, family interaction must also be considered as a form of social capital, in that relationship with family members create bonds and ties, which can be productive in the economic sphere, such productivity is documented by Coleman (1988). Hence the more communication and interaction among family members the closer the relationship enabling ties to be formed. Such ties are argued to be strong, encompassing fewer resources, but are nonetheless still useful. Burt (1992) insists that focusing on the strength of a tie misses the point because what is important about this tie is that a hole has been filled and bridged. In turn, it allows information to flow, which increases opportunities for employment.
5.4 Measurement and Coding Procedures

Changes in the configuration of data are often necessary for several variables. Modifications in this case were made to the data by way of recoding to ensure that variables were formatted for data analysis in SPSS. To this end, a number of variables were recoded, while others were compiled together based on factor analysis.

Measuring Income

Treatment of this variable proved to be the most difficult based on a high non-response rate that exceeded 20%. Respondents who were not employed with any income were excluded from the analyses respondents who were item non-respondents posed several challenges. Statisticians are often faced with problems of missing data, due to both complete and item non-response. However, there are several avenues which can be taken when attempting to deal with missing values, each of which have advantages and adverse disadvantages (See Cohen et al., 2003; Rubin, 1987).

One such method is a "customized imputation", which uses the residuals from the predictors of income and creates values for missing cases. Here, cases with observed values of income and their residuals are used as donors or proxies for missing values. While this method is not widely documented it provides a better solution for dealing with missing values than past methods. For example, instead of merely substituting missing cases with a mean value, imputation methods make attempts to find suitable values for recipient cases. It is worth noting that while a customized imputation may provide a better remedy than mean plugging it also has its down sides. Limitations of this method include reduction of standard error and inflated levels of significance. Therein,
interpretations must be presented with caution. For the final analysis, first ten income categories were created using mid-point values from the original data, with categories ranging from $2500 to $110,000. Then customized imputations was used to account for missing cases based on the residual values left over from regression analyses of income for cases with reported income. While the limitations of this method were mentioned earlier, it is worth noting that preliminary analysis of the study variables regressed on income without imputation yielded similar end results and conclusions.

**Measuring Ethno-racial origins**

Ethno-racial characteristic which speak to ethno-racial origin and ancestry was dummy coded in the analysis, encompassing six categories: Canadian, British, French, Other European, Multiple Ethnicities (British and Other, French and Other) and Visible Minorities. Ethno-racial categories were recoded using British ancestry as the reference group. This decision was made as an attempt to reflect past research regarding mobility and inequality. Additionally, year of immigration, which speaks to origin was recoded into 3 categories reflecting immigration policies vital in Canadian history. As such, categories included: Canadian, those born in Canada; early immigration, individuals who migrated to Canada before 1969; and late arrival, which includes those immigrants who recently arrived in Canada, after discriminatory practices were discontinued in Canadian immigration policy. Here Canadian is used as the reference category to show the effects of migration patterns and policies. Lastly, language spoken at home, which included: English, French and other language speaks to native language was dummy coded, using English speakers as the reference categories.
Measuring Human Capital

Measures of human capital, which includes education and computer training, were used to illumine the effects different credentials, labour force participation and skills have on income attainment. In the case of education, degrees were used as opposed to years of schooling based on the notion that one’s credentials in the form of degrees and certificates are assessed by employers. In this regard, education was recoded into 5 categories: high school, some college/university, diploma, bachelor and doctorate, with high school used as the reference category. Lastly, computer training was used as a continuous variable where people that had the highest level of training were given a value of 5 and people with no training a value of 13.

Measuring Social Capital

Four components of social capital are used as suitable measures in capturing the social element of income attainment. These components include: trust, religious participation, volunteerism and family interaction. Trust is used as a dummy variable where individuals who report that people cannot be trusted serve as the reference category. Religious participation, particularly, religious attendance is scaled from 1 to 5, with individuals who seldom attend such institutions at the lower end of the scale and those who frequent them at the higher end. Similarly, volunteerism was recoded based frequency and the amount of time spent working in different organizations. Again individuals with higher levels of volunteerism received scores on the higher end of the scale (5), while individuals who did not volunteer received low scores of 1. Finally, in 3 Based on a study conducted by Li (2000) a variable based on work experience in the labour market was created to help measure human capital, by subtracting six years of schooling from the five educational levels. However, this variable was excluded from the analysis based on concerns of multicollinearity.
the spirit of data reduction, familial and friendship interaction were placed together as one variable. As such, six questions regarding interaction with family and friends via, telephone, email and regular mail were computed as one variable based on factor analysis. In total this final variable had a minimum value of 0 and a minimum value of 24. Additionally, for the purposes of bivariate analysis this interaction variable was recoded into three categories: low (0-9), medium (10-17) and high (18-24).

Measuring Social-demography and other control variables

Socio-demographic variables included: region, gender, urban/rural context and marital status. Each variable was treated as dummies in the regression analyses. The recoding of gender, geographical context and region were straightforward, as females, rural and Ontario were used as reference categories respectively. Changes made to marital status were more complex, as 8 categories were reduced to 3. Individuals who were married or involved in common law partnerships were placed together in one category, respondents who reported being divorced, widowed or separated were grouped together in the next category and those who were single or never married served as the last category. In this case, people who reported being single were used as the reference category. Lastly, age is arranged in six categories based on the data set, as this variable was collected in ranges and not as a continuous variable. As noted earlier, individuals who were under the age of 25 were excluded from the analysis.

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4 Interaction variable based on communication was created using factor analysis, generated with a promax rotation to investigate the similarity among several social capital variables. This enabled the shortening of the variables to one in light of their common elements.
It is important to note that in addition to coding procedures, variables were tested for linearity in order to meet one of the basic assumptions in Ordinary Least Square regression. Univariate analyses were performed examining the distribution of all relevant variables. In most cases variables were close to normal distributions, or slightly skewed, attempts were made to transform variables, which included computing the log of the variable or squaring its initial distribution; however such transformations did not significantly improve the fit of the model or the distribution of the variables in question and as such they were left unaltered.

5.5 Statistical Analyses

Information from the GSS Cycle 14 was analyzed using cross tabulations and multivariate regression technique. Cross tabulations were used to compare the raw outcomes of constructed categories, whereas, multivariate analysis and more specifically, Ordinary Least Square regression examined and estimated probability revealing the best predictors of income in this study. Schroeder, Sjoquist, and Stephan (1986) note that multiple regression comes close to showing the pure effects of one variable on another since it explicitly recognizes the influence of other variables on the dependent of interest.

Ordinary Least Square regression was performed, on a sub-sample of individuals who were over the ages of 25 and working on a full-time basis. Regression models of earning determination with terms such as social capital and human capital, while controlling for gender, age, marital status, region, period of immigration and age at immigration were run in a hierarchical sequence. For the purposes of this paper, the sequence of the
variables relied heavily on the underlying principles of research relevance and the removal of confounding variables. That is, main variables, based on the focus of the research were first entered in the regression analyses, followed by control variables. Cohen et al. (2003) note that there are several basic principles which inform any sequential modeling, which include causality, removal of confounding variables and research relevance. They also note that more than one way of ordering a sequential model may be entertained when investigating a problem, as long as results are considered.

In the first model, the relationship between ethno-racial origin and income are assessed. The second model and third models broaden the concept of ethnicity by adding immigration period and language. In model 4 changes caused by human capital are investigated, over and above ethno-racial origin, while model 5 introduces the concept of social capital in the equations looking at its effects over and above human capital, ethno-racial origin. Model 6, then adds control variables showing the effects of human and social capital over and above all other variables.

1) Income = Ethno-racial origin
2) Income = Ethno-racial origin + immigration period
3) Income = Ethno-racial origin + immigration period + language
4) Income = Ethno-racial origin + immigration period + language + human capital
5) Income = Ethno-racial origin + immigration period + language + human capital + social capital.

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5 In this study, analyses were conducted using two models where socio-demography was entered in the first block and in the second instance entered in the final block. While the conclusions and final output were similar, the latter sequential model was used because it primarily focused on the subject of the research, looking at ethno-racial origin and related cultural tenets, such as language and immigration first.

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6) Income = Ethno-racial origin + immigration period + language + human capital + social capital. + socio-demographic variables
Chapter 6

Findings and Analyses
6.1 Bivariate Analysis

This section provides a preliminary assessment in the form of a bivariate analysis for income and several other variables found in the GSS, Cycle 14. Tables 1 and 2 highlight the distribution of income and education among ethno-racial groups, Table 3 presents the relationships between income and all of the study variables, while Table 4 provides a snapshot of the average income of individuals based on all exogenous variables. Findings from the aforementioned analysis will address relationships that are statistically significant at 99.5%. This criterion was selected based on statistical theory and this projects sample size, and will also be used for subsequent multivariate analyses.

Included in Table 1 are the mean values of income among the six ethno-racial groups across three classified groups differentiated by age and employment status. Group 1 presents mean values for the total population, Group 2 presents the values of a subset of the population who are characterized as individuals who are potentially within the work force or employable, that is, they are between the ages of 25 to 64. Lastly, Group 3 represents individuals who are within the labour force, who work on a full-time basis. Within the groups there are visible differences in income attainment among the several ethno-racial categories. In Group 1, the British have the highest mean income at $38,641, followed by Other Europeans ($38,199), these groups do not differ significantly; Canadian (36, 017); French ($35,940); visible minorities ($34,950) and respondents of multiple ethnicities ($33,998). This pattern continues among the 25-65 sample, with the British and Other European assuming the highest the highest income brackets of over $44,
000, while visible minorities trail the British by a little over $5000. This pattern is also present when we look at the sample of individuals who work on a full-time basis. Based on this, we can conclude that the British dominate other ethno-racial groups in income attainment, consistent with Porter's thesis. However, Other Europeans now moved up the mobility ladder, joining the British in the higher income positions, while the French are no longer junior partners in the Canadian vertical mosaic. In fact, here we see that the French have comparable income to visible minorities, making only $396 more than visible minorities.

Table 2 presents the distribution of education among the six ethno-racial groups, focusing on individuals who are again between the ages of 25-64 and are full-time workers (the population of prime interest in this study). On average, visible minorities tend to have higher levels of education in relation to other groups, particularly with respect to post-graduate degrees. Conversely, the British are more likely to possess lower levels of education, while the French, and Other Europeans are least likely to have a university degree, diploma or some type of trade or professional background. In sum, Table 2 coupled with Table 1 shows that while visible minorities have higher educational attainments, they tend to earn the least among the ethno-racial groups in Canada.

When looking at the socio-demography in the sample, Table 4 shows that gender region, marital status and immigration period associated with income. Women who are employed on a full-time basis are at a considerable disadvantage compared to their male counterparts. On average, women earn $38,177, whereas men earn $52,737 annually.
(p ≤ .001). This points to the popular argument documented in empirical studies, that income attainment is a prevalent site for the perpetuation of gender inequality. Similarly, respondents who live outside of Ontario earn significantly less than residents of Ontario, particularly, if they live in Quebec or the Atlantic. Lastly, immigration to Canada before 1967 provides an advantage in socio-economic outcome over Canadian born citizens and respondents who migrated to Canada after 1967.

Measures of social capital and their relationship to income vary in their significance in the process of income attainment, as evidenced in Table 3. Of the three measures of social capital, communication with family and friends had a strong association with income. As such, the idea of social networks through interaction is shown to be fruitful, therein, individuals who report frequent exchanges with family and friends earn more than individuals without such ties (p ≤ .001). Likewise, trust has a substantial association with income. Surprisingly, religious attendance had a weak association with income despite the potential for social interaction, which fosters ties. This finding could possibly be attributed to the different structures of social capital found in religious institutions, which will be further analyzed in a subsequent section.

In sum, bivariate analyses lend support to hypotheses 1, 1a, 2 and 3. Nevertheless, further investigation is needed to find out whether or not the relationships between ethno-racial origins, human capital and social capital with income are real or due to

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6 Income gaps between men and women are larger than findings reported in previous studies and should be interpreted with caution. Boyd et al. (1992:298) report that Canadian women in the labour force earn almost $12,000 less than Canadian men. That is, based on the 1986 Canadian census, Canadian men earned $27,019, while women earned $15,080.
confounding effects of other variables. Additionally, further analysis is needed to test hypotheses 2a and 3a, which postulates that social and human capital mediate the relationship between ethno-racial origin and income. As such, the remainder of this section is dedicated to analyzing the process of income attainment through multivariate analysis. Here, the importance of human and social capitals, their exchange values and their utility will be further examined.

6.2 Multivariate Analysis

In the following subsections, results from multivariate regression analyses are presented for the relationships between income and model variables. These results are presented based on the progression of the analysis, which moves from investigating the determinants of income from the total sample of individuals aged 25-64 employed on a full-time basis (N=9064) to predicting income for each of the ethno-racial groups. In looking at the determinants of income for the total population, a hierarchical or sequential regression technique is employed in order to isolate and track the unique effects of each set of variables. Herein, regression analysis for the total population is performed in six models, outlined in section 5.5. Alternately, analyses for each ethno-racial group is conducted using the last model for the total sample, therein, using all of the study variables to explore significant predictors for each ethno-racial category. These results are then used to examine the viability of the study hypotheses. As previously stated, relationships will be considered statistically significant at a probability level of .005, based on this study’s large sample size.
Findings for the total Sample

In model 1 when ethno-racial origin is considered, all ethno-racial groups face income gaps of over $4000 when compared to the British, with the exception of Other Europeans. Here, we see that Other Europeans have experienced high levels of social mobility in comparison to their former positions reported in Porter’s (1965) analysis. Conversely, other groups such as, Canadians, French and Multiple Ethnicities have lower incomes of over $5000 less than the British. Lastly, Visible Minorities face the greatest disadvantage among the groups as they make almost $6500 less than the British (p≤ .001).

Immigration period is added to the regression analysis in model 2, to decipher whether or not ethno-racial origin is confounded by differences in immigration period, policies and level of immigration adjustment to Canada. When these variables are entered the effect of ethno-racial origin on income declines; however, this decline is marginal, as all ethno-racial groups (with the exception of Other Europeans) still make significantly less than the British. That is, Canadians, French and respondents of Multiple Ethnicities, earn three to five thousand dollars less than the British, while Visible Minorities still earn over $6000 less than the British. Additionally, with respect to the new variables entered, immigrants who came to Canada before 1969, otherwise categorized as early immigration, have a significant advantage over Canadians and other immigrants. While early immigrants to Canada make over $7000 more than Canadians, newcomers make $300 less than their Canadian counterparts, which is in the end statistically insignificant.
Language spoken at home is introduced in model 3. Individuals who report speaking any other language aside from English are shown to earn less than their English speaking counterparts. More specifically, French speakers earn $5221 less, while respondents that speak other languages face an earning disadvantage of $6288 (p \leq 0.001). Additionally, in model 3 we see that income based on ethno-racial origin is reduced when language is introduced in the model. Thus, when model 2 and 3 are compared the income gap between the British with Canadians, French and respondents of multiple ethnicities is reduced by about 50% and that of visible minorities by about 30%. It is also worth noting that the income gaps between late immigrants and Canadians become significant and large, favouring late immigrants. This suggests that the disadvantage of late immigrants is mainly due to their English language proficiency. Both French and other languages produce income disadvantages of about $5000, compared to the English language.

The power of human capital in securing economic resources, as theorized in Hypothesis 3 can be seen in Model 4. This is evidenced and statistically confirmed in the substantial change in the coefficient of determination (R Squared), which increase from a value of 2.4% to 16.5%\textsuperscript{7}. This is the highest documented change seen throughout the analyses. When educational degrees are assessed individually, as categories in themselves, people with post-graduate degrees earn $29,215 more than individuals with low levels of education (high school and less). Similarly, obtaining a Bachelors degree secures an income advantage of $14,019, while having a diploma converts into a $2000 advantage.

\textsuperscript{7} The total variance resulting from the measures of human capital was calculated by subtracting the R-squared value in model 3 from the R-square value in model 4.
over individuals with educational backgrounds of high school and below\textsuperscript{8}.

Corresponding to the importance of higher learning, formal computer training enables an increase in resource attainment; herein, human capital’s importance cannot be questioned in this model. Yet, while the income gaps between British with the Canadians, French, and respondents of multiple ethnicities are eliminated, the introduction of human capital has little effect on the income gap between visible minorities and the British. This is largely attributed to the fact that visible minorities have high educational attainment compared to the British, which is documented in Table 2.

Additionally, the fact that the introduction of human capital eliminates the income gap between Canadians, French and respondents of multiple ethnic origins with the British suggests that human capital mediates the relationship between ethno-racial origin and income as postulated in Hypothesis 2a.

Hypothesis 3, which theorizes a relationship between social capital and income is tested in Model 5. Here, we find that measures of social capital are associated with income attainment, with the exception of religious attendance, which is statistically insignificant. Of these measures, communication with family members and friends had the highest effect on income, with standardized coefficient value of .113, translates into a minimum advantage of $1892 (minimum of 4). Conversely, trust significantly improved an

\textsuperscript{8} An anomaly between the relationship of income and education was found in Model 4, with respect to individuals who reported having some college education. Here we found that these individuals made $1477 less than individuals with a high school degree or lower education. This pattern continues throughout the models but is insignificant in Models 5 and 6. While the general relationship between education and income is linear, this occurrence is possibly explained by the large amount of visible minorities in this category, shown in Table 2.
individual's wage by $3342, that is, people who reported that people can be trusted in
genral had an advantage over individuals who believed that people cannot generally be
trusted. In the like manner, volunteering in a community organization improved income
by $1975 per unit change, with a potential effect of up to $20,000. Differences in these
measures and their relationship with income may speak to differences in the structure of
social capital, as postulated by Putnam (1990) and others. For example, in the case of
religion it may be that religious affiliation produces different types of networks most
which are either not job related or does not help with income. That is there is a
possibility that individuals who frequently attend a religious institution form strong ties
based on their religious beliefs which encourage brotherhood and the development of
close relationships.

Additionally, much like the introduction of human capital, social capital also had a
tendency to mediate the relationship between ethno-racial origin and income. Having
added social capital measures in Model 5, income gaps reduced for Canadians and the
French compared to the British by roughly 50% and for visible minorities by about $500\(^9\).
Therefore, hypothesis 3a is also supported by the data.

The final model introduces socio-demographic and control variables. This addition
echoes the findings in the bivariate particularly, in Tables 3 and 4 with respects to gender,

\(^9\) Social capital's influence on income was also tested by adding social capital to the regression analysis
before human capital. When this was done, results showed that social capital does mediate the relationship
between ethno-racial origin and income as the differences for all ethno-racial groups with the British
reduced significantly. In fact, measures of social capital explained almost 10% of the total variance before
human capital and socio-demographic variables were introduced. Of the four measures, volunteerism,
social interaction and trust were significant.
marital status, region and age. In this model, gender and age have two of the strongest effects on income depicted in their standardized coefficients' value of -.312 and .152 respectively. In the case of women, this translates into a $15,000 income disadvantage. This model shows that women are disadvantaged in the labour market, consistent with past studies.

In addition to introducing socio-demography in the regression analysis, Model 6 provides the opportunity to investigate the total effects of all the variables regressed on income simultaneously. Overall, we find that among the variables human capital, gender and age are the best predictors of income, followed by other socio-demographic variables. In the case of human capital we find that of the total variance explained in the analyses, education and computer training accounts for almost 50% of the overall model (14.1%). Similarly, gender inequality is pervasive throughout Canada's labour force in that women earn significantly less than their male counterparts.

Results from Model 6 also show that the differences in annual income between ethno-racial groups are insignificant. The only exception to this is the difference between the British and visible minorities, as minorities earn $3600 less than this group. Model 6 therefore shows that when all variables are introduced in the model visible minorities earn significantly less. This disadvantage suggests that the difference is not due to confounding effect of other variables in the study but can perhaps be due to discrimination. Therein, visibility or skin colour may be important in contemporary Canadian society. That is even after considering immigration period and language ability,
visible minorities still lag behind in income attainment. Additionally, the introduction of socio-demography shows that other tenets of ethno-racial origin such as early immigration and the French language are not a disadvantage unlike skin colour. More specifically, in Model 6 the income gap between the French and the British become insignificant as well as the differences between early immigrants and Canadian born respondents.

Lastly, Model 6 shows that some measures of social capital are associated with acquiring resources. Three of the four measures were significant. Of the measures, Communication with family and friends had the strongest association (beta = .128), translating into a $473 gain per unit change in number of social interaction or communication with relatives or friends. Likewise, people who reported trusting the larger populace and people who volunteered within the past twelve months had higher income levels than people who were not so inclined.

6.3 Summary of Research Hypotheses

It is important to address the study hypotheses understanding what the results from the models and more specifically, findings from Model 5 means, with respect to the study

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10Discrimination based on skin colour is a speculative conclusion prefaced on the residual or unexplained variance seen in Model 6, which can be attributed to the omission of crucial variables pertinent to income attainment. It is important to note that occupation, which is a major predictor of income was regressed on income with the aforementioned study variables. However, of the ten occupational categories two were significant in the final analysis, possibly caused by the measurement of occupation in the data, which was largely based on industry rather than specific occupational categories. As a result of this, occupation was removed from the final analysis, as it was a poor predictor of income. In fact, when comparing models with and without occupation, differences between models were marginal, herein, subsequent differences or income gaps between visible minorities and the British were similar to the differences found in Model 6.
hypotheses. As such hypotheses pertinent to direct and mediated effects will be further explored.

**Hypothesis 1: Ethno racial origin and Income**

Hypothesis 1 postulates that ethno-racial origin is correlated with income attainment in Canada; therein people would have different income levels based on their ancestry or origin. *This hypothesis is only partially supported.* While ethno-racial origin appeared to be correlated with income attainment in the first model, with the introduction of other variables and especially, education, ethno-racial categories became statistically insignificant by and large, with the exception of Visible Minorities. Therefore this author suggests that it is not ethnicity but race, which is the main source of income gap seen in the last model.

**Hypothesis 1a: Visible Minorities and Income**

This sub-hypothesis estimated that based on the assumed relevance of ethno-racial origin and income, visible minorities be the most disadvantaged of the groups. Herein, it is believed that this group would suffer the greatest income loss based on their ancestry and its corollary, race. The relationship between minority status and income was evidenced in Model 1 and remained throughout the subsequent models. In model 6, when relevant variables are considered visible minority status was still significant, with a moderate sized income gap between minorities and all other groups. As such, *this hypothesis is supported,* as its null has been rejected.
Hypothesis 2: Human Capital and Income

Hypothesis 2 relayed the assumed association between human capital measures and financial outcomes based on the idea of meritocracy and liberalism. This association is confirmed in Model 4 and subsequent models, which introduced education and computer training. Both measures were significant, collectively reporting a significant change in the explained variance of the overall model. With this, the null has not been rejected; hypothesis 2 is supported. Education is highly correlated with income attainment and among its strongest predictors.

Hypothesis 2a: Human Capital as Mediator

While the second hypothesis assumed a relationship between human capital and income, sub-hypothesis, 2a maintained that human capital mediates the relationship between ethno racial origin and income. This hypothesis is tested through block or hierarchical analysis and was supported. As noted before when education is entered in Model 4 along with ethno-racial origin, the gaps between all ethno-racial groups and the British reduces, with the income gap between Canadians, French, respondents of multiple ethnicities and the British becoming statistically insignificant.

Hypothesis 3: Measures of Social Capital and Income

Hypothesis 3 addressed the strength of social capital in predicting income, testing whether or not social capital leads to economic gains. This hypothesis is supported in Model 5, where three of the four measures are shown as significantly correlated with income attainment (p≤ .001). Therefore, the argument that one’s connection and ties as
well as trust leads to economic advantages is substantiated, with respect to connections formed through interaction and volunteering.

Hypothesis 3a: Social Capital as Mediator

Similar to sub-hypothesis 2a, this sub-hypothesis assumes that social capital is important in securing resources and that the relationship between ethno-racial groups and income was contingent on social capital. Similar to human capital, social capital can be considered a mediator of income attainment, as income between the British and all groups reduces when social capital variables are introduced in model 5.
7.1 Conclusion

Throughout this thesis, questions surrounding inequality and the economic well being of Canadians have been raised and explored. More specifically, this project inquired about the relationship between ethno-racial origin and income attainment, as well as the role of social capital in predicting income for ethno-racial groups in Canada. At a closer glance using multivariate analysis income is related to ethno-racial background, but only for the differences between visible minorities and the British. As well, this study finds that human and social capital are corollaries of socio-economic position; however, the utility in social capital is contingent on context. That is, simply put, different measures of social capital produce different outcomes pertinent to income attainment. Herein, all measures of social capital cannot be perceived as the social panacea that cures all societal ills.

The central focus of this project has been the importance of ethno-racial origin in determining the economic standing of an individual. Past studies have called into question the reality of multiculturalism when immigrant groups have been socially and economically excluded or isolated in Canada. In addressing this concern, this study finds that ethnic ancestry is not a major determinant of one’s position in Canada, as declared in Porter’s (1969) study. To the extent that there is inequality among ethno-racial groups in Canada, it is not prefaced on ethnicity, instead race matters. This is consistent with research that contends that the vertical mosaic thesis needs to be revised, showing that Canada is now stratified along racial lines instead of ethnic lines.
Furthermore, it appears that we have more of a meritocratic society, where talents and skills honed through educational attainment is the primary determinant of socio-economic standing. In fact, findings in this study evince that the Canadian labour market is by and large propelled by meritocratic principles, as human capital remains the best predictor of income attainment. In particular educational profiles at the highest levels significantly improve an individual’s income level. Herein, having a Bachelor, Doctorate or college diploma secures higher income in the labour force for all Canadians.

In addition to educational profiles, knowledge of computers measured by formal computer training placed individuals at an advantage in the labour market with respect to earning potential. Individuals with formal computer training made almost $2000 more than the rest of the population who did not have such training. This trend is not surprising given the nature of the economy and past shifts from Industrialism to a Post Industrialized knowledge based society propelled by Information Technology. (Crawford, 1991) Therefore, when taken together these measures show that ‘what one knows’ is still the most important predictor of well-being and life chances through earnings.

Yet, as indicated above, while the composition of the Mosaic is no longer vertical and Canada seemingly stands on liberal principles, there is still cause for concern. Trends emerging from this study show that there are still unexplained differences in income attainment for some groups. Particularly, visible minorities face income disadvantages in the labour market, as they earn significantly less than other ethno-racial groups. Even after relevant study variables are accounted for including important determinants of
income such as socio-demography and education, visible minorities earn $3500 less than other Canadians. These findings have been reported by Balakrishnan and Hou (1990), Herberg (1990) and have been attributed to currents of discrimination within the labour market (Lian and Matthews, 1998). The concern therefore is raised that Canada is a racist society (Gee and Prus 2000).

Others argue that such differences may be a result of immigration status and language ability, seeing that visible minorities are relatively recent arrivals in Canada. Yet despite the plausibility of these explanations and some evidence in this study, even when discriminatory immigration policies and their effects are taken into consideration, along with language differences, income gaps still persist. Simply put, whether visible minorities migrated to Canada or were born here, they make less income than the other Canadians. This then signals that visible minorities are in effect treated differentially or face discrimination (see Elliot and Fleras 1992, 2003; Henry and Tator, 1999) in the labour force by virtue of their ‘visibility’. Herein, as in the case of other studies, this analysis concludes that unexplained differences in income levels are attributed to colour of phenotypical differences (Li, 1998; Nakhaie, 2004; Gee and Prus, 2000), which may be otherwise termed, racialized income gaps (Galabuzzi and Teelucksingh, 2004).

It is important to note that while ethno-racial origin explains a small percentage of the total variance explained in this study, we must not be quick in undermining its relevance, as there are several potential reasons for this small effect size. The total contribution of ethno-racial origin to the model may be attributed to the fact that survey data does not
accurately capture higher income. Since most of the elites are whites their lower representation in survey results in an underestimation of this group’s income. In contrast, the income of visible minorities will be over-estimated, which in turn means that the income gaps between visible minorities and non visible minorities in surveys are often underestimated. Secondly, since the category of visible minority is constructed, this categorization homogenizes different minority groups from different origins without taking into consideration that some groups are doing better than some in the mosaic. That is, some groups have high income, while others have low income which when taken together hides extreme disparities, for example, Filipinos have low income, whereas, the Japanese have higher income. Lastly, even though the R Square value is small, to the extent that this small effect size translates into $3600, it warrants our concern as this amount accumulates over one’s life course and could amount to differences in property ownership, educational opportunities, and health outcomes.

The idea of ‘visibility’ within the Mosaic is not the only means by which individuals are treated unfair, or face disadvantages in outcomes. Results from this analysis, substantiates findings from other studies that speak of the unequal treatment of women in the labour market (Pendakur and Pendakur, 1998; Boyd, 1992; Rosenfeld and Kalleberg, 1990). This analysis finds that women have substantial income deficits when compared to Canadian men. On average, Canadian women earn $14,000 less than their male counterparts, regardless of their ethno-racial ancestry. Here, again, we find the idea of discrimination at work within the Mosaic and irrespective of the form in which it is
encapsulated or encased it leads to differentiation, pre-empting the equal distribution of opportunities and reward.

In regards to the findings pertinent to social capital and its utility in securing scarce resources, the idea that this form of capital has value has not been disproved. Measures of social capital represented 3% of the total variance within the conceptual model, when non-socio demographic variables were regressed on income. Based on this, it is safe to say that social capital and more specifically certain measures of social capital quite possibly, are missing links in income attainment, partially lending explanatory power to income differences.

One such important link is civic participation through volunteerism. Putnam (2000) notes that voluntary associations can be divided into three categories: community based, work based or church based. Regardless of the type of association and its context individuals who reported sacrificing their time in this wise, were beneficiaries of the potential ties that community involvement affords. Similarly, study results show that frequent interaction with family members and friends via the internet, telephone and conventional mail translated into favourable material outcomes. This confirms Burt’s (1990) idea that this type of interaction fills holes and potentially enables information to flow, despite the contention that such ties may lack value. Finally, of the three significant social capital measures, Trust had the most exchange value in terms of securing financial outcomes. Individuals who reported that they trust the general public improved their incomes by a value of $2000. While theorists argue that trust improves the conditions in a given society
and is associated with stronger economic outcomes (Knack and Keefer 1997) these findings show that trust is favourable at the individual level.

While these nuggets of information suggest that social capital is indeed beneficial, it is important to ask whom social capital benefits (Putnam 2002) before we jump on the bandwagon, asserting that social capital is promising for all. To this end, social capital must be approached as contextual and situational. This makes sense, as investments and resources fuel social capital; it takes capital to make capital. As such, to the extent that the resources among ethnic groups or cultural affiliations are limited it is only logical that we expect these ties to be limiting for end users. While this study is limited in providing empirical answers with respects to the “Whys” of social capital, it still draws attention to the outcomes of social capital and concludes that despite the onslaught of literature that esteems this form of capital as the missing link to various problems in society, social capital’s use may be limited to specific measures. Therein, we must be very careful in our recommendations pertinent to social capital, particularly, when dealing with ethno-racial groups in our society. We cannot use social capital as an agent of neo-liberalism, responsibilizing communities by asking them to take care of their own people by espousing the merits of social capital. Again, it takes capital to make capital and this is virtually impossible in communities that are already disadvantaged. Similarly, in the event that an ethno-racial group is already established and acculturated in a society, some measures of social capital may lack utility for them as well. We must then be careful where social capital is concerned, yes it may improve income to some degree but is this improvement worth the investment and the cost incurred?
In closing, the aforementioned two broad findings surrounding race and social capital do not stand as decisive, final outcomes on the question of socio-economic status and inequality in Canada. Instead, they must necessarily be construed as building blocks in helping to uncover the reality of equality with respects to the distribution of scarce resources in the Mosaic. Herein, this study cannot and does not by itself explain the intricacies of income distribution, but disentangles a portion of the complex nature of the matter and does so in line with other studies that endeavour to do the same.

7.2 Limitation of the Study

Yule (1940) asserts that in many fields such as sociology and economics, statisticians muse use data that are generated by sources such as official statistics which are usually prepared with objectives different from their own ends. Consequently, Yule (1940:6) notes that such data sets are “rarely all that one could wish”. This assertion adequately captures the potential causes of methodological limitations in a given study and in particular, this study. That is, given the use of tangential data in secondary analyses, researchers must grapple with limitations based on the ways in which data was aggregated and measured.

Based on the fact that this study was a secondary data analysis, issues surrounding measurement and conceptualization arose throughout the study. The treatment of the
dependent variable income was among the most pressing concern. As a result of the high percentage of missing information or item non-response for this variable, income had to be imputed from the residual of its predictors. As such, the end result seen in the dependent variable reflects predicted values as opposed to real income. Additionally, as mentioned in section 5, income as reported in this analysis is based on mid point values from categorical ranges. While this does not change the substantive meanings of the findings, interpretations of this study must be contextualized in the above methodological moves.

Missing information for different variables in the GSS data set was not limited to income but also posed problems for the conceptual model used to predict income. As a general rule, conceptual models often reflect past studies or theoretical frameworks that attempt to explain a phenomenon. While this study attempted to follow this rule, relevant variables, shown to be important in predicting income were excluded from this analysis. More specifically, past studies show that parents' socio-economic status affects an individual's economic standing; however, these factors were left out of this analysis based on inadequate data again caused by item non-response. Similarly measures of social capital used in this analysis were limited, and unable to provide sufficient measures that capture the magnitude of social capital. As a result of this, the study was limited to describing the outcome of social capital without providing empirical evidence for the whys of this form of capital.
Lastly, there were conceptualization and measurement issues surrounding ethno racial origin and more specifically the category marked as Other. Based on the process of elimination and other detailed variables surrounding nativity, this study maintains that this category represents visible minorities; however, in the event that members of other groups of European ancestry are mistakenly lumped with this group, the plight of Visible Minorities is augmented. Herein, the average income for this group would decrease, as the present mean values represent high income levels of individuals in other groups. Similarly, with respect to this category, the conceptualization of the Other does not permit this study to specifically identify which communities within this category are more disadvantaged. This categorization homogenizes various communities that may or may not experience income disadvantage in the same manner.

7.3 Policy Implications

Canada's Annual Performance Report documents the progress of the nation, tracking our political, social and economic advancement in the past year. In reading the performance report for the year 2004, one is left with the impression that Canada is indeed one of the greatest countries in the world, with respects to living conditions. Overall, the report notes that we rank well in the world and boasts one of the highest standards of living, contributing to the well being of all Canadians. Moreover, aside from minor concerns such as declining civic participation, and an increasing obese population, our economic out-performance of the United States, reduced unemployment rates and reduction of the
national deficit made for a good year (Government of Canada, 2004). Yet despite these positive trends towards continued prosperity, the report notes that an important aspect of quality of life, which is being able to support oneself, is not always possible for some groups in Canada even the economy is performing well. As a result of this the government's resolve is to create a “fair working environment” for all Canadians.

Base on this report and the findings in this analysis, the obvious way to create a fair working environment would be to re-address the Employment Equity Act, ensuring that its tenets such as pay equity and equal employment opportunity are enforced in the labour market. This makes sense as the Act is already in place; established in 1986 it legislates the employment rights of visible minorities, women, Aboriginals and the disabled in Canada. While revisiting this Act seems like the obvious recommendation, the Act was revisited and amended in 1995 to incorporate the public service, the RCMP and the military under its jurisdiction (Samuel and Karam, 2000). Yet, seemingly, these changes have not eroded inequality in the workforce. As such, instead of merely revisiting or changing the Act, this author recommends that this problem is approached from another angle.

In addition to Employment Equity, another way to address inequality is the workforce is by effecting change in the minds of people by starting in their homes. Instead of placing the government in a paternalistic role as the enforcers of equality, it’s time to challenge the Canadian public to fall in line with the values that they portend to uphold. Herein, my suggestion is that the government should attempt to facilitate change by funding a
large scale national report on workplace inequality, much like the Abella report. After this, dissemination campaigns should target Canadian citizens, presenting them with the reality of the mosaic. This campaign would be in the form of a large ad campaign that would use various forms of media to convey the findings of the report, as well as suggestions about change.

Although this seems far fetched, using the media to bring awareness about differences is an emerging trend in Toronto. Various television stations such as City TV, CTV, Global television and Omni Four often run advertisements that speak about the many different faces in Canada. This means of creating awareness would be effective as two of the most common things that people do before and after work are read the newspaper and watch television. While this form of campaigning and raising awareness may be a novel phenomenon, it is certainly a step in the right direction if we are to effect changes in the minds of people.
Table 1: Average Earnings of Ethno-Racial Groups in Canada, 2000

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Population</td>
<td>Ages 25-64</td>
</tr>
<tr>
<td>Income N</td>
<td>Income N</td>
<td>Income N</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Canadian</td>
<td>36,017^d</td>
<td>40,645^d</td>
</tr>
<tr>
<td>British</td>
<td>38,641*</td>
<td>44,410*</td>
</tr>
<tr>
<td>French</td>
<td>35,940^d</td>
<td>40,125^d</td>
</tr>
<tr>
<td>O. Europeans</td>
<td>38,199</td>
<td>44,667</td>
</tr>
<tr>
<td>Mul. Ethnicities</td>
<td>33,998^d</td>
<td>39,586^d</td>
</tr>
<tr>
<td>Visible Minority</td>
<td>34,950^d</td>
<td>39,608^d</td>
</tr>
<tr>
<td>Total</td>
<td>36,316</td>
<td>41,535</td>
</tr>
</tbody>
</table>

Source: General Social Survey, Cycle 14 2000

* indicates reference category for differences between means
^d p<.001
Table 2: Distribution of Ethno-racial Groups by Levels of Education, 2000 Age 25-64 Full-Time

<table>
<thead>
<tr>
<th></th>
<th>Postgraduate</th>
<th>Bachelor</th>
<th>Diploma</th>
<th>Some college</th>
<th>Little to no education</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Canadian</td>
<td>4.8</td>
<td>99</td>
<td>17.3</td>
<td>357</td>
<td>34.4</td>
<td>708</td>
</tr>
<tr>
<td>British</td>
<td>8.0</td>
<td>160</td>
<td>21.2</td>
<td>424</td>
<td>33.1</td>
<td>663</td>
</tr>
<tr>
<td>French</td>
<td>4.9</td>
<td>37</td>
<td>15.9</td>
<td>119</td>
<td>36.0</td>
<td>269</td>
</tr>
<tr>
<td>European</td>
<td>5.4</td>
<td>58</td>
<td>18.5</td>
<td>195</td>
<td>34.4</td>
<td>363</td>
</tr>
<tr>
<td>Mul Ethn</td>
<td>7.0</td>
<td>101</td>
<td>19.4</td>
<td>280</td>
<td>34.3</td>
<td>494</td>
</tr>
<tr>
<td>Vis Min</td>
<td>10.1</td>
<td>177</td>
<td>23.8</td>
<td>418</td>
<td>33.9</td>
<td>595</td>
</tr>
<tr>
<td>Total</td>
<td>7.0</td>
<td>632</td>
<td>19.8</td>
<td>1793</td>
<td>34.1</td>
<td>3092</td>
</tr>
</tbody>
</table>

Source: General Social Survey, Cycle 14 2000

Chi-Square Tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>131.494</td>
<td>20</td>
<td>0.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>131.109</td>
<td>20</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Uncertainty Coefficient

<table>
<thead>
<tr>
<th>Value</th>
<th>Asymp. Stc</th>
<th>Approx. T</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.004</td>
<td>0.001</td>
<td>5.742</td>
<td>0.000</td>
</tr>
</tbody>
</table>

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Table 3: Correlations between Income and Exogenous Variables, 2000 Age 25-64

<table>
<thead>
<tr>
<th>Variables</th>
<th>Correlations (Pearson)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Capital</strong></td>
<td></td>
</tr>
<tr>
<td>Volunteer</td>
<td>0.14^d</td>
</tr>
<tr>
<td>Trust</td>
<td>0.21^d</td>
</tr>
<tr>
<td>Religious Attendance</td>
<td>-0.01^d</td>
</tr>
<tr>
<td>Social Interaction</td>
<td>0.28^d</td>
</tr>
<tr>
<td><strong>Ethno-racial Origin</strong></td>
<td></td>
</tr>
<tr>
<td>Canadian</td>
<td>-0.04^d</td>
</tr>
<tr>
<td>British</td>
<td>0.08^d</td>
</tr>
<tr>
<td>French</td>
<td>-0.03^d</td>
</tr>
<tr>
<td>Other European</td>
<td>0.04^d</td>
</tr>
<tr>
<td>Multiple ethnicity</td>
<td>-0.003</td>
</tr>
<tr>
<td>Other</td>
<td>-0.05^d</td>
</tr>
<tr>
<td><strong>Socio-demography and Control Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.15^d</td>
</tr>
<tr>
<td>rural/urban</td>
<td>-0.06^d</td>
</tr>
<tr>
<td>Atlantic</td>
<td>-0.09^d</td>
</tr>
<tr>
<td>Quebec</td>
<td>-0.09^d</td>
</tr>
<tr>
<td>Ontario</td>
<td>0.11^d</td>
</tr>
<tr>
<td>Prairie</td>
<td>0.002</td>
</tr>
<tr>
<td>BC</td>
<td>0.04^d</td>
</tr>
<tr>
<td>married</td>
<td>0.10^d</td>
</tr>
<tr>
<td>divorce</td>
<td>-0.05^d</td>
</tr>
<tr>
<td>single</td>
<td>-0.09^d</td>
</tr>
<tr>
<td>English</td>
<td>0.13^d</td>
</tr>
<tr>
<td>French lang</td>
<td>-0.09^d</td>
</tr>
<tr>
<td>Other lang</td>
<td>-0.07^d</td>
</tr>
<tr>
<td>Early immigration 1946-1969</td>
<td>0.07^d</td>
</tr>
<tr>
<td>Late immigration</td>
<td>-0.04^d</td>
</tr>
<tr>
<td>Canadian Born</td>
<td>-0.01</td>
</tr>
<tr>
<td>Female</td>
<td>-0.29^d</td>
</tr>
<tr>
<td><strong>Human Capital</strong></td>
<td></td>
</tr>
<tr>
<td>Doctorate</td>
<td>0.28^d</td>
</tr>
<tr>
<td>Bachelor</td>
<td>0.20^d</td>
</tr>
<tr>
<td>Diploma</td>
<td>-0.08^d</td>
</tr>
<tr>
<td>some college</td>
<td>-0.07^d</td>
</tr>
<tr>
<td>High school</td>
<td>-0.20^d</td>
</tr>
<tr>
<td>Computer training</td>
<td>0.20^d</td>
</tr>
</tbody>
</table>

Source: General Social Survey, Cycle 14 2000
^d p<.001

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### Table 4: Mean Values of Income based on Exogenous Variables, 2000 Age 25-64 Full-Time

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian born*</td>
<td>46969</td>
<td>7320</td>
</tr>
<tr>
<td>Early Immigration*</td>
<td>54594</td>
<td>484</td>
</tr>
<tr>
<td>Late Immigrant*</td>
<td>44959</td>
<td>1260</td>
</tr>
<tr>
<td>English Language*</td>
<td>49278</td>
<td>6102</td>
</tr>
<tr>
<td>French Language*</td>
<td>43013</td>
<td>2022</td>
</tr>
<tr>
<td>Other Language*</td>
<td>42021</td>
<td>940</td>
</tr>
<tr>
<td>Doctorate*</td>
<td>71652</td>
<td>632</td>
</tr>
<tr>
<td>Bachelor*</td>
<td>56825</td>
<td>1793</td>
</tr>
<tr>
<td>Diploma*</td>
<td>44304</td>
<td>3092</td>
</tr>
<tr>
<td>Some College*</td>
<td>40954</td>
<td>716</td>
</tr>
<tr>
<td>High School and less*</td>
<td>40053</td>
<td>2831</td>
</tr>
<tr>
<td>No Comp Training*</td>
<td>37648</td>
<td>1903</td>
</tr>
<tr>
<td>Informal Training*</td>
<td>43252</td>
<td>815</td>
</tr>
<tr>
<td>Semi-formal Training&lt;sup&gt;d&lt;/sup&gt;</td>
<td>48292</td>
<td>1450</td>
</tr>
<tr>
<td>Formal Comp Training&lt;sup&gt;d&lt;/sup&gt;</td>
<td>51264</td>
<td>4896</td>
</tr>
<tr>
<td>Did not volunteer*</td>
<td>44632</td>
<td>6296</td>
</tr>
<tr>
<td>Volunteered in past&lt;sup&gt;d&lt;/sup&gt;</td>
<td>51886</td>
<td>3041</td>
</tr>
<tr>
<td>No Trust*</td>
<td>42703</td>
<td>5241</td>
</tr>
<tr>
<td>People can be trusted&lt;sup&gt;d&lt;/sup&gt;</td>
<td>52899</td>
<td>3823</td>
</tr>
<tr>
<td>Social Interaction Low (0-9)&lt;sup&gt;*&lt;/sup&gt;</td>
<td>41241</td>
<td>5106</td>
</tr>
<tr>
<td>Social Interaction Medium (10-17)&lt;sup&gt;d&lt;/sup&gt;</td>
<td>53909</td>
<td>3769</td>
</tr>
<tr>
<td>Social Interaction High (18-24)&lt;sup&gt;d&lt;/sup&gt;</td>
<td>55641</td>
<td>189</td>
</tr>
<tr>
<td>Age 25-34&lt;sup&gt;d&lt;/sup&gt;</td>
<td>42852</td>
<td>2628</td>
</tr>
<tr>
<td>Age 35-44&lt;sup&gt;d&lt;/sup&gt;</td>
<td>45802</td>
<td>3172</td>
</tr>
<tr>
<td>Age 45-54&lt;sup&gt;d&lt;/sup&gt;</td>
<td>50515</td>
<td>2447</td>
</tr>
<tr>
<td>Age 55-64&lt;sup&gt;d&lt;/sup&gt;</td>
<td>54214</td>
<td>817</td>
</tr>
<tr>
<td>Urban*</td>
<td>47852</td>
<td>7105</td>
</tr>
<tr>
<td>Rural&lt;sup&gt;g&lt;/sup&gt;</td>
<td>44163</td>
<td>1959</td>
</tr>
<tr>
<td>Atlantic&lt;sup&gt;d&lt;/sup&gt;</td>
<td>39305</td>
<td>658</td>
</tr>
<tr>
<td>Quebec&lt;sup&gt;d&lt;/sup&gt;</td>
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<td>2386</td>
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<td>Ontario&lt;sup&gt;*&lt;/sup&gt;</td>
<td>50395</td>
<td>3439</td>
</tr>
<tr>
<td>Prairie&lt;sup&gt;d&lt;/sup&gt;</td>
<td>47210</td>
<td>1495</td>
</tr>
<tr>
<td>British Columbia&lt;sup&gt;d&lt;/sup&gt;</td>
<td>49447</td>
<td>1086</td>
</tr>
<tr>
<td>Married&lt;sup&gt;d&lt;/sup&gt;</td>
<td>48513</td>
<td>6788</td>
</tr>
<tr>
<td>Divorced/Separated&lt;sup&gt;d&lt;/sup&gt;</td>
<td>43361</td>
<td>822</td>
</tr>
<tr>
<td>Single&lt;sup&gt;*&lt;/sup&gt;</td>
<td>42328</td>
<td>1454</td>
</tr>
<tr>
<td>Males&lt;sup&gt;d&lt;/sup&gt;</td>
<td>52578</td>
<td>5094</td>
</tr>
<tr>
<td>Females*</td>
<td>38178</td>
<td>3970</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>47138</strong></td>
<td><strong>9064</strong></td>
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</tbody>
</table>

<sup>d</sup>Indicates reference category for differences between means
<sup>p<.001</sup>
Table 5: Standardized and Unstandardized Regression Coefficients for Income, 2000 Age 25-64 Full-Time

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
<th>Model 3</th>
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<tbody>
<tr>
<td></td>
<td>b</td>
<td>beta</td>
<td>b</td>
<td>beta</td>
<td>b</td>
<td>beta</td>
</tr>
<tr>
<td>British (reference)</td>
<td>-5491d</td>
<td>-.095</td>
<td>-5050d</td>
<td>-.088</td>
<td>-2425d</td>
<td>-.042</td>
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<tr>
<td>Canadians</td>
<td>-5957d</td>
<td>-.068</td>
<td>-5612d</td>
<td>-.064</td>
<td>-2116a</td>
<td>-.024</td>
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<tr>
<td>French</td>
<td>-1196</td>
<td>-.016</td>
<td>-1764</td>
<td>-.023</td>
<td>-1028</td>
<td>-.014</td>
</tr>
<tr>
<td>Other Europeans</td>
<td>-4089d</td>
<td>-.062</td>
<td>-3815d</td>
<td>-.058</td>
<td>-1676a</td>
<td>-.025</td>
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<tr>
<td>Multiple Ethnicities</td>
<td>-6454d</td>
<td>-.106</td>
<td>-6355d</td>
<td>-.104</td>
<td>-4745d</td>
<td>-.078</td>
</tr>
<tr>
<td>Visible Minorities</td>
<td>-7028d</td>
<td>.065</td>
<td>7142d</td>
<td>.066</td>
<td></td>
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</tr>
<tr>
<td>Canadian born (ref)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Early immigration 1946-1969</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late immigration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English (ref)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>French Language</td>
<td>-5221d</td>
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<td></td>
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<tr>
<td>Other Language</td>
<td>-6288d</td>
<td>-.093</td>
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</tbody>
</table>

Source: General Social Survey, Cycle 14 2000

Constant          50,885d  50,434d  50,397d
R Square           1.1%     1.5%     2.4%
N                  9064     9064     9064

a p≤ .05  b p≤ .01  c p≤ .005  d p≤ .001
Table 5: Standardized and Unstandardized Regression Coefficients for Income, 2000 cont. Age 25-64 Full-Time

<table>
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<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
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<td>British (reference)</td>
<td>b</td>
<td>beta</td>
<td>b</td>
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<tr>
<td>Canadian</td>
<td>-1061</td>
<td>-.018</td>
<td>-613</td>
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<td>Canadian born (ref)</td>
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<td>French</td>
<td>-625</td>
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<td>French Language</td>
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<tr>
<td>Other Europeans</td>
<td>-652</td>
<td>-.009</td>
<td>1132</td>
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<td>Multiple Ethnicities</td>
<td>-1336</td>
<td>-.020</td>
<td>-1144</td>
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<tr>
<td>Visible Minorities</td>
<td>-4626d</td>
<td>-.076</td>
<td>-3962d</td>
</tr>
<tr>
<td>Canadian born (ref)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early immigration 1946-1969</td>
<td>4750d</td>
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<td>Early immigration</td>
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<td>English (ref)</td>
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<td>-4531d</td>
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<tr>
<td>Other Language</td>
<td>-4188d</td>
<td>-.081</td>
<td>-3254d</td>
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<td>High school and below (ref)</td>
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<td>Doctorate</td>
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<td>25340d</td>
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<td>Bachelor</td>
<td>14019d</td>
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<td>11331d</td>
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<td>Diploma</td>
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<td>Some College</td>
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<td>-.016</td>
<td>-2062b</td>
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<tr>
<td>Computer Training</td>
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<td>.109</td>
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<tr>
<td>Volunteer</td>
<td>2002d</td>
<td>.039</td>
<td>1975d</td>
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<td>Trust</td>
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<td>.099</td>
<td>3342d</td>
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<td>Religious attendance</td>
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<td>-.003</td>
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<td>Social Interaction</td>
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<td>.113</td>
<td>473d</td>
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<td>Age</td>
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<td>Rural</td>
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<td>-.028</td>
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<td>Ontario (ref)</td>
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<td>Atlantic</td>
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<tr>
<td>Quebec</td>
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<td>Prairie</td>
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<td>BC</td>
<td>-1665b</td>
<td>-.022</td>
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<tr>
<td>Single (ref)</td>
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<td>Married</td>
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<td>.073</td>
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<td>Divorced/Separated</td>
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<td>.020</td>
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<tr>
<td>Female</td>
<td>-15456d</td>
<td>-.312</td>
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<tr>
<td>Constant</td>
<td>40,129d</td>
<td>37,687d</td>
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<td>R Square</td>
<td>17.5%</td>
<td>19.6%</td>
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<tr>
<td>N</td>
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</table>

* p<.05  * * p<.01  * * * p<.005  * * * * p<.001
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Vita Auctoris

Tamara Ferron was born in 1979 in St. Thomas, Jamaica but migrated to Canada as a young child. She graduated from Woburn Collegiate Institute, which is located in Toronto, Ontario in 1998. From there she went on to Wilfrid Laurier University, where she obtained her B.A. in Communications Studies and Sociology in 2002. She is currently a candidate for the Master’s degree in Sociology at the University of Windsor and hopes to graduate in Fall 2005.