CONTEXTUALIZING OUTCOMES OF PUBLIC SCHOOLING:
DISPARATE POST-SECONDARY ASPIRATIONS AMONG ABORIGINAL AND
NON-ABORIGINAL SECONDARY STUDENTS

by

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Abstract

To understand how Aboriginal youths’ access to post-secondary schooling opportunities is created and constrained, structures of inclusion and exclusion are examined. In particular, the legitimization of unequal treatment and disparate outcomes is problematized; making the case that public schooling systems limit the opportunities of youth. In this study, youths’ post-secondary aspirations are contextualized on the basis of racial identity, gender, programs of enrolment, graduate destinations, parent’s level of schooling, parental income, and community size; binary analyses evaluate the relationships among these variables. The variables were accessed from the Youth in Transition Survey (YITS) and the Programme for International Student Assessment (PISA). Findings of this research counter other studies that demonstrate Aboriginal youth with lower post-secondary opportunities relative to their peers. This study substantiates that barriers to aspiration achievement and post-secondary opportunities are not from a lack of ambition or academic preparedness among Aboriginal youth attending Canadian public schools.
Acknowledgments

Excerpts from a day in the life of…

Natasha: Luke, tell me the one about the masters…
Luke: Well Natasha, if masters were easy, everyone would have one.

Completion of a Master’s thesis might not have been possible without the support and encouragement of a few key people in my life. I would like to thank Luke Hughes, my lover and partner in crime, who has inspired and supported me to complete these works. To my mother, Leonida ‘Lee’ Hudson, who is a house of power and strength, I thank you, and aspire to one day represent these important qualities to my children as you have done for me. Thank you Jean-Paul Restoule, you welcomed me under your tutelage and I am grateful to have had your support, and for the positive influence you have had in helping me to tap into my creativity as I have developed into a researcher. Thank you Nina Bascia, your inquisitive nature and inspirational teachings prepared me with confidence to pursue this thesis journey. I was fortunate to receive support and feedback from Kiran Mirchandani, whose support and feedback reinforced my thesis experience. Further, my journey through statistical data analysis could not have been possible without the help of Angela Prencipe who I was fortunate to rely on for my many questions and concerns. Finally, being part of the Comparative, International and Development Education Centre has offered me opportunities to make friendships and meet colleagues who have individually shaped my personal, academic, and professional development both at OISE and in the broader community. It is you who have helped me find the courage to pursue this adventure in research, thank you.

While the research and analysis are based on data from Statistics Canada, the opinions expressed do not represent the views of Statistics Canada.
Foreword

There are moments in life when I step away from the goings on of the everyday and wonder: *How do I find myself here*. I reflect in these moments and recount the experiences of struggle, perseverance, and dedication faced by my mother and me when I was a child and marvel in the observation that some of the most important decisions are made in serendipitous moments. In seeking to understand the privilege that has brought me to conduct research in an institution that is highly regarded internationally, I have come to realize that I am a statistic. I am a second-generation female of a low-income, single parent family who is the first of her family to obtain a university degree. Drawing on my strengths, I feel as though I have a responsibility to make something of the opportunities presented to me, and share my interpretations of the world that may otherwise remain obscured.

My interest in comparative schooling stems from my own experiences in the public school system. I observed that experiences and opportunities that were created for youth differed depending on where youth lived. The school in my neighbourhood was known for being of poor quality. While many of my friends would attend this school, I would go on to a French immersion public school—known for sending its graduates on to some of the best universities in Ontario. When I became ill from mononucleosis in grade ten, I made the decision to transfer to the semestered high school down the road. There, I was fortunate to take courses that were more vocationally geared. My decision to return to the academic public school led me to make an application for university (simply because everyone else was doing it).

I have witnessed inequality and segregation in public schooling firsthand; had I attended the public school in my neighbourhood, it is possible that I would be living a very different life of lower socio-economic status perpetuated. As such, I do not believe that outcomes are distinct from experiences. Where outcomes are different among collectivities, as is found to be the case with Aboriginal youth who have lower levels of schooling attainment relative to their peers, I believe that these patterns are indicative of systemic practices of inclusion and exclusion. Analyzing these patterns would help to understand how unequal outcomes emerge. While individuals may be their own maker,
patterns of schooling attainment distinguished on the basis of race, gender, and class suggest that there are mechanisms in public schooling that perpetuate social inequality.
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CHAPTER 1: INTRODUCTION

To understand the relationship between Aboriginal identity and intergenerational patterns of inequality the following analysis provides an interpretation of the role schools play in creating and constraining opportunities for Aboriginal youth through structures of inclusion and exclusion. In particular, I problematize the legitimization of unequal outcomes by making the case that public schooling systems limit the opportunities of youth. In this study, variables from the Youth in Transition Survey (YITS) and the Programme for International Student Assessment (PISA) are compared using binary analyses to understand the relationships between identity, post-secondary aspirations, contexts of learning, and socio-economic status.

Interestingly, the findings show that while racial identity is not an indicator of aspirations, it is an indicator of youth’s program of enrolment. Indeed, the majority of Aboriginal youth had university aspirations and were most likely to be enrolled in programs that prepared them for university. Therefore, Aboriginal youth were being prepared to attain their post-secondary aspirations. If research continues to find variables that contribute to lower outcomes for Aboriginal students, it is not for their lack of ambition or their school’s offerings that these outcomes emerge, at least for Aboriginal students attending public schools.

Patterns also emerged across socio-economic status (parental schooling, parental income, and community size) variables. In smaller communities (populations with less than 3,000 people), youth were more likely to be identified as Aboriginal, aspire for skilled labour jobs, attend schools where the majority of graduates either went on to university and college or directly into the labour market, have parents with a high school certificate or less, and have parents with incomes less than $80 thousand. Conversely, in large communities (populations with over 100,000 people), youth were most likely to be identified as white or Caucasian (Visible Majority), have aspirations for senior administration jobs, attend schools where graduated peers equally went on to university, college and to enter the labour market, have parents who have attended university, and parental incomes over $80 thousand.
The findings from this research provide a contemporary and complex understanding of the role of contexts of learning that shape individuals’ and collectivities’ capacity to be self-determining and to pursue their post-secondary aspirations. The present research contributes more broadly to discussions on Aboriginal education, inequality of educational opportunities, school-to-work transitions, access to post-secondary schooling, and sociology of education.

In the following chapter, the context for comparing schooling outcomes on the basis of Aboriginal identity and post-secondary aspirations is presented. The first section demonstrates the relationship between Aboriginal and non-Aboriginal youth in literature on schooling attainment gaps. The second and third sections provide the rationale for this study, including a definition of post-secondary aspirations and the method for incorporating rigour and complexity into the present analysis. The final section explains the organization of the thesis with chapter summaries.

**Positing a Schooling Attainment Gap**

Regardless of whether Aboriginal youth live on reserve or off reserve, the majority of these youth attend public, provincially-run schools. While approximately 70% of Aboriginal people reside off reserve (Turcotte & Zhao, 2004), about 68% of First Nations youth attend public schools (Battiste, 2004). Among the Aboriginal youth living off reserve in 2001, 39% of 20 to 24 year-olds had not completed secondary schooling, 17% had graduated from high school, and about 44% had gone on to pursue post-secondary qualifications (Mendelson, 2006). Mendelson and Turcotte and Zhao’s (2004) findings demonstrate that the proportion of non completion among Aboriginal youth is significantly greater in relation to their high school counterparts.

These findings are important because they demonstrate a bias in outcomes on the basis of race. Intergenerationally, Aboriginal people, among other collectivities, find themselves in the same socio-economic positions as generations before them (Williams, 2004). For richer or for poorer, these patterns of social inequality continue to permeate our social, political, economic, and historical landscapes. It is my contention that public schooling, as a democratic institution, should neither be catalyst nor participant in
determining these unequal outcomes; public schooling should be imparting the necessary skills for all youth to have equal opportunities.

Given the assumption that public schooling provides equal access to all, unequal outcomes—leading to unequal socio-economic positions after high school—are commonly perceived as merit-based outcomes, indicative of a person’s (in)ability. Under-representation in higher education is driving research on equality of opportunity and equity of access to post-secondary schooling. Gaining momentum, research demonstrates that schooling attainment gaps are linked with social inequality and the gap between the haves and have-nots. Aboriginal people continue to be under-represented in post-secondary schooling, and have lower schooling attainment and labour market participation rates relative to non-Aboriginal peoples (Fisher & Campbell, 2002; Hango & de Broucker, 2007; O’Donnell & Ballardin, 2006; Sharpe, Arsenault, & Lapointe, 2007; Working Group on Aboriginal Participation in the Economy, 2001). That Aboriginal people maintain relative positions of disadvantage time and again is problematic; particularly as Canada’s democratic institutions are meant to be fair, inclusive, and egalitarian (Wotherspoon, 2002). While all students have equal opportunities to access public schooling, once having access, unequal opportunities become apparent as students experience different treatments and outcomes. Different outcomes emerging for Aboriginal peoples, among other groups, appear to be reproduced, in part, by the public school.

Literature on access to post-secondary schooling charges elementary and secondary levels of compulsory schooling with not preparing youth, in particular Aboriginal youth, with the necessary skills to be successful participants in post-secondary schooling or in the labour market (Hull, 2000; Malatest & Associates Ltd., 2002, 2004; McCue, 2006; O'Donnell & Tait, 2003; Preston, 2008). However, many of the studies focus on post-secondary institutions rather than secondary schools as their location of access to post-secondary schooling analysis. Further, as the majority of Aboriginal youth in Canada are attending public schools, it is important to look at this location of schooling to gain a better understanding of how public schools might be creating and constraining the post-secondary opportunities of Aboriginal youth.
Rationale for Studying Post-Secondary Aspirations

*Post-secondary aspirations* refers to the level of schooling and career paths that youth hope to pursue once they have completed their compulsory years of secondary schooling. Post-secondary aspirations are important for understanding two types of outcomes. The first outcome is related to how youth interpret the meaning of school; the second outcome relates to barriers to aspiration achievement, where aspirations represent the benchmark for future schooling and career outcomes. For the purposes of this research, post-secondary aspirations are understood within the context of public schooling, a location of learning which intends, among other things, to prepare youth for participation in the labour market (Goodlad, 1979). Accordingly, aspirations are important indicators of the post-secondary pathways that youth eventually pursue. Therefore, it is important to understand factors related to post-secondary aspirations in order to assess potential barriers to attainment. Post-secondary aspirations are typically used in longitudinal studies to measure aspirations with outcomes. Where discrepancies are found, scholars postulate that barriers (whether hidden or overt) exist and hinder youth’s attainment of their aspirations.

Contextualizing post-secondary aspirations provides understanding of the levels of schooling youth perceive as necessary for their future careers. Knowledge of youths’ aspirations and preparedness for future pathways is important for interpreting the extent to which schools—as locations of learning—determine access to post-secondary schooling and reproduce social inequality. Therefore, this study aims to understand whether schooling aspirations are attainable and whether the public schooling system contributes to youth having their post-secondary opportunities limited. Within the pretext of a schooling attainment divide among Aboriginal students and their peers, this study intends to understand whether outcomes continue to be biased on the basis of race when students share similar contexts of learning.

Using Bricolage to Interpret Unequal Outcomes in Public Schooling

To make the analysis more complex, multiple theoretical perspectives are incorporated to draw out personal biases and assumptions related to the creation and
limitation of opportunities by the school system. Specifically, the analysis incorporates Deweyan pragmatism (to link aspirations with context and meaning-making), Giddens’ theory of structuration (to understand the relationship between schooling structures and the capacity for opportunities to be created and constrained, reproducing social inequality), anti-colonial approaches and class-based perspectives (to provide historical and systemic accounts of racial and socio-economic discrimination). All perspectives are intertwined to develop a unique interpretation of the role of public schooling in contributing to patterns of social inequality, particularly for Aboriginal people. Each perspective offers a tool of analysis that the other does not; woven together these perspectives provide a unique interpretation of public schooling, post-secondary aspirations, and barriers to attainment. According to Kincheloe and Berry (2004), something profound happens when we take knowledges, thought systems, and social and epistemological theories from diverse contexts and bring them together in search of new relationships, new patterns of interaction, and new imperatives for intellectual and ethical action in the social, psychological, and educational arena. (p.37)

The authors are describing the purposes and outcomes of bricolage; a theoretical framework that informs my use and incorporation of multiple theoretical perspectives. In their seminal work, *Rigour and Complexity in Educational Research: Conceptualizing the bricolage*, Kincheloe and Berry explain that “the purpose of the bricolage is not to subvert the production of empirical knowledge but rather to encourage the production of a richer, thicker, and more rigorous form of it” (Kincheloe & Berry, p.35). In particular, the application of bricolage is intended for researchers whose aims are to conduct a more rigorous, complex, and well informed research act. Bricolage is made rigorous by incorporating diverse resources and perspectives, particularly from excluded populations, and understanding the discourses that shape the research act. Complexity is achieved through critical and historical interpretations of social and political constructs related with public schooling and social inequality.
Kincheloe and Berry (2004) refer to Ray Horn’s (2000) explanation of the protocols for bricoleurs to explain four key components of bricolage: etymology, pattern, process, and contextualization. Importantly, bricoleurs should engage in reflective thinking that entails a consideration of the origins of their culture, the way their knowledge is produced (etymology), the deeper, more complex systemic realities of their situation (pattern), the apparent certainties of their professional lives (process), and the intricate context of their setting (contextualization). When educational change or an educational problem occurs, how often does the community that must engage the problem pause and converse about the relationship of their culture to the problem, the ways in which the problem is embedded or will affect the sub-systems in the schools system, the need to rethink what they believe to be certain, or the importance of place and time to the change or problem? (Horn in Kincheloe & Berry, p.60)

The use of bricolage is controversial; to some, bricolage is void of academic rigour. However, Kincheloe and Berry (2004) argue that the intent of applying bricolage is to incite complexity and rigour in the research act by challenging the status quo and engaging with multiple discourses related to a particular phenomenon. As such, bricolage is a composition of multiple perspectives brought together by an interpretation of the phenomena being examined. Therefore, the intention of applying bricolage is to provide a space to develop an understanding of the etymology, pattern, process and contextualization related to inequality of outcomes in public schooling and its relationship with the politics of difference, as it is related to race, gender, and class. Through understanding the interconnectivities of history and social structures that perpetuate inequality, my analysis provides new interpretations of Aboriginal/non-Aboriginal comparisons within the context of post-secondary aspirations in Canadian public schools.

Chapter Summaries

In the section to follow, chapter summaries are provided. The chapters outline literature context, methods, findings and analysis for evaluating the capacity of public
schools to create and constrain post-secondary opportunities for Aboriginal youth and their peers.

In Chapter 2, literature is reviewed to demonstrate the capacity of public schools to offer differential treatment and thereby participate in creating and constraining post-secondary opportunities. In the first section, post-secondary aspirations are interpreted from pragmatist and structurist perspectives in order to demonstrate that contexts of learning influence outcomes. Post-secondary aspirations are represented as outcomes of experiences and emerging patterns demonstrate disparities within and across contexts of learning. In the second section, the literature demonstrates the capacity of government-run schools to provide different and unequal opportunities for learning. The literature indicates that unequal opportunities discriminate on the basis of race and class. In the third section, contemporary research is provided to illustrate the schooling attainment gap between Aboriginal and non-Aboriginal people. The research indicates that if schooling outcomes can be distinguished on the basis of race, then barriers must be enabling and disabling youths’ transitions from school-to-work. The fourth section examines how different environments and experiences in learning have the capacity to create and constrain opportunities. In particular, a school’s quality and location are found to have significant relationships with outcomes. Further, these relationships are found to reflect socio-economic factors such as parental schooling and income. Finally, the sixth section indicates that patterns of inequality, emerging on the basis of race, gender, or class, provide evidence of systemic discrimination and support the argument that schools offer inequality of opportunity.

The trends emerging from the literature review demonstrate that contexts are important and influence outcomes. To understand these relationships, Chapter 3 explains the methodology used to test whether unequal opportunities persist when controlling for contexts of schooling. In the first section, readers are given an explanation what the YITS and PISA surveys are and how they are used in this study. An explanation of the surveys’ design and integration, rationale for their use, and process for accessing the surveys is included. The second section explains the scope of the analysis and the statistical tools applied for conducting frequency and binary analyses. The variables included in the
analysis are then explained giving a rationale for their use, any recoding considerations, measurement issues, and limitations.

The findings and analysis of the variables are considered over three chapters separated by variable themes: post-secondary aspirations and contexts of learning, racial identity and gender, and socio-economic status. Accordingly, in Chapter 4, findings for post-secondary aspirations and contexts of learning are illustrated. Frequencies for schooling aspirations, job aspirations, programs of enrolment, and graduate destinations are provided. Relationships between schooling aspirations and job aspirations, programs of enrolment, and graduate destinations are tested, and no significant relationships are found. In Chapter 5, aspirations and contexts of learning are considered in relation to racial identity and gender. Racial identity is found to have significant relationships with programs of enrolment and graduate destinations; gender is found to have significant relationships with job aspirations and program of enrolment. Chapter 6 considers the relationships between socio-economic status, including parental schooling, parental income and community size, with post-secondary aspirations, contexts of learning, and racial identity. Significant relationships were found between parental schooling and parental income. Parental schooling and parental incomes each show significant relationships with job aspirations, program of enrolment and community size. Community size had further significant relationships with job aspirations, graduate destinations and racial identity.

In the final chapter the findings from Chapters 4 through 6 are considered in a discussion related to the creation and constraint of post-secondary opportunities related to youths’ aspirations. In addition, recommendations for future research and implications for Aboriginal youth attending public schools are considered.
CHAPTER 2: LITERATURE REVIEW

Aboriginal peoples are distinctively disadvantaged peoples in Canada, as declared by the Royal Commission on Aboriginal Peoples (RCAP), 1996. The conditions faced by Aboriginal peoples have been deemed as a most pressing human rights concern for Canada (Assembly of First Nations [AFN], 2006). Through systemic inequalities, rooted in Aboriginal-settler relations, Aboriginal peoples have been positioned at social, economic, and political disadvantages (Indian and Northern Affairs Canada [INAC], 1996). Indeed, “many indigenous communities continue to live within political and social conditions that perpetuate extreme levels of poverty, chronic ill health and poor educational opportunities” (Smith, 1999, p.4). Social institutions, such as systems of schooling, continue to generate profound and discrepant consequences for Aboriginal peoples (Battiste, 2004). In relation to their non-Aboriginal counterparts, Aboriginal people are found to have lower rates of high school completion, post-secondary enrolment, educational attainment, and labour market participation (AFN, 2006; Fisher & Campbell., 2002; Hango & de Broucker, 2007; Hull, 2005; O’Donnell & Ballardin, 2006; Wotherspoon & Schissel, 1998).

The literature reviewed in this chapter demonstrates that Aboriginal people have unequal outcomes of schooling relative to their schooling counterparts. These unequal outcomes are problematized using pragmatist and structurist perspectives in order to understand Aboriginal peoples’ experiences in public schooling. Drawing on the history of residential schooling and practices of stratification in mainstream schooling, the public schooling system is reified as an institution where different learning environments lead to different post-secondary opportunities that have the capacity to discriminate on the basis of race, gender, and class.

The first section of this chapter provides a sociological and philosophical critique of outcomes of schooling. The second section provides two examples of how government-run schooling has multiple structures that allow for different and unequal outcomes, particularly in relation to Aboriginal, racial minority, and lower class students. The third section illustrates a schooling gap between Aboriginal and non-Aboriginal people. Research related to unequal outcomes among Aboriginal youth and the school’s capacity
to create and constrain opportunities are elaborated on in section four. Finally, in section five, patterns of inequality are evaluated to understand the school’s capacity to discriminate.

**Pragmatic and Structurist Critique of Schooling Outcomes**

Learning can be defined as the acquisition of knowledge that spans across space and time; developed through engagement in intellectual, emotional, spiritual, physical, spatial, and social experiences. The learning that happens in schools is more specific. In schools, youth are socialized with skills that prepare them for participation in mainstream society. In addition to teaching certain facts, concepts, and processes, Goodlad (1979)—when questioning what schools are for—argued that schools work to keep youth from the labour market, allow mothers to work, stratify abilities through testing and placement, and keep youth off the street and out of mischief. Similarly, Carnoy and Levin (1985) described public schooling as a place that “trains young people to be good workers and good democrats, reproducing a class-structured labor force to fit into a historically defined division of labor, but also inculcating aspirations about the nature of work in a democratic society” (p.77). Colloquially speaking, schools are expected to offer youth the necessary skills and qualifications allowing them to participate in the labour market.

Analyzing the levels of schooling that youth hope to achieve offers interesting insights as to how youth interpret the purposes of schooling. That is, through reasoning, youth assign value to schooling attainment. How youth come to assign value to particular levels of schooling is indicative of the social cues available to them. Social cues, according to pragmatism, are available in any social interaction and context, and provide information that is interpreted into meaning (Dewey, 1899). Post-secondary aspirations, consequently, represent outcomes and responses to the meaning made from social cues and indicate youths’ interpretations of the purposes of schooling, in particular for achieving future personal, social, professional, and familial endeavours. For Dewey, a pragmatist, the school represents a site of socialization and meaning-making, which varies across space and time. Different outcomes emerging among contexts of learning provide evidence that experiences are different. Therefore, where disparate patterns of
post-secondary aspirations emerge within and across schools, these patterns are indicative of an inconsistency of social cues.

Given that different contexts provide different social cues, it is important to understand how these different schooling experiences correspond with the way schools are structured. A schooling structure, in the context of this research, refers not to the physical make of the building, but to the abstract make-up of the rules of practices, social cues and resources available. These structures have the capacity to create and constrain relevant meaning-making experiences, placing “limits upon the range of options open to an actor, or plurality of actors, in a given circumstance or type of circumstance” (Giddens, 1984, p.177). In other words, experiences within the school setting place limits upon the range of opportunities available to youth, and these opportunities vary across settings based on the circumstances of those settings. As a result, collective actions have the unintentional capacity to produce and reproduce social inequality and provide an explanation of how group-patterns of inequality emerge. Such is the paradox of Giddens’ theory of structuration: individuals and collectivities are at the same time bound by social structures, which inform their actions, and act in ways that reproduce social inequality. Within and across contexts of learning, schools have the capacity to create “differences among students by offering them different kinds of knowledge … some get high-status knowledge that prepares them for high-paying jobs; some get low-status knowledge that prepares them for low-paying jobs” (Gaskell, 1992, p.36). Where a student goes to school, what program they are in, and what their peers, parents, and significant others expect from them all play a formative role in determining what individuals understand as appropriate opportunities ahead (Marjoribanks, 2002).

For Aboriginal people, intergenerational patterns of low schooling attainment, employment, and social status provide evidence of the underlying structures that are in place. Wotherspoon and Schissel (1998) contend that legacies of colonialism and systemic racism contribute to the sustained labour market class structure and socioeconomic inequality faced by Aboriginal people. In the next section, legacies of unequal treatment in public schooling will be examined to demonstrate that unequal
outcomes are not necessarily merit-based, and rather reflect practices that offer youth unequal experiences.

**The Legacy of Government-Run Schools and Stratification**

Regardless of race, gender, and class, Canada’s public schooling systems provide equality of access to all youth. Therefore, a commonly held assumption among many Canadians is that public schooling is fair and inclusive. While access is equal, treatment and outcomes remain unequal. Differential treatment is alleged to be needs based and unequal outcomes arguably reflect an individual’s capability and achievement.

Carnoy and Levin (1985) suggest that unequal outcomes are required for the maintenance of a stratified labour market. Their argument suggests that the school represents a site at which the capitalist society reproduces itself. According to Carnoy and Levin, public schooling has the double duty of being a basic human right offering social mobility to lower income groups, while preparing youth for the unequal class relations of the capitalist labour market.

Schooling, therefore, has two conflicting purposes. On the one hand, public schooling is perceived as the panacea to solve any social ill; in particular, it is called upon to address social inequality. On the other hand, public schooling is intended to prepare youth for participation in an unequal labour market; as such, schooling is competitive and hierarchical. Youth are sorted into programs that reflect stratified divisions of labour along the lines of race, gender, and class; as a result, public schooling systems offer inequality of educational opportunity (Coleman et al., 1966).

The relationship between schooling and labour is reflected in Eurocentric traditions of schooling that continue today. European settlers arrived to Canada in response to what Smith (1999) calls a capitalist economic crisis. European imperialists sought to expand their economic capital beyond national borders. To protect external markets, colonization and associated systems of control were put in place to secure access to the commodities and lands being exploited by subjugating indigenous peoples (Smith). One system of control was the institution of schooling. Aboriginal children were removed from their families and communities to board in residential schools (Kirkness, 1999; O'Donnell &
Tait, 2003). The intent of these schools was to ‘civilize’ and ‘culturize’ Aboriginal children with Christian and European values (Fisher & Campbell, 2002). “Colonizing models of boarding schools were used to subordinate Indians through educational subjugation, thereby tearing at the fabric of Native cultural integrity, and disrupting the future” (Rains, 2006, p.27). Importantly, these schools neither prepared youth for full and equal participation in mainstream society nor for them to return to and be full members of their communities.

Residential schooling is a significant example demonstrating the capacity of government-run schools to offer environments that contribute to social marginalization and economic exclusion on the basis of racism (Battiste, 2004; Wotherspoon, 2002). Having become highly controversial, the trend for Aboriginal schooling shifted away from residential schooling towards greater integration in provincial schools in the 1950s (McCue, 2006). In addition, the Canadian federal government began to incorporate provincial schooling practices in on-reserve schools. Today, the majority of Aboriginal youth, living on reserve and off reserve, attend provincially-run schools (Battiste, 2004; Kirkness, 1999; Richards, 2008). While often heralded for their capacity to offer equality of opportunity (of access), public schooling provides another example of how different contexts of learning lead to different outcomes for youth.

Public schooling in Canada is divided into three broad streams (also known as tracks): academic, vocational, and labour market. Each stream is designed to prepare students for disparate post-secondary opportunities. Academic programs prepare students to be eligible to attend post-secondary schooling, mainly university. Vocational programs prepare students to be eligible to pursue a trade or vocational training as an intern or through college. Labour market programs prepare students for direct entry into the labour market without post-secondary schooling. Students who find themselves in academic programs have the most opportunities available to them, and may choose to attend university, go on to college or vocational training, or enter the labour market. Students enrolled in vocational programs are not given these same choices. Indeed their opportunities are limited by their course offerings. Those with the least post-secondary
opportunities are youth who either drop-out or are enrolled in labour market programs; both are ineligible for direct admission to tertiary institutions.

Prior to public schooling, only the children of wealthier families from particular geographical areas were admitted to secondary schools (Carnoy & Levin, 1985). Demands to educate the masses led to the expansion of high schools and the creation of a hierarchy across schools (Oakes, 2005). With the increase of high school graduates, a mechanism to sort and select university-bound students from non-university-bound students was believed to be required; thus, the hierarchy within schools was created, attributing greater value (as continues to be the case) to the academic streams (Oakes). The development of a hierarchy within schools moved schools away from the concept of a uniform curriculum by initiating vocational curricula, particularly for children from working-class and immigrant backgrounds. … public education tended to prepare the children of workers and immigrants for one set of occupations in the work hierarchy and the children of professionals and managers for other, higher positions. This approach to the schooling of the urban poor was reinforced by the method of financing education that was established by the early part of the twentieth century. (Carnoy & Levin, p.10)

From these unequal beginnings stems our current practices of public schooling. Incorporating the history of schooling for Aboriginal peoples with the history of streaming in public schooling demonstrates, as Smith (1999) affirms, that “there is some unfinished business, that we [Aboriginal people] are still being colonized (and know it), and that we are still searching for justice” (p.34). Understanding history is important for informing the present and the future. As such, analyzing the experiences of schooling for Aboriginal peoples in relation to history has the potential to unravel a blueprint of unequal power relationships.

The Schooling Gap Among Aboriginal and Non-Aboriginal Peoples

The schooling gap that emerges for Aboriginal people is demonstrated by higher drop-out rates (Fisher & Campbell, 2002) and a greater likelihood to leave the schooling system with lower levels of schooling attainment (Hango & de Broucker, 2007) relative
to their non-Aboriginal counterparts. The ‘schooling gap’ is problematized as a gap between those with a post-secondary qualification and those without. The significance of the schooling gap is the relationship that schooling attainment has with labour market participation, productivity, income, health, and social status. While Aboriginal people’s high school completion rates are improving, the improvements are slower than improvements among non-Aboriginal people (Mendelson, 2006). The persistence of unequal schooling outcomes for Aboriginal people relative to non-Aboriginal people provides evidence that mechanisms within our schooling systems are reproducing social inequality.

Notably, contemporary researchers argue that completion of a high school qualification is becoming the minimum requirement for employment opportunities paying more than minimum wage (Canadian Council on Social Development [CCSD], 2000). Lower levels of schooling attainment among Aboriginal people are arguably triggering a racial ‘underclass’ (Mendelson, 2006; Wotherspoon, 2003). Therefore, the relationship between schooling attainment and class is significant, particularly for Aboriginal people in Canada.

Schooling attainment is recognized as a mechanism for social mobility; therefore, by increasing youths’ levels of schooling attainment social inequalities will arguably be alleviated. Richards and Vining (2004) describe schooling as having three corresponding job-types and income categories. The first “step-up” occurs with the completion of a high school qualification; this level of schooling allows individuals to become eligible for many entry-level jobs. The second step-up requires individuals to complete a trade or vocational certificate in order to reach reasonably well-paying jobs. The third step-up is the completion of a university degree in order to be eligible for higher status jobs. Although Carnoy and Levin (1985) posit that schooling is a source of social mobility for lower income children; social mobility, as implied by its very nature, requires a hierarchy for mobility to be possible. Therefore, increasing the general number of people who are attaining higher levels of schooling will not remove inequality.
Sharpe et al. (2007) found that increased schooling attainment corresponds with increased labour market participation, greater productivity, and higher earnings. The authors speculate that if high dropout rates persist among the Aboriginal population as their birth rates increase, then lower attainment rates among the Aboriginal population will be costly to the Canadian society. The costs referred to by these authors include a loss of potential productivity from lower schooling attainment rates, which can be remedied with increasing the level of schooling attainment among the Aboriginal people.

Productivity aside, what happens when the number of people with post-secondary credentials far exceeds the number of jobs requiring those credentials? According to Carnoy and Levin (1985), the under-utilization of workers credentials leads workers to become frustrated and “behave in ways that are counterproductive to the requirements of existing work organizations” (1985, p.152). These sentiments of frustration are echoed by Aboriginal people who have completed a post-secondary qualification and speak of the “disillusionment, confusion, and bitterness regarding the challenges they face in attempting to secure rewarding work despite having pursued education at a post-secondary level” (INAC, 2004, p.42).

Among Aboriginal people who go on to post-secondary schooling, Mendelson (2006) found that the majority are most likely to pursue non-university programs, such as college or vocational programs. If income increases and decreases with levels of schooling, as suggested by Richards and Vining (2004), then over-representation in non-university post-secondary schooling presents a further concern demonstrating the relocation of structural inequality from high school to tertiary schooling and later to the labour market.

Given that the school represents a location from which patterns of social inequality emerge (Bowles & Gintis, 1976; Coleman et al., 1966; Giddens, 1984; Oakes, 2005), it is important to focus research on the early scholastic preparation of Aboriginal students, contextualized by their social and economic learning environments, to understand later outcomes as these youth transition from school to work.
**Differential Treatment: Creating and Constraining Opportunities**

The continued disadvantaging of Aboriginal students through the public schooling system is one area of investigation, but one that speaks to the legacy of the Aboriginal-settler relationship. For Aboriginal people to come out from lower levels of socioeconomic status, their schooling attainment rates must increase. The pervasive viewpoint to increase schooling attainment contends that more post-secondary schooling will allow for social mobility as individuals become eligible to attain higher status positions requiring higher credentials (Hull, 2000). However, while schooling attainment is regarded as a path to overcome low socioeconomic conditions, the same low socioeconomic conditions present a barrier for obtaining post-secondary qualifications (Mendelson, 2006).

Different experiences and practices, imparted by social policies and institutions, such as education, have, and continue to generate, profound and discrepant consequences for Aboriginal peoples (Battiste, 2004). In particular, academic successes are found to vary according to students’ social, cultural, geographical, and economic schooling environments (Hull, 2000; Mendelson, 2006). Therefore, as Wotherspoon (2002) argued, it is essential to understand the mutually interdependent processes that give rise to boundaries and opportunities among Aboriginal youth and contribute to unequal outcomes from public schooling. According to Crysdale (1975), equality of schooling opportunities are undermined by processes that screen youth for various social destinations. Through processes of socialization, schools expose students to different skills, motivations, and self-images that, in turn, affect aspirations and expectations influencing future career and social status outcomes (Crysdale). As a result, the future prospects of a large number of low-income students (regardless of ability and aspirations) are devastated, perpetuating unequal opportunities and frustrating the egalitarian goals of the public schooling system.

As such, the public schooling system represents a paradox for Aboriginal peoples (Wotherspoon, 2002). On the one hand, schooling is argued to be an avenue through which social disadvantage, including poverty, unemployment, crime, and homelessness can be addressed (Dewey, 1899; Wotherspoon, 2002). On the other hand, schooling
represents a location of subjugation and marginalization, where the goals of schooling for Aboriginal people have been to segregate, assimilate, and integrate Aboriginal peoples into mainstream society. Similarly, Burns (2001) contends that public schooling serves as an instrument of assimilation and acculturation. Practices of marginalization are hidden and formal and provide scope for the system of public schooling to perpetuate inequality through the guise of impartiality and equal opportunity for all. As such, the system of public schooling continues to fail Aboriginal people by neither grounding them in the languages and cultures of their communities nor preparing them with the necessary skills to participate in the mainstream economy (Burns).

To demonstrate the school’s capacity to offer differential treatment, consider Richards and Vining’s (2003) work of Aboriginal youth, parental income, and school quality. Significantly, location matters. The authors found that parental income is an important indicator determining where youth live and the quality of the school they attend. Quality is based on the school’s “strategies to engage parents and students, student evaluation options, facilities and teaching materials, etc.” (Richards & Vining, p.1). The authors found that although Aboriginal students perform better at schools in higher income neighbourhoods, “most Aboriginal people attend schools of lower than average quality” (Richards & Vining, p.201). Over-representation is argued to be a result of racial and income residential segregation (Richards & Vining). Indeed, schools in poorer neighbourhoods are found to be of poorer quality and are more likely to have greater racial diversity, while schools in wealthier neighbourhoods have better quality schooling and are less likely to have racial diversity (Cooley, 2008). That school quality mirrors neighbourhood wealth is significant. The majority of students attending public schools are admitted based on their area of residence. If schools vary in quality, admittance by area of residence undermines a youth’s capacity to be self-determining and subjects them to poor outcomes and limited post-secondary options reflecting the poor quality of the school.

Quality of schooling may also reflect a school’s capacity to garner further resources. In a study by Frenette (2007), the relationship between students’ income background, the high school they attend, and their interest to go on to university were
analysed using results from YITS. Frenette found that students from economically
disadvantaged backgrounds were less likely to go on to university because of their
perceived poor performance, disinterest in university, and friends who were less likely to
go on to university (Frenette). Further, high schools differed in terms of their funding and
teacher selection processes. These differences appeared to vary across neighbourhoods
and were reflected in student quality. Quality reflected the additional resources that
benefited some students who attended schools receiving private funding. The author
stipulated that schools with wealthier families had a greater capacity to offer private
funding and as a result the additional resources served to benefit the students in wealthier
schools.

While income is one aspect related to different schooling environments, peer effect
is another. Peer effects mark distinguishable patterns of perceptions and attitudes towards
schooling, within and across schools that have effects on student performance.
Interestingly, Richards, Hove, and Afolabi (2008) found that Aboriginal students
performed better in schools where the majority of students were non-Aboriginal and
performed well. In schools with a high proportion of Aboriginal students, the authors
found that a subculture of low academic expectations emerged. The authors argued that,
irrelevant of the students’ socioeconomic backgrounds, peer effects within the school
provided an important insight explaining the achievement gap among Aboriginal
students, and in relation to their non-Aboriginal peers.

School quality, resources, streaming, and location, along with student performance,
and peer effects each contribute to diminish youths’ post-secondary opportunities.
Aboriginal youth, in particular, face overt and hidden barriers that act to deny these youth
of their post-secondary goals. Barriers include: inadequate financial resources; poor
academic preparation; lack of self-confidence and motivation; absence of role models
with postsecondary education experience; lack of understanding of Aboriginal culture on
campus; and experiences of racism (Malatest & Associates Ltd., 2002; Millennium
Scholarship; St Denis & Hampton, 2002; Wotherspoon, 2002). Devastatingly, these
discriminatory barriers result in lowered self-concept (Neegan, 2005).
Therefore, the most significant barrier for Aboriginal youth is the public schooling system. As a location of learning that aims to provide equality of opportunity, public schools are falling short as they continue to limit students’ post-secondary opportunities and contribute to the social marginalization and economic exclusion of Aboriginal peoples (Wotherspoon, 2002). Scholars argue that public schools are inadequately preparing Aboriginal youth to make informed career choices and to be employment ready (Preston, 2008). Further, public schooling arguably does not prepare Aboriginal youth with the necessary skills to gain access and be successful in the tertiary schooling environment (Hull, 2000; Malatest & Associates Ltd., 2002, 2004; McCue, 2006; O'Donnell & Tait, 2003; Weenie, Michell, & Pilatzke, 2003). As such, these unequal outcomes contradict the equitable entitlements purported to be universally available to all citizens. According to Coleman et al. (1966) and Oakes (2005), students can only learn from schools that which they are exposed to. Therefore, if exposed to different programs, resources, ethos, and academic expectations, then it is not surprising that outcomes differ.

Systemic Discrimination in Schooling

Historical practices, including residential schooling, have laid the base from which public schools marginalize, exclude, and integrate Aboriginal peoples into mainstream society to their disadvantage (CCSD, 2000). St. Denis and Hampton (2002) argue that race, class, and gender are social relations that define and affect participation in social life. The authors explain that within the public schooling system Aboriginal people face verbal and psychological abuse, low expectations, social marginalization and isolation, denial of professional support and retention, unfair and discriminatory application of rules and procedures, denial of Aboriginal experience, and denial of basic human rights; all of which provide evidence of discrimination. Subsequently, Aboriginal people are pushed to the margins of the prevalent opportunity structure in mainstream society. Burns (2000) argues that these outcomes reflect a hidden curriculum of institutionalized White privilege. With high rates of non-completion and low rates of post-secondary attainment, Aboriginal youth are not being prepared with the necessary schooling skills to participate in the mainstream economy. According to Burns, prejudice, stereotyping, racism, and systemic discrimination persist in the public schooling system.
Political, social, and economic practices of discrimination prevent Aboriginal youth from achieving. Wotherspoon (2003) contends that research pertaining to Aboriginal peoples should not separate class from race. According to the *Canadian Council on Social Development* (2000), race “is a social construction based on certain physical features, especially skin colour, to justify dominant ideology, power, and social hierarchy” (p.7). As a social concept, race has social currency marking unequal social and economic outcomes. Class is a marker of inequality that makes distinctions among and within identity groups. Class is an indicator of opportunities; when applied in research it seeks to understand unequal outcomes, particularly as it relates to the lower classes.

When unequal schooling outcomes distinguish along racial and class lines, these outcomes indicate that discrimination is structural. According to Williams (2004) systemic discrimination reproduces inequality over time and is deeply rooted in a history of exclusion and inclusion. Systemic discrimination denies groups of people, distinguished on the basis of race, gender, or class, the opportunity to fully participate in society (CCSD, 2000). Specific to education, systemic discrimination has the capacity to reproduce educational underachievement and subsequent low earnings, suggesting that social status is conferred at birth. Overt practices of segregation and streaming continue to make distinctions along racial and class lines. These realities contradict with the principles of democracy, fairness, and equality of opportunity.

The effects of systemic discrimination are made apparent by limited educational and economic opportunities, psychological- and health-related low self-esteem, and hostility and ambivalence towards the public education system (St. Denis & Hampton, 2002). Burns (2000) concurred that

inequalities produced by schools pertaining specifically to Native people are fostered, in part, by the culture of school board systems and their institutionalized beliefs, values, norms, structures and overall programmatic and behavioural regularities which are both racist and discriminatory in character and effect. (p.167)

Therefore, St. Denis and Hampton call for further research on forms of racism, discrimination and prejudice in the public school systems in order to gain a better
understanding of the contributing factors to low schooling attainment among Aboriginal youth.

An example of racism is demonstrated when looking at outcomes among Aboriginal and foreign- and Canadian-born peoples of visible minority who hold post-secondary qualifications. Research indicates that these groups face greater incidences of unemployment and low earnings when compared to the white/Caucasian, racialized majority (CCSD, 2000). Systemic racism is exemplified by the “overrepresentation of Aboriginal people in corrections, and the under representation in employment and educational sectors. … Mortality rates, suicide rates, health and social conditions, and social assistance dependency rates, are other factors” of racism (Weenie et al., 2003, p.15).

Indeed, the over-represented of Aboriginal people who dropout of secondary schooling, and the under-represented of Aboriginal people with higher levels of schooling attainment and high status employment provides evidence of discrimination. However, reforms typically call on Aboriginal people to change, rather than challenging the system that contributes to these outcomes. The recurrent theme of the so-called “Aboriginal problem” (found in equality of education discourses) demonstrates a relationship between race, socioeconomic outcomes, and schooling (Smith, 1999). The Aboriginal problem acknowledges inequality. Rather than attributing inequality to social, political and historical structures, unequal outcomes are individualized. Freire (1994) would contend that the so-called Aboriginal problem is an outcome of racial and class discrimination. In the words of Freire:

It is imperative that we get beyond societies whose structures beget an ideology that ascribes responsibility for the breakdowns and failures actually created by these same structures to the failed themselves, as individuals, instead of to the structures of these societies or to the manner in which these societies function. [Italics in original] (p.158)

Aboriginal peoples, visible minorities, people with disabilities, and lower incomes continue to be under-represented in important social institutions, including schooling,
political administration, and employment. While unequal outcomes are often argued to be the result of meritocracy—substantiated by the democratic ideal that all things are equal—under-representation along racial, gender, class, and geographic lines demonstrate that processes constrain outcomes. When recurrent patterns of inequality are taken-for-granted, the patterns provide evidence of systemic discrimination.

**Summary of the Literature Review**

In this chapter, I have set out to draw links between experience and outcomes, history and practice, and race and class within public schooling. Public schooling is argued to be a relevant space to study as it is broadly inclusive in nature and is intended to be a space where students from diverse backgrounds are expected to have access to common services, curricula and experiences that, in turn, are linked to prospects for their eventual participation and inclusion in other social and economic venues.

While the purposes of schooling in a capitalist democracy are multifold, its two main goals are to offer equality of opportunity and to prepare for participation in the labour market. Due to the practice of residence-based admissions, students are not generally given a choice as to which public elementary or secondary school they will attend. Therefore, race and class residential segregation becomes a significant marker of school quality and student performance.

The literature makes clear that the experiences gained during the formative years of compulsory schooling play a significant role in shaping the future pathways of youth. As Wotherspoon (2002) points out, schools have processes that act to facilitate or block prospects among peoples. Schools act as barriers by segregating and marginalizing youth that appear to distinguish along the lines of race and class. Lower attainment rates among Aboriginal people, is but one example of how public schooling participates in reproducing social inequality.

In the following chapters, the research question of whether public schools create and constrain youths’ post-secondary opportunities relative to their aspirations is tested. As identified in this chapter, quality of schooling differs from one location to the next and post-secondary opportunities are determined by the programs that youth are enrolled in.
Chapter 3 outlines the methodology for testing the research question and explains the tools and variables that are used in conducting the analysis.
CHAPTER 3: METHODOLOGY

The aforementioned theoretical frameworks represent ideological considerations which inform the methodology of this study. The purpose of this study is to contextualize aspirations as outcomes among youth attending public schools in Canada. The comparative focus of the research is concerned with outcomes among Aboriginal youth in relation to their peers. In this chapter, the method for comparative and quantitative analysis of youths’ aspirations, contexts of learning, and backgrounds is outlined using results from the Youth in Transition Survey (YITS) and Programme for International Student Assessment (PISA). As is explained later in this chapter, YITS and PISA are intended to measure quality of schooling and youths’ transitions from school-to-work. The YITS and PISA data sets provide important identity and aspiration variables that allow for comparative public schooling analyses. Additionally, with the integration of the YITS with PISA, this study provides a national case study from which future international comparisons can be made.

Specifically, the study provides a representation of the relationships (or the lack there of) between youths’ post-secondary aspirations, their contexts of schooling, and socio-demographic backgrounds. Only those public schools having Aboriginal respondents were included in order to demonstrate whether shared contexts of learning influence outcomes across racial identities. Situating post-secondary aspirations by contexts of learning and background variables allows for a more complex and rigorous interpretation of post-secondary aspirations, barriers to achievement, and relationships with race, gender, and class. Through these analyses, I intend to understand whether outcomes from public schooling differ on the basis of race, gender, and class.

My research interests, aims, and assumptions are shaped by personal experiences; therefore, using bricolage, I explore the forces that shape my assumptions about access to post-secondary opportunities and social (re)production of systemic inequalities. Bricolage is employed because it values phenomena (such as aspirations) as things that cannot be considered in isolation as they are constantly evolving constructs of the mind and therefore cannot be things-in-themselves (Kincheloe & Berry, 2004). It is with bricolage in mind that I have come to question my role as a non-Aboriginal researcher who is
conducting comparative research of Aboriginal people. Throughout the research process, I have revisited the question: *Why am I researching Aboriginal people?* As exemplified in the literature review, since European travelers arrived to the Americas, their travelers’ tales have objectified, codified, and Othered Aboriginal peoples who have been compared to non-Aboriginal peoples. Therefore, it is important for me to be conscious of and ensure that my research practice does not continue to apply an Aboriginal-non-Aboriginal methodology that continues to Othering Aboriginal people.

The purpose of my research, therefore, is to privilege the Aboriginal experience of schooling and the methodology reflects this initiative. Explained in further detail below, the Aboriginal experience is privileged in the methodology by limiting the scope of comparison to public schools having Aboriginal respondents. From this standpoint, the relationships among students are considered in three chapters. Chapter 4 investigates the post-secondary aspirations and potential barriers to aspiration achievement among youth. Chapter 5 considers how racial identity and gender might be indicators of youths’ aspirations, their programs of enrolment or school’s graduate destinations. Finally, in Chapter 6 socio-economic background variables are introduced and compared with aspirations, contexts of learning, and racial identity to understand whether outcomes of public schooling are biased on the basis of class and location. The intent of these analyses is to investigate whether clear patterns emerge that distinguish youth on the basis of race, gender, or class in ways that may affect their post-secondary opportunities.

In the chapter to follow, the tools for conducting the analyses in Chapters 4 through 6 are described. In the first section, YITS and PISA are explained to provide the reader with a sense of the purpose of these surveys, the rationale for conducting research using these data sets, and the process of accessing these data sets from Statistics Canada. The scope of the analysis, variables, measurement issues, and limitations are then discussed in the variable analysis section.
Youth in Transition Survey (YITS) and Programme for International Student Assessment (PISA)

YITS and PISA provide relevant data that allow for interpretations of the relationships between youths’ post-secondary aspirations, their contexts of learning, and background characteristics. The first section explains what the YITS and PISA surveys are. The second section goes on to explain how the surveys were designed and combined allowing for an integrated analysis. The third section offers my rationale for using these data sets to answer my research question: To what extent do public schools create and constrain the post-secondary opportunities for Aboriginal youth and their peers? The final section explains issues related to accessing the Statistics Canada datasets, the code of confidentiality, and issues related with disclosure of results.

What are YITS and PISA?

YITS is a Canadian longitudinal survey studying youths’ transitions from compulsory schooling, through post-secondary schooling (if any), and into the labour market. YITS is intended to provide data that extends our understanding of the factors related to schooling and career aspirations, processes for achievement, and barriers to attainment. In line with the objectives of the present study, YITS was designed to assess school effects on individual outcomes in order to evaluate the extent to which school practices relate with students’ outcomes. Cycle 1 of YITS was administered in 2000 to two cohorts: 15 year-olds and 18 to 20 year-olds. Fifteen is a significant age because it represents the last year of compulsory schooling for youth across most provinces. That is, when youth turn 16, or at the at the end of that school year, youth are no longer legally bound to be enrolled in school, except for youth living and studying in New Brunswick. In the year 2000, New Brunswick was the only province to have compulsory schooling

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1 Territories are not referenced here as they were not included in the YITS and PISA survey design. The Northwest Territories and Nunavut stipulate that students must complete the academic year when they turn 16, the compulsory age of schooling. Compulsory school attendance ends at the age of 16 in Yukon.
until the age of 18\textsuperscript{2}. Only the cohort of youth aged 15 was used for the present analysis as it corresponds with the PISA survey.

PISA is an international survey that measures youths’ competencies in reading, science, and mathematics. More generally, PISA intends to understand youths’ preparedness for future challenges, their capacity to continue lifelong learning, and their ability to analyze reason and communicate effectively. In 2000, PISA collected data in 32 countries\textsuperscript{3}; in 2009, 67 countries have agreed to participate in the assessment. Canada is one of the countries where PISA is administered. Together, YITS and PISA were designed to collect data that provides policy relevant information regarding youths’ transitions from school-to-work by investigating the effectiveness of schooling systems and understanding which factors are related to youths’ post-secondary schooling, training, and work pathway decisions.

The relevant variables for the present study were taken from the following questionnaires: YITS Student Questionnaire, YITS Parental Questionnaire, PISA Student Questionnaire, and PISA School Questionnaire. The YITS and PISA student questionnaires were concurrently administered to 15 year-old youth. The surveys asked questions related to youths’ familial background, academic and social engagement, work and volunteering, academic streaming, achievement, and perceptions, expectations, and aspirations related to school and work. Across the student surveys, similar questions were found. Where duplication or non-responses were found in one survey, responses were replaced with those from the corresponding question from the other survey. It is interesting to note that PISA administered an additional survey to assess student

\textsuperscript{2} Effective 1 July 2008, Ontario joined New Brunswick by extending the compulsory age of schooling to the age of 18 or the completion of secondary school.

\textsuperscript{3} The \textit{Manual for PISA 2000 Database and Youth in Transition Survey: Project Overview} (2000) state that the following 32 countries participated in 2000: Australia, Austria, Belgium, Brazil, Canada, China, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Latvia, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Russian Federation, Spain, Sweden, Switzerland, United Kingdom, and United States. On the PISA website (\texttt{www.pisa.oecd.org}) it states that 43 countries participated in the 2000 assessment.
achievement in reading, science, and mathematics, although this survey was not incorporated into the present study.

The School Questionnaire was administered to school administrators to gain an understanding of school quality and effects on outcomes. Canadian content was added to the school questionnaire. The content of the questionnaire covers themes including school characteristics, programs offered, participation per stream, resources, admissions and assessment practices, and graduate destinations.

In addition, YITS administered telephone interviews with the parents of student respondents. The YITS Parent Questionnaire broadly collected information regarding socio-economic status. The data includes information on family structure and income, parental schooling attainment and employment, racial, cultural, and linguistic backgrounds of the parents and child, parenting styles, and parental engagement with their child’s schooling experiences.

The next section explains the design and integration of YITS and PISA, providing an explanation for how the two data sets can be combined for analysis.

**YITS and PISA Design and Integration**

In April and May 2000, PISA and YITS were concurrently administered to about 30,000 students from about 1000 schools across Canada. The integration of YITS and PISA provides a snapshot of the characteristics shaping students’ schooling experiences, including socio-economic backgrounds, programming, and outcomes. Although YITS is a national survey, having been designed in conjunction with PISA allows its findings to be considered in international analyses.

Countries participating in PISA had to administer a multi-level survey design. The surveys were designed using PISAs school-based framework. The two-stage probability sampling first collected a stratified sample of schools and second conducted a systemic equal-probability sample of 35 students (Statistics Canada, 2005). Lists of schools were received by the provinces. The schools were stratified by province, language of instruction (for Nova Scotia, New Brunswick, Quebec, Ontario and Manitoba), and
enrolment size of 15-year olds per school. Participating schools provided lists of students born in 1984 and enrolled for the 1999/2000 school year. These student sample lists were collected in the fall of 1999. Although PISA prescribed a target enrolment size of 35 students, YITS revised the design to exclude schools with fewer than two 15 year-old students and expanded the design to include schools with an enrolment of fewer and greater than thirty-five 15 year-old students. Where the enrolment size was fewer than 35 students, the census enrolment was captured. In participating schools that had an enrolment size greater than 35 a maximum of 35 students were sampled.

For the results from the questionnaires to be considered as part of the final PISA and YITS results, certain criteria had to be met. Schools represented the primary sampling unit and youth were selected from the sampled schools. Schools were deemed respondents when 25% or more of the eligible student sample were assessed. Students were deemed PISA respondents if they had attended a PISA skills test or student questionnaire session and provided a response regarding their father’s or their mother’s occupation. Although students may not have answered the YITS questionnaire, the cases were included provided they met the PISA respondent criteria for inclusion. Only the parents of student respondents were interviewed and parents were deemed respondents if they included information about their or their spouse’s highest level of education and occupation.

Although information about youths’ backgrounds, including racial identity, and socio-economic status were obtained, the design of the surveys did not sample students on the basis of their proportionate representation at the school and cannot be extrapolated to the population in general. Further, PISA design offered countries the opportunity (under special circumstances) to exclude portions of the national population, including geographical areas, and political or language groups (Statistics Canada, 2005). For Canada, this meant the exclusion of schools in the northern territories and on reserves.

Additional school-level and student-level exclusions were permitted according to PISA sampling criteria. School-level exclusions occurred where administration of PISA was not feasible. That is, those schools that provided instruction to students with a
disability only (i.e. blind students), were geographically inaccessible, or had an extremely small student population were not included as part of the target schools sample. Student-level exclusions occurred within participating schools and included students who were assessed as emotionally or mentally unable to follow cognitive skills tests, were physically unable to perform the PISA test, or had less than one year of instruction in the language of the test.

The multi-level design allows for individual and school effects to be considered in analyses. This design plays an integral role in understanding youth and their aspirations in relation to their socio-demographic backgrounds, contexts of learning, and anticipated post-secondary outcomes.

**Why Use YITS and PISA**

Schooling reforms in Canada appear to be influenced by national and international discourses related to the demands of the labour market. Gaps in schooling attainment and access to post-secondary schooling have been highlighted as concerns by the Council of Ministers of Education, Canada (CMEC) (Malatest & Associates Ltd., 2002, 2004); an organization representing provincial and territorial Ministries of Education as one body federally and internationally. The message conveyed by CMEC and other organizations is that post-secondary schooling is necessary to prepare youth for a changing and increasingly knowledge-based labour market economy (Krahn & Taylor, 2005; Sharpe et al., 2007; Working Group on Aboriginal Participation in the Economy, 2001).

Tools such as YITS and PISA provide data which, when analyzed, can provide national and international understandings of youth goals, pathways, achievements and preparedness for further schooling and future labour market participation. Given the constrained time and space for conducting master’s research, the use of secondary data provided me with the opportunity to test assumptions related to public schooling’s capacity to create and constrain post-secondary opportunities. Findings from the analyses in Chapters 4 through 6 are contemporary and complex, allowing for relevant dialogue on the relationships between racial identity, socio-economic backgrounds, experiences from public schooling, and post-secondary aspiration achievement.
Accessing YITS and PISA from Statistics Canada

Access to the Statistics Canada Research Data Centre (RDC) in Toronto was required to analyze the YITS and PISA microdata sets. An application was made to the Social Sciences and Humanities Research Council (SSHRC) of Canada for Access of an RDC. The research proposal and accompanying application were submitted online and reviewed by the RDC-Access Granting Committee. The project was approved and given access for one year starting from January 2009.

Accessing an RDC is the most restricted form of Statistics Canada access. To gain access, researchers with approved projects must pass a security check, attend an orientation, swear and affirm an oath of office and secrecy, acknowledge the *Values and Ethics Code*, and sign a contract (Statistics Canada, 2007). Once the access process is complete, the researcher obtains the status of “deemed employee” and is granted access to the specified confidential microdata.

Researchers must comply with the *Statistics Act*, in particular its culture of confidentiality. Confidentiality is upheld within each RDC through physical protection, computer protection, researcher’s personal responsibilities as “deemed employees”, and disclosure risk analysis before removing output from an RDC (Statistics Canada, 2007). Confidentiality is important for Statistics Canada as it maintains public confidence enabling the continued collection of valuable socio-demographic data. Disclosure risk analyses and practices are in place to maintain the trust of respondents by ensuring that their information will be kept confidential. Due to confidentiality, unweighted findings with a cell size count less than 15 cannot be disclosed4. Further, disclosure of analysis must be approved by a RDC Research Analyst prior to releasing the output from the RDC and disseminating the findings more widely.

Statistics Canada strongly encourages that disclosed data be weighted from the sample population to the general population. However, due to the design of the surveys—

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4 Data that is weighted requires a minimum cell size of 5.
by school and not by student—weighting the results from this study was not permitted by Statistics Canada as the nature of the present student is to conduct analyses on the basis of Aboriginal identity. Therefore, the outcomes from this study cannot be extrapolated to represent the entire population as the design sample for students was not based of racial identity. Inferences made about the general population cannot be made and would be invalid if based on un-weighted results. The variables that are used in the analysis of the present study are described in the section to follow.

Variable Analysis

The variables that are available for analysis are determined by what questions are asked and what answers are available in YITS and PISA. The quantitative analyses of YITS and PISA were conducted using SPSS at the Toronto Research Data Centre. In some cases, YITS and PISA had recoded the results; in other cases the results had to be recoded in order to fit with the design and purpose of the present study. The purpose of this section is to explain the scope of the study and the variables that were used to evaluate the extent to which public schools create and constrain youths’ post-secondary opportunities.

Variables were analysed using cross tabulations to display the joint distribution of two variables. The results from the cross tabulations were presented in two-way contingency tables. Valid percentages are used in contingency tables and exclude values labelled valid skip, unsure, and missing. The contingency table displays the observed frequencies and relationships among values. The significance of relationships between variables was evaluated using Pearson's chi squared ($\chi^2$) tests. If values were found to vary, then the two variables were contingent (dependent); whereas, if the values did not vary, then the two variables were not contingent (independent). Where the two-way contingency table analysis was found to be statistically significant (contingent), follow-up tests were conducted. Follow-up analyses used the Holm’s sequential Bonferroni method to control for Type I error at .05. The tests were applied to evaluate the proportion of difference among all pairs having more than two values (Green, Salkind, & Akey, 2000). Where there were only two values (i.e. male and female) no follow-up tests were required.
The first section provides the rationale for privileging Aboriginal identity and limiting the scope of analysis. The following four sections explain the rationale and recoding (where applicable) of variables that fall under the following headings: racial identity variables; post-secondary aspiration variables; contexts of learning variables; and socio-economic status variables. The last two sections discuss measurement issues and limitations of the study.

**Limiting the Scope of the Analysis**

The general aim of my research is to provide a snapshot understanding of Aboriginal students’ post-secondary aspirations in relation to their public schooling counterparts. Recall that the present study is designed to privilege Aboriginal experiences and to delimit the scope of comparison accordingly. The scope of the sample population was controlled in two ways: first, on the basis of school type (i.e. public vs. private); and second, by the racial identity population at the school (i.e. whether Aboriginal respondents attend the school). Following these exclusions, sample population counts were reduced from about 26,063 to 12,426. Among the Aboriginal respondents, nearly all were found to have attended public schools. Recall that YITS and PISA design did not sample schools on reserves or in the northern territories; therefore, the sample of 12,426 might be generalizable for Aboriginal students attending public schools, but cannot be generalized to all Aboriginal students given the proportion of Aboriginal youth who attend schools on reserves and in the northern territories. Similarly, the findings for non-Aboriginal youth in this sample cannot be generalized to represent all non-Aboriginal youth, particularly those attending private schools and schools without Aboriginal students.

The first exclusion was of private schools. Research comparing the schooling outcomes of Aboriginal and non-Aboriginal youth often does not make distinctions regarding the type of school that students attend, although distinctions are made regarding whether Aboriginal youth live on reserve or off reserve. Importantly, considerable variability of programming and outcomes exist across on-reserves schools, off-reserve public schools, and off-reserve private schools. Recall that about 70% of Aboriginal youth live off reserve (Turcotte & Zhao, 2004) and most attend public high schools
Among the First Nations youth who live on reserve, over one-third attend off-reserve public high schools; therefore, provincial governments are responsible for schooling about five Aboriginal youth in six (Richards). Although the proportion of private schools to public schools is few, it is important to focus on public schools given that most Aboriginal youth attend these schools. Further, public schools are interesting sites of learning given their mandate to offer equality of opportunity. Therefore, the purpose of the present study is to demonstrate whether inequality of outcomes, observed among Aboriginal youth relative to their non-Aboriginal peers, persists when excluding peers who attend private schools and schools on reserve—where it is likely that opportunities and outcomes differ from one school to the next.

The second exclusion is of schools where no Aboriginal respondents were found. The exclusion is based on the assumption that public schools vary based on their location and ethos, and in terms of their quality, programming, student performance, and outcomes (see for example, Frenette, 2007; Richards et al., 2008; Richards & Vining, 2004). Further, the literature suggests that Aboriginal youth were most likely to attend public schools of poorer quality (Richards & Vining, 2003). Given the variance of opportunities and outcomes that emerge from one public school to the next, only schools having Aboriginal respondents were included. Limiting the sample size of non-Aboriginal respondents is important for this analysis as the purpose is to analyze outcomes among students who share similar schooling experiences. Further, limiting the sample size reduces discrepancies among these populations.

Racial identity groups (Aboriginal, Visible Minority, and Visible Majority—explained in the section to follow) were not equally represented in YITS. In order to reduce the potential of distortion and to support the assumption of equal variance (expected from quantitative analyses), the racial identity categories were randomly sub-sampled to the lowest racial identity count (N=650). Following the random sub-sampling, the total sample size population for the present study was 1,950 respondents, with 650

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5 Six percent of elementary and secondary schools were private in 2000, according to the Statistics Canada Canadian Year Book, 2006.
respondents for each racial identity category. The margin of error for this sub-sample (N=1950) relative to the delimited sample population (N=12,426) is plus or minus 2.68% with a level of confidence set at 99%. Although the sample is not representative of the entire student population across all school types, the findings provide interesting insights regarding the experiences of Aboriginal youth and their immediate peers who attend provincial public schools.

Racial Identity Variable

Youths' racial identities were obtained from parents’ responses to the YITS Parental Questionnaire. In the questionnaire, parents were asked to report the racial background(s) of their child. Parents were provided with a list of racial and cultural backgrounds to choose from and were asked to mark all that applied to their child. The backgrounds included in the question were: Aboriginal, Arab, Black, Chinese, Filipino, Japanese, Korean, Latin America, Southeast Asian, South Asian, West Asian, and White. Parents could also specify their child's background, indicate that they did not know, or refuse to answer the question. The results were then recoded by YITS into two variables with two values each: 1) Aboriginal and non-Aboriginal; and 2) Visible Minority and non-Visible Minority.

Aboriginal identity, as it is defined by Statistics Canada, refers to persons who may identify as Inuit, Métis, First Nations, Status Indian, non-Status Indian, Native, and North American Indian. The concept of Visible Minority is defined by Statistics Canada as persons who identify as non-Caucasian in race and/or non-white in colour and who do not identify as Aboriginal. Within YITS, Visible Minority is a derived variable of all identities, excluding Aboriginal and White. Non-Aboriginal refers to all Visible Minority and White respondents, while non-Visible Minority refers to Aboriginal and white respondents. Based on the definitions for Aboriginal and Visible Minority identities, respondents who were not identified as Aboriginal or Visible Minority were delineated as being white.

For the purposes of comparing across identities, the two identity variables (Aboriginal and Visible Minority with their two values) were merged into one variable.
The new Identity variable had three values: Aboriginal, Visible Minority, and Visible Majority. Visible Majority is a new concept and refers to respondents who might have identified as white, given that they were not identified as Aboriginal or Visible Minority. In merging the two variables there were a few cases had were identified as Aboriginal and Visible Minority. In such cases, preference was given to youths’ Aboriginal identity.

The rationale for comparing across three racial identity values instead of the Aboriginal-non–Aboriginal binary is that non-Aboriginal, while opposed to Aboriginal identity, is not an identity category on its own. Therefore, non-Aboriginal does not present a comparable identity category to evaluate with Aboriginal identity. Further, comparing across three identity variables allows for a more complex understanding of race in relation to post-secondary aspirations, socio-economic status, contexts of learning, and outcomes. Incorporating Visible Minority and Visible Majority with Aboriginal identity helps to see how Aboriginal respondents compare with groups that might be assumed to enjoy greater privilege (Visible Majority), as well as with groups that might enjoy privilege to a lesser extent (Visible Minority). In the following section, the variables related with post-secondary aspirations are explored.

**Post-Secondary Aspirations Variables**

More and more Canadian youth are aspiring to attain a post-secondary qualification (Looker & Thiessen, 2004). As a result, rates of post-secondary schooling attainment are increasing. This could be the result of a number of changes including (but not limited to) a perceived necessity of post-secondary qualifications to participate and remain competitive in a changing knowledge-economy, and a push for all members of society to have access to post-secondary schooling. Both of these research positions maintain that positive correlations are found between levels of schooling, labour market participation, income, and social status. Therefore, the higher the level of schooling an individual attains, the more likely they are to demonstrate social mobility, and be in a higher socio-economic status.

Youths’ post-secondary aspirations are measured using variables that provide an indication of future job- and school-related aspirations. Information regarding youths’ job
aspirations were obtained from YITS question K4 and PISA question Q40. In PISA, Q40 asked youth: “What kind of job do you expect to have when you are about 30 years old?” While YITS K4 asked youth: “What kind of career or work would you be interested in having when you are about 30 years old?” In the cleaning of results, YITS found that in most cases, youth were found to have given the same response in both surveys. As a result, the responses to YITS K4 were replaced with a derived variable (YSOCC91) which relied on the responses from PISA Q40 (Statistics Canada, 2005).

Although the results were the same, the final YITS and PISA variables differed by way of the occupational classification systems used to report the youths’ jobs. Canada, having its own industry and occupation codification system, translated the derived variable (YSOCC91) using the North American Industry Classification System (1997). However, given that YITS derived the job aspirations results from PISA Q40, the YITS variable was omitted from the present study. Therefore, youths’ job aspirations from PISA Q40 were translated using the International Labour Office’s (ILO) International Standard Classification of Occupation (ISCO-88) (1988). Jobs were represented by 4-digit codes, where the first digit of each code fell under one of the following nine job categories:

1 – Legislators, senior officials, managers
2 – Professionals
3 – Technicians and associate professionals
4 – Clerks
5 – Service workers and shop and market sales workers
6 – Skilled agricultural and fishery workers
7 – Craft and related trades workers
8 – Plant and machine operators and assemblers
9 – Elementary occupations

In order to obtain a clearer picture of differences among these jobs, the nine job categories were collapsed into three broad categories: senior administration (includes job categories 1 – 3), administration (includes job categories 4, 5, 9), and skilled labour (includes job categories 6 – 8).
As a follow-up question to youths’ job aspirations, YITS K7 asked youth: ‘How much education do you think is needed for this type of work?’ Youth were asked to mark all levels of schooling that apply:

- Less than a high school diploma;
- High school diploma or graduation equivalency;
- Trade/ vocational certificate or diploma or an apprenticeship;
- College or CEGEP (Québec) certificate or diploma;
- One university degree;
- More than one university degree;
- I don’t know how much education I’ll need for this type of work; or
- I have not yet found a future career I am interested in.

In order to measure schooling aspirations, the variables were recoded into one variable with three values that ranked schooling aspirations according to the number of years spent in school after high school. Attainment of a university degree typically requires 3 or more years of post-secondary schooling, college or vocational training requires up to 3 years of post-secondary schooling, and attainment of a high school certificate or less requires no post-secondary schooling. The recoded variable placed students’ responses into three categories: university degree, college or vocational training, or high school certificate or less. Given that youth could indicate more than one level of schooling, only the level of schooling requiring the most number of years in school was included.

**Contexts of Learning Variables**

Contexts of learning are important to consider as they may be an indication of the potential barriers that youth face in achieving their post-secondary aspirations. Contexts of learning are represented by two variables: programs of enrolment and graduate destinations.

Youth were asked to indicate whether the program they were enrolled in prepared them to pursue academic post-secondary schooling (i.e. at a university), trades of vocational training (i.e. at a college), or prepared them for entry into the labour market (without post-secondary schooling). The results for this variable did not require recoding.
Another indication of youths’ potential post-secondary opportunities may be observed by the destination trends among their graduated peers. To obtain information about where students go when they leave high schools, school administrators were asked to indicate the proportion of graduates from their schools who went on to university, college, or directly into the labour market. The proportions indicated by school administrators were recoded so that comparisons across schools could be made and merged into one variable with values that indicated where the majority of graduates were destined: university, college, or the labour market; or some combination of these three destinations. When comparing this variable with other variables, however, the values had to be recoded in order to have cell sizes that would be large enough to report. Therefore, graduate destinations were recoded to have three values where the majority of graduates were destined to go on to either: post-secondary schooling, the labour market, or both post-secondary schooling and the labour market.

**Socio-Economic Status Variables**

Analyzing socio-economic status in relation to race and schooling outcomes is important as social and economic standings arguably improve as levels of schooling attainment increase (Mendelson, 2008; Richards & Vining, 2004). Socio-economic status was measured by three variables: parental schooling, parental income, and community size. The rationale for using these variables is that if parental schooling contributes to parental incomes and incomes are relative to the available jobs in a community, then socio-economic status may explain barriers related to aspiration attainment.

The first socio-economic status variable is parental schooling. Levels of parental schooling were obtained from the YITS parental questionnaire. Parent respondents were asked to indicate the highest level of schooling they had attended. Responses ranged from had not completed high school to doctorate university degrees. In order to have cell sizes that were large enough to report when compared with other variables, the levels of schooling were collapsed into three categories. Therefore, parental schooling has three values that indicate whether a parent had attended university, college or vocational training, or a high school certificate or less.
The second socio-economic status variable is parental income. Parental incomes were obtained by parents’ self-reporting of annual incomes. YITS derived a variable to indicate the total (and combined) income of parent(s). The actual figure is represented in the results and ranges from zero to over $1 million per annum. In order to have data that could be reported, the range was collapsed into three categories of comparable size. As a result, parental incomes were represented as follows: over $80 thousand, between $40 and $80 thousand, or less than $40 thousand.

The final socio-economic status variable is community size. Community size may be indicative of the job opportunities available. Therefore, community size is incorporated to understand the role location plays in determining youths’ post-secondary aspirations, school programming, and graduate destinations, and whether it is related with racial identity, parental schooling, and parental incomes. Community size was obtained from the school administrator questionnaire. School administrators were asked to indicate the population size of their school’s community. School administrators could select from six categories: fewer than 3,000 people, 3,000 to about 15,000 people, 15,000 to about 100,000, 100,000 to about 1,000,000 people, close to the centre of a city with over 1,000,000 people, and elsewhere in a city with over 1,000,000 people. In order to have cell sizes that would be large enough to report, community size was collapsed into four values of similar counts. Schools may be located in communities with fewer than 3,000 people, between 3,000 and 15,000 people, between 15,000 and 100,000 and over 100,000 people.

Measurement Issues

Before profiling youths’ post-secondary aspirations in the next chapter, it is important to acknowledge a distinction between the terms aspirations and expectations. Post-secondary aspirations are generally understood as the level of schooling and type of job that individuals would like to complete given no constraints. Whereas, post-secondary expectations are thought of as the actual level of schooling and type of job that individuals perceive as achievable within their reality of constraints. Constraints could include, but are not be limited to: academic performance; program enrolment; and peer, familial, and financial considerations. Since PISA does not survey schooling aspirations
and neither survey assesses the extent to which youth perceive their schooling plans as
constrained (rationale adopted from Looker & Thiessen, 2004), schooling pathways are
interpreted as aspirations for this analysis.

Nevertheless, the following analyses on post-secondary aspirations demonstrate that
aspirations appear to be moderated by a variety of socio-demographic and schooling
factors. The aim of the following analyses, therefore, is to develop an understanding of
the relationships among factors that are associated with, and which can be interpreted as
affecting, youths’ post-secondary aspirations.

**Limitations**

The research presents a number of limitations due to the survey design that do not
allow findings from the present study to be extrapolate to the general population. Firstly,
use of data from the year 2000 is contentious given that findings cannot be inferred to
current outcomes among 15 year-old youth in 2009. While the students may have moved
on, the structures of schooling are likely to have remained intact. Revisiting history and
re-searching with different interpretations provides new understandings of our structures
of schooling and the challenges that persist across time and space.

Secondly, YITS and PISA survey design excludes schools found on reserves and in
the northern territories. Therefore, the findings from the following analysis cannot be
extrapolated to or be representative of the entire Aboriginal population in Canada. Being
unable to extrapolate this research to the wider population presents a limitation for this
study. However, the research does shed light on the experiences of Aboriginal students in
the public schooling system, an area for which I have found little research.

Thirdly, Aboriginal, Visible Minority, and Visible Majority identity categories are
broad and do not account for differences of experience that youth of a specific affiliation
might face. The limitation, therefore, is that the sample cannot be extrapolated to refer to
any racial identity sub-group. Aboriginal people, for example, may more explicitly
identify as a member of a First Nation, as Métis or Inuit. Similarly, people of Visible
Minority and Visible Majority represent many racial, cultural, class, and regional
affiliations. Further, while persons have been identified as Aboriginal for the purposes of
the survey, respondents may not be known to be Aboriginal or be considered Aboriginal by his or her teachers and peers.

Importantly, a person’s racial identity is subjective and usually self-reported. Given that racial identity was obtained from a third party (in this case the youth’s parent), it is possible that youth do not identify with the race or culture that has been identified for them. Guimond (2003) and Siggner (2003) refer to this as ethnic mobility and explain that members of an identity group might change their ethnic affiliation over time or from one generation to the next. In future studies, it may be worthwhile asking youth (rather than their parents) to indicate the ethnic, racial, or cultural community with which they affiliate.

Finally, I have come across a number of studies analyzing Aboriginal peoples who use Aboriginal interchangeably to mean Indigenous or First Nations, Métis, Inuit, or a combination of these sub-identities. In some cases, Aboriginal has been used to represent First Nations people only, to the exclusion of Métis and Inuit people who are also represented under the broad Aboriginal category (see example, Neegan, 2005). However, Abele (2004) argues that the tendency to focus on one Aboriginal group—usually First Nations—is a bias that can be avoided by deliberately broadening the scope of analysis, thereby encompassing those who identify as North American Indian, Métis or Inuit. Furthermore, use of broad racial identity categories in this study is intended to demonstrate whether differences exist along racial lines.

Summary of Methodology

In this chapter, the methodology and rationale for measurement were outlined. The purpose of the present study is to understand whether public schools constrain or create post-secondary opportunities and whether they do so by race, gender, or class. Specifically, the study is concerned with the experiences of Aboriginal people in relation to their racial identity counterparts. In response to studies that demonstrate a gap in schooling attainment between Aboriginal and non-Aboriginal people, this study narrows the scope of analysis to understand whether these same patterns of inequality emerge between students who share similar schooling experiences. The limitation is based on the
assumption that contexts of schooling matter. Therefore, schools where no Aboriginal respondents were found were excluded on the basis of incomparability.

Similar logic was applied when deciding to compare across three identity categories, instead of the commonly used two. Comparative studies of race typically compare an identity with a non-identity category; the concern with this approach is that while individuals might identify as Aboriginal, it is unlikely that everyone else identifies as non-Aboriginal. Therefore, the broad racial identity categories used in this analysis are: Aboriginal, Visible Minority, and Visible Majority.

To understand differences among the experiences of youth, their post-secondary aspirations are measured. For the purposes of the present study, aspirations are defined as outcomes of learning and represent markers of difference when considered in relation to contexts of learning and socio-demographic backgrounds. In order to gauge whether youth are likely to attain their aspirations, contexts of learning are introduced as a means of indicating whether programs of enrolment and graduate destinations at the school have the potential to create or constrain aspiration achievement. The relationships between post-secondary aspirations and contexts of learning are evaluated in the next chapter.
CHAPTER 4: POST-SECONDARY ASPIRATIONS AND CONTEXTS OF LEARNING

Aspirations are outcomes of learning and interpretations of experiences available internal and external to the school setting. Aspirations represent hopes and dreams, and provide evidence of which future directions are most important to youth at a particular moment in time. In longitudinal research, comparisons between aspirations and outcomes help to demonstrate barriers impeding aspiration achievement. Expectations, however, acknowledge potential barriers to achievement when considering future outcomes.

The following chapter explores the importance of schooling to youth, their aspirations, and potential barriers to attainment. The analyses demonstrate that the majority of youth aspired to at least one university degree and were enrolled in university-bound programs. Further, most youth attended schools where the majority of graduates went on equally to post-secondary schooling and to the labour market, and had aspirations to hold senior administration jobs.

In the first section, the importance of schooling is measured using findings related to youths’ perceptions of themselves, their parents and peers. The findings demonstrate that high school completion is an accepted minimum level of completion and post-secondary schooling is a priority. The second section evaluates the proportions of post-secondary aspirations and presents findings from the job and schooling aspiration analysis. Given the substantial proportion of youth who aspired for one university degree or more, a discussion on different interpretations of what schooling aspirations may mean to youth is presented. The third section evaluates the relationship between programs of enrolment and schooling aspirations in order to understand whether barriers exist in relation to aspiration achievement. Interestingly, while no significant relationships exist, the findings suggest that youth aspired to levels of schooling that they were not necessarily eligible to pursue. The final section considers whether schools’ peer effects influence aspirations. To demonstrate peer effects, graduate destinations were considered in relation to schooling aspirations; no significant relationship was found.
Youths’ Perceptions of the Importance of Schooling

Across most provinces, the age of fifteen represents an important milestone for students marking the legal age when students may leave the schooling system. Therefore, when compulsory years of schooling are complete, youth may decide to remain in school, complete their high school certificate, or drop out. Completion of a high school certificate is important if youth intend to pursue further schooling. More schooling is often perceived as a means to move out from a lower socio-economic status (social mobility) or to maintain a particular socio-economic status (social sustainability); as aforementioned, schooling types and levels correspond with varying income brackets and job status. While increasing levels of schooling attainment is viewed as a means of social mobility and measure of socio-economic status, by increasing the number of years that youth must stay in school, their entry into the labour market is prolonged. Those who leave the institution of schooling sooner to enter the labour market are argued to do so by their own merit.

Studies investigating high school drop out rates among Aboriginal youth, and in relation to non-Aboriginal youth, indicate that Aboriginal youth have relatively high secondary school drop-out rates (Fisher & Campbell, 2002; Turcotte & Zhao, 2004). Turcotte and Zhao reported that in 2001 48% of Aboriginal youth aged 20 to 24 who were living off reserve and who were not attending school had not completed high school in comparison to 26% of the general population. These findings do not correspond with what youth in the present study have indicated. According to the present study, nearly all youth (94%), regardless of their racial identity, reported that they expected to graduate from high school. The finding demonstrates that nearly all youth report valuing high school completion over dropping out.

The importance of schooling to youth can also be viewed in relation to youths’ self-reporting of the schooling expectations of their peers and family members. Self-reporting of others may be an indicator of a student’s own attitudes and form a basis for determining the influence of others (Buchmann & Dalton, 2002). The majority of youth reported that, on average, their parents believed that completing high school (77%) and
post-secondary schooling (58%) was very important. Similarly, the majority of youth indicated that most to all of their friends thought that completing high school was important (83%) and were planning further schooling (73%). These findings indicate that schooling is believed to be highly valued among the family and peers of youth and may also be indicative of the value that youth project onto schooling themselves.

The relevance of completing high school might also be an indicator of how youth perceive schooling in relation to participation in the labour market. To understand youths’ perceptions of work, youth were asked to indicate how important it is to decide their future career now. Seventy percent of youth strongly agreed and agreed that it was important to decide their future career now (at the age of 15). Importantly, the finding suggests that youth have an understanding of the relationship between the decisions they make today related with the opportunities that become available to them after high school.

**Interpreting Youths’ Post-secondary Aspirations**

The importance of schooling to youth may be an indication of how social cues, related to school-to-work transitions, have been interpreted. Youths’ valuing of schooling is also demonstrated by their schooling aspirations. Schooling aspirations demonstrate the number of years and type of schooling that youth perceive as necessary for attaining their job aspirations. As is demonstrated below, schooling aspirations were high and the majority of youth aspired to one university degree or more.

The following analyses provide the frequencies and a comparative analysis of job and schooling aspirations. The relationship between job aspirations and schooling aspirations were tested and no significant relationship was found. Next, an analysis of the possible interpretations of post-secondary aspirations is presented to help explain

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6 The statistic presented is a parental average. According to youth, completing high school was very important to 75% of their fathers and 80% of their mothers, and post-secondary schooling was very important to 55% of their fathers and 61% of their mothers.
variances in responses to questions related to job and schooling aspirations and expectations.

**Post-secondary Aspirations**

In the context of school-to-work transitions, the surveys ask youth to indicate the type of work they would like to have and the corresponding level of schooling that they believe is required in order to attain those jobs. Job aspirations were ascertained from the PISA Student Questionnaire that asked youth to name the job they expect to have by the age of 30\(^7\). Youth could nominate any job title. The jobs were then coded by PISA using the *International Standard Classification of Occupation* (ISCO-88) into nine broad job categories with multiple sub-groupings. For ease of measurement and representation, the nine job categories were grouped into three categories: senior administration, administration, and skilled labour\(^8\). Senior administration includes legislators, senior officials, managers, professionals, technicians and associate professionals; administration includes clerks, service workers and shop and market sales workers, and elementary occupations; and skilled labour includes skilled agricultural and fishery workers, craft and related trades workers, plant and machine operators and assemblers.

Figure 1 demonstrates the valid proportion of job aspirations among all youth. The findings indicate that most youth aspired for senior administration jobs, followed closely by administration jobs. Few respondents aspired for skilled labour jobs.

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\(^7\) As indicated in the Chapter 3 and expanded on Chapter 4, ‘expect’ is used in the PISA Q40, however youths’ expectations of attainment were not measured. To denote their responses as expectations, further questioning would have had to be administered in the questionnaires to determine the likelihood that youth believe they would achieve their goals.

\(^8\) Note that the proportions do not include *missing* values. When included, senior administration is 46%, administration is 39%, skilled labour is 9%, and missing is 6% of the total sample population.
The findings suggest that competition may emerge among youth who aspire to senior administration and administration jobs as the availability of jobs may not fulfill the demands for jobs. Conversely, skilled labour jobs may not have enough interest to fulfill labour market needs. Furthermore, youth who face barriers and who are unable to attain their aspirations are likely to change and potentially lower their aspirations.

In relation to these job aspirations, the YITS Student Questionnaire asked youth to indicate the level of schooling they believe is required in order for them to attain the job they aspire to by the age of 30. The levels of schooling that youth could select from ranged from: less than a high school certificate to more than one university degree. In order to have values that would be large enough to report, schooling attainment was
recoded into three variables: university degree, college or vocational training, and high school certificate or less. Schooling levels were ranked by the number of years required for completion (i.e. 3 years or more are required for one university degree or more, up to 3 years are required for college or vocational training, and no additional years schooling are required to obtain a high school certificate or less).

In Figure 2, the valid proportion of youths’ schooling aspirations are illustrated. The findings indicate that the majority of youth aspire to jobs that they believe require one university degree or more.

*Figure 2. Proportion of Youths’ Schooling Aspirations (%).*

The findings demonstrate that very few youth believed that the jobs they aspired to obtain would require a high school certificate or less. Among the youth who aspired for

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9 Note that valid proportions do not include unsure, valid skip, or missing values. When included, university degree is 45%, college or vocational training is 13%, high school certificate or less is 9%, unsure is 8%, valid skip is 3%, and missing is 22% of the total sample population.
post-secondary schooling, the majority aspired to university over college or vocational training; demonstrating a divide in post-secondary schooling that favours university. It is possible that university qualifications are more highly regarded as a means to attaining high status jobs and incomes.

A two-way contingency table analysis was conducted in order to understand the significance of the relationship between job aspirations and schooling aspirations. The rationale for testing these variables was that job aspirations would correspond with a particular desired level of schooling, where senior administration roles would require university level schooling and administration and skilled labour jobs would require college/vocational training or less. However, it would appear that youth regard university as a minimum qualification for general entry into the labour market; therefore, no significant relationship was expected to be found. The results confirm that no significant relationship exists between job aspirations and schooling aspirations, Pearson $\chi^2 (4, N = 1235) = 5.490, p = .241$, Cramér’s $V = .05$. Figure 3 demonstrates the relationship between job and schooling aspirations. The findings show that the youth have similar schooling aspirations across each job category.
Across all job aspiration categories, the majority of youth aspired to obtain one university degree or more. Interestingly, the distribution of schooling aspirations was about the same within all job categories (67% for one university degree or more, 20% for college or training, and 13% for high school certificate or less). Had students been asked to indicate what level of schooling they would like to attain as a personal goal, rather than in association with a particular job, then I would have expected to find schooling aspirations for one university degree or more, particularly as there is increasing social, political and economic pressure to attain more and higher levels of schooling. However, students were asked to indicate the level of schooling that they believe is required for a particular job. That youth believe that one university degree or more is required for most jobs is surprising and calls to question how youth might have interpreted schooling requirements in relation to work as discussed below.
Interpretations of and Meanings of Post-Secondary Aspirations

The over-representation of schooling aspirations for one university degree or more might reflect how youth understand certification in relation to the labour market. My experiences with employment and hiring suggest to me that holding a university degree is a discriminator that helps employers cut down the candidate pool. The practice is not fair, nor does it allow for equality of opportunity. Indeed, many jobs do not draw on skills obtained from a university qualification and youth continue to engage in on-the-job training, regardless of their schooling achievements. On the one hand, youth might be aware of competition in the labour market and recognize post-secondary schooling as a means to stay competitive and attain desired jobs, regardless of the suitability of the qualification to the job. On the other hand, youth might believe that university qualifications provide the skills necessary to not only attain a job but to perform the duties of a given job. These speculations could not be analyzed as the surveys did not offer questions to engage youth as to why they selected the level of schooling they did, in relation to the jobs they aspired to attain by the age of 30. Therefore, aspirations to attain higher levels of schooling must have some sort of cultural value related to ‘success’ as measured by levels of schooling, job status, and income. Indeed, aspirations for university may correspond with the belief that more schooling is correlated with higher incomes. Indeed, most respondents disagreed (51%) or strongly disagreed (28%) with the statement asking whether they would hold a low-paying job regardless of their level of schooling. These response rates indicate that youth perceive a relationship between schooling and income, and desire higher-paying jobs.

It is possible that multiple interpretations of schooling aspirations exist among respondents. One interpretation of schooling aspirations may view and value schooling as a means to a labour market ends, while another values schooling attainment as an entity of its own. Take, for example, the proportion of respondents who indicated that they did not expect to graduate in relation to the proportion of respondents who believe that the job they aspire to requires a high school certificate or less. While 5% of respondents do not expect to graduate from high school, 13% of the valid responses indicate that youth aspired to jobs that they believed required a high school certificate or less. These findings
illustrate a distinction between what youth expect to attain and what youth believe is required for a job. Schooling aspirations, contextualized by job aspirations, may not be an indicator of the level of schooling a youth intends to attain. This is an important distinction to make, because the question of whether youth intend to pursue or not pursue post-secondary schooling and at to level remains unanswered from the YITS. Further, without qualitative data it is difficult to ascertain why youth believed that the jobs they aspired to would require the level of schooling that they had indicated. It is unlikely that all jobs require one university degree or more; however, this is the pervasive message that youth are making. While some jobs have minimum schooling requirements that must be attained in order to become recognized in a particular field, there are other jobs that only require on-the-job training.

**Contexts of Learning, Aspirations, and Barriers to Attainment**

While aspirations generally show that youth were interested in pursuing many more years of post-secondary schooling to attain the job aspirations, they may face barriers in attaining these pursuits. Two potential barriers are: the youth’s program of enrolment and the graduate destinations of their peers at the school. The two variables are considered in relation to schooling aspirations to demonstrate relationships and postulate whether youth have the opportunity to attain their schooling aspirations. While no significant relationships were found from these analyses, the patterns demonstrate that some youth may have aspirations beyond what they were being prepared to pursue in school.

**Program of Enrolment and Aspirations**

Questions of interpretation, as discussed earlier, are further complicated when considering schooling aspirations in relation to a student’s program of enrolment. The program that a student is enrolled in determines what opportunities are available to them when they leave high school. Students who are enrolled in university-bound programs have the opportunity to pursue any number of post-secondary paths including university and college. College-bound programs are intended to prepare students for college, but not university, and labour market programs only prepare students for direct entry to the
labour market, an opportunity also afforded to youth in university- and college-bound programs.

Differential programming within public schooling is an important variable to consider with respect to equality of opportunity as it demonstrates that all things are not equal and unequal outcomes are expected within a stratified structure of schooling. As will be shown, youth who aspired to one university degree or more and who were enrolled in college- and labour market-bound programs become ineligible to attain their schooling aspirations; constrained by their placement in the public schooling system.

As earlier mentioned, youth were not asked to declare whether they expect to attain their schooling aspirations or whether they perceive any barriers to attainment. While youth were not asked to nominate barriers, their program of enrolment provides an indication of whether they were being prepared for their desired schooling paths. Streaming (or tracking as it is also known) has been argued to represent an overt mechanism that sorts youth and prepares them to fill particular roles in the labour market (Carnoy & Levin, 1985). These streaming practices are looked upon unfavourably by those who believe that public schooling should offer equality of opportunity (Coleman et al., 1966; Oakes, 2005).

Findings from the present analysis suggest that very few students were enrolled in non-academic programs. In fact, nearly all of the valid responses\(^\text{10}\) indicated that students attended schools (94%) where the majority of the school’s programming was intended to prepare youth for post-secondary schooling (78% of students included in the valid responses attended schools where the majority of programming prepared youth for university). The findings were based on school administrator responses to a question about the proportion of students who were in programs preparing for further academic schooling, trade or vocational schooling, or entry into the labour market without post-secondary schooling.

\(^{10}\) Valid percent does not include missing values representing 10% of the sample population.
Similarly, youth were asked to indicate whether they were in programs preparing for academic post-secondary schooling, trade or vocational post-secondary schooling, or entry into the labour market without post-secondary schooling. The majority of youth (90%) indicated being in a program that prepared for post-secondary schooling. Seventy-three percent of the valid response indicated being enrolled in a program that prepared them for university, 11% indicated being enrolled in college or vocational preparatory programs, and 16% indicated being enrolled in programs that prepared them for direct entry into the labour market. Among the few respondents who indicated being enrolled in college- or labour market-bound programs, a large proportion of these youth had post-secondary aspirations beyond their reach. As demonstrated further below, the majority of youth in non-university programs were likely to have university aspirations.

To understand the relationship between programs of enrolment and schooling aspirations, a two-way contingency table analysis was conducted. Programs of enrolment had three values labelled: university-bound, college-bound, and labour market-bound. Schooling aspirations and program of enrolment were not found to be significantly related, Pearson $\chi^2 (4, N = 1178) = 1.702, p = .790$, Cramér’s $V = .03$. The relationships between program of enrolment and schooling aspirations are illustrated in Figure 4. The findings demonstrate that the majority of all youth aspire to university degrees.

Note that valid proportions do not include missing values. When included, university-bound is 66%, college-bound is 10%, labour market-bound is 14%, and missing is 10% of the total sample population.
Figure 4. Program of Enrolment and Schooling Aspirations (%).

The lack of statistically significant relationships between school aspirations and programs of enrolment is particularly interesting because it indicates that youth had aspirations beyond what they were being prepared to pursue. Regardless of their program of enrolment, the majority of youth aspired to attain one university degree or more. The finding indicates that youth enrolled in college- and labour market-bound programs had schooling aspirations beyond their reach and were constrained by their position in the schooling structure. Seventy-two percent of the youth enrolled in college programs aspired for jobs that they believed required one university degree or more, and 86% of the youth enrolled in labour market programs aspired to post-secondary schooling (67% for one university degree or more and 19% for college or vocational training). In other words, youth who were not enrolled in university-bound programs had aspirations that were unrelated to what they may be eligible to pursue after high school. This is an important indicator of how the structure of schooling does not offer equality of
opportunity for all. Even though the majority of students were enrolled in university-bound programs offering them the opportunity to pursue university, college, and direct entry into the labour market, some students were not offered the same treatment. Therefore, the public schooling system does not offer equality of post-secondary opportunities based on inequality of access to programming and inequitable treatment.

**Graduate Destinations and Aspirations**

School programming is not the only barrier to post-secondary opportunities. According to peer effect studies, student achievement and outcomes have been shown to be affected by how others within the school perform (Richards et al., 2008). According to Frenette (2007), high schools differ in their propensity to send students to university and university participation has been found to differ depending on the high school a student attends. To understand outcome trends across high schools, therefore, schools’ graduate destinations were incorporated to understand the extent to which students’ post-secondary aspirations reflect those of their graduated peers.

Graduate destinations were obtained from school administrators who were asked to indicate the proportion of graduates who went on to attend university, college or vocational training, or entered the labour market\(^\text{12}\). Figure 5 demonstrates the proportion of graduate destinations.

\(^{12}\) Note that the proportions do not include *unsure, valid skip, or missing* values. When included, university is 16%, university and college is 8%, college is 9%, post-secondary schooling and labour market is 31%, labour market is 13%, unsure is 15%, valid skip is 6%, and missing is 2% of the total sample population.
The finding demonstrates that the majority of schools (40%) sent their graduates equally to university, college, and the labour market. Interestingly, although the majority of schools indicated that the majority of their programming prepared students for university and youth indicated being enrolled in university-bound programs, the proportion of graduate destinations to university is relatively low. Therefore, it is possible that access to post-secondary schooling barriers exist even for those who are enrolled in university-bound programs.

To understand the relationship between graduate destinations and schooling aspirations, a two-way contingency table analysis was conducted. In order to have valid cell sizes for this analysis, graduate destinations were collapsed into three categories: post-secondary schooling (includes schools where the majority of graduates went on to university and college), labour market (includes schools where the majority of graduates went on to enter the labour market), and post-secondary schooling/labour market.
combined (includes schools where graduates were equally represented as having gone on to university and/or college and the labour market).

Graduate destinations and school aspirations were not found to have a significant relationship, Pearson $\chi^2 (4, N = 1018) = 6.577, p = .160$, Cramér’s $V = .06$. Figure 6 demonstrates the relationships between graduate destinations and schooling aspirations. The findings show that across all graduate destinations students’ aspirations were for one university degree or more.

*Figure 6. Graduate Destinations and Schooling Aspirations (%).*

It is not surprising that the relationship was not significant, particularly as most youth have schooling aspirations for one university degree or more. These findings demonstrate that regardless of where the majority of their graduated peers have gone, the youth believed that to attain their desired job they must attain a university degree.

While students had university aspirations, were enrolled in programs preparing for university, and attended schools where the majority of programming prepared for
university, not all youth attended high schools where the majority of their peers pursued university. Indeed, 17% of respondents were found to attend schools where the majority of graduates went on to enter the labour market. Of the 17%, 65% had schooling aspirations for one university degree or more. These findings indicate that schools themselves may act as a barrier for students to attain their aspirations. If youths’ peers are representative of things to come, then it is unlikely that students who attend schools where the majority of youth go on to college or to enter the labour market will go on to university.

Previous studies (Frenette, 2007; Looker & Thiessen, 2004) have noted that peers and their plans to pursue (or not pursue) university are important indicators for determining the pathways of youth. If applying this logic to the present study, then most youth will go on to university. However, the eventuality that all youth will go on to university and achieve their schooling aspirations is unlikely. Therefore, looking to graduate destinations patterns of earlier student cohorts may offer a more accurate indicator of the likely pathways in store for youth.

Similar to the program of enrolment analysis above, if disparate patterns of outcomes emerge across schools, then schools can be targeted for their propensity to send students to university, college, or the labour market, or some combination of these destinations. If schools are known to differ by graduate destinations, then students attending schools where graduates are likely to go on to university have an advantage over students attending schools where graduates are likely to go on to college or to enter the labour market. Even though 94% of students attended schools indicating that the majority of their programming prepared youth for post-secondary schooling and 90% of students reported being enrolled in a program preparing for post-secondary schooling, only 43% of students attended schools where the majority of the graduates went on to post-secondary schooling. In relation to these findings, it is possible to speculate that although the majority of youth indicated being in a program preparing for university that many of these youth are unlikely to go on to university. It would be interesting for future research to measure whether graduate destinations, as well as peer effect, are valid indicators of youths’ post-secondary pathways.
Summary of Post-Secondary Aspirations and Contexts of Learning

As demonstrated in this chapter, there is a strong pattern for youth to aspire to post-secondary schooling, specifically to university. When tested in relation to job aspirations, programs of enrolment, and graduate destinations, schooling aspirations were not found to have any significant relationships.

The findings related to program of enrolment and graduate destinations suggest that not all youth may attain their aspirations. While the majority of youth were enrolled in university-bound programs, university aspirants who were enrolled in college- or labour market-bound programs were ineligible to go on to university. Similarly, college aspirants who were enrolled in labour market-bound programs are ineligible to be admitted to college.

Although the majority of students attended schools where the majority of graduates were likely to go on to post-secondary schooling or post-secondary schooling and the labour market, the proportions appeared to be low in relation to the proportion of youth who aspired to university, attended schools where the majority of programming was for university, and enrolled in programs that prepared for university. For all youth to attain their schooling aspirations, the post-secondary schooling infrastructure must have the capacity to meet the high demands for tertiary schooling. Indeed, to meet post-secondary schooling demands, as suggested by the aspirations of youth in this study, post-secondary schooling (more specifically, university) would need to be universally accessible and public schooling would need to support the learning needs of all youth to pursue university in order to facilitate these aspirations and ensure equality of post-secondary self-determination.

The purposes of schooling, however, are broader than school as a means of preparation for the workforce and therefore make the task of interpreting youths’ post-secondary aspirations complex. Why youth aspired to jobs and schooling levels that they have, particularly when they are ineligible to pursue these pathways remains unanswered. On the one hand, it is possible that these students represent a cohort of youth who have aspirations that are abnormal from previous cohorts. On the other hand, however,
graduate destinations may represent a foreshadowing of what is to come. In any case, schooling aspirations assessment is valued for offering contextualized insights as to the potential barriers youth may face. As such, aspirations could provide necessary information for educators to support youth to attain their goals.

Contexts of learning (including peer effects, sub-cultures of achievement, and school capital), rather than aspirations, might be more telling of what is in store for youth as they transition from school to work; particularly in light of the discrepancy between what schools purport to prepare students for and the pattern of graduate destinations among schools. Differences emerging among and within schools calls to question whether youth are being fairly treated by the public schooling system. The outcomes from unequal opportunities in public schooling have the potential to stem throughout life. If schools are not offering students with the skills to attain their aspirations and limit their post-secondary opportunities, then public schools are not offer equality of opportunity for equality of outcomes. Why schools differ in terms of treatment and outcomes continues to be unanswered.

Policy recommendations would be for each public school to have equal access to programming, equitable resources and treatment, and outcomes that demonstrate equality of post-secondary opportunities and self-determination. As part of resources, schools that generate additional resources from external private funding should see their public funding decrease proportionately. Additionally, funding could be allocated to youth of lower incomes to support them in their studies by alleviating some financial pressure faced among this population. Equitable programming would ensure that all youth are fairly obtaining the courses recognized by all post-secondary institutions for admissions. In order to assess post-secondary aspiration preparedness, school-to-work transition facilitation could be offered as part of the curriculum. Further, infrastructure must be in place to accommodate youth aspirations. Finally, rather than determining youths’ pathways, as appears to presently be the case, public schooling should be a location where youth are given the opportunity to be self-determining.
What is worrisome about differences within and across schools is not only that it offers different opportunities, but that it does so along racial, gender, and class lines. Therefore, in Chapter 5, the notion of systemic discrimination is tested to understand whether experiences of schooling differ on the basis of racial identity and gender. Specifically, the Aboriginal experience is considered in relation to Visible Minority and Visible Majority experiences in order to evaluate whether, when comparing under similar circumstances, outcomes continue to differ on the basis of race.
CHAPTER 5: RACIAL AND GENDER IDENTITY

Findings from The Coleman Report (Coleman et al., 1966) made racial identity, along with socio-economic status, an important variable to consider when conducting research on inequality of educational opportunities. The Coleman Report was an extensive work that investigated the backgrounds of youth in relation to their self-concept and schooling experiences within and across schools. The authors demonstrated that racial minorities and youth with lower incomes were most likely to face unequal post-secondary opportunities because of the different contexts of learning they experienced in relation to their racial majority and wealthier counterparts. Wotherspoon (2002, 2003) contributes to discussions on inequality of educational opportunity from the Canadian context. Speaking about Aboriginal peoples’ outcomes from public schooling from historical and structural perspectives, Wotherspoon develops understandings of continued inequitable treatment and unequal outcomes.

Gender is an important variable to consider, particularly in relation to outcomes, as gender is regarded as a barrier to income and jobs, which are commonly perceived as masculine or feminine roles. Gaskell (1992) explains, that social experiences provide social cues that guide youth along and help them to formulate an understanding of how they would like to transition from school to work. Social cues help to perpetuate gendered roles in society. If public schooling offers equality of opportunity to all, then no differences should emerge on the basis of racial identity or gender.

The analysis to follow considers aspirations, programs of enrolment, and graduate destinations in two parts: racial identity and gender. In the first section, racial identity is incorporated in the analysis in order to demonstrate whether similarities and differences emerge across Aboriginal, Visible Minority, or Visible Majority identity groups in relation to aspirations and contexts of learning. The second section evaluates relationships between gender, aspirations, program of enrolment, and graduate destinations in order to understand whether gender has any relationships with aspirations and contexts of learning.
Racial Identity Findings and Analysis

The main focus of this study is to understand whether aspirations differ across school contexts by racial identity groups. When looking to previous research on Aboriginal identity and schooling outcomes, patterns appear to exist. Patterns of low scholastic achievement, unemployment, and poverty are tied to concerns of access to post-secondary schooling. If the structure of schooling does not discriminate on the basis of race, gender, and class, then patterns of over-representation and under-representation of outcomes by racial identity should not be found.

Identity was ascertained by the YITS Parental Questionnaire that asked parents to indicate the racial and cultural background of their child. The data were recoded by YITS into two identity variables with two values each: Aboriginal, non-Aboriginal, Visible Minority and non-Visible Minority. In order to measure across the three available racial identity categories, the two variables were recoded into one variable with three values: Aboriginal, Visible Minority, and Visible Majority. As explained in Chapter 3, Aboriginal and Visible Minority concepts are used by Statistics Canada, while Visible Majority is a new concept referring to persons identifying as Caucasian or white.

The design of the study only includes schools that had Aboriginal identity respondents. Of these schools, 99% had a majority of non-Aboriginal respondents. This finding is important because Richards et al. (2008) have argued that Aboriginal students who attend schools where the majority of students are non-Aboriginal are more likely to have performance outcomes similar to their non-Aboriginal peers. In the analyses that follow, racial identity is considered in relation to schooling and job aspirations, programs of enrolment, and graduate destinations. The analyses test the hypothesis that if the majority of students in a school are non-Aboriginal, then no significant relationships should emerge between racial identity and schooling outcomes.

Racial Identity and Aspirations

Research on schooling aspirations indicates that youths’ future aspirations correlate with the actual pathways that they pursue. Racial comparisons between Aboriginal and non-Aboriginal youth and their schooling attainment levels demonstrate gaps in
schooling attainment, whereby Aboriginal youth were more likely to have lower levels of schooling attainment relative to their non-Aboriginal counterparts. If the logic of aspirations as indicators of future pathways were valid, then it could be surmised that Aboriginal youth have lower schooling attainment aspirations relative to non-Aboriginal youth. However, I do not believe this to be the case. Instead, I would argue that given the same contexts of learning, Aboriginal and non-Aboriginal youth would have similar aspirations. Therefore, if youth share similar contexts of learning, then their aspirations should not differ.

To understand the relationships between racial identity and aspirations, two-way contingency table analyses were conducted. The first analysis compares the schooling aspirations of youth with different racial identities; no significant relationship was found between these variables, Pearson $\chi^2 (4, N = 1307) = 3.615, p = .461$, Cramér’s $V = .04$. Figure 7 illustrates the relationships between racial identity and schooling aspirations. The findings demonstrate that the majority of all youth have schooling aspirations for one university degree or more. University aspirants were most likely to have Visible Majority identities and least likely to have Aboriginal identities. Aboriginal youth represented the identity that was most likely to have indicated that they aspired for college or vocational training. Visible Minority youth were most likely to have reported that they aspired for a high school certificate or less. It is important to note that the differences among racial identities were not great and seemingly support Richards et al.’s (2008) thesis that the academic performance of Aboriginal students mirrors the performance of their peers at school.
The findings confirm the assumptions from this analysis that no differences exist among youth and their schooling aspirations on the basis of their racial identity. As potential barriers to aspiration achievement emerge, these barriers could be argued to be racially biased if the barriers do not allow youth to pursue their desired post-secondary paths.

The second analysis considered the relationship between racial identity and job aspirations. Similar to the relationship found with schooling aspirations, racial identity was not found to have a significant relationship with job aspirations, Pearson $\chi^2 (4, N = 1831) = 5.400, p = .249$, Cramér’s $V = .04$. Figure 8 demonstrates that the majority of all youth aspired to senior administration and administration jobs and very few of all youth aspired to skilled labour jobs. Senior administration aspirants were most likely to have Visible Minority identities, administration aspirants were most likely to have Visible Majority identities, and skilled labour aspirants were most likely to have Aboriginal identities.
The findings from this analysis suggest that racial identity is not a marker of different job aspirations. Taking schooling and job aspirations together, it would appear that these findings support Richards et al.’s (2008) thesis that peer effects are important. While aspirations were similar across racial identities, it does not guarantee that these outcomes will be attained. Future analyses may be interested in developing an understanding of the relationship (or lack thereof) between aspirations and performance in order to develop a more complex interpretation of race in relation to aspirations and schooling outcomes. Further, the present study cannot accurately test Richards et al.’s thesis that Aboriginal youth perform better in schools where non-Aboriginal youth also perform well, because identity populations included in YITS do not correspond with the actual proportion of racial identities represented at a given school.

In the next analysis, racial identity is considered in relation to programs of enrolment in order to evaluate whether youths’ post-secondary aspirations are attainable.
Racial Identity and Program of Enrolment

Program of enrolment is framed as a barrier to youths’ aspiration attainment. While youths’ aspirations may be high across all racial identities, if they cannot attain these aspirations, then the practices of schooling are limiting youth and their post-secondary opportunities. If public schooling does not discriminate by characteristics of difference, then no significant relationships should be found between racial identity and programs of enrolment.

To evaluate the significance of the relationship between racial identity and programs of enrolment, a two-way contingency table analysis was conducted. The relationship between racial identity and programs of enrolment was significant, Pearson $\chi^2 (4, N = 1751) = 36.090, p = .000$, Cramér’s $V = .10$. Follow-up analyses were conducted to evaluate the proportion of difference among all pairs. Using the Holm’s sequential Bonferroni method to control for Type I error at .05, pairwise differences were found to be significant for two of the three pairs: Aboriginal and Visible Majority, and Visible Minority and Visible Majority (see results in Table 1).

Table 1
Results for the Pairwise Comparisons Between Racial Identity and Program of Enrolment

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson $\chi^2$</th>
<th>$p$-value</th>
<th>Required $p$-value</th>
<th>Significance</th>
<th>Cramér's $V$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aboriginal vs. Visible Minority</td>
<td>6.08</td>
<td>.048</td>
<td>.0167</td>
<td>NS</td>
<td>.07</td>
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<td>Aboriginal vs. Visible Majority</td>
<td>33.60</td>
<td>.000</td>
<td>.025</td>
<td>*</td>
<td>.17</td>
</tr>
<tr>
<td>Visible Majority vs. Visible Minority</td>
<td>13.91</td>
<td>.001</td>
<td>.05</td>
<td>*</td>
<td>.11</td>
</tr>
</tbody>
</table>

NS Not significant (null hypothesis accepted)
* Significant (null hypothesis rejected)
Figure 9 demonstrates the relationships between racial identity and program of enrolment. The findings indicate that the majority of all youth were enrolled in university-bound programs. Aboriginal respondents were most likely to be enrolled in university-bound programs and least likely to be enrolled in programs preparing for college or the labour market. Aboriginal respondents were 1.3 times (.82/.75) and Visible Minority respondents were 1.2 times (.75/.65) more likely to be enrolled in a program preparing for university in relation to respondents who were identified as Visible Majority. Visible Majority respondents were nearly twice as likely to be enrolled in programs preparing for college or the labour market relative to their Aboriginal and Visible Minority counterparts.

The above findings indicate that programming positively discriminates in favour of Aboriginal youth. Aboriginal youth were most likely to be enrolled in university-bound programs and, subsequently, seemingly have the opportunity to decide their future
pathway: be it to university, college or vocational training, or direct entry into the labour market.

Recall the findings from racial identity and schooling aspirations. A greater proportion of Aboriginal and Visible Minority youth were enrolled in university-bound programs relative to having university aspirations. The observation suggests that Aboriginal and Visible Minority youth are being prepared to pursue their post-secondary schooling aspirations. Conversely, Visible Majority youth demonstrated having a greater proportion of university aspirants relative to the proportion of youth who were enrolled in programs preparing for university. Therefore, Visible Majority youth are not being enabled to pursue their aspirations. This analysis would be benefited by further longitudinal analyses examining whether youth, who are in programs that allow them to attain their schooling aspirations, are achieving their aspirations and what barriers remain between contexts of learning and post-secondary aspiration achievement.

In the following analysis, racial identity is considered in relation to graduate-destination trends at their school in order to examine whether peer effects might pose a potential barrier to youths’ aspirations.

**Racial Identity and Graduate Destinations**

Graduate destinations represent the pattern of the post-secondary destinations that youth may pursue by attending a particular school. Findings from the analysis on graduate destinations in Chapter 4 suggest that schools vary by their graduate destinations; some send the majority of the students to university, some to college, and others directly to the labour market. In order to ensure that these patterns do not reflect systemic discrimination, no significant relationships should be found between racial identity and graduate destinations.

To test the significance of the relationship between racial identity and graduate destinations, a two-way contingency table analysis was conducted. The analysis found that the relationship was significant, Pearson $\chi^2 (4, N = 1492) = 12.801, p = .012$, Cramér’s $V = .06$. Using the Holm’s sequential Bonferroni method to control for Type I error at .05, follow-up pairwise comparisons were conducted to evaluate the proportion of
difference among all pairs. The pairwise differences were significant between two of the three pairs: Aboriginal and Visible Minority, and Visible Minority and Visible Majority (see Table 2 for results).

Table 2

*Results for the Pairwise Comparisons Between Racial Identity and Graduate Destinations*

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson $\chi^2$</th>
<th>$p$-value</th>
<th>Required $p$-value for significance</th>
<th>Significance</th>
<th>Cramér's $V$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aboriginal vs. Visible Minority</td>
<td>8.48</td>
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<td>.0167</td>
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<td>.10</td>
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<tr>
<td>Aboriginal vs. Visible Majority</td>
<td>0.27</td>
<td>.876</td>
<td>.025</td>
<td>NS</td>
<td>.02</td>
</tr>
<tr>
<td>Visible Majority vs. Visible Minority</td>
<td>11.51</td>
<td>.003</td>
<td>.05</td>
<td>*</td>
<td>.11</td>
</tr>
</tbody>
</table>

NS Not significant (null hypothesis accepted)
* Significant (null hypothesis rejected)

Figure 10 illustrates the relationships between racial identity and graduate destinations. The findings indicate that most youth, regardless of their racial identity, attend schools where the majority of respondents go on to post-secondary schooling. Visible Minority youth were most likely to attend schools where the majority of graduates go to post-secondary schooling or go to post-secondary schooling and directly into the labour market. Visible Majority youth had the highest proportion of respondents who attended schools where the majority of graduates went on to directly enter the labour market.

Visible Minority respondents were about 1.1 times (.47/.42 and .47/.41) more likely to attend schools where the majority of respondents went on to post-secondary schooling relative to their Aboriginal and Visible Majority counterparts, respectively. While Visible Minority youth were most represented in schools where the majority of graduates went on
equally to post-secondary schooling and the labour market, the difference among racial identities was not substantial.

**Figure 10.** Racial Identity and Graduate Destinations (%).

Interestingly, the analysis demonstrates that similarities exist between Aboriginal and Visible Majority respondents. This observation counters prevailing research demonstrating differences between Aboriginal and non-Aboriginal identity groups (see for example, Fisher & Campbell, 2002; Hango & de Broucker, 2007; Mendelson, 2006; O’Donnell & Ballardin, 2006; Sharpe et al., 2007; Turcotte & Zhao, 2004). Additionally, the findings suggest that schooling outcomes differ from school to school. Within the scope of this analysis, however, it is not possible to assess the cause of these differences among schools. Further, it would be interesting to understand whether programming, resources, ethos, and other variables play a role in determining schools’ graduate destinations.

The question of whether youths’ graduate destinations are affected by their peers also requires further investigation. When looking at graduate destinations in relation to
programs of enrolment and schooling aspirations, it raises questions regarding the likely destinations of students. Eighty-two percent of Aboriginal youth, for example, reported being enrolled in a program preparing for university, while only 65% believed that the jobs they hope to have by the age of thirty required a university degree. If peer effects are at play, then it could be surmised that Aboriginal youth are likely to achieve their schooling aspirations. Further regression analyses are required to test the relationships between schooling aspirations, programs of enrolment, and graduates’ destinations. It is possible that these findings have emerged because of the design of the analysis (design: to privilege the Aboriginal experience and only include public schools with Aboriginal identity respondents). In future studies, researchers may be interested in comparing the findings from schools with Aboriginal respondents with findings from schools with no Aboriginal respondents.

It is important to note that Aboriginal and non-Aboriginal student comparisons typically aggregate performance outcomes. That is, the outcomes of Aboriginal students are representative of students attending on-reserve and off-reserve (mainly attending provincially-run) schools. The concern with aggregates is that the schooling experiences are notably different and the schooling outcomes among students on reserve are relatively poorer than those of students off reserve (Mendelson, 2006), and thereby lower the average outcomes among this population. Similarly, non-Aboriginal students are representative of a homogenous group of youth from various racial, cultural, and class affiliations who attend public and private off-reserve schools. The emergence of different outcomes among these aggregated populations is not surprising given the distinct experiences available within and across schooling systems. Therefore, contexts of learning become indicative of observed variances. Where little variance across racial identity appears, as demonstrated under the constraints of this study, it could be argued that experiences across these contexts are fairly similar.

In the section to follow, aspirations, programs of enrolment and graduate destinations are considered in relation to gender identity. Gender is an important variable that has been found to be related with unequal representation in schooling programs and attainment.
Gender Findings and Analysis

Gaskell (1992) argues that job aspirations are responsive to social contexts and have gender differences. Expectations differ along gender lines and jobs may be socially ascribed as masculine or feminine. Youth pick up on these social cues and make decisions about their futures based on these experiences. Gender, therefore, is an important variable as it helps us understand how the choices youth make may be created or constrained by their social experiences.

In both YITS and PISA student surveys, youth were asked to name the type of work they were interested in having by the age of thirty. YITS also asked students who might not have job aspirations to indicate whether they were interested in staying at home to care for family full time, have thought about having a job but have not found one of interest, or have not thought about their future job. With regards to gender, very few respondents (female or male) indicated staying home to care for a family full time. The following analysis compares gender with schooling and job aspirations, programs of enrolment, and graduate destinations. Indeed, the majority of youth had aspirations to attend university. While no significant differences were found between females and males and their schooling aspirations, significant differences did emerge between females and males and their job aspirations.

Gender and Aspirations

Females and males may have similar schooling aspirations; however job aspirations were expected to be different given the social role that gender plays in distinguishing jobs. If aspirations differ according to available social cues and these social cues do not differ for females and males, then no significant difference should be found between genders.

In order to test the relationship between gender and aspirations, two-way contingency analysis tables were conducted. The first analysis considers the relationship between a respondent’s gender and his or her schooling aspirations. Given that the majority of students aspired to university degrees, no relationship was expected to be found between gender and schooling aspirations. The findings support this assumption
and the results indicated that no significant relationship exists between gender and schooling aspirations, Pearson $\chi^2 (2, N = 1307) = .394, p = .821, \text{Cramér’s } V = .02$. Figure 11 illustrates the relationship between gender and schooling aspirations. The majority of all youth were found to aspire to university, followed by college or vocational training and a high school certificate or less.

Figure 11. Gender and Schooling Aspirations (%).

The findings demonstrate a large gap between university aspirants and their aspirant peers.

The second analysis found a significant relationship between gender and job aspirations, Pearson $\chi^2 (2, N = 1831) = 160.935, p = .000, \text{Cramér’s } V = .30$. No follow-up comparisons were required as gender only has two variables. Figure 12 demonstrates the relationship between gender and job aspirations. Females were most likely to aspire to senior administration jobs and least likely to aspire to skilled labour jobs. Males were most likely to aspire to administration jobs and had the highest proportion of respondents who aspired for skilled labour jobs. The probability that females aspired to senior
administration jobs was about 1.5 times (.59/.39) more likely in relation to males, while males were about 1.1 times (.43/.39) and 9.0 times (.18/.02) more likely to aspire to administration and skilled labour jobs, respectively.

*Figure 12. Gender and Job Aspirations (%).*

The findings demonstrate a clear gender pattern indicating that males were more likely to have aspired to skilled labour jobs. Although changing, skilled labour jobs are commonly occupied by males; a trend reflected in these findings. When considering the findings from job aspirations in relation to those from schooling aspirations, males seemingly have university aspirations for any job type, while females have university and senior administration aspirations. Further research using regression analyses would be able to develop a better understanding of the relationship between schooling aspirations and job aspirations among females and males. Understanding the types of jobs that females and males aspire to—within senior administration, administration, and skilled labour categories—would contribute to this analysis. The present analysis could not
conduct such an in depth analysis given the limitations of the sample size and required minimum cell counts.

If aspirations are any indication of actual outcomes, and levels of schooling are indicative of socio-economic status, then females appear to be on track to have higher incomes in relation to men. However, if this does not come to fruition, then barriers to achievement could be argued to exist.

The gender analyses demonstrate that while schooling aspirations were the same across genders, job aspirations provide significant insights as to how social cues may influence gendered decisions in relation to school-to-work transitions. The analyses to follow illustrate the relationships of contexts of learning with gender in order to assess whether these relationships may present barriers to aspiration achievement.

**Gender and Program of Enrolment**

Patterns that distinguish programs on the basis of gender would indicate that programming is gender biased. However, given the argument that all things are equal in public schooling, no significant relationships should exist between gender and programs of enrolment. To understand the relationship between gender and program of enrolment, a two-way contingency table analysis was conducted. Results from the analysis indicate that the relationship between gender and programs of enrolment is significant, Pearson $\chi^2 = 40.297 \ (2, \ N = 1751), p = .000, \text{Cramér's } V = .15$. No follow-up comparisons were required as gender only has two variables.

Figure 13 illustrates the relationships between gender and programs of enrolment. The results indicate that the majority of all youth were likely to be enrolled in university-bound programs. Females were 1.2 times ($80/67$) more likely than males to be enrolled in university-bound programs, while males were 1.9 times ($15/8$) and 1.5 times ($18/12$) more likely to be in programs preparing for college or entry into the labour market, respectively.
The findings demonstrate that females were most likely to be enrolled in university programs, whereas college and labour market programs were more likely to be enrolled with males. The pattern that emerges demonstrates that females were more likely to be found in programs that offer them a greater variety of post-secondary opportunities.

When considering program of enrolment in relation to schooling aspirations, it appears that youth were proportionally in programs that would allow them to achieve their schooling aspirations. However, further regression analyses are needed to evaluate the relationships between programs of enrolment and schooling aspirations between females and males.

Program of enrolment is one area where youth may face barriers to achievement. Another barrier could be the school itself and the ethos of that school in sending its graduates on to particular post-secondary destinations. In the next analysis, gender is compared with graduate destinations in order to assess whether females and males attend schools that differ in terms of graduate destinations.
Gender and Graduate Destinations

Where a youth goes to school is not expected to be divided on the basis of gender. However, graduate destinations have been found to vary across schools; where most schools sent the majority of their graduates on to post-secondary schooling, some sent the majority of their graduates into the labour market, and others sent the majority of their graduates equally to post-secondary schooling and into the labour market. When taking these findings in relation to the findings between gender and program of enrolment, it is important to test whether gender is related to the type of school youth attend, on the basis of their graduates’ destinations.

To test the significance of the relationship between gender and graduate destinations, a two-way contingency table analysis was applied. The analysis found that the relationship between gender and graduate destinations was not statistically significant, Pearson $\chi^2 (2, N = 1492) = .665, p = .717$, Cramér’s $V = .02$. Figure 14 demonstrates the relationship between gender and graduate destinations. The findings indicate that most of all youth attend schools where the majority of graduates went on to post-secondary schooling.
Although schools have been found to send youth on to various destinations once they graduate, this outcome was not found to correspond with a students’ gender.

It would be interesting to understand more about the relationships between school programming and graduates’ destinations. That is, while youth attend schools with varying graduate destinations, how does the programming vary within schools and to what extent does this difference influence the opportunities that would be available to youth. In schools where the majority of youth go on to enter the labour market, for example, do females and males equally go on to enter the labour market or does programming differ within schools in that females are more likely to be enrolled in university-bound programs and males are more likely to be in college- and labour market-bound programs. Further research could develop greater understandings of the complexities that exist between gender, contexts of learning, and post-secondary opportunities.
Summary of Identity Findings and Analysis

The findings from this chapter illustrate that racial identity and gender are important indicators of schooling outcomes among youth. The patterns that emerge demonstrate that public schooling does not offer equality of opportunity and discrepancies are marked by racial identity and gender, which are characteristics of difference.

The racial identity analyses provided an illustration of the similarities and differences faced by Aboriginal, Visible Minority and Visible Majority respondents. While no significant relationships were found between racial identity and aspirations, significant relationships were found between racial identity and contexts of learning. In relation to programs of enrolment, Aboriginal respondents were most likely to be enrolled in programs preparing for university, while Visible Majority respondents made up the highest proportion of youth represented in college- and labour market-bound programs.

Graduate destinations by racial identity indicated that similarities exist between Aboriginal and Visible Majority students and Visible Minority students were least likely to attend schools where the majority of respondents would go on to enter the labour market.

Gender analyses indicated that no significant relationships existed between gender and schooling aspirations, and gender and graduate destinations. Gender was found to have significant relationships with job aspirations and programs of enrolment. The relationship between gender and job aspirations demonstrated that youth might perceive jobs as gender-related, whereby males were more likely to have aspired to skilled labour jobs, and females were more likely to have aspired to senior administration jobs. In particular, only 2% of female students aspire to skilled labour jobs in relation to 18% of male students.

Similar patterns were found between gender and programs of enrolment. The majority of female students were likely to be enrolled in university-bound programs, while their male counterparts had the most respondents enrolled in college- and labour market-bound programs. The present study cannot assess whether these contexts of
learning have relationships with job aspirations, however the patterns that exist suggest that further research to investigate these similarities is needed.

Given that the literature indicates that Aboriginal youth are more likely to attend schools of poorer quality, further analyses comparing across school, distinguished by their racial composition, would provide a more complete sense of the similarities and differences that exist for youth, contexts of learning, and the influence of race in the school. In particular, the present analysis could be extended to include schools where no Aboriginal respondents were represented. It is possible that the differences that emerge in larger studies comparing Aboriginal and non-Aboriginal youth include all sites of learning. Therefore, comparing across schools by racial identity might provide further insights as to the similarities and differences of opportunities created and constrained within and across public schools. This future research would seek to understand what causes different outcomes of schooling as they arise among racial identity groups. Therefore, further enquiry to assess differences between schools with Aboriginal students and schools without Aboriginal students may indicate further cleavages by background, school contexts, and outcomes associated with experiences in the public schooling system.

In this chapter, students’ aspirations and their contexts of learning were analysed in relation to their racial and gender identities in order to evaluate whether patterns would emerge. Patterns did emerge and demonstrated that racial identity and gender play an important role in explaining similarities and differences, and opportunities and constraints among this sample population. In Chapter 6, youths’ aspirations, contexts of learning and racial identity are considered in relation to their socio-economic status and location. Socio-economic status (as measured by parental schooling, parental income, and community size) is an indicator of class and class has been found to correspond with race. Interestingly, racial identity was only found to have a significant relationship with community size.
CHAPTER 6: SOCIO-ECONOMIC BACKGROUND

In Chapters 4 and 5, post-secondary schooling aspirations were not found to have significant relationships with job aspirations, programs of enrolment, graduate destinations, racial identity, or gender. The same trend is carried forward in this chapter, where no significant relationships were found with schooling aspirations in relation to parental schooling, parental income, and community size. Certainly, the trend may be an indication of how pervasive youths’ university aspirations were, irrespective of their job aspirations, contexts of learning, or socio-demographic backgrounds. To understand why youth overwhelmingly aspire to one university degree or more would require additional qualitative data; however, what is known is that not all youth are likely to attain their schooling aspirations.

Parental schooling and parental income were incorporated into the analysis because research shows that relationships exist between racial identity and parental socio-economic status (as measured by parental schooling and parental income). Scholars argue that parents’ socio-economic status is an indicator of the quality of school their child attends (Frenette, 2007) and of their child’s aspirations (Coleman et al., 1966).

The variances that were found within (patterns of programs of enrolment) and across schools (patterns of graduate destinations) indicate that the structures and practices of public schooling offer youth unequal access to post-secondary opportunities. In this chapter, relationships between contexts of schooling and youth’s background variables were assessed to evaluate whether unequal opportunities were related to socio-economic status variables.

The prevalent pattern that is emerging is that different opportunities are created and constrained by contexts of learning. Disparate outcomes reflect access to these outcomes and are further complicated when considering how students are admitted to schools. Admissions to public schools are typically determined by area of residence and reinforce patterns of social inequality related to parental socio-economic status, gender, and race, from one cohort to the next. Income, in particular, is a determinant of where families can afford to live (and in some cases borrow to live) and if catchment areas are
distinguishable by income and schools reflect this difference, then schools may be participants in determining and perpetuating social advantage and disadvantage among our youth.

According to Coleman et al. (1966), the economic composition of a school’s student body is significant to the schooling outcomes of individuals. Among the schools represented in this study, 76% reported always admitting students on the basis of their area of residence. This finding suggests that: one, location matters; and two, youth are unlikely to choose the school they attend and the subsequent opportunities that lie ahead. Depending on the school, some youth may attend schools that have a greater propensity to prepare and send students to university, while others may attend schools that have a greater propensity to send students to college or to enter the labour market. Admissions by areas of residence may not be the problem of poor performance outcomes among Aboriginal identity groups, as suggested by Richards et al. (2008). However, it does demonstrate a failing in our public schooling system to offer equality of access to programming and outcomes—indicators of inequitable treatment.

In the chapter to follow, aspirations, contexts of schooling and racial identity are considered in relation to socio-economic status variables, including parental schooling, parental income, and community size. The first section looks at parental schooling and finds significant relationships with job aspirations and programs of enrolment. The second section evaluates relationships with parental income. Significant relationships were found between parental income and job aspirations, programs of enrolment, and parental schooling. Finally, in the third section, the school’s community size is compared with aspirations, racial identity, and socio-economic status variables. Findings demonstrate significant relationships with job aspirations, graduate destinations, racial identity, parental schooling, and parental income.

**Parental Schooling Findings and Analysis**

Parental schooling is an interesting variable because schooling attainment is understood to correlate with income and social status. Additionally, parental schooling has also been argued to be an indicator of the level of schooling that their children will
aspire to. That is, the level of schooling attainment that a parent has obtained might also be the minimum level of achievement that parents expect of their children.

The YITS Parent Questionnaire asked respondent parents to indicate the highest level of schooling they have completed. In order to have cell sizes that could be large enough to report, schooling levels were collapsed into three categories: attended university, college or vocational training, and high school certificate or less. Although most students were enrolled in university-bound programs, only 21% of parents indicated having attended university\(^{13}\). The majority of parents reported having college or vocational training (39%), or a high school certificate or less (40%).

In the first analysis, parental schooling is considered in relation to schooling and job aspirations to understand whether a parent’s level of schooling may be an indication of youth aspirations. In the data, no significant relationship was found to exist between parental schooling and schooling aspirations, although significant relationships were found between parental schooling and job aspirations. The second analysis demonstrates a significant relationship between parental schooling and programs of enrolment. The third analysis compares parental schooling with graduate destinations; no significant relationship was found. In the final analysis, parental schooling is considered in relation to racial identity in order to add to the understanding of similarity and differences among racial identities. In this analysis, parental schooling and racial identity were not found to be significantly related.

**Parental Schooling and Aspirations**

A parent’s level of schooling has been found to correspond with their child’s level of schooling achievement (Bowles & Gintis, 1976; Coleman et al., 1966). The importance of understanding the relationship between parental schooling and schooling

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\(^{13}\) Note that missing values are not included. When included, *attended university* is 20%, *trade or vocational training* is 38%, *high school certificate or less* is 39% and *missing* is 3% of the total sample population.
aspirations is to identify whether parental schooling indicates youth aspirations beyond their parents’ attainment levels.

Parental schooling attainment and schooling aspirations were not found to be significantly related, Pearson $\chi^2 (4, N = 1269) = 2.718, p = .606$, Cramér’s $V = .03$. Figure 15 illustrates that parental schooling achievement does not bear any resemblance to the schooling aspiration patterns of their children. Interestingly, youth whose parents hold a high school certificate or less were more likely than their peers with higher levels of parental schooling to have aspired to jobs that they believed required one university degree or more. Youth whose parents had attended university were more likely to have aspired to jobs that they believed required a high school certificate or less.

Figure 15. Parental Schooling and School Aspirations (%).

The findings related to schooling aspirations indicate that parental schooling does not necessarily have an effect on what youth view as a necessary level of schooling for their desired future pathway. However, this is not to say that parental schooling may not
have significant relationships with other barrier variables that may be an indication of the importance of this variable.

Although relationships were not significant with schooling aspirations, significant relationships were found between parental schooling and job aspirations, Pearson $\chi^2 (4, N = 1778) = 41.778, p = .000$, Cramér’s $V = .05$. Follow-up pairwise comparisons were conducted to evaluate the proportion of difference. The Holm’s Sequential Bonferroni Method was applied to control for Type I error at .05 across all three comparisons (see results in Table 3). All three comparisons were significant.

Table 3

Results for the Pairwise Comparisons Between Parental Schooling and School Aspirations

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson $\chi^2$</th>
<th>p-value</th>
<th>Required $p$-value for significance</th>
<th>Significance</th>
<th>Cramér’s $V$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attended university vs. College or vocational training</td>
<td>10.48</td>
<td>.005</td>
<td>.0167</td>
<td>*</td>
<td>.10</td>
</tr>
<tr>
<td>Attended university vs. High school certificate or less</td>
<td>36.93</td>
<td>.000</td>
<td>.025</td>
<td>*</td>
<td>.18</td>
</tr>
<tr>
<td>College or vocational training vs. High school certificate or less</td>
<td>14.70</td>
<td>.001</td>
<td>.05</td>
<td>*</td>
<td>.10</td>
</tr>
</tbody>
</table>

* Significant (null hypothesis rejected)

The findings in Figure 16 demonstrate that senior administration aspirants were most likely to have had parents who attended university and had college or vocational training, whereas administration and skilled labour aspirants were more likely to have had parents with a high school certificate or less. Senior administration aspirants were about
1.4 times (.61/.43) more likely to have had a parent who had attended university as opposed to having had completed a high school certificate or less. Administration aspirants were about 1.3 times (.44/.34) more likely to have had a parent who had completed a high school certificate or less as opposed to having had attended university. Similarly to administration aspirants, skilled labour aspirants were about 2.6 times (.13/.05) more likely to have had a parent who had completed a high school certificate or less as opposed to having had attended university.

Figure 16. Parental Schooling and Job Aspirations (%).

The findings suggest that parental schooling is an important indicator of job aspirations. Youth whose parents had a high school certificate or less were most likely to have aspired for administration jobs, followed by senior administration and skilled labour jobs. Youth whose parents had attended university or trained at college or for a vocation were most likely to have aspired for senior administration over administration and skilled labour jobs. Therefore, the more schooling parents had, the more likely their children were to aspire to jobs that correspond with higher social status.
Parental Schooling and Program of Enrolment

Programs of enrolment have been marked as a potential barrier to youth achieving their aspirations. The following analysis is intended to determine whether parental schooling is an indicator of the type of programs that youth were enrolled in.

To understand the relationship between parental schooling and programs of enrolment, a two-way contingency table analysis was conducted. The findings demonstrate that the relationship is significant, Pearson $\chi^2 (4, N = 1699) = 39.066, p = .000$, Cramér’s $V = .11$. To understand the proportional difference among these pairs and to control for Type 1 error at .05, follow-up pairwise comparisons were conducted using the Holm’s sequential Bonferroni method. All pairs were found to have significant pairwise differences (as shown in Table 4).

Table 4
Results for the Pairwise Comparisons Between Parental Schooling and Program of Enrolment

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson $\chi^2$</th>
<th>p-value</th>
<th>Required p-value for significance</th>
<th>Significance</th>
<th>Cramér's $V$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attended university vs.</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>College or vocational training</td>
<td>13.40</td>
<td>.001</td>
<td>.0167</td>
<td>*</td>
<td>.11</td>
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<tr>
<td>Attended university vs.</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school certificate or less</td>
<td>36.79</td>
<td>.000</td>
<td>.025</td>
<td>*</td>
<td>.19</td>
</tr>
<tr>
<td>College or vocational vs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school certificate or less</td>
<td>10.47</td>
<td>.005</td>
<td>.05</td>
<td>*</td>
<td>.09</td>
</tr>
</tbody>
</table>

* Significant (null hypothesis rejected)
Figure 17 illustrates the proportion of students who were enrolled in university-, college- and labour market-bound programs in relation to their parent’s level of schooling. The findings demonstrate that a parent’s level of schooling is an important indicator of the program that students were likely to be enrolled in. Students enrolled in university-bound programs were slightly more likely, 1.1 times (.85/.75) and 1.3 times (.85/.68), to have parents who had attended university as opposed to having had parents who had college or vocational training and a high school certificate or less, respectively. College-bound students were about 1.5 times (.12/.08) and 1.6 times (.13/.08) more likely to have had parents with college or vocational training and a high school certificate or less, respectively, as opposed to having had parents who had attended university. Similarly, students in labour market-bound programs were about 1.8 times (.14/.08) and 2.5 times (.20/.08) more likely to have had parents with college or vocational training and a high school certificate or less, respectively, as opposed to having had parents who had attended university.
Figure 17. Parental Schooling and Program of Enrolment (%).

While the present analysis does not intend to explain why and how youth come to be enrolled in these programs, it does indicate that patterns between parental schooling attainment and programs of enrolment exist. The findings illustrate that parental schooling is an important indicator of the type of programming that their children were likely to be enrolled in. Regardless of parental schooling, the majority of youth were enrolled in university-bound programs. However, significant gaps emerge that demonstrate a bias where students whose parents had attended university were in university-bound programs, and students whose parents had college or vocational training and a high school certificate or less were in college- and labour market-bound programs.

With regards to aspiration achievement, youth who aspire to university and who were enrolled in college- or labour market-bound programs are unlikely to attain their aspirations. Indeed school programming is a barrier for these youth and parental schooling attainment appears to be a potential discriminator.
Parental Schooling and Graduate Destinations

Recalling Chapter 4, school administrators were asked to report the proportion of graduates who went on to university, college, or entered the labour market. Schools were then labelled according to where the majority of their graduates were destined: post-secondary schooling, direct entry into the labour market, or equally to post-secondary schooling and the labour market. To understand whether parental schooling is an indication of the type of school a youth attends, based on the destinations of graduates, a two-way contingency table analysis was conducted. The test between parental schooling and graduate destinations intends to understand whether parental schooling provides an indication of the post-secondary destinations that their children may pursue, should youth outcomes mirror those of their graduated peers. The relationship between parental schooling and graduate destinations was not found to be significant, Pearson $\chi^2 = 5.017$ (4, $N = 1448$), $p = .286$, Cramér’s $V = .04$.

Figure 18 shows that students whose parents had college or vocational training or a high school certificate or less were most likely to have attended a school where the majority of graduates went on to post-secondary schooling, while students whose parents had attended university were more likely to have attended a school where the majority of students went on to post-secondary schooling and the labour market. Students were equally likely to have attended a school where the majority of graduates enter the labour market, regardless of their parent’s level of schooling.
The findings are interesting because they raise questions about programming within schools that become hidden when considered as an aggregate outcome. Recalling findings from the relationship between parental schooling and program of enrolment, youth whose parents had lower levels of schooling were most represented in programs that did not prepare them for university. The findings do not clarify which students go where. Further longitudinal research, having more detailed demographic findings, would develop our understanding of whether the type of school a youth attends and the program they are enrolled in are strong indicators of whether youth will achieve their aspirations and whether barriers to achievement can be anticipated.

Racial Identity and Parental Schooling

Schooling attainment has been found to correlate with racial identity and researchers interested in the schooling success among Aboriginal people have found that lower rates of attainment are reproduced and reflect social and institutional experiences (Hull, 2000; Mendelson, 2006; St. Denis & Hampton, 2002). Indeed, the purpose of the present study is to contribute to the body of research that illustrates a gap in schooling
attainment between Aboriginal and non-Aboriginal peoples. The findings indicate that no significant relationships exist between parental schooling and racial identity, Pearson \( \chi^2 \) \((4, N = 1891) = 3.279, p = .512\), Cramér’s \( V \) = .03. As illustrated in Figure 19, all parental schooling is about the same across racial identities.

*Figure 19. Racial Identity and Parental Schooling (%).*

Patterns from the above findings appear to mimic the proportional differences found among racial identities and their schooling aspirations. The difference between the findings, demonstrates that while the majority of schooling aspirations were for university, few parents had attended university. The findings show Visible Majority youth as more likely to have had parents who had attended university and to have aspirations to attend university. Aboriginal youth were more likely to have had parents who had college or vocational training and have aspirations to pursue college or vocational training, and Visible Minority youth were more likely to have had parents with a high school certificate or less and have aspirations to complete a high school certificate or less.
The lack of significance between racial identity and parental schooling is interesting because much of the research indicates a gap in schooling attainment between Aboriginal and non-Aboriginal people. Recall that schools on reserve and in the northern territories were excluded by YITS and PISA design and private schools and public schools without Aboriginal respondents were excluded in the design of this study. The findings might, therefore, reflect the methodology of the present study, which only looks at public schools having Aboriginal respondents.

To understand more about the similarities and differences among racial identities, it would be interesting to compare the findings from this study with those of a future study that might investigate the aspirations and schooling outcomes among youth attending other public, private, on-reserve and northern territory schools and distinguishing across schools by racial composition of the student body. If race is related to income, residence, school quality, performance and schooling attainment, then comparisons across schools on the basis of racial composition may be an indication of outcomes emerging across schools. Further, given that the PISA and YITS surveys were not administered on the basis of socio-demographic representation, it is possible that some schools where the majority of the student body identifies as Aboriginal were not included.

In the following section, parental income is incorporated to understand whether relationships are found with aspirations, barriers to achievement, racial identity, and parental schooling.

**Parental Income Findings and Analysis**

The parental income variable (similar to the parental schooling variable) was included in this study to understand to extent to which racial identity, aspirations, and barriers are related with youths’ socio-economic background. Given the premise that all things are assumed to be equal in the public schooling system, parental income should have no bearing on access, treatment, and outcomes among youth.

The YITS Parent Questionnaire asked respondent parents to indicate their family’s annual income for 1999. In order to have cell sizes that could be large enough to report, parental income was collapsed into three categories: over $80 thousand, between $40 and
$80$ thousand and less than $40$ thousand. Most of the youths’ parents (48%) reported having annual incomes that ranged between $40$ and $80$ thousand, 28% reported incomes of less than $40$ thousand, and 25% reported incomes over $80$ thousand.

The first analysis compares parental income with students’ aspirations. Similar to parental schooling significant relationships were found for job aspirations, but not for schooling aspirations. In the second analysis, parental income is considered in relation to programs of enrolment. The findings indicate that parental income is an important indicator of the programs that youth are enrolled in. The third analysis demonstrates that no significant relationship exists between parental income and graduate destinations. In the fourth analysis, parental income is compared with racial identity; no significant relationship was found. In the final analysis, parental income and parental schooling are compared and demonstrate a significant relationship.

**Parental Income and Aspirations**

To understand whether parental income is related with post-secondary aspirations, two-way contingency table analyses were conducted. No significant relationships were found between parental income and schooling aspirations, Pearson $\chi^2 (4, N = 1307) = 1.131, p = .889$, Cramér’s $V = .02$. Figure 20 indicates that the majority of youth, regardless of their parents’ income, aspired to one university degree or more.
The findings indicate that youth whose parents earn less than $40 thousand were most likely to have aspired to university. These findings are interesting, particularly in relation to the job aspiration and program of enrolment findings to come. Youth whose parental incomes were less than $40 thousand were equally likely to have aspired to senior administration and administration jobs and to have been enrolled in university-bound programs. It is possible that youth of lower incomes view higher levels of schooling as a way to improve their socio-economic status, regardless of the actual level of schooling required for a particular job. The question becomes one of interpretation and questions about the meaning of schooling attainment arise and differ across social experiences. Although it is not possible to assess these questions with the available data from the surveys, the findings do raise interesting questions to be considered in future research.

The relationship between parental income and job aspirations was found to be statistically significant, Pearson $\chi^2 (4, N = 1831) = 26.057, p = .000$, Cramér’s $V = .08$. To
evaluate the proportion of difference between pairs, follow-up pairwise comparisons were conducted using the Holm’s sequential Bonferroni method, which controlled for Type I error at .05 across all three comparisons (see results in Table 5). The pairwise differences were significant between two pairs: over $80 thousand and between $40 and $80 thousand; and more than $80 thousand and less than $40 thousand.

Table 5
Results for the Pairwise Comparisons Between Parental Income and Job Aspirations

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson $\chi^2$</th>
<th>$p$-value</th>
<th>Required $p$-value</th>
<th>Significance</th>
<th>Cramér's $V$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over $80$ thousand vs.</td>
<td>13.14</td>
<td>.001</td>
<td>.0167</td>
<td>*</td>
<td>.10</td>
</tr>
<tr>
<td>Between $40$ and $80$ thousand</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over $80$ thousand vs.</td>
<td>24.62</td>
<td>.000</td>
<td>.025</td>
<td>*</td>
<td>.16</td>
</tr>
<tr>
<td>Less than $40$ thousand</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between $40$ and $80$ thousand</td>
<td>4.69</td>
<td>.096</td>
<td>.05</td>
<td>NS</td>
<td>.06</td>
</tr>
<tr>
<td>Less than $40$ thousand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NS Not significant (null hypothesis accepted)
* Significant (null hypothesis rejected)

Figure 21 illustrates that the majority of youth with parental incomes over $80 thousand were most likely to have aspired to senior administration jobs, while the majority of youth with parental incomes less than $40 thousand were most likely to have aspired to administration and skilled labour jobs. The probability that senior administration aspirants had parental incomes over $80 thousand was about 1.2 times ($58/48$) and 1.3 times ($58/44$) greater in relation to youth whose parental incomes were between $40$ and $80$ thousand and less than $40$ thousand, respectively. Conversely, administration and skilled labour aspirants were about 1.2 times ($44/36$) and 2.2 times
(.13/.06), respectively, more likely to have had parental incomes less than $40 thousand in relation to students whose parental incomes were over $80 thousand.

**Figure 21. Parental Income and Job Aspirations (%).**

The findings display patterns of job aspirations that vary on the basis of parental income. Within their income bracket, youth with parental incomes over $80 thousand and between $40 and $80 thousand were most likely to have aspired to senior administration jobs. Alternatively, youth with parental incomes of less than $40 thousand had equally aspired to senior administration and administration jobs over skilled labour jobs.

The findings raise questions about students’ understandings of the labour market and what pathways they believed were most desirable or attainable. I wonder whether it is likely that youth could attain senior administration jobs by the age of thirty if they must attend university and obtain one or more degrees. As mentioned earlier, it is interesting that youth with parental incomes less than $40 thousand had indicated that the jobs they aspire to require university level schooling, particularly when they had aspired equally for senior administration and administration jobs. It is possible that youth perceive higher
levels of schooling as a requirement to remain competitive in the job market. Alternatively, youth might model their job aspirations according to what they see of the adults around them. For youth whose parents earn over $80 thousand, the majority of these youth had aspired to senior administration roles. These outcomes might reflect pressures of performance and outcomes laid upon them by their parents and their peers. Further, it is possible that the prior generation represents a benchmark for the levels of schooling and job attainment that youth aspire to. However, I wonder to what extent job aspirations are too high and are, themselves, a barrier to attainment. Further studies may be interested in developing distinctions between aspirations and expectations to understand more about barriers to achievement.

**Parental Income and Program of Enrolment**

Looking at programs of enrolment is important for establishing the extent to which socio-economic backgrounds are not determinants of limitations to post-secondary opportunities. If all things were equal, no significant differences would be found between parental income and programs of enrolment. However, the relationship between parental income and students’ programs of enrolment was found to be significant, Pearson $\chi^2 (4, N = 1751) = 36.243, p = .000$, Cramér’s $V = .10$. Therefore, youths’ programs of enrolment and post-secondary opportunities should increase as parental incomes increase.

To understand the proportional difference among these pairs and to control for Type 1 error at .05, follow-up pairwise comparisons were conducted using the Holm’s sequential Bonferroni method. All pairs were found to have significant pairwise differences (as shown in Table 6).
Table 6
*Results for the Pairwise Comparisons Between Parental Income and Program of Enrolment*

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson $\chi^2$</th>
<th>$p$-value</th>
<th>Required $p$-value for significance</th>
<th>Significance</th>
<th>Cramér's $V$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over $80$ vs. Between $40$ and $80$ thousand</td>
<td>19.17</td>
<td>.000</td>
<td>.0167</td>
<td>*</td>
<td>.12</td>
</tr>
<tr>
<td>Over $80$ thousand vs. Less than $40$ thousand</td>
<td>34.97</td>
<td>.000</td>
<td>.025</td>
<td>*</td>
<td>.20</td>
</tr>
<tr>
<td>Between $40$ and $80$ thousand vs. Less than $40$ thousand</td>
<td>6.42</td>
<td>.040</td>
<td>.05</td>
<td>*</td>
<td>.07</td>
</tr>
</tbody>
</table>

* Significant (null hypothesis rejected)

Figure 22 illustrates the proportion of students who were enrolled in university-, college- and labour market-bound programs in relation to parental income. The findings indicate that the majority of youth were enrolled in university-bound programs. The findings within programs demonstrate that most students enrolled in university-bound programs had parental incomes over $80$ thousand, whereas most students enrolled in college- and labour market-bound programs had parental incomes of less than $40$ thousand.

The probability that students enrolled in programs preparing for university had parental incomes over $80$ thousand was about 1.2 times ($0.83/0.72$) and 1.2 times ($0.83/0.67$) more likely in relation to students whose parents had incomes between $40$ thousand and $80$ thousand and less than $40$ thousand, respectively. Students who were enrolled in programs preparing for college were about 1.5 times ($0.12/0.08$) more likely to have parental incomes between $40$ thousand and $80$ thousand and about 1.6 times ($0.13/0.08$) more likely to have parental incomes less than $40$ thousand relative to parental incomes over $80$ thousand. Similarly, students who were enrolled in programs preparing for the
labour market were about 1.7 times (0.15/0.09) more likely to have parental incomes between $40 thousand and $80 thousand and about 2.3 times (0.21/0.09) more likely to have parental incomes less than $40 thousand, than to have parental incomes over $80 thousand.

*Figure 22. Parental Income and Program of Enrolment (%).*

Indeed, the relationship between the two variables appears to be linear. Although marginally, the relationship between parental income and programs of enrolment demonstrates that opportunities are created for youth of higher incomes and opportunities are constrained for youth of lower incomes. Recalling parental income and schooling aspirations, it would appear that youth whose parental incomes were over $40 thousand were likely being prepared for post-secondary opportunities that exceed their schooling aspirations, whereas youth whose parental incomes were less than $40 thousand were likely being under-prepared to pursue their schooling aspirations, limited by their program of enrolment. Only 14% of youth whose parental incomes were less than $40 thousand had aspired to a high school certificate or less, yet, 21% were enrolled in labour market programs, programs that do not prepare youth for college or university.
The findings demonstrate that parental income is an important indicator of the program of enrolment that students were likely to be enrolled in. However, the findings do not explain why programming is biased on the basis of socio-economic status. Further research could develop on questions regarding how income is related to programming and whether different programming opportunities are available based on class.

Analyzing income in relation to contexts of schooling demonstrates the role that parental income plays in determining a student’s likelihood to be enrolled in a university-, college- or labour market-bound programs relative to their income peers. It is likely that students with higher incomes are enrolled in programs preparing for university, regardless of where the majority of graduates are reported as going.

**Parental Income and Graduate Destinations**

Parental income has been argued to be related with school quality (Richards & Vining, 2003, 2004). School quality is reflected in student achievement and outcomes; determining whether graduates go on to post-secondary schooling or the labour market. Using an equality of schooling argument, schools’ student outcomes should not vary by parental income.

Although relationships were significant between parental incomes and programs of enrolment, no significant relationships were found between parental income and graduate destinations, Pearson $\chi^2 (4, N = 1492) = 6.816, p = .146, \text{Cramér's } V = .05$. Interestingly, Figure 23 indicates that students whose parental incomes were less than $40$ thousand were most likely to have attended a school where the majority of graduates went on to post-secondary schooling. Students with parental incomes between $40$ and $80$ thousand were more likely to have attended schools where the majority of graduates went on to the labour market, and students with parental incomes over $80$ thousand were more likely to have attended schools where the majority of graduates went on equally to attend a post-secondary institution and enter the labour market.
The findings are interesting. Recall that students with parental incomes of less than $40,000 were more likely to be enrolled in college- and labour market-bound programs in relation to their higher income peers. The graduate destinations analysis suggests that most schools send the majority of their students to post-secondary schooling, however, income is an important indicator of youth’s program of enrolment, therefore, it would be interesting to know whether students who do not go on to post-secondary schooling are (in)eligible to do so.

**Parental Income and Racial Identity**

Studies show that visible minorities, in particular Aboriginal people, have lower incomes relative to visible majorities (CCSD, 2000; Malatest & Associates Ltd., 2004; Williams, 2004). The present study was designed to test whether race-based cleavages would continue to emerge when schools are controlled by the schooling experiences of Aboriginal youth. If schooling experiences are similar across schools, then no significant relationship should emerge across racial identities and their parental incomes.
The null hypothesis was accepted and no significant relationship was found between identity and parental income, Pearson $\chi^2 (4, N = 1950) = 5.456, p = .244$, Cramér’s $V = .04$. Figure 24 illustrates that most parents have incomes between $40$ and $80$ thousand.

*Figure 24. Parental Income and Racial Identity (%).*

The finding from this analysis counters much of the research regarding income gaps on the basis of racial identity. These findings do not support that greater gaps do not exist, rather it displays the importance of context and experiences to outcomes. Because the present study has limited its scope of analysis to include only those schools with Aboriginal respondents, it is possible that different outcomes might emerge when making comparisons among individuals who attend schools with no Aboriginal respondents or with Visible Majority respondents only. Further, I would be interested in understanding to what extent the racial composition of a school is an indicator of disparate schooling outcomes. If the scope of the study was not limited to include only those schools with
Aboriginal respondents would the null hypothesis continue to be accepted or would variances begin to emerge?

**Parental Income and Parental Schooling**

Research on access to post-secondary schooling suggests that increased schooling attainment correlates with increased income levels (Bowles & Gintis, 1976; CCSD, 2000). Parental schooling and parental incomes were considered to evaluate whether similar relationships are found among youths’ parents.

The relationship between parental schooling and parental income is significant, Pearson $\chi^2 (4, N = 1891) = 192.143, p = .000$, Cramér’s $V = .23$. Using the Holm’s sequential Bonferroni method to control for Type I error at .05, follow-up pairwise comparisons were conducted to evaluate the proportion of difference among pairs. All pairwise comparisons were significant (see Table 7 for results).

Table 7

*Results for the Pairwise Comparisons Between Parental Schooling and Parental Income*

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson $\chi^2$</th>
<th>Required $p$-value for significance</th>
<th>Cramér’s $V$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attended university vs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College or vocational training</td>
<td>108.893</td>
<td>.000</td>
<td>.0167 * .31</td>
</tr>
<tr>
<td>Attended university vs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school certificate or less</td>
<td>169.890</td>
<td>.000</td>
<td>.025 * .38</td>
</tr>
<tr>
<td>College or vocational training vs.</td>
<td>13.733</td>
<td>.001</td>
<td>.05 * .10</td>
</tr>
</tbody>
</table>

* Significant (null hypothesis rejected)
Figure 25 demonstrates distinct patterns between parental schooling and their annual incomes. Most parents whose incomes were over $80 thousand had attended university. The majority of parents who had earned between $40 and $80 thousand had college or vocational training. Also, parents who had earned less than $40 thousand were most likely to have had a high school certificate or less.

*Figure 25. Parental Schooling and Parental Income (%).*

The findings demonstrate that parental schooling and parental income are related. This is not surprising and provides an indication of how society generally values schooling and rewards higher levels and types of schooling with increased incomes. It is possible that youth have observed the relationship between their parent’s level of schooling and parental income, prompting them to aspire to university so that they can attain corresponding jobs and incomes.

In the following section, parental incomes and parental schooling are considered in relation to the size of the school’s community. Although the relationships are separate, links between parental schooling and parental income emerge by community size.
Community Size Findings and Analysis

The variance of parental schooling and parental incomes may be a reflection of the needs of communities, where schooling and incomes vary depending on the industries and resources that communities have for employment. The types of industries that exist may also depend on the size of the community, where more senior administrative jobs may be found in the cities while agriculture and farming jobs would be more likely found in rural communities. However, given the premise that public schooling offers equality of opportunity, no significant differences should emerge among students, their aspirations, opportunities, and outcomes in relation to their schools’ location.

Community size represents the population size of the community that schools are located in. In the PISA School Questionnaire, school administrators were asked to indicate their school’s community size. Community size over 1,000,000 only represented 3% of the sample population; therefore variables were collapsed into four values in order to have cell sizes that would be large enough to report the findings: fewer than 3,000 people; between 3,000 and 15,000 people; between 15,000 and 100,000 people; and over 100,000 people. The proportion of students by their schools’ community size were: 27% for schools located in communities with fewer than 3,000 people, 25% for schools located in communities with between 3,000 and 15,000 people, 21% for schools located in communities with between 15,000 and 100,000 people, and 27% for schools located in communities with over 100,000 people.

In the analyses to follow, community size is evaluated in relation to aspirations, contexts of learning, and socio-demographic variables. Interestingly, community size was found to have the most number of significant relationships in relation to the other variables tested for significance in this study. The first analysis considers community size in relation to students’ schooling and job aspirations. While no significant relationships were found between community size and schooling aspirations, significant relationships were found with job aspirations. The second analysis evaluates the relationship between community size and program of enrolment to find that no significant relationship exists. In the third analysis, community size is analysed in relation to graduate destinations and the relationship was found significant. In the fourth analysis, community size is
considered in relation to racial identity. The relationship between community size and racial identity was found to be significant. In the fifth analysis, parental schooling is analysed with community size and a significant relationship was found. The final analysis finds the relationship between community size and parental incomes significant.

**Community Size and Aspirations**

In the literature review, aspirations were framed as outcomes of meaning made through interactions and interpretations from available experiences across contexts of learning. From this perspective, aspirations should reflect the dominant view, which appears to be to prepare youth for university. Indeed, the results from the two-way contingency table analysis demonstrates that the relationship between community size and school aspirations is not significant, Pearson $\chi^2 (6, N = 1307) = 4.168, p = .654$, Cramér’s $V = .04$. Figure 26 indicates that across all community sizes the majority of youth believed that they would require one university degree or more.
Interestingly, university degrees are highly desired, and it seems to be the case regardless of whether various communities and industries would actually require university training. It would be interesting to understand more about why youth believe university is necessary for the jobs they hope to attain. Where youth hope to attend university and obtain employment might also help to paint a more complex picture of the ubiquitous trend for university.

Job aspirations have been found to have a significant relationship with community size, Pearson $\chi^2 (6, N = 1831) = 52.910, p = .000, \text{ Cramér’s } V = .12$. Follow-up pairwise comparisons were conducted to evaluate the proportion of difference using the Holm’s sequential Bonferroni method to control for Type I error at .05 across all six comparisons. Pairwise differences were significant for four of the six pairs: fewer than 3,000 and between 15,000 and 100,000 people; fewer than 3,000 and over 100,000 people; between 3,000 and 15,000 and between 15,000 and 100,000 people; and between 3,000 and 15,000 and over 100,000 people (see results in Table 8).
Table 8

Results for the Pairwise Comparisons Between Community Size and Job Aspirations

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson $\chi^2$</th>
<th>p-value</th>
<th>Required $p$-value for significance</th>
<th>Significance</th>
<th>Cramér’s $V$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer than 3,000 people vs. Between 3,000 and 15,000 people</td>
<td>5.31</td>
<td>.070</td>
<td>.0167</td>
<td>NS</td>
<td>.07</td>
</tr>
<tr>
<td>Fewer than 3,000 people vs. Between 15,000 and 100,000 people</td>
<td>24.48</td>
<td>.000</td>
<td>.025</td>
<td>*</td>
<td>.17</td>
</tr>
<tr>
<td>Fewer than 3,000 people vs. Over 100,000 people</td>
<td>41.27</td>
<td>.000</td>
<td>.05</td>
<td>*</td>
<td>.20</td>
</tr>
<tr>
<td>Between 3,000 and 15,000 people vs. Between 15,000 and 100,000 people</td>
<td>8.60</td>
<td>.014</td>
<td>.05</td>
<td>*</td>
<td>.10</td>
</tr>
<tr>
<td>Between 3,000 and 15,000 people vs. Over 100,000 people</td>
<td>17.90</td>
<td>.000</td>
<td>.05</td>
<td>*</td>
<td>.14</td>
</tr>
<tr>
<td>Between 15,000 and 100,000 people vs. Over 100,000 people</td>
<td>1.14</td>
<td>.567</td>
<td>.05</td>
<td>NS</td>
<td>.04</td>
</tr>
</tbody>
</table>

NS Not significant (null hypothesis accepted)
* Significant (null hypothesis rejected)

Figure 27 demonstrates that the jobs that youth had aspired to were related to the size of their school’s community. Across all communities, youth had equally aspired to administration jobs. Differences emerge, however, when looking at senior administration and skilled labour jobs. Youth who had aspired for senior administration roles were more
likely to have been from communities with populations over 100,000, while youth who had aspired for skilled labour roles were more likely to have been from communities with fewer than 3,000 people.

Senior administration aspirants were about 1.3 times (.55/.43) and 1.2 times (.55/.47) more likely to have attended schools in communities with over 100,000 people than to have attended schools in communities with fewer than 3,000 and between 3,000 and 15,000 people, respectively. Further, skilled labour aspirants were about 2.7 times (.16/.06) and 4 times (.16/.04) more likely to have attended schools in communities with fewer than 3,000 people than to have attended schools in communities with between 15,000 and 100,000 people and over 100,000 people, respectively.

Figure 27. Community Size and Job Aspirations (%).

The findings are not surprising. Job aspirations might reflect the availability and types of jobs within a community. For example, in larger communities youth were more likely to have aspired to senior administration jobs. Given the availability of professional, legislative and senior management type jobs found in larger communities, the finding is not surprising. That said, regardless of their community’s size, the majority of
respondents had aspirations for senior administration jobs. However, respondents who had aspired for skilled labour jobs were about 4 times more likely to have attended schools in communities with fewer than 3,000 people than to have attended schools in communities with over 100,000 people. Even though youth in smaller communities were more likely to have aspired to skilled labour jobs, a greater proportion of skilled labour jobs (as with all job types) are likely to be found in larger communities. Further qualitative analysis is needed to understand why youth in larger cities are less likely to have aspirations for skilled labour jobs.

Job aspirations have been found to have significant relationships with community size, parental income, and parental schooling. The patterns that emerge across these analyses demonstrate that class, community size, program of enrolment, and job aspirations are related. Further regression analyses would develop understandings of how these variables interact and potentially cause particular job aspirations.

**Community Size and Program of Enrolment**

While location matters, the size of the community may be an inadequate indicator explaining the variance in programming offered by schools. Indeed, given that the majority of youth had reported being enrolled in programs preparing for university, and the majority of schools had declared that the majority of their programming prepares youth for university, no significant relationships were expected to be found.

A two-way contingency table analysis was conducted to evaluate whether community size and program of enrolment were significantly related. The results demonstrate that no significant relationships exist, Pearson $\chi^2 (6, N = 1751) = 11.441, p = .076$, Cramér’s $V = .06$. Figure 28 illustrates that the majority of youth were enrolled in programs that prepare them for university.
The findings demonstrate that program of enrolment does not vary on the basis of a community’s size.

**Community Size and Graduate Destinations**

Graduate destinations may be an indicator of the needs and skills required of youth for participation in the community. Given the campaign for post-secondary schooling and qualification upgrading, then it is possible that the patterns of graduate destinations would be the same across communities.

However, the results from the two-way contingency table analysis demonstrate a significant relationship between community size and graduate destinations, Pearson $\chi^2 (6, N = 1492) = 20.370, p = .002$, Cramér’s $V = .08$. The Holm’s sequential Bonferroni method to control for Type I error at .05 was applied across all six follow-up pairwise comparisons to evaluate the proportion of difference. Pairwise differences were significant for three of the six pairs: fewer than 3,000 and between 15,000 and 100,000 people; fewer than 3,000 and over 100,000 people; and between 3,000 and 15,000 and over 100,000 people (see results in Table 9).
### Table 9

*Results for the Pairwise Comparisons Between Community Size and Graduate Destinations*

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson $\chi^2$</th>
<th>$p$-value</th>
<th>Required $p$-value for significance</th>
<th>Significance</th>
<th>Cramér's $V$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer than 3,000 people vs. Between 3,000 and 15,000 people</td>
<td>1.53</td>
<td>.456</td>
<td>.0167</td>
<td>NS</td>
<td>.04</td>
</tr>
<tr>
<td>Fewer than 3,000 people vs. Between 15,000 and 100,000 people</td>
<td>12.50</td>
<td>.002</td>
<td>.025</td>
<td>*</td>
<td>.13</td>
</tr>
<tr>
<td>Fewer than 3,000 people vs. Over 100,000 people</td>
<td>13.76</td>
<td>.001</td>
<td>.05</td>
<td>*</td>
<td>.13</td>
</tr>
<tr>
<td>Between 3,000 and 15,000 people vs. Between 15,000 and 100,000 people</td>
<td>5.45</td>
<td>.066</td>
<td>.05</td>
<td>NS</td>
<td>.09</td>
</tr>
<tr>
<td>Between 3,000 and 15,000 people vs. Over 100,000 people</td>
<td>6.10</td>
<td>.047</td>
<td>.05</td>
<td>*</td>
<td>.09</td>
</tr>
<tr>
<td>Between 15,000 and 100,000 people vs. Over 100,000 people</td>
<td>0.35</td>
<td>.838</td>
<td>.05</td>
<td>NS</td>
<td>.02</td>
</tr>
</tbody>
</table>

NS Not significant (null hypothesis accepted)

* Significant (null hypothesis rejected)

Findings in Figure 29 demonstrate the relationship between school community size and graduate destinations. Students who had attended schools where the majority of graduates went on to post-secondary schooling were most likely to have attended schools...
in communities with fewer than 15,000 people. Students who had attended schools where the majority of graduates went on to enter the labour market were most likely to have attended schools in communities with fewer than 3,000 people. Finally, students who had attended schools where the majority of graduates went on to post-secondary schooling and the labour market were most likely to have attended schools in communities with over 100,000 people.

Figure 29. Community Size and Graduate Destinations (%).

Graduate destinations are interesting because they raise questions about the programming in the school and how programming might reflect differences in outcomes. Schools in smaller communities (communities with fewer than 15,000 people) appear to differ by their graduates’ destinations. That is, in smaller communities, students were found to attend schools that either sent the majority of graduates on to post-secondary schooling or to the labour market. Rather than having schools where graduates equally went on to post-secondary schooling and to enter the labour market, schools in smaller
communities were more likely to send their graduates to specific post-secondary destinations.

Whereas the school a student attends in smaller communities might be an indicator of their post-secondary destinations; the same suppositions cannot be made for students in larger communities where post-secondary destinations were aggregated into one. In larger communities (communities with over 15,000 people), schools were most likely to send their graduates equally to post-secondary schooling and to enter the labour market.

**Community Size and Racial Identity**

Recall that graduate destinations had significant relationships with community size and racial identity. While racial identity and a school’s community size are independent variables, it is important to understand more about these variables in relation to each other, given their pattern of significant relationships with graduate destinations.

Therefore, to assess the relationship between community size and racial identity, a two-way contingency table analysis was conducted. A significant relationship was found between the school’s community size and racial identity, Pearson $\chi^2 (6, N = 1950) = 225.088, p = .000$, Cramér’s $V = .24$. Follow-up pairwise comparisons were conducted to evaluate the proportion of difference. The Holm’s sequential Bonferroni method was applied to control for Type I error at .05 across all three comparisons. The pairwise differences were significant between all pairs (see results in Table 10).
Table 10
Results for the Pairwise Comparisons Between Community Size and Racial Identity

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson $\chi^2$</th>
<th>$p$-value</th>
<th>Required $p$-value for significance</th>
<th>Significance</th>
<th>Cramér's $V$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aboriginal vs. Visible Minority</td>
<td>54.23</td>
<td>.000</td>
<td>.0167 *</td>
<td></td>
<td>.20</td>
</tr>
<tr>
<td>Aboriginal vs. Visible Majority</td>
<td>115.99</td>
<td>.000</td>
<td>.025 *</td>
<td></td>
<td>.30</td>
</tr>
<tr>
<td>Visible Majority vs. Visible Minority</td>
<td>143.69</td>
<td>.000</td>
<td>.05 *</td>
<td></td>
<td>.33</td>
</tr>
</tbody>
</table>

* Significant (null hypothesis rejected)

Figure 30 demonstrates the relationships between racial identity and a school’s community size. The findings demonstrate that youth who were identified as Aboriginal were most likely to have attended schools in communities with fewer than 3,000 people. Youth who were identified as Visible Minority were most likely to have attended schools in communities with between 15,000 and 100,000 people, and youth who were identified as Visible Majority were most likely to have attended schools in communities with between 3,000 and 15,000 people and with over 100,000 people.

The probability that Aboriginal respondents had attended schools in communities of fewer than 3,000 people was about 1.6 times (.39/.25) and 2.2 times (.39/.18) more likely than if respondents were of Visible Minority and Visible Majority identities, respectively. Visible Majority respondents were about 1.9 times (.34/.18) more likely than Aboriginal respondents and 3.4 times (.34/.10) more likely than Visible Majority respondents to have attended schools in communities of between 15,000 and 100,000 people. Finally, Visible Majority respondents were about 1.6 times (.34/.21) more likely than Aboriginal and Visible Minority respondents to have attended schools in communities of between 3,000 and 15,000 people, and about 1.8 times (.38/.21) more likely than Aboriginal and Visible Minority respondents to have attended schools in communities of over 100,000 people.
It is important to note that while Aboriginal people living off reserve are found in urban areas across Canada, Aboriginal people living on reserve often commute off reserve for public schooling. Therefore, the finding of Aboriginal youth in communities with fewer than 3,000 people may be indicative of the relationship between public schools and Aboriginal students living on reserves. This is an important point because research that is used to compare schooling attainment rates between Aboriginal and non-Aboriginal peoples typically do not account for mobility of Aboriginal students attending on- and off-reserve schools. Therefore, schooling attainment findings based on area of residence are less likely to be representative of Aboriginal populations at schools when these populations are considered in relation to Census data.

Recent initiatives, like those of the Ontario Ministry of Education, have implemented policies for Aboriginal youth self-identification (Aboriginal Education Office, 2007). The purpose of these policies is to generate an understanding of which
schools Aboriginal students attend in order to support the schooling achievement goals of these youth and of their communities.

**Community Size and Parental Schooling**

Parental schooling levels provide an indication of the communities’ schooling needs. Whether youth continue on to post-secondary schooling, or join the labour market immediately after high school, every community has different perception of appropriate levels of schooling; levels that are required to obtain a job.

If parental schooling is independent of community size, then no relationship should be found. However, a significant relationship was found between community size and parental schooling, Pearson $\chi^2 (6, N = 1891) = 52.242, p = .000$, Cramér’s $V = .12$. To evaluate the proportional difference between pairs, follow-up pairwise comparisons were conducted. Using the Holm’s sequential Bonferroni method, to control for Type I error at .05 across all six comparisons, three of the six pairs were found to be significant: fewer than 3,000 and over 100,000 people; between 3,000 and 15,000 and between 15,000 and 100,000 people; and between 3,000 and 15,000 and over 100,000 people (see results in Table 11).
Table 11
Results for the Pairwise Comparisons Between Community Size and Parental Schooling

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson $\chi^2$</th>
<th>p-value</th>
<th>Required p-value for significance</th>
<th>Significance</th>
<th>Cramér's $V$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer than 3,000 people vs. Between 3,000 and 15,000 people</td>
<td>5.324</td>
<td>.070</td>
<td>.0167</td>
<td>NS</td>
<td>.07</td>
</tr>
<tr>
<td>Fewer than 3,000 people vs. Between 15,000 and 100,000 people</td>
<td>6.378</td>
<td>.041</td>
<td>.025</td>
<td>NS</td>
<td>.08</td>
</tr>
<tr>
<td>Fewer than 3,000 people vs. Over 100,000 people</td>
<td>21.085</td>
<td>.000</td>
<td>.05</td>
<td>*</td>
<td>.14</td>
</tr>
<tr>
<td>Between 3,000 and 15,000 people vs. Between 15,000 and 100,000 people</td>
<td>21.203</td>
<td>.000</td>
<td>.05</td>
<td>*</td>
<td>.16</td>
</tr>
<tr>
<td>Between 3,000 and 15,000 people vs. Over 100,000 people</td>
<td>44.930</td>
<td>.000</td>
<td>.05</td>
<td>*</td>
<td>.21</td>
</tr>
<tr>
<td>Between 15,000 and 100,000 people vs. Over 100,000 people</td>
<td>3.110</td>
<td>.211</td>
<td>.05</td>
<td>NS</td>
<td>.06</td>
</tr>
</tbody>
</table>

NS Not significant (null hypothesis accepted)
* Significant (null hypothesis rejected)

Figure 31 illustrates the relationships between community size and parental schooling. Findings show that among students whose parents had attended university, most students were likely to have been from communities with over 100,000 people, although most parents in this community size were likely to have had college or
vocational training. Students whose parents had college or vocational training were most likely to have attended schools in communities with populations between 15,000 and 100,000 people. Among students whose parents had a high school certificate or less, these students were most likely to have attended schools in communities with populations between 3,000 and 15,000 people.

*Figure 31. Community Size and Parental Schooling (%).*

Interestingly, the findings show that students whose parents had a high school certificate or less were least likely to have attended schools in communities with over 100,000 people. While the level of schooling that youth aspire to attain is greater than the general level of parental schooling, parental schooling may be an indication of patterns that will continue to emerge, albeit with more years of schooling. That is, while students are being prepared to pursue university and have aspirations that match the school’s programming, communities and the labour market may not have the available opportunities expected of them.
Recall the proportion of graduate destinations: 21% of schools sent the majority of their graduates to university; 11% of schools sent the majority of their graduates to college; 17% sent the majority of their graduates into the labour market without post-secondary schooling; and the remaining 51% of schools sent their graduates to university and/or college and the labour market equally. Given that community size has been found to be related with levels of schooling attainment (parental schooling and graduate destinations), it is possible that youths’ aspirations may be limited by the opportunities available to them outside of high school. Therefore, student programming and schooling aspirations may be barriers if the bars being set are too high and unattainable within the given time constraints proposed in the survey.

**Community Size and Parental Income**

As shown above, community size and parental income were related to schooling attainment. Although community size is not related with programs of enrolment, parental income is. Income has the capacity to create opportunities and constrain them. For wealthier families, their children were found to attend schools that were of supposed higher quality, while lower income families find their children attending schools of poorer quality. Indirectly, income acts as a barrier and prevents access for all youth to have the same opportunities. Indeed the community a family lives in may have been selected by choice, by available job opportunities, family ties, or it may be the only affordable option.

To test the relationship between community size and parental schooling a two-way contingency table analysis was conducted. The results demonstrate a significant relationship between community size and parental income, Pearson \( \chi^2 (6, N = 1950) = 29.725, p = .000, \) Cramér’s \( V = .09. \) Follow-up pairwise comparisons were conducted to evaluate the proportion of difference. The Holm’s sequential Bonferroni method was applied to control for Type I error at .05 across all three comparisons (see results in Table 12). Pairwise differences were significant for four of six pairs: fewer than 3,000 and between 15,000 and 100,000 people; fewer than 3,000 and over 100,000 people; between 3,000 and 15,000 and between 15,000 and 100,000 people; and between 3,000 and 15,000 and over 100,000 people.
Table 12

Results for the Pairwise Comparisons Between Community Size and Parental Income

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson $\chi^2$</th>
<th>$p$-value</th>
<th>Required $p$-value</th>
<th>Significance</th>
<th>Cramér's $V$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer than 3,000 people vs. Between 3,000 and 15,000 people</td>
<td>2.79</td>
<td>.247</td>
<td>.0167</td>
<td>NS</td>
<td>.05</td>
</tr>
<tr>
<td>Fewer than 3,000 people vs. Between 15,000 and 100,000 people</td>
<td>16.42</td>
<td>.000</td>
<td>.025</td>
<td>*</td>
<td>.13</td>
</tr>
<tr>
<td>Fewer than 3,000 people vs. Over 100,000 people</td>
<td>23.50</td>
<td>.000</td>
<td>.05</td>
<td>*</td>
<td>.15</td>
</tr>
<tr>
<td>Between 3,000 and 15,000 people vs. Between 15,000 and 100,000 people</td>
<td>6.09</td>
<td>.048</td>
<td>.05</td>
<td>*</td>
<td>.08</td>
</tr>
<tr>
<td>Between 3,000 and 15,000 people vs. Over 100,000 people</td>
<td>10.08</td>
<td>.006</td>
<td>.05</td>
<td>*</td>
<td>.10</td>
</tr>
<tr>
<td>Between 15,000 and 100,000 people vs. Over 100,000 people</td>
<td>0.27</td>
<td>.875</td>
<td>.05</td>
<td>NS</td>
<td>.02</td>
</tr>
</tbody>
</table>

NS Not significant (null hypothesis accepted)

* Significant (null hypothesis rejected)

Figure 32 demonstrates the relationships between community size and parental income. The findings indicate that across all community sizes, parental incomes were between $40 and $80 thousand. Students with parental incomes over $80 thousand were more likely to have attended schools in communities with populations over 100,000.
people. Students with parental incomes less than $80 thousand were most likely to have attended schools in communities with fewer than 3,000 people.

The probability that students with parental incomes over $80 thousand had attended schools in communities with over 100,000 people was about 1.7 times (.30/.18) and 1.4 times (.30/.22) more likely in relation to communities with fewer than 3,000 and between 3,000 and 15,000 people, respectively. Students with parental incomes between $40 and $80 thousand were nearly equally likely to have attended a school in any community size. The probability that students with parental incomes less than $40 thousand had attended schools in communities with fewer than 3,000 people was about 1.3 times (.32/.25 and .32/.24) more likely in relation to communities with between 15,000 and 100,000 people and over 100,000 people, respectively.

*Figure 32. Community Size and Parental Income (%).*

Parental income and community size have a significant relationship. The patterns indicate that parental incomes increase with the size of the community.
Recall that parental income had significant relationships with job aspirations, program of enrolment, and parental schooling. Students whose parents’ incomes were over $80 thousand were most likely to have aspired to be senior administration jobs, be enrolled in university-bound programs, and have attended schools in communities with over 100,000 people. Further regression analyses would be required to evaluate the relationship among the variables that have significant relationships with parental income.

**Summary of Socio-Economic Status Findings and Analysis**

As positioned in Chapter 4, post-secondary opportunities may be attainable for some, while unattainable to others. These differences may reflect a youth’s program of enrolment or the graduate destination trends at their school. In this chapter, socio-economic variables were incorporated to understand what factors may be related with aspirations and the likelihood of achieving these aspirations. Parental schooling, parental income, and community size were each compared in relation to schooling and job aspirations, program of enrolment, graduate destinations, and racial identity.

Across each socio-economic variable, significant relationships emerged for job aspirations. Where students had parents who had attended university, had parents with incomes over $80 thousand, or had attended schools in communities with populations over 100,000 people; these students were most likely to have had aspirations for senior administration jobs. If students had parents with a high school certificate or less, had parental incomes less than $40 thousand, or had attended a school located in a community with a population less than 3,000 people, then these students were most likely to have been enrolled in labour market-bound programs.

Parental levels of schooling and parental income had a significant relationship demonstrating that higher earnings correspond with higher levels of schooling. Interestingly, the proportion of parental schooling to programs of enrolment and parental income to programs of enrolment were relatively similar. That is, if parental incomes were over $80 thousand or parents had attended university, then students were most likely to be enrolled in university-bound programs. Also, if parental incomes were less
than $40 thousand or parents had a high school certificate or less, then students were most likely to be enrolled in college- or labour market-bound programs.

Community size had significant relationships with graduate destinations, racial identity, parental schooling, and parental incomes. The findings demonstrated that in communities with 15,000 people or less, schools were more likely to send their graduates onto distinct post-secondary paths, be it onto post-secondary schooling or directly into the labour market. Communities with populations over 15,000 people were more likely to have schools where the majority of graduates went on equally to post-secondary schooling and the labour market.

In relation to racial identity, Aboriginal youth were more likely to have attended schools in communities with fewer than 3,000 people. Visible Minority youth were most likely to have attended schools with between 15,000 and 100,000 people and Visible Majority youth were most likely to have attended schools in communities with over 100,000 people.

Parental schooling demonstrated that community sizes have different schooling patterns. Across all communities, parents were likely to have had college or vocational training. In communities with over 15,000 people, parents were most likely to have attended university, while in communities with fewer than 15,000 people parents were most likely to have had a high school certificate or less.

Similar patterns emerging for parental schooling were also found for community size and parental income. Most parents had incomes between $40 and $80 thousand and these incomes were found across all community sizes. Students whose parents had incomes over $80 thousand were most likely to have attended schools in communities with over 15,000 people, while students whose parents’ incomes were less than $40 thousand were most likely to have attended schools in communities with fewer than 15,000 people.

Further evaluations using multiple regression analyses could elaborate on questions emerging from these analyses. In particular, it would be interesting to understand why
community size does not have a significant relationship with program of enrolment. This relationship (or lack thereof) is interesting because of the significant relationships that community size has with racial identity, parental schooling, and parental income—three variables that have significant relationships with program of enrolment.

The findings suggest that contexts and outcomes of schooling are related to socio-economic factors. This is important because it addresses the premise of this research which has been to challenge whether public schooling offers equality of opportunity to all. While equality of opportunity may be an aspiration for public schooling in a democratic society, it does appear to offer different and unequal opportunities on the basis of race, gender, and class. In the concluding chapter, I will discuss the implications of these findings.
CHAPTER 7: CONCLUDING REMARKS

The rationale for this study was to understand the extent to which public schools create and constrain post-secondary opportunities on the basis of youths’ post-secondary aspirations. The analyses considered relationships between youths’ racial identity, gender, contexts of learning, socio-economic status, and aspirations. In particular, the study sought to understand whether contexts of schooling play a significant role in the outcomes of schooling among Aboriginal youth and their peers.

The following chapter intimates the patterns that emerged from the findings in Chapters 4 through 6. In the sections to follow the relationships and patterns that emerged from the findings are illustrated and recommendations for further research are provided. In the final section I provide insights as to the implications of this research for Aboriginal people in public schooling.

Discussion of the Findings

Aspirations among 15 year olds were overwhelmingly ambitious. Most youth reported having aspirations for jobs that they believed required one university degree or more. Schooling aspirations had a consistently high response rate for university aspirations; allowing for little variance when compared with other variables. That no significant relationships were found presents a paradox. On the one hand, schooling aspirations suggest that youth are being presented with the same information regarding the importance of post-secondary schooling, and it is not biased by race, gender, or class. On the other hand, schooling aspirations do not yield relationships based on a youth’s program of enrolment or their school’s graduate destinations. This is concerning because not all youth may be eligible to meet their aspirations, particularly if the program they are enrolled in limits their post-secondary opportunities. I believe that this disconnect suggests that youth want (what might be perceived as) what is best, and may be misinformed about what is possible for them to achieve, given the constraints of their schooling and social realities. Further, the data does not allow for comparisons between youth’s aspirations and expectations. Nor does the data allow for interpretations.
regarding what youth believe is attainable and what barriers they may face given their perceived circumstances.

It is unclear how youth distinguish between job-related schooling aspirations and schooling aspirations as an entity in its own right. Job aspirations were the primary interest of the YITS and PISA surveys and provide interesting patterns in relation to gender, parental schooling, parental income, and community size. Youth who aspired for senior administration jobs were most likely to be female, have parents who had attended university, have parents with incomes over $80 thousand, and have attended schools in communities with over 100,000 people. Conversely, youth who aspired for administration and skilled labour jobs were most likely male, have parents who had a high school certificate or less, have parents with incomes between $40 and $80 thousand, and have attended schools in communities with fewer than 15,000 people. The findings are not surprising because they indicate a gender bias for males to pursue skilled labour jobs. Youth, whose parents’ incomes are over $80 thousand, might have job aspirations for senior administration because these match what they see of their parents or the pursuit of senior administration jobs might be expected of them from among their family and peers. The same could be true of youth who aspired for administration and skilled labour jobs. Youth may have been aspiring to these roles given their interpretation of social cues for these futures. The findings call to question the likelihood that youth, who are divided along socio-demographic lines, will achieve their aspirations or be met with barriers to achieve their aspirations.

While youths’ aspirations are in line with government rhetoric calling for all people to increase their schooling attainment levels to post-secondary qualifications, this may not be possible for a number of reasons, two of which are discussed here: programming and capacity to fulfill demands. Although the majority of students are enrolled in programs that prepare them for university, questions are raised when the proportion of graduates who go on to university appears to be much less than the proportion of students who are being prepared to go on to university. Therefore, youth are being prevented from attaining their aspirations based on the program they are enrolled in at the secondary level. Youth who are enrolled in labour market programs may not be eligible to apply to
post-secondary institutions as they may not have completed the pre-requisite college and university courses required for admission. While youth enrolled in college-bound programs may be eligible for admission to college (a post-secondary institution), university is the most desired post-secondary schooling aspiration among.

Second, even though there is a push to engage more individuals in post-secondary schooling, post-secondary institutions may not have the capacity to accept all eligible candidates. It is possible that public schooling systems are not investigated as locations of barriers to access to post-secondary schooling is because public schools prepare the majority of its students for post-secondary schooling. Therefore, the responsibility of access to post-secondary schooling gets pushed away from public schools and on to individuals and post-secondary institutions to remedy. However, findings from previous research have indicated that public schools have different relationships with specific universities, whereby so-called better quality high schools send their graduates to the best universities (Frenette, 2007).

Interestingly, programs of enrolment had significant relationships with racial identity, gender, parental schooling, and parental income. Youth enrolled in university-bound programs were most likely to be Aboriginal, female, with parents who had attended university, and parents with incomes over $80 thousand. Notably, Aboriginal youth were most likely to be enrolled in programs preparing for university, while Visible Majority youth made up the highest proportion of students in college- and labour market-bound programs. The findings are surprising given that the literature indicates that Aboriginal people are being inadequately prepared to pursue post-secondary schooling (Weenie et al., 2003).

Similarly, significant relationships were found between identity and graduate destinations. Interestingly, Visible Minority youth were more likely to attend schools where the majority of graduates went on to post-secondary schooling, whereas Aboriginal and Visible Majority youth were more likely to attend schools where the majority of graduates went on to directly enter the labour market. Therefore, in schools with Aboriginal respondents, Aboriginal and Visible Majority respondents were found to be
more similar than different. This finding counters most studies that I have come across that compare Aboriginal with non-Aboriginal peoples. Research is more likely to show inequality, whereby Aboriginal people are disadvantaged in relation to non-Aboriginal people. The findings may be an indication of the relationship between race, class, and outcomes of public schooling. For future studies, researchers may be interested in comparing the outcomes of youth who attend schools with Aboriginal students with the outcomes of youth who attend schools where there are no Aboriginal students. If the findings differ, then a gap in schooling outcomes between Aboriginal and non-Aboriginal youth may be related to racial composition of the school, residence, and school quality. If there is no difference in outcomes, then it is possible that research comparing Aboriginal and non-Aboriginal people is not comparing like groups and are likely to be demonstrating a gap between schooling outcomes of Aboriginal people who attend schools on reserve versus youth who attend schools off reserve. However, further research is required to test this hypothesis.

Community size played a significant role in determining the probability of racial identity, parental income, and job aspirations. The findings demonstrate that youth with Aboriginal identities were most likely to have attended schools in communities with fewer than 3,000 people, while Visible Minority youth attended schools in communities of 15,000 to 100,000 people, and Visible Majority youth attended schools in communities with 3,000 to 15,000 people and over 100,000 people. The findings are interesting because the majority of Aboriginal people in Canada are indicated as living in urban centres (O’Donnell & Ballardin, 2006). In this study, however, Aboriginal people are most represented in communities with fewer than 3,000 people. It is possible that the higher number of Aboriginal youth attending schools in smaller communities is indicative of the proportion of youth who live on reserve, and who commute to attend public high schools in small rural communities, off reserve. It is worth noting that while no significant relationships emerged between community size and program of enrolment (the majority of all community sizes had students enrolled in university-bound programs), Aboriginal youth were most likely to be enrolled in programs preparing for university. Further research is needed to understand this pattern of Aboriginal youth attending
schools in smaller communities and outcomes among Aboriginal youth who were enrolled in university-bound programs.

Graduate destinations were also found to have a significant relationship with a school’s community size. That is, in communities with over 15,000 people, the majority of graduates were more likely to have equally gone on to post-secondary schooling and the labour market as opposed to one or the other. In communities with fewer than 15,000 people, the majority of graduates were more likely to have gone on to post-secondary schooling, and in communities with fewer than 3,000 people the majority of graduates were more likely to have gone on to enter the labour market. In the literature review, location of the school was found to be an important indicator of the quality of a school and subsequent outcomes of students. Distinct patterns of graduate destinations were found among schools in smaller communities. It is possible, therefore, that those students who attended schools where the majority of graduates went on to enter the labour market may follow in their peers’ footsteps. In a public schooling system patterns of graduate destinations should not be emerging across schools. Do graduate destinations provide markers of a school’s ethos and the likelihood of students’ destinations year upon year? Further studies with regression analyses could elucidate relationships between aspirations, school programming, and graduate destinations over time to determine whether patterns of outcomes emerge across schools.

**Recommendations for Future Research**

Notably, no significant differences were found among racial identities and their schooling outcomes. Much of the research that compares Aboriginal with non-Aboriginal people suggests that differences exist, however these findings were not confirmed in this study. It is possible that this reflects the methodology of the study, which was to exclude all schools that did not have Aboriginal respondents. Further research incorporating schools without Aboriginal students may lead to different findings. If findings show that there are differences across schools, distinguished by racial identity, then there may be grounds to suggest that public schooling systems are discriminatory.
A discord also appears to be emerging between youth’s aspirations and the capacity for public schools to match these aspirations by providing programming that will enable youth to achieve their aspirations. Additional concerns question the capacity of post-secondary institutions and the labour market to fulfill the aspirations of youth. While universal academic and vocational programming and subsequent access to post-secondary schooling may be possible, universal senior administration jobs may not be possible. Therefore, this study has led me to ask why youth aspire to senior administration jobs and why do they believe that their job aspirations require one university degree or more? Researchers may be interested in investigating what makes senior administration so appealing to youth and whether these job aspirations reflect societal pressures to be ‘successful’ and what does being successful mean to youth? Another question asks whether the appeal for more schooling reflects society’s valuing of learning and a thirst for knowledge or a valuing of certification and staying competitive in a highly qualified and certified labour market?

Further, it would be interesting to understand whether youth perceive a difference between job-related schooling aspirations and schooling aspirations as entities on their own. The present study suggests that there is a difference. This was shown by a response from the question asking youth to indicate whether they expect to graduate from high school and the proportion of respondents who believe that the job they aspire to requires a high school certificate or less. While youth might assign a particular level of schooling to a job, this level of schooling might be separate from their non-job-related schooling aspirations. Qualitative research would help to understand this discord in the meaning of schooling aspirations among youth, contributing to improving survey methodological design and analysis.

I would recommend that analyses, which intend to understand systemic inequality in public schooling, continue to develop on the question of how schools create and constrain students’ access to post-secondary opportunities. In particular, it would be interesting to understand the different schooling contexts that may be related with graduate destinations. Schools may be distinguishable on the basis of which universities, colleges, training experiences, and employment opportunities that graduates pursue.
immediately after high school. Patterns that emerge would indicate further hidden and systemic barriers related to unequal schooling outcomes.

Additional comparisons across schools could assess the propensity of schools to see their graduates go on to post-secondary institutions. It would be particularly interesting to investigate the extent to which schools, where the majority of programming is geared towards preparing youth for university and/or college, send their students to university and/or college. Where patterns emerge, the analyses might develop additional interpretations for why youth choose not to pursue post-secondary schooling and what barriers prevent youth from gaining access when they have intentions to pursue post-secondary schooling. Longitudinal analysis between aspirations and schooling and occupational outcomes would allow for a better understanding of the decisions that youth make once they leave high school.

Most importantly, the discussion regarding differential treatment and unequal outcomes from public schooling needs to continue. What is happening in schools where the majority of programming is intended to prepare youth for direct entry into the labour market and where the majority of graduates go on to enter the labour market? As the majority of youth had schooling aspirations for university degrees, public schools should be catering to this request and prepare youth for any post-secondary opportunities. Youth should have access to academic, trade, vocational, and general labour market training. While these programs are offered, they do not form part of a composite curriculum. Instead these programs are streams within schools. One interpretation of the history of streaming as related to academic and vocational training (provided in the literature review) suggests that streaming is inherently biased towards sorting youth into social categories. Why must some of our youth be limited and why should the public schooling system be the catalyst which determines who goes on to which post-secondary opportunities?

Further, the integration of national and international educational assessment tools (YITS and PISA) allow for findings from these analyses to inform international comparative research. Using these surveys in tandem allows for variables, such as the
racial identity and schooling aspirations variables found in YITS, to be incorporated with PISA. International comparative racial analyses would help demonstrate the extent to which contexts of schooling, schooling opportunities, and outcomes might differ among racial identity groups. An international analysis might offer insights regarding the extent to which structures of schooling are systemically unequal. Having international and local research is important as these all play significant roles in informing educational policy and reform. Having a study that will contribute to multiple stakeholders and levels of decision-making is important for advocating that all people have fair and equitable treatment in order to be self-determining.

Final Thoughts

The study demonstrates that contexts of learning do play a role in influencing the post-secondary aspirations and opportunities of Aboriginal youth. Aboriginal youth were most likely to be enrolled in university-bound programs. In relation to the proportion of aspirations for university, Aboriginal youth appear to be well placed to achieve their schooling aspirations. This study illustrates that Aboriginal youth attending public schools have equal (if not greater) opportunity to achieve their post-secondary aspirations in relation to their non-Aboriginal counterparts. When looking at the proportion of Visible Majority youth who had aspired for university and who were enrolled in university-bound programs, these youth may be constrained by their program stream and not be able to fulfill their aspiration potential.

A heavy social value is placed on university certification. Youth who do not obtain a high school certificate may be left behind if the trend for schooling continues to be upgraded. In previous research, Aboriginal youth have been found to have high drop out rates. However, their aspirations indicate a desire for many more years of schooling and their programs of enrolment suggest that their aspirations are possible. The implications of this research suggest that Aboriginal youth attending public schools have greater opportunities to pursue any post-secondary opportunity they choose. Among the youth who are enrolled in university-bound programs, youth have a choice regarding their post-secondary pathways, whereas these choices are limited for youth enrolled in college- and labour market-bound programs. Furthermore, some youth are being deprived of accessing
the same post-secondary opportunities as their peers. However, if studies continue to
generate findings indicating lower attainment rates for Aboriginal students relative to
Visible Minority and/or Visible Majority students, then it is possible that discriminatory
barriers exist, although elsewhere in the school-to-work transition. Further research is
needed to understand the discrepancy between the findings of previous research
indicating a schooling gap with findings from the present study to develop a better
understanding of the role context plays in influencing youths’ experiences, interests, and
outcomes.

Finally, while the situation for Aboriginal youth is generally better than previous
research suggests, it does not diminish the observation that some youth do not have an
equal opportunity to pursue the same post-secondary pathways as their peers. To continue
to legitimate the unequal treatment of our youth is not democratic, it is not fair, and
should not be tolerated of our public schooling systems.
REFERENCES


