Parental Socioeconomic Status and Students' Postsecondary Educational Attainment: Exploring the Mediating Role of Students' Participation in Extracurricular Activities During High School

by

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Abstract

"An investment in knowledge always pays the best interest" (Benjamin Franklin). Benjamin Franklin's cogent observation continues to hold true in North America. Postsecondary educational attainment is a consistent and reliable indicator of an individual's wellbeing in adulthood (Ermisch & Pronzato, 2010). In light of this, Canadian educational policies emphasize inclusiveness and equity (Alberta Education, 2017), however, despite efforts to equalize in-school conditions for students, the OECD reports that 9.4% of Canadian students' mathematics performance is determined by their socioeconomic status (OECD, 2015). These differences are further exacerbated at the postsecondary level, where rates of attainment and types of degree pursued differ greatly between students of different socioeconomic backgrounds (Krahn, 2017; Finnie & Mueller, 2008). It is important, therefore, to examine factors that allow for this relationship to persist, such as extracurricular activity participation.

This study explores the mediating role of extracurricular activity participation in high school (at age 18) on the relationship between parental socioeconomic status and students' postsecondary educational attainment at age 25. I use data collected for the *Alberta High School Graduate Survey (1996) and Follow-up Survey (2003)* by Dr. Harvey Krahn and the Population Research Laboratory at the University of Alberta to examine the effect of students' extracurricular participation in high school on their postsecondary educational attainment using structural regression modeling techniques. This study delineates activities by type, into high-, mid-, and low- brow activities, as prior research conducted in the United States has indicated that such factors might influence the focal relationship (Guest & Schneider, 2003; Schreiber & Chambers, 2002).

I use Bourdieu and Passeron's (1990) theory of social and cultural reproduction in education to examine the role of participation in extracurricular activities in facilitating the greater postsecondary educational attainment of students from high socioeconomic backgrounds. I also use Lareau's (2002) model of the concerted cultivation parenting style to explain the ways in which high socioeconomic status is linked to high socioeconomic students' greater extracurricular participation. In this study, I did not find a mediating effect of different types of extracurricular activities, high- and mid- brow activity participation, on the focal relationship between parental socioeconomic status and respondents' postsecondary educational attainment. Results, however, indicate higher levels of participation in both high- and mid- brow activities among students from higher socioeconomic status families. Furthermore, I found a direct relationship between greater high- and mid- brow activity participation at age 18 and respondents' higher educational attainment levels at age 25. I discuss implications of these findings and recommendations for future research.

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Table of Contents

List of Tables

List of Figures

Chapter 1
Introduction

Overall levels of postsecondary educational attainment in Canada are on the rise. Higher education is increasingly becoming the norm due to a greater demand for educational credentials in the labour market (Goyette, 2008). This increase, however, has been accompanied with greater differences in the postsecondary educational attainment levels of students from high and low socioeconomic status (SES) backgrounds (Davies, Cyr, Rizk, & Janus, 2016). Students from low-SES backgrounds are less likely to pursue higher education than their high-SES peers (Finnie & Mueller, 2008). This rise in educational disparities is particularly alarming as numerous policies and programs have been introduced to reduce such gaps (Krahn, 2017). In 2016, the Ontario provincial government announced completely subsidized tuition for students with an annual family income of less than $50,000 (Office of the Premier, 2017), a policy move that has stimulated discussion regarding the accessibility and affordability of education. This initiative is premised on the belief that low-SES students' lower levels of postsecondary educational attainment are due to their lack of economic resources. Moreover, it is situated in the belief that low-SES students do not participate in postsecondary education even when government assistance is available due to the structure of the postsecondary assistance program in Canada.[1] Research, however, suggests that SES manifests in many other ways to facilitate or limit students' access to education (Dandy & Nettelbeck, 2002; Garner & Raudenbush, 1991; Goux & Maurin, 2007).

In order to create a more equitable society, one must explore factors that disadvantage certain individuals over others. One such factor is higher education. It is necessary to examine sources of educational disparities since levels of educational attainment are strongly correlated with individuals' health, occupational choices, labour market positions, and quality of life in adulthood (Ermisch & Pronzato, 2010). Furthermore, social theorists, such as Brown (2015),

[1] Provincial and federal financial assistance is available to low-SES students pursuing postsecondary education in the forms of loans, grants, and bursaries in Canada. Under the previous assistance program in Ontario, grants and bursaries would be applied to loans taken out by students at the end of the fiscal year in order to reduce economic burden on economically disadvantaged students. The new subsidized tuition program will provide these grants and bursaries at the start of the academic year therefore reducing the upfront loan amount (Csanady, 2016).

argue that education is a source of "a vastly enlarged view of and encounter with the world—its diverse peoples, sciences, languages, literatures, and histories" (p. 187). Brown (2015) also argues that higher education plays an important role in facilitating and promoting informed political participation and the maintenance of democracy. Thus, it may be argued that socioeconomic disparities in educational attainment not only impact individual knowledge, skills, and networks, but also shape broader social and cultural contexts.

In North America, postsecondary education, unlike elementary and secondary education, is not compulsory or universally funded (Ontario Ministry of Education, 2017). Therefore, students' decisions and ability to acquire postsecondary education may be strongly impacted by their family's resources. Concurrent with the intensifying inequalities in postsecondary educational attainment in Canada, there have been increasing disparities in the financial resources that parents invest in their children's out-of-school learning (Davies et al., 2016), which in turn affects their children's ability to access higher education. A family's SES is highly correlated with its children's academic achievements (as compared to attainment), suggesting that an intergenerational transfer of educational and economic advantage exists. For example, parent's educational levels (an often used indicator of family SES) influence their offspring's educational levels and labour market positions in adulthood (Ermisch & Pronzato, 2010; Krahn, 2017). Educational levels, in turn, are an important indicator of intergenerational economic mobility, that is, a change in economic class position across generations.

Several prior studies, exploring a variety of mediating variables, have examined the relationship between parental SES and children's academic achievements. Mediating variables, in the context of this study, refer to intervening variables that account for part of the focal relationship. Some persistent and significant mediators of the relationship between parental SES and students' educational achievements include neighborhood resources, school conditions, students' aspirations, and in-home educational resources (Dandy & Nettelbeck, 2002; Garner & Raudenbush, 1991; Goux & Maurin, 2007). An equally interesting mediator of this relationship is participation in extracurricular activities, which encompass children's formal and informal pursuits outside of the formal schooling system. Extracurricular pursuits include activities such as in-school academic clubs, team sports, music instruction, dance classes, and student leadership

groups. This thesis focuses on such extracurricular activities. They are a noteworthy subject of educational stratification research as they are potential sites of educational policy and programme development that could help equalize conditions for students from socioeconomically disadvantaged backgrounds.

Thesis Outline

I begin this thesis with a review of prior literature and research on extracurricular activity participation and educational achievement (cf. Chapter 2). Chapter 2 includes a review of the theoretical frameworks used in this study, which include Bourdieu and Passeron's (1990) theory of cultural reproduction in education, Lareau's (2002) examination of parenting styles and differences in children's leisure time activities, and Chan and Goldthorpe's (2005; 2007a; 2007b) omnivore-univore hypothesis of cultural consumption. I end this chapter with an outline of my research questions and hypotheses.

In Chapter 3, I give details regarding the data, sampling methods, sample characteristics, construct operationalization, and statistical methods I used for this study. Chapter 4 presents the results of the quantitative analysis, starting with results from bivariate analysis and confirmatory factor analysis and ending with results from the structural regression modelling. In Chapter 5, I discuss my findings and make recommendations for future research.

Chapter 2
Theoretical Framework and Literature Review

The following chapter reviews the theoretical frameworks for this study. It also provides an overview of prior studies on and related to the topic of interest. The chapter closes with a discussion of my motivations for conducting this study and a detailed description of the research questions and hypotheses.

2.1 Cultural Reproduction Model

Bourdieu (1984) expands the concept of capital from the realm of economics to encompass the cultural and social domains. Bourdieu and Passeron (1990), in their book *Reproduction in Education, Society and Culture*, examine the way in which formal education and schools function as sites for reproducing inequalities. They contend that educational institutions are cultural fields that facilitate the intergenerational transfer of cultural capital. Cultural fields, for Bourdieu (1984), refer to contexts where individuals are able to use their cultural capital to gain social advantage. Cultural capital "refer[s] to [knowledge that an individual or class group possesses which permits them to recognize and partake in] tastes, objects, or styles validated by centers of cultural authority" (Mohr & DiMaggio, 1995). Upper-class cultural capital is thus identified and legitimized by its own consumers, which Bourdieu and Passeron (1990) contend includes school teachers. They further argue that upper-class cultural capital is recognized and rewarded by teachers within the formal schooling milieu (Dumais, 2002), and consequently has a direct impact on children's achievement. Not only is such cultural capital informally rewarded by teachers, it is also rewarded via the curricular requirements in schools and higher educational institutes (Dumais, 2006).

Indicators of cultural knowledge, however, are not simply overt displays of tastes and abilities. They are also embodied within the individual in the form of habitus. Habitus "is a product of history, produces individual and collective practices…in accordance with the schemes of past experiences, which deposited in each organism in the form of schemes of *perception, thought and action…"* (Bourdieu, 1990, p. 54; *emphasis added*). Therefore, habitus signals an

individual's ability to partake in a particular cultural field, while simultaneously signaling their inability to participate in other fields where they lack the required cultural capital. By doing so, habitus also restricts individuals from traversing between cultural fields. The marriage of habitus and cultural fields (the objective and the subjective) allows for inequalities to become "durably inculcated" and defines individuals' "possibilities and impossibilities, freedoms and necessities, opportunities and prohibitions" (Bourdieu, 1990, p. 54). This combination produces beliefs and practices that function at a larger scale to shape social and cultural domains, and produce systemic inequalities, including those in the educational milieu.

2.2 Models of Parenting

Lareau's (2002) model expands the concepts presented by Bourdieu and Passeron (1990) to highlight distinct types of parenting models adopted by parents from different SES backgrounds. She contends that these differences in styles are a product of their opposing views on parenting and its role in child development. These parenting models not only impact parents' decisions regarding their children's formal education but also influence their choices about their children's leisure time use and extracurricular activity participation. High-SES parents, according to Lareau (2002), adopt the parenting model of *concerted cultivation*, which encourages the development of children's skills via their leisure time activities. These leisure time activities are composed of lessons and classes that are geared towards developing and refining children's skills. Such activities require large investments of time and money by parents and therefore are limited to students who come from economically advantaged families. These factors restrict the ability of individuals from other classes to access socially desirable cultural capital. Moreover, high-SES parents' own participation in and knowledge of valued cultural capital allows them to recognize its importance for their children's educational success. These factors limit low-SES parents' ability to transfer such capital to their children and effectively contributes to the social value placed on upper-class cultural capital.

On the other hand, Lareau (2002) claims that low-SES parents adopt the *accomplishment of natural growth* model of parenting. The main premise of this model is providing children with the basic necessities for life (that is, food, shelter, clothing) and allowing them to develop skills

through independent and largely unguided exploration. This model of parenting requires small or no investment of time and money from parents. Under this model of parenting, organized activities are not greatly valued as sources of children's skill development. Therefore, low-SES children's leisure-time pursuits are more likely to include activities such as playing with friends, watching television, and interacting with siblings. These leisure time activities, in contrast to those provided by high-SES parents, tend to be unstructured and informal. They differ not only in quality but also in type. As the focus of high-SES parents is to develop their children's skills, they enroll their children into activities where such skills can be polished, for example music or art lessons, dance classes, or out-of-school subject lessons. These varying views on parenting, Lareau (2002) claims, equip children from high- and low- SES backgrounds with different resources to use in their interactions with teachers at school. Subsequently, teachers view high-SES students' interaction styles —which make use of greater vocabulary, negotiation skills, and inquiry— as evidence of superior performance and knowledge. Teachers function as gatekeepers to upper-class culture by formally and informally rewarding the presence of this knowledge through higher grades, positive feedback, and increased attention.

2.3 Omnivore-Univore Hypothesis

Chan and Goldthorpe's (2005; 2007a; 2007b) omnivore-univore argument simultaneously opposes and complements Bourdieu's (1984) theory of cultural consumption. The omnivore-univore argument opposes Bourdieu's theory in that it asserts that individuals from advantaged backgrounds are more likely to be cultural omnivores – that is they are more likely to consume all types of cultural activities (high-, middle-, and low- brow) – while those from disadvantaged backgrounds are more likely to be cultural univores – that is they partake in only middle-/low-brow cultural activities. In contrast, Bourdieu (1984) contends that individuals from advantaged backgrounds are more likely to consume only high-brow activities and distinguish themselves by avoiding low-brow activities. The omnivore-univore argument complements Bourdieu's theory of cultural reproduction as it still provides a mechanism through which high-SES individuals acquire more valued cultural capital than low-SES individuals. In addition, Chan and Goldthorpe's (2005; 2007a; 2007b) argument provides a theoretical framework for the contemporary context where internet technologies and personal computing devices have altered

methods and channels of consumption and allowed for mass consumption of music and the arts.

Chan and Goldthorpe (2005; 2007a; 2007b) conducted a series of empirical studies to examine consumption of visual arts, music, and theatre attendance in the contemporary context. Chan and Goldthorpe (2007a) find support for the omnivore-univore hypothesis in their examination of music consumption in the U.K. Chan and Goldthorpe (2005) report similar findings in their study of theatre, dance, and cinema performance attendance. In their study on visual arts participation, in contrast, they are unable to identify a clear univore category; rather, they argue that this category is replaced with an "inactive" category, a category of individuals who simply do not participate in any form of the visual arts (Chan & Goldthorpe, 2007a).

2.4 Socioeconomic Status and Access to Extracurricular Activities

Prior studies have established that access to and participation in extracurricular activities is unequally distributed across students from differing SES backgrounds. Students from low-SES backgrounds have less access to extracurricular activities compared to those from high-SES backgrounds (Dumais, 2006; Covay & Carbonaro, 2010; Stearns & Glennie, 2010; Weininger, Lareau, & Conley, 2015; White & Gager, 2007). Furthermore, the type and quality of extracurricular activities in which children from different SES groups participate varies greatly. Low-SES families rely heavily on community and school resources to provide extracurricular activities, while students from high-SES backgrounds have greater access to and make greater use of privately funded extracurricular activities, such as individual music lessons and dance instruction (Bennett, Lutz, & Jayaram, 2012). Private extracurricular activities provide knowledge that is essential for children's participation in upper-class culture [2] (DiMaggio, 1982). This disparity in access is essential to Bourdieu's concept of cultural reproduction. Bourdieu and Passeron (1990) argue that by limiting and restricting access to certain types of cultural activities, high-SES parents are able to restrict transfer of upper-class cultural capital to only their children. Moreover, high-SES parents' own knowledge and engagement in upper-class culture allows them to identify extracurricular activities that would provide their children with

[2] For the purpose of this project, upper-class culture refers to cultural activities undertaken by and knowledge available to high- and mid- SES families. Therefore, high-/mid- SES is used interchangeably with upper-class and middle-class. Low-SES will be used interchangeably with lower- and working- class.

culturally valued forms of capital.[3]

Although various in-school programs have been implemented to reduce the disparity in students' extracurricular activity participation, schools are still unable to equalize the gaps between low- and high-SES students' participation (Weininger et al., 2015). Dumais (2008) found that high-SES students were more likely than their low-SES peers to partake in school-funded activities. When examining inter-school differences, Stearns and Glennie (2010) found that schools with larger proportions of low-SES students had lower availability of extracurricular activities. This may be due to the greater economic strain on low-SES neighborhoods, where economic resources that would normally be allotted to children's extracurricular activities are redirected to other community needs, such as housing or infrastructure. Furthermore, differences not only exist among the quantity of extracurricular activities that students have access to but also among the quality and types of extracurricular activities students have access to (White & Gager, 2007). Bennett, Lutz, and Jayaram (2012) argue that the advantages of in-school activities are greater for low-SES students because it is their only source of such activities. Alternatively, high-SES students receive less benefits from in-school activities because they are able to access better quality resources outside of schools.

2.5 Extracurricular Activities and Educational Attainment

Disparities in students' extracurricular participation, both in-school and out-of-school activities, are also strongly correlated with differences in students' academic performance. A positive relationship exists between in-school extracurricular activity participation and students' grades (Dumais, 2009; Eccles, Barber, Stone, & Hunt, 2003; Schreiber & Chambers, 2002; Shulruf, 2010). Out-of-school, non-academic extracurricular activities, such as sports and music, also have a positive effect on students' grades (Broh, 2002; Jordan, 1999; Miksza, 2007). Moreover, time spent in extracurricular activities is proportionally related to students' academic achievement, that is, increased time spent in extracurricular activities is associated with a larger

[3] This project will be modeled on the assumption (in line with that made by Bourdieu and Passeron (1990) and Lareau (2002)) that upper-class culture is socially and culturally rewarded in the Western context. However, this paper does not make any claims regarding the superiority of upper-class culture or activities over lower- or working-class culture and activities.

positive effect on students' academic performance (Cooper et al., 1999).

One possible explanation for this relationship may be that greater allocation of leisure time to structured and formal extracurricular activities indicates that students have less time to spend in other, less culturally-valued activities, such as engaging in socially deviant behaviors, watching television, or spending time— "hanging" out —with friends (Dumais, 2008; McNeal, 1995). Moreover, participation in extracurricular activities provides greater opportunities for students to acquire cultural capital that is most rewarded in schools **(**Fletcher, Nickerson, & Wright, 2003). In contrast, greater time spent in unstructured leisure time activities is correlated with lower student grades (Dumais, 2008). This may be due to students acquiring socially sanctioned cultural capital from these activities, which is in turn penalized in the formal schooling environment. The differential effects of various extracurricular and leisure time activities, therefore, warrant an analysis of the types of activities that are most beneficial for students' academic success.

2.6 Factors affecting Extracurricular Activity Participation

Several factors have previously been determined to have an effect on students' extracurricular activity participation. For example, gendered norms for appropriate activities may shape extracurricular activity participation of male and female students. Among Canadian youth, female students are more likely to partake in community-based, non-sports activities, and school clubs than their male peers (Guèvremont, Findlay, & Kohen, 2008). Moreover, female students are also more likely to be involved in a greater variety of activities than their male peers. Feldman and Matjasko (2007) report that female students are more likely to participate in diverse extracurricular (sports-, community-, and school- based) activities than their male peers, who are more likely to be involved in only sports-centered activities.

Likewise, immigrant and visible minority status have also been reported to have an effect on students' extracurricular activity participation. Studies have found lower levels of extracurricular activity participation among immigrant and minority students (Okamoto, Herda, & Hartzog, 2013). Upon deeper examination, however, Okamoto et al. (2013) discovered that

particular factors shape immigrant students' participation, for example, high-SES schools are more conducive to immigrant students' participation when there is a large proportion of immigrant students at the school. The trend is reversed for low-SES schools, where a larger proportion of immigrant students signals lower levels of participation among them. Visible minority status too has been found to have an effect on which activities students participate in. For example, Peguero (2011) found Latino first-generation immigrant students are less likely to be involved in school-based and sports activities than their White peers. In contrast, Asian American first-generation students are more likely to be involved in school-based extracurricular activities but less likely to be involved in sports than their White peers (Peguero, 2011). Like gender, immigrant and visible minority status may also shape individuals' participation through societal norms and stereotypes regarding appropriate activities. Additionally, immigrant students' activities may be shaped by norms of their home culture, which may be different from the host/dominant culture.

Finally, students' community size and locale, urban, suburban, or rural, has also been found to have an effect on their extracurricular activity participation (Feldman & Matjasko, 2007; Guévremont et al., 2008). Although Feldman and Matjasko (2007) report that rural students in the U.S. were more likely to be involved in extracurricular activities than their urban peers, among Canadian youth participation rates were found to be greater for urban youth than their rural counterparts (Guévremont et al., 2008).

2.7 Socioeconomic Status and Postsecondary Aspirations

Another possible explanation for the relationship between extracurricular activity participation and greater academic achievement may be that students involved in extracurricular activities have higher postsecondary aspirations (Marsh, 1992; Shulruf, 2010). Like extracurricular activity participation, prior studies indicate a strong positive association between parental SES and students' aspirations (cf. Bowden & Doughney, 2010; Dupriez, Monseur, Van Campenhoudt, & LaFontaine, 2012; Gil-Flores, Padilla-Carmona, & Suárez-Ortega, 2011, Goyette, 2008; Majoribanks, 2003; Signer & Saldana, 2001). Dupriez et al. (2012), in their examination of family SES background and students' postsecondary aspirations across OECD countries, found

that this relationship persists across countries despite controlling for students' prior educational achievements and the social or cultural composition of schools. Moreover, higher levels of parental education have a stronger positive effect on students' educational aspirations than their prior school achievements (Gil-Flores et al., 2011). Parents may serve as role models for students in terms of academic aspirations and achievement. Parents in turn may also influence their children's aspirations through their explicit or implicit expectations. Likewise, a positive association exists between higher parental SES and greater student aspirations for attending university (Bowden & Doughney, 2010). Students may use their parents' educational achievements as measures for their own educational aspirations and achievement.

2.8 Postsecondary Aspirations and Educational Attainment

Prior studies have also established a relationship between students' postsecondary aspirations and their future postsecondary achievement (Bowden & Doughney, 2010; Buchmann & Dalton, 2002; Edgerton, Peter, & Roberts, 2008; Khattab, 2015). Higher aspirations for school achievement are positively linked to students' decisions to apply to higher education programs (Khattab, 2015). Furthermore, students' postsecondary aspirations are positively associated with their parents' occupation and education. These greater aspirations in turn result in higher levels of educational attainment (Majoribanks, 2003).

2.9 Factors affecting Postsecondary Aspirations

Several factors influence the relationship between parental SES and students' aspirations, including gender, community size, and ethnic/visible minority status. While Williams (1972) found male students had higher aspirations than their female peers, more recent studies (cf. Cooper, 2009; Gil-Flores et al., 2011; Krahn & Taylor, 2005) suggest a reversal of this trend. For example, Krahn and Taylor (2005) discovered that female visible minority students have greater postsecondary aspirations when compared to their male counterparts. This shift in male and female students' aspirations may be a product of shifting gender norms and women's greater participation in the workforce. Region and geographic location also effect the relationship between parental SES and aspirations. Rural students, particularly those living on farms, have lower postsecondary aspirations (O'Neill, 1981). A lack of desired programs or courses at local

universities and the complete absence of local universities have a negative effect on rural students' postsecondary plans. Similarly, physical distance of postsecondary institution and the need for relocation also negatively influence rural students' postsecondary aspirations (Wilks and Wilson, 2012). However, even when universities are located near rural communities, rural students' postsecondary aspirations remain lower than their non-rural peers (Andres & Looker, 2001). Students' ethnic and visible minority status is also associated with higher postsecondary aspirations (Krahn & Taylor, 2005; Majoribanks, 2003). Greater levels of education among parents of visible minority students and the threat of discrimination in the labour market, due to visible minority status, may be partly responsible for these effects (Krahn & Taylor, 2005).

Research Significance and Research Questions

Existing research that examines the role of extracurricular activity participation on individuals' educational attainment in North America has mostly been conducted in the United States (U.S.). Thus far, few studies have examined the Canadian context (for recent examples, cf. Davies & Aurini, 2013; Lagacé-Séguin & Case, 2008). Due to Canada's distinct economic, politico-social, and historical fabric, I argue the Canadian educational context must be investigated. The Canadian postsecondary educational milieu is drastically different from the U.S. context. First, Canadian universities are predominantly publicly funded, whereas a mix of public and private universities can be found in the U.S. (Wandrei, 2017). Due to this difference, one might assume then that SES has less impact on educational attainment in Canada, however, research demonstrates that SES disparities in postsecondary enrolment and completion still exist in Canada (Krahn, 2017). Second, the Canadian admissions process for undergraduate postsecondary education places less emphasis on extracurricular activities, whereas in the U.S., admissions to elite postsecondary institutions are dependent on the applicant's academic achievements and extracurricular activity participation (Wandrei, 2017). When examining the Canadian context, it is important then to consider the institutional and cultural differences which may enhance or reduce the effect of extracurricular activities on students' ability to attain postsecondary education.

Previous studies rarely account for the typological and qualitative differences in students' extracurricular pursuits. For example, they rarely distinguish between structured activities such as music classes and unstructured activities such as watching television. Instead, they largely focus on the quantity of activities available to students from different SES backgrounds (cf. Cooper, Valentine, Lindsay, & Nye, 1999; Jæger, 2011; Schreiber & Chambers, 2002). However, the type and quality of extracurricular activities available to students may have a great impact on the benefits they receive from those activities. Types of extracurricular activities vary in their structure (formal or informal), their content (academic or non-academic), their purpose (instructional or leisurely), and their cost (private or subsidized). For example, it may be argued that dance lessons are vastly different in content, structure, and purpose from an after-school yearbook club. Moreover, differences in levels of supervision and the skill levels of supervising adults may also generate qualitative distinctions among various extracurricular activities. This study posits that, in addition to quantity, differences in the type and quality of extracurricular activities to which families of different SES backgrounds have access generate disparities in the cultural capital[4] transmitted to their children, which in turn facilitates their differential advancement through the formal educational system. Therefore, I ask the following questions:

1. Does students' extracurricular activity participation, in high-, mid-, or low- brow activities, differ by parental SES?

2. Does students' extracurricular activity participation (in high-, mid-, or low- brow activities) at age 18 have an effect on respondents' educational attainment at age 25?

3. Does extracurricular activity participation, in high-, mid-, and low- brow activities, mediate the relationship between parental SES and respondents' educational attainment in early adulthood?

4. Do postsecondary aspirations and self-reported academic performance (Grade 12 marks) at age 18 mediate the relationship between parental SES and students'

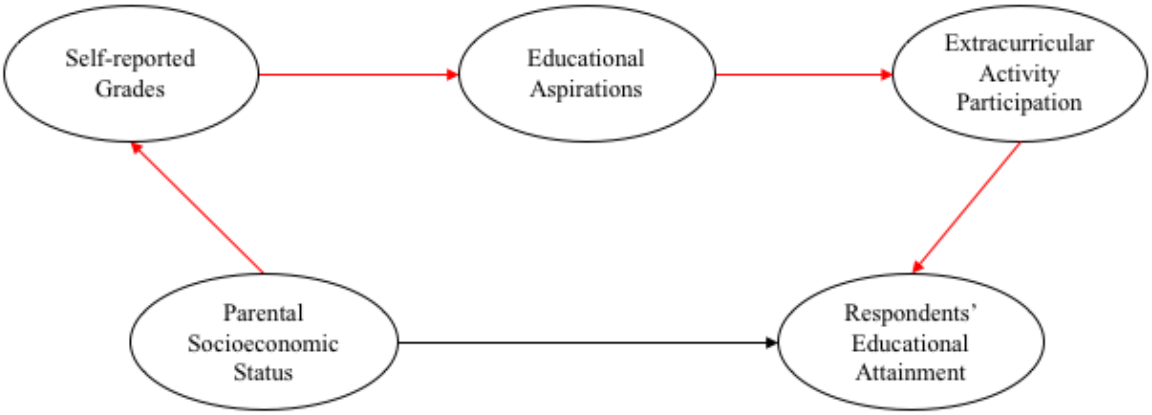
[4] For a discussion of cultural capital, see page 4.

extracurricular involvement, in high-, mid-, and low- brow activities, at age 18 and their educational outcomes at age 25?

In light of prior research in the U.S. (cf. Bowden & Doughney, 2010; Dupriez, Monseur, Van Campenhoudt, & LaFontaine, 2012; Gil-Flores, Padilla-Carmona, & Suárez-Ortega, 2011, Goyette, 2008; Majoribanks, 2003; Signer & Saldana, 2001) and Goldthorpe and Chan's (2005; 2007a; 2007b) omnivore-univore hypothesis, I expect to find that students from high-SES backgrounds are more likely to participate in all types of extracurricular activities. Similarly, in line with Bourdieu's cultural reproduction theory, which posits that high-SES individuals partake in cultural activities that are indicative of their class position, I expect to find that high-SES students are more involved in structured and formal (high-brow) extracurricular activities than low-SES students. Furthermore, I hypothesize that students who engage in structured and formal activities are more likely to have greater postsecondary attainment at age 25 than those who do not, since structured and formal (high-brow) activities will provide them with the appropriate cultural capital required to partake and succeed in postsecondary institutions.

I further expect to find that students from high-SES families and students with higher self-reported academic performance (Grade 12 marks) will have higher levels of post-secondary aspirations, which is used in this study as an indicator of upper-class habitus. I hypothesize higher postsecondary aspirations (habitus) have a positive impact on students' involvement in extracurricular activities (cultural capital), particularly structured and formal (high-brow) activities. In turn, I expect to find a positive mediating effect of high- and mid- brow extracurricular activity participation on the relationship between parental SES and respondents' postsecondary education. I also hypothesize a positive mediating effect of respondents' self-reported academic performance and postsecondary aspirations on the relationship between parental SES, extracurricular activity participation, and postsecondary educational levels at age 25. Figure 1 diagrams the hypothesized relationships.

Figure 1: Hypothesized Partial Mediation Path Model



Note. Mediating pathway is indicated by arrows shaded in red.

Chapter 3
Methods

The following chapter provides an overview of data collection methods and sample characteristics. Furthermore, it describes the measures used in this study and outlines the analytic plan for this study.

3.1 Sampling and Data Collection

To explore the aforementioned questions (cf. page 13), I used data from the *Alberta High School Graduate Survey (1996*) and *Follow-Up Survey (2003)*, a longitudinal panel survey designed and collected by Dr. Harvey Krahn and the Population Research Laboratory at the University of Alberta. The study explores the school-work and youth-adult transitions of Alberta youth, from ages 18 to 25, from fifty-eight secondary schools (Krahn, 2004). The initial survey was administered to 2681 Grade 12 students in 58 public and Catholic schools across regions of Alberta in 1996. As expected for Grade 12 students, the mean age of respondents was 17.6 years (SD = 0.76). A cluster sampling design was used to capture a representative sample of students from communities of varying sizes. Students from this initial survey were asked to indicate their willingness to participate in a follow-up survey. Seventy-three percent of the participants provided information for future contact. Those students who expressed interest in the follow-up survey were contacted again in 2003 for telephone interviews. Participants were also provided with the opportunity to fill out a mail-out paper questionnaire. Paper questionnaires were also sent to participants who could not be reached over the phone. In total, out of all the students contacted for follow-up, 1218 completed the second questionnaire. Considering the longitudinal nature of the study, the response rate is relatively high, as 62% of those participants who provided their contact information at the initial survey in 1996 (45% of the total baseline sample) participated in the follow-up survey (Krahn, 2004).

There are several benefits of using this dataset. First, the longitudinal nature of the survey allows for stronger causal inferences to be drawn regarding the compositional variables of the focal relationship, that is between parental SES and student's academic achievement. Second, the

dataset is especially relevant to my research interests, as it explores several areas of children's leisure time use, includes a wide range of SES situations from both the urban and rural centers of Alberta, and provides a Canadian context.

3.2 Measures and Descriptive Statistics

Parental occupational status. Parental occupational status was determined using recodes of respondents' reports of their fathers' and mothers' occupations using the Canadian National Occupational Classification (NOC) system. Respondents answered the question, "What is your mother's job and your father's job? Briefly describe what each does at work. Please be specific (e.g. clerk, truck driver, sells furniture, farms). If either is presently unemployed or not working for pay, describe their last main job if they had one)" (Krahn, 2004). The two-digit recodes using the NOC were then assigned prestige scores following Goyder and Frank (2007). These prestige scores range from 52.3 to 80.9. Ambiguous responses, such as "owns a business" or "has a job that requires skills," were assigned prestige scores that were equal to averages of all such responses in the prestige scores outlined by Goyder and Frank (2007), i.e. owning a business was assigned a prestige score of 71.5 by averaging the prestige scores for all categories of business/management and skilled work was assigned a prestige score of 65.2 by averaging the prestige scores of all skilled work categories.

As outlined in Table 1, the majority of respondents indicated that their fathers were employed in managerial/professional (36.1% of respondents) or other skilled (38.4% of respondents) occupations, whereas, only 25.8% of mothers were employed in managerial/professional occupations and 21.6% were employed in other skilled occupations.

Parental educational attainment. Parental educational attainment was measured using respondents' reports of their father's and mother's highest level of education. Respondents were asked "What is each of your parent's level of education?" The response categories were 1 = *elementary/ junior high school*, 2 = *some high school*, 3 = *high school graduate*, 4 = *technical/community college*, 5 = *some university*, and 6 = *university graduate* (Krahn, 2004).

As indicated in Table 1, mean educational levels for mothers and fathers were 3.87 and 3.97 years, respectively. These means roughly correspond to the time required (four years) to attain an undergraduate university degree. The mean for father's education for male respondents was slightly higher, 4.05 years, than for female respondents, 3.94 years.

Table 1: Parental Educational and Labour Force Participation, Time 1, Age 18, n = 2,680

Variable	Female	Male	Total
Mother's education, *mean*	3.89	3.86	3.87
Father's education, *mean*	3.94	4.05	3.97
Mother's occupational status, *mean*	64.96	65.40	65.18
Father's occupational status, *mean*	66.78	66.67	66.68
Mother's labour force participation, *percent*			
In labour force	78.9	77.8	78.8
Out of labour force	21.1	22.2	21.2
Father's labour force participation, *percent*			
In labour force	87.5	87.7	88.3
Out of labour force	12.5	12.3	11.7

Extracurricular activities. Extracurricular activities were separated into three different categories according to their type and nature of activity. These three categories are high-brow, mid-brow, and low-brow activities. These three categories were empirically tested using confirmatory factor analysis (cf. Chapter 4), through which I determined whether the indicators used for each activity category accurately depicted the underlying construct, high-/mid-/low-brow activity participation. High-brow activities included respondents' theatre/ballet/symphony attendance, visits to museums/art galleries, and practicing a musical instrument. Theatre/ballet/symphony attendance and visits to museums/art galleries were measured similarly: "How often go to symphony/ballet/theatre?" and "How often do you go to a museum/art gallery?" Possible response categories were: *0 = never, 1 = once or twice a year, 2 = four-five times a year, 3 = several times a month, 4 = one or more times a week*. Practicing a musical instrument was measured by asking: "In the past four weeks, have you played a musical instrument?" Respondents were able to answer *1 = no, 2 = yes* (Krahn, 2004).

As displayed in Table 2, participation in both "attend a symphony/ballet/theatre performance" and "visit a museum or art gallery" was infrequent. Female respondents were more likely (11.9% and 10.2%) to indicate that they participated in these activities four to five times a year than their male peers (6.4% and 6.7%). "Playing a musical instrument" was more common among the sample with 28.8% of participants indicating they had played a musical instrument over the past four weeks. School-based programs often allow for students to partake in music classes or groups.

Table 2: Respondents' High-brow Extracurricular Activity Participation, Time 1, Age 18, n = 2,680

High-brow Activity	Female	Male	Total
Attend a symphony/ballet/theatre performance, *percent* *			
Never	47.9	70.4	59.2
Once or twice a year	38.7	21.9	30.2
Four to five times a year	11.9	6.4	9.1
Several times a month	1.4	0.8	1.1
One or more times a week	0.2	0.5	0.4
Visit a museum or art gallery, *percent* *			
Never	45.4	54.3	49.7
Once or twice a year	42.5	37.3	40.0
Four to five times a year	10.2	6.7	8.5
Several times a month	1.6	1.0	1.4
One or more times a week	0.3	0.7	0.5
Played a musical instrument in the past four weeks, *percent*			
Yes	30.3	27.4	28.8
No	69.7	72.6	71.2

* $p < 0.05$ (x^2 test)

Mid-brow activities included participation in school clubs, physical exercise, attendance at a place of worship, reading, and participation in volunteer work. Respondents' involvement in school clubs was ascertained by the question, "How many clubs, teams or organizations did you belong to this school year?" Participation in physical exercise, attendance at a place of worship, reading, and participation in volunteer work were measured with the questions, "In the past four weeks, have you participated in sports or physical exercise?" "In the past four weeks, have you attended a place of worship?" "In the past four weeks, have you read a book just for pleasure?" "In the past four weeks, have you done any volunteer work?" Response categories were *1 = no, 2 = yes* (Krahn, 2004).

On average, students partook in 1.65 clubs over the past year. Many students (70.1%) indicated that they participated in physical activity in the past four weeks. Approximately half of the respondents (53.6% and 57.6%, respectively) indicated that they did volunteer work or read for pleasure in the past four weeks. One-third of all students (34.0%) attended a place of worship in the past four weeks. Female respondents were more likely (53.5% and 67.3%, respectively) to have attended a place of worship or read a book for pleasure in the past four weeks. Male respondents were more likely (75.2%) to have engaged in physical activity.

Table 3: Respondents' Mid-brow Extracurricular Activity Participation, Time 1, Age 18, n = 2,680

Mid-brow Activity	Female	Male	Total
School Clubs (number in past year), *mean*	1.60	1.70	1.65
Participated in physical exercise in the past four weeks, *percent* *			
Yes	65.1	75.2	70.1
No	34.9	24.8	29.9
Engaged in volunteer work in the past four weeks, *percent*			
Yes	53.3	53.8	53.6
No	46.7	46.2	46.4
Attended a place of worship in the past four weeks, *percent*			
Yes	53.5	34.5	34.0
No	46.5	65.5	66.0
Read book for pleasure in the past four weeks, *percent* *			
Yes	67.3	48.0	57.6
No	32.7	52.0	42.4

* $p < 0.05$ (x^2 test)

Low-brow activities included watching television, going to the movies, watching movies at home, and working on a hobby. To measure how much television participants watched, they were asked, “In a typical week how many hours would you spend watching TV?” How often respondents went to the movies, watched movies at home, and worked on a hobby was measured by asking the questions: “How often do you do the following leisure time activities: How often do you go to the movies/ how often do you watch movies at home/ how often do you work on a hobby?” Response categories were, *0 = never, 1 = once or twice a year, 2 = four-five times a year, 3 = several times a month, 4 = one or more times a week* (Krahn, 2004).

Table 4 presents participation levels in low-brow activities. Respondents reported high levels of participation in hobbies, with 62.8% of respondents indicating that they work on a hobby several times a month or more. Male respondents indicated greater frequency of working on a hobby (37.3% said they worked on hobbies one or more times a week). Respondents reported watching 11.28 hours of television per week on average. A large majority of respondents (83.8%) said they visited the cinema four to five times a year or more, while, 83.8% of respondents said they watched movies at home at least several times a month.

Table 4: Respondents' Low-brow Extracurricular Activity Participation, Time 1, Age 18, n = 2,680

Low- brow Activity	Female	Male	Total
Work on a hobby, *percent* *			
Never	12.6	9.6	11.0
Once or twice a year	10.4	9.1	9.8
Four to five times a year	16.9	16.0	16.4
Several times a month	31.1	28.0	29.6
One or more times a week	28.9	37.3	33.2
Hours of television watched per week, *mean* †	9.59	12.97	11.28
Go to the cinema, *percent*			
Never	1.8	2.3	2.0
Once or twice a year	8.6	8.1	8.4
Four to five times a year	41.4	41.3	41.4
Several times a month	43.4	41.6	42.4
One or more times a week	4.8	6.7	5.7
Watch movies at home, *percent*			
Never	0.9	0.9	0.9
Once or twice a year	1.3	1.2	1.2
Four to five times a year	13.7	14.5	14.1
Several times a month	57.2	55.6	56.4
One or more times a week	26.9	27.7	27.4

* $p < 0.05$ (x^2 test)

† $p < 0.05$ (t-test)

Self-reported academic performance. Self-reported academic performance was measured using the following question, "On average, what have your grades been like this past school year?" Respondents could pick from the following categories: *1 = under 50%, 2 = 50% to 64%, 3 = 65% to 79%, 4 = 80% or above* (Krahn, 2004). None of the study participants said they were failing, while 22% reported high grades in the past year (Table 5). Female students were more likely to report high grades (25% compared to 19% for male students).

Postsecondary aspirations. Postsecondary aspirations (M = 5.00 years, SD = 3.37) were ascertained using responses to the question, "In total, how many more years of education do you expect you will eventually get?" Study participants wanted to complete an average of five years of post-secondary education, which is slightly more than the time required to attain a university degree (Table 5).

Control variables. Respondents' gender, visible minority status, immigrant status, community size, high school program and mother's and father's labour force participation were used as control variables in this study. Gender was measured using respondent's self-reported sex (1 = *female,* 2 = *male).* The baseline sample is composed of roughly equal numbers of male (51%) and female (49%) students (Table 5). Visible minority status was measured using responses to the question, "Do you consider yourself to be a member of a visible minority (i.e. non-white in race or colour)?" (1 = *visible minority,* 2 = *other)*. Most respondents indicated that they did not belong to a visible minority group, with 16.5% of all respondents identifying as visible minorities, which is in accordance with the larger population composition of Alberta (Krahn & Hudson, 2006). Similarly, 4.2% of students identified as aboriginal. Immigrant status was ascertained using the survey question, "Were you born in Canada?" (1 = *immigrant,* 2 = *non-immigrant)* (Krahn, 2004). As demonstrated in Table 5, the majority of respondents were born in Canada, with only 11.6% of respondents indicating that they were born in a country outside of Canada. Community size was derived from respondents' school location (1 = *urban/mid-sized,* 2 = *rural)*. Most of the respondents were from the urban centers of Alberta, with 21.8% of respondents from Edmonton, 17.5% of respondents from Greater Edmonton Area, and 25.0% of respondents from Calgary.

Students' high school programs were controlled as postsecondary institutions often require "academic" level high school credits to gain entry into their programs. Therefore, students who were not enrolled in academic programs may not have the opportunity to apply for postsecondary programs. High school program was measured using the students' responses to the question "What program are you currently in at school?" *(*1 = *Academic,* 2 = *International Baccalaureate,* 3 = *Vocational/CTS,* 4 = *Integrated Occupational,* 5 = *Other,* 6 = *General Basic,* 7 = *Combination of 1-6)* (Krahn, 2004). A binary variable was created from this variable to distinguish between students who were in academic and International Baccalaureate [5] and those were in other programs *(*1 = *Academic/IB,* 2 = *Other).* A large majority (88%) of study participants were in an academic program in high school (Table 5).

Father's and mother's labour force participation (cf. Table 1) was controlled since some parents were not in the labour force and as a result may have been assigned inaccurate occupational status scores. Those respondents who indicated that their father (or mother) had an occupation were recoded so father's (or mother's) labour force participation was equal to 1 and those who indicated that their father (or mother) did not have an occupation were recoded so father's (or mother's) labour force participation was equal to 0.

[5] The International Baccalaureate program is an advanced high school curriculum and program offered in certain high schools in Canada. "The IB Diploma Programme" states the IB program requires its students to partake in an enhanced curriculum, "complete two formal projects [,] and a minimum of 50 hours of community service." This enhanced curriculum includes compulsory language and global issues instruction. Students are also required to write standardized exams, which are evaluated by external markers and not school teachers. For more details, visit http://www.ibo.org

Table 5: Descriptive Sample Characteristics, Time 1, Age 18, n = 2,680

Variable	Female	Male	Total
Immigrant status, *percent*			
Immigrant	11.2	11.9	11.6
Non-immigrant	88.8	88.1	88.4
Visible Minority Status, *percent*			
Visible minority	15.9	17.5	16.8
Non-visible minority	84.1	82.5	83.2
Community size, *percent*			
Large (> 500,000)	45.1	47.9	46.8
Mid (< 100,000)	20.6	21.4	20.9
Small (< 10,000)	34.3	30.7	32.3
High school program, *percent* *			
Academic	90.7	86.0	88.2
Non-academic	9.3	14.0	11.8
Self-reported grades (Grade 12), *percent* *			
50 % to 64 %	23.1	30.7	27.0
65 % to 79 %	51.9	50.4	51.2
80 % or above	25.0	18.9	21.8
Years of postsecondary education desired, *mean*	4.97	5.03	5.00
Postsecondary educational aspirations, *percent*			
High school	36.5	40.4	36.8
Community college/apprenticeship/ technical school	30.9	31.8	31.5
University	32.6	27.8	30.0

* $p < 0.05$ (x^2 test)

Respondents' Educational Attainment. Respondents' postsecondary educational attainment was measured (at age 25) using responses to the following questions: "Did you obtain a high school diploma?"; "Have you ever started an apprenticeship?"; "Did you complete an apprenticeship?"; "Have you attended a technical school (not counting apprenticeship training)?"; "Did you receive a technical school diploma?"; "Have you ever attended a community college?"; "Did you receive a community college diploma?"; "Have you ever attended university?"; "Did you obtain a bachelor's degree?"; "Did you obtain a master's degree?"; "Did you obtain a doctoral degree?" Response categories for all of these questions were 1 = *Yes*, 2 = *No*. Responses to questions were combined to create a composite variable for the highest level of education (from highest to lowest, doctoral degree, master's degree, bachelor's degree, community college/apprenticeship/technical school, high school, less than high school) obtained by the respondent. These categories were then converted to the minimum number of years it would take to complete that level of education (20+ = *doctoral degree*, 18 = *master's degree*, 16 = *bachelor's degree*, 14 = *community college/apprenticeship/technical school*, 12 = *high school diploma*, 10 = *less than high school*).

Table 6: Respondents' Educational Attainment, Time 2, Age = 25, n = 1,218

Variable	Female	Male	Total
Respondents' postsecondary educational attainment, *percent*			
High school or less	13.7	18.1	15.7
Community college/apprenticeship/ technical school	59.7	59.3	59.5
Bachelor's/master's/doctoral degree	26.7	22.7	24.8
Respondent's postsecondary educational attainment in years, *mean* *	13.8	13.6	13.8

* $p < 0.05$ (t-test)

At the time of the follow-up survey, 84.3% of respondents had engaged in some form of postsecondary education, with 24.8% of respondents with (completed or in progress) university degrees and 59.5% of respondents having completed or attending community college or

completing trades training (Table 6). Female respondents were more likely to have a university degree (26.7%), whereas male respondents were more likely (18.1%) to have a high school diploma or less.

3.3 Missing Data

Following recommendations made by Kline (2016), cross-tabulations were conducted for demographic variables (respondents' gender, parental education levels, parental occupational prestige, community size, immigrant status, visible minority status) and dummy variables indicating missingness (0 = *not missing*, 1 = *missing*) on indicator variables (postsecondary aspirations, self-reported academic performance, respondents' educational attainment) at age 25. Missingness on postsecondary aspirations and self-reported academic performance was not significantly correlated with any of the demographic variables. Although missingness on the educational attainment variable was significantly associated with community size, immigrant status, visible minority status, and gender, the effect sizes for all these correlations were extremely small (e.g. Pearson's r for missingness on education and community size was 0.068). Since missingness was related to other measured variables, it was determined that data were missing at random and thus full information maximum likelihood (FIML) was used to deal with missing data.

3.4 Analytic Plan

I first calculated bivariate correlations between parental education, respondents' extracurricular activity participation, self-reported academic performance, postsecondary aspirations, and respondents' educational attainment. Then, I conducted confirmatory factor analysis to test latent constructs for high-, mid-, and low- brow extracurricular activities. After testing these latent constructs, I conducted multiple group structural regression modeling, using Mplus 8 (Muthén & Muthén, 1998-2017). Specifically, I tested models for the mediating effects of each of the three categories of extracurricular activities, high-, mid-, and low- brow activities, on the relationship between parental SES and respondents' postsecondary outcomes at age 25. I also tested models that included respondents' postsecondary aspirations and academic performance at age 18 as

mediators. I included high school program, community size, gender, immigrant status, visible minority status, and parental labour force participation as controls.

Chapter 4
Results

The following chapter highlights the results of this study. It begins with an overview of the bivariate relationships between the variables of interest. The aim of this section is to provide an overview of how models for structural regression modeling were constructed. This section is followed by results from confirmatory factor analysis, which is used here to test the fit of hypothesized latent variables, parental socioeconomic status, high-, mid-, and low-brow activity participation. This chapter culminates with results from the structural regression modeling.

4.1 Bivariate Statistics

I first calculated bivariate associations between the focal variables (displayed in Table 7). Respondents' educational attainment at age 25 was positively associated with parents' educational attainment (r = 0.343) and occupational status (r = 0.287). Better academic performance was also positively associated with parents' educational attainment (r = 0.229) and occupational status (r = 0.191). Similarly, both postsecondary educational aspirations and total years of postsecondary education desired were positively related to parents' educational attainment (r = 0.256; r = 0.152) and occupational status (r = 0.227; r = 0.152). In turn, respondent's aspirations, and both postsecondary educational aspirations and years of postsecondary education desired, were positively associated with educational attainment at age 25 (r = 0.518; r = 0.285, respectively).

Table 7 : Correlations and Covariances between Focal Variables

Variable	Parent's Education	Parent's Occup	Resp Education	Academic Perform	PS Edu Aspirations	Yrs Educ Desired
Parent's Education		4.708	0.748	0.219	0.297	0.992
Parent's Occup	0.557***		2.712	0.799	1.165	3.123
Resp Education	0.343***	0.287***		0.515	0.684	1.239
Academic Performance	0.229***	0.191***	0.486***		0.266	0.521
PS Edu Aspirations	0.256***	0.227***	0.518***	0.461***		0.784
Yrs Educ Desired	0.188***	0.157***	0.256***	0.214***	0.266***	

*Note: Values above diagonal depict covariances between variables. Values below diagonal depict correlations between variables. *** p<0.05. Parent's Occup = Parent's Occupation; Resp Education = Respondent's Education age 25; PS Edu Aspirations = Postsecondary Educational Aspirations; Yrs Educ Desired = Years of Postsecondary Education Desired.*

Table 8 : Correlations and Covariances (in parentheses) between Focal Variables and High-Brow Extracurricular Activity Participation

Variable	Symphony/Ballet/ Theatre	Museum/Art Gallery	Musical Instrument
Parent's Education	0.125*** (0.054)	0.095*** (0.040)	0.134*** (0.084)
Parent's Occupation	0.090*** (0.169)	0.034 (0.062)	0.142*** (0.396)
Respondent's Education	0.095*** (0.048)	0.056 (0.027)	0.125*** (0.090)
Academic Performance	0.120*** (0.025)	0.006 (0.001)	0.138*** (0.043)
PS Edu Aspirations	0.080*** (0.020)	0.018 (0.004)	0.080*** (0.030)
Yrs Educ Desired	0.060*** (0.065)	0.046*** (0.049)	0.102*** (0.163)
Symphony/Ballet/ Theatre	1	-	-
Museum/Art Gallery	0.240*** (0.023)	1	-
Musical Instrument	0.149*** (0.021)	0.078*** (0.011)	1
Range	0-4	0-4	0-1

*Note: ***p<0.05. PS Edu Aspirations = Postsecondary Educational Aspirations; Yrs Educ Desired = Years of Postsecondary Education Desired.*

Table 8 presents correlations between the focal variables in this study and high-brow activities. Although parental education and occupational status were positively associated with greater participation in all high-brow activities, the effect sizes were small; for example, attending a symphony, ballet, or theatre performance over the past year (r = 0.125; r = 0.090, respectively) and playing a musical instrument over the past four weeks (r = 0.134; r = 0.142). Similarly, correlations between respondents' academic performance, postsecondary educational aspirations, educational attainment, and high-brow activity participation were also positive but small. In other words, greater academic performance, postsecondary aspirations, and educational attainment were weakly associated with greater levels of participation in high-brow activities.

Table 9 : Correlations and Covariances (in parentheses) between Focal Variables and Mid-Brow Extracurricular Activity Participation

Variable	School Clubs	Physical Activity	Volunteer Work	Place of Worship	Reading
Parent's Education	0.103*** (0.068)	0.050*** (0.031)	0.056*** (0.033)	0.101*** (0.066)	0.029 (0.020)
Parent's Occupation	0.108*** (0.311)	0.034 (0.094)	0.038 (0.100)	0.116*** (0.337)	0.041 (0.123)
Respondent's Education	0.162*** (0.113)	0.012 (0.008)	0.093*** (0.065)	0.121*** (0.090)	0.059 (0.044)
Academic Performance	0.206*** (0.067)	0.071*** (0.022)	0.105*** (0.031)	0.085*** (0.027)	0.114*** (0.038)
PS Edu Aspirations	0.169*** (0.698)	0.009 (0.003)	0.098*** (0.035)	0.129*** (0.051)	0.087*** (0.036)
Yrs Educ Desired	0.159*** (1.039)	0.021 (0.034)	-0.012 (0.044)	0.047*** (0.079)	0.085*** (0.148)
School Clubs	1	-	-	-	-
Physical Activity	0.213*** (0.046)	1	-	-	-
Volunteer Work	0.157*** (0.032)	0.039*** (0.008)	1	-	-
Place of Worship	0.099*** (0.013)	0.042*** (0.009)	0.141*** (0.028)	1	-
Reading	0.028 (0.015)	-0.013 (-0.003)	0.058*** (0.012)	-0.022 (-0.005)	1
Range	0-22	0-1	0-1	0-1	0-1

*Note: ***p<0.05. PS Edu Aspirations = Postsecondary Educational Aspirations; Yrs Educ Desired = Years of Postsecondary Education Desired.*

Correlations between mid-brow activity participation and all focal variables were similar to those found for high-brow activities (Table 9). Higher parental education and occupational status were correlated with greater participation in mid-brow activities. For instance, parents' educational levels and occupational status were positively correlated with number of school clubs the respondent was involved in (r = 0.103; r = 0.108, respectively). Likewise, greater academic performance, postsecondary aspirations, and educational attainment were also correlated with greater participation in mid-brow activities.

Table 10 : Correlations and Covariances (in parentheses) between Focal Variables and Low-Brow Extracurricular Activity Participation

Variable	Watch Movies at Home	Hours of Television	Work on a Hobby	Go to the Cinema
Parent's Education	0.001 (0.000)	-0.052 (-0.036)	0.043 (0.024)	0.065*** (0.025)
Parent's Occupation	0.029 (0.022)	-0.067*** (-0.203)	0.044 (0.108)	0.054 (0.097)
Respondent's Education	0.053 (0.011)	-0.008 (-0.007)	0.036 (0.022)	0.058 (0.026)
Academic Performance	0.020 (0.002)	-0.058 (-0.020)	0.070*** (0.020)	0.004 (0.001)
PS Edu Aspirations	-0.002 (-0.000)	-0.017 (-0.007)	0.017 (0.006)	0.021 (0.005)
Yrs Educ Desired	0.053*** (0.007)	0.000 (0.000)	0.044*** (0.062)	0.005 (0.006)
Watch Movies at Home	1	-	-	-
Hours of Television	0.149*** (0.003)	1	-	-
Work on a Hobby	0.067*** (0.065)	-0.018 (-0.242)	1	-
Go to the Cinema	0.331*** (0.196)	0.044*** (0.362)	0.022 (0.024)	1
Range	0-4	0-84	0-4	0-4

*Note: ***p<0.05. PS Edu Aspirations = Postsecondary Educational Aspirations; Yrs Educ Desired = Years of Postsecondary Education Desired.*

Correlations among low-brow activity participation and most focal variables were weak and statistically insignificant (Table 10). Higher parental occupational status was statistically significantly correlated with less hours of television watched per week and a greater incidence of going to the cinema over the past four weeks. Greater academic performance was positively associated with a higher likelihood of having worked on a hobby in the past four weeks.

Although not all correlations between activities in a category were strong, for example, between all mid-brow activities and reading (Table 9), or positive, activities were nevertheless

categorized based on theoretical assumptions about the quality, value, and type. It is possible, for example, that reading is negatively correlated with all other activities due to its individual nature compared to all other activities. The smaller correlations of school clubs and physical activity with volunteer work may be due to the different nature of these activities, whereas school clubs and physical activity may take place within the school context, volunteer work might take place in the community (Table 9).

4.2 Confirmatory Factor Analysis

In order to examine structural regression models, I first conducted confirmatory factor analysis to establish that indicators for the four latent variables, parental SES, high-brow activity participation, mid-brow activity participation, and low-brow activity participation, fit well. Models for high-brow activity participation and parental SES, and mid-brow activity participation are displayed in Figure 2 and 3. The high-brow activity model was tested alongside the parental SES model as there are only three indicators for the latent variable high-brow activity participation, i.e. there were not enough degrees of freedom in the high-brow activity model alone to generate a x^2 test of model fit and accurate global fit indices. I used weighted least square mean variance (WLSMV) estimator since playing a musical instrument, an indicator for high-brow activities, was categorical and dichotomous.

Although the x^2 test of model fit, $x^2 = 18.406, df = 10, p = 0.0485$, was slightly below the p-value of 0.05 needed for establishing insignificance, the model was accepted due to good model fit indicated by other indices of global fit, $RMSEA = 0.018, CFI = 0.995, TLI = 0.990, WRMR = 0.537$.[6] I also included correlations between father's education and father's occupation, and mother's education and mother's occupation, as I expected that parents' educational levels would be associated with their occupational statuses. I also added correlations between the indicators "symphony/ballet/theatre attendance" and "visits to museum and art galleries" as these activities can be expected to correlate due to the nature of the activities, i.e. they involve physical visits to a location. In contrast, the third indicator, playing a musical instrument, does not necessarily entail travel.

I also used the WLSMV estimator for conducting confirmatory factor analysis for the construct mid-brow activity participation since four out of the five indicators, physical activity participation, attendance at place of worship, reading, and volunteer participation, were categorical and dichotomous. Like the x^2 test for high-brow activity participation, the x^2 test of model fit for mid-brow activity participation was also significant, $x^2 = 12.453, df = 5, p =$

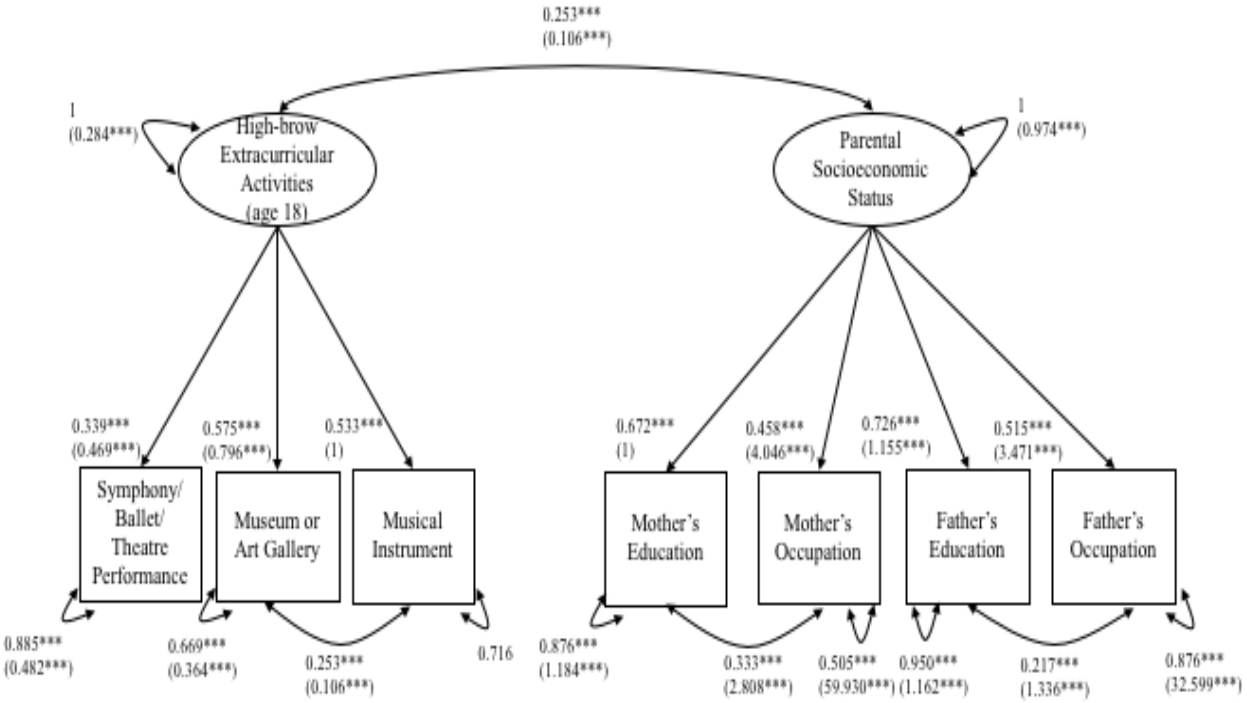
[6] Hooper, Coughlan, Mullen (2008) suggest the following guidelines for determining close fit using global fit indices: RMSEA of 0.06 or less, CFI of 0.90 or higher, TLI of 0.95 or higher.

0.0291, however, I accepted the model as x^2 test are often overpowered when used with large sample sizes (Hooper et al., 2008). Moreover, I accepted this model because global fit indices, *RMSEA = 0.024, CFI = 0.979, TLI = 0.957, WRMR = 0.832,* indicted good fit. Upon examining local fit, I noticed the indicator 'reading' loaded poorly onto the factor, therefore, I tested another model after removing this indicator. Following this adjustment, the x^2 *t*est of the model fit statistic for mid-brow activity participation was still significant, $x^2 = 9.505, df = 2, p = 0.0086$. Nevertheless, I accepted this model due to the global fit indices, *RMSEA = 0.038, CFI = 0.978, TLI = 0.935, WRMR = 0.898,* which suggested acceptable fit. Although RMSEA and TLI indicated slightly worse fit than the prior model, CFI and WRMR indicated improved fit. This model was retained for the path analysis as local fit was much improved following the adjustment.

Confirmatory factor analysis results for the latent construct low-brow activity participation indicated close fit (*RMSEA = 0.025, CFI = 0.986, TLI = 0.971, WRMR = 0.712*) when all four indicators, hours of television watched per week, frequency of visits to cinema, frequency of watching movies at home, and whether respondent worked on a hobby in the past four weeks, of the construct were indexed. However, upon examination of the local fit indices, I noticed that the indicator "working on a hobby" loaded poorly on the larger latent construct. I also noticed that the indicator "frequency of watching movies at home" resulted in a Haywood case[7], due to a negative residual variance. This may be due to high multicollinearity among the indicators (hours of television watched per week, frequency of visits to cinema, frequency of watching movies at home), which may be confounded by each other as the activities are similar in nature. I then tested alternative models by removing the indicator, "watching movies at home," however, the local fit was still poor with the indicator "hobby" loading weakly onto the latent variable. Therefore, I tested a smaller latent variable with the following two indicators, hours of television watched per week and frequency of visits to cinema. This model yielded poor local fit and thus I was unable to test a path model for low-brow activities.

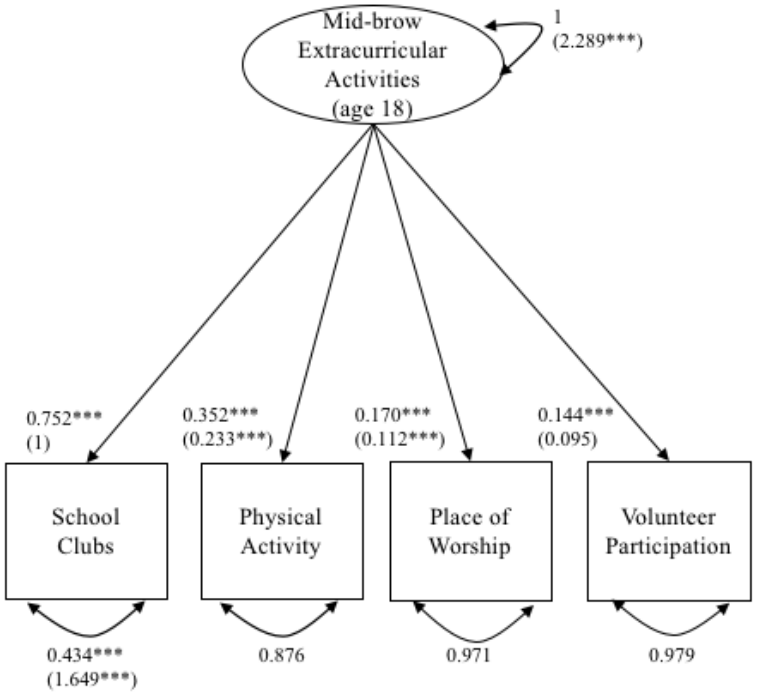
[7] A Haywood case indicates a negative or greater than 1 variance. A Haywood case may arise due to multicollinearity among indicators.

Figure 2: Confirmatory Factor Analysis Model for High-Brow Activity Participation and Parental SES



*Note: *** $p<0.05$. $x^2 = 18.406$, $df = 10$, $p = 0.0485$. RMSEA = 0.018, CFI = 0.995, TLI = 0.990, WRMR = 0.537.*

Figure 3: Confirmatory Factor Analysis Model for Mid-brow Activity Participation



*Note: *** $p<0.05$. $x^2 = 9.505$, $df = 2$, $p = 0.0086$. RMSEA = 0.038, CFI = 0.978, TLI = 0.935, WRMR = 0.898.*

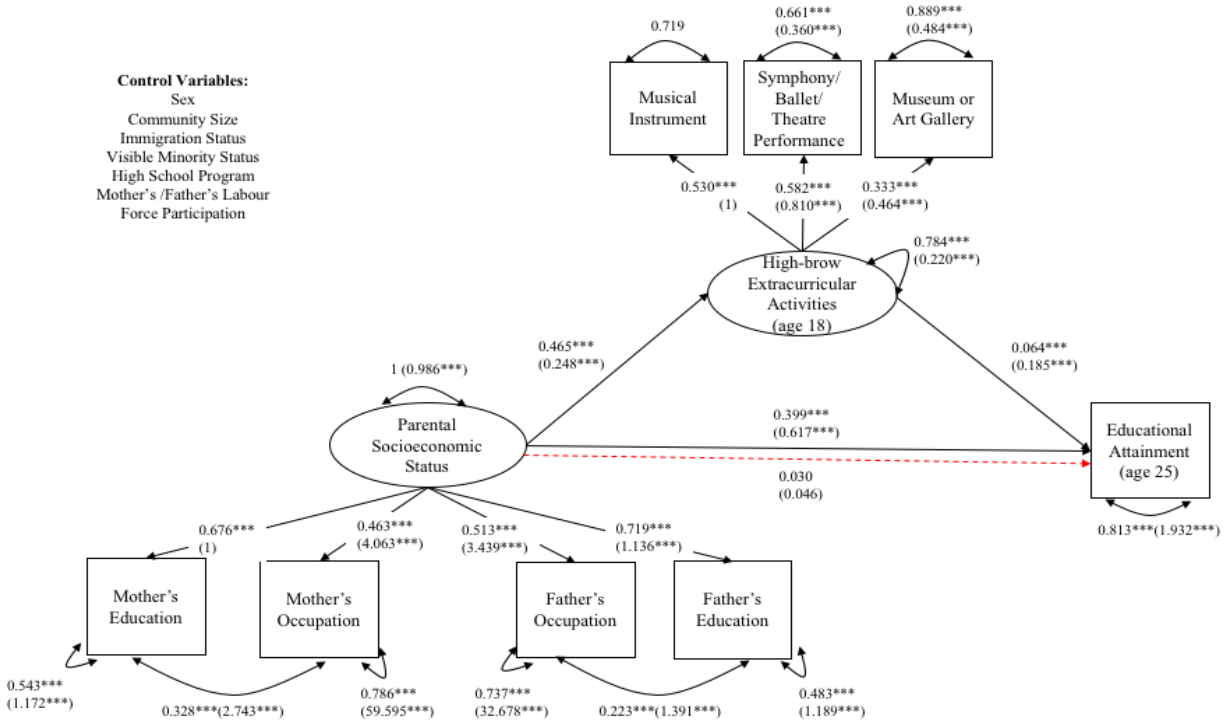
4.3 Structural Regression Models

In light of the bivariate associations detailed in section 4.1, I calculated structural regression models to determine whether effects would be weakened or strengthened once all variables were included in the same model and sociodemographic factors such as gender, community size, immigrant status, visible minority status, parental labour force status, and high school program were controlled for. In order to address research questions, (1) "Does students' extracurricular activity participation in high-brow activities differ by parental SES?" and (2) "Does students' extracurricular activity participation in high-brow activities at age 18 have an effect on respondents' educational attainment at age 25?", I tested the relationship between high-brow extracurricular activity, parental SES, and respondents' postsecondary educational attainment. The x^2 test of model fit, $x^2 = 20.742, df = 15, p = 0.1453$, was insignificant, indicating good model fit. Global fit indices also indicated good model fit, *RMSEA = 0.012, CFI = 0.997, TLI = 0.995, WRMR = 0.516.* This model is display in Figure 4. Path coefficients ($\beta = 0.465$) indicated a strong and positive relationship[8] between greater parental SES and students' high-brow activity participation at age 18. Moreover, the model coefficients ($\beta = 0.064$) suggested that greater participation in high-brow activities at age 18 has a positive but small effect on respondents' educational attainment at age 25.

To test research question 3, "Does extracurricular activity participation in high-brow activities mediate the relationship between parental SES and respondents' educational attainment in early adulthood?," I looked at the indirect relationship between parental SES and respondents' postsecondary education as explained through high-brow activity participation. The model indicates that relationship between parental SES and respondents' educational attainment at age 25 is not mediated by participation in high-brow extracurricular activity participation since the path coefficient was extremely small ($\beta = 0.030$) and statistically insignificant.

[8] Effect sizes were interpreted using Cohen's (1988) criteria, i.e. a r = 0.10 indicates a small/weak effect, r = 0.30 indicates a medium/moderate effect, and a r = 0.50 indicates a large/strong effect. Although it is best practice to compare effect sizes with prior studies, most prior research has employed logistic regression models to determine effects. Moreover, previous studies have used different outcome variables and extracurricular activities than those used in this study.

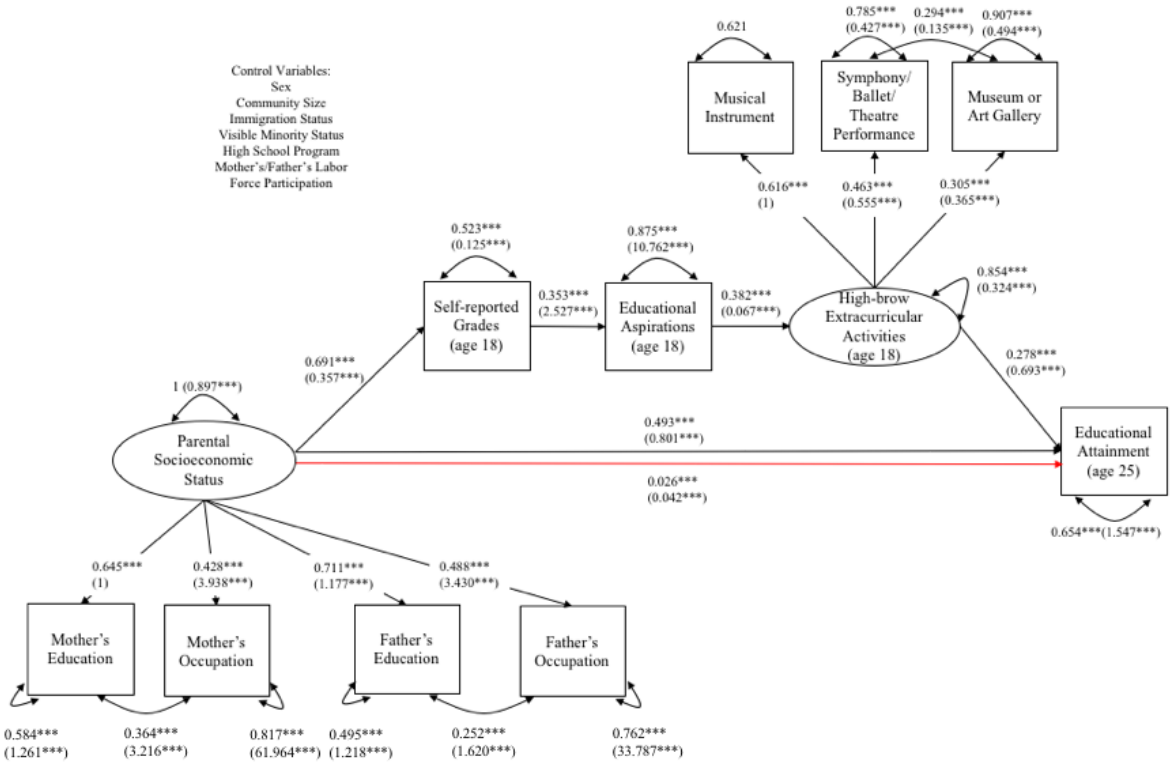
Figure 4: Structural Regression Model for High-brow Activity Participation and Parental SES and Respondents' Postsecondary Educational Attainment



*Note: ***p<0.05. x^2 = 20.742, df = 15, p = 0.1453. RMSEA = 0.012, CFI = 0.997, TLI = 0.995, WRMR = 0.516.*

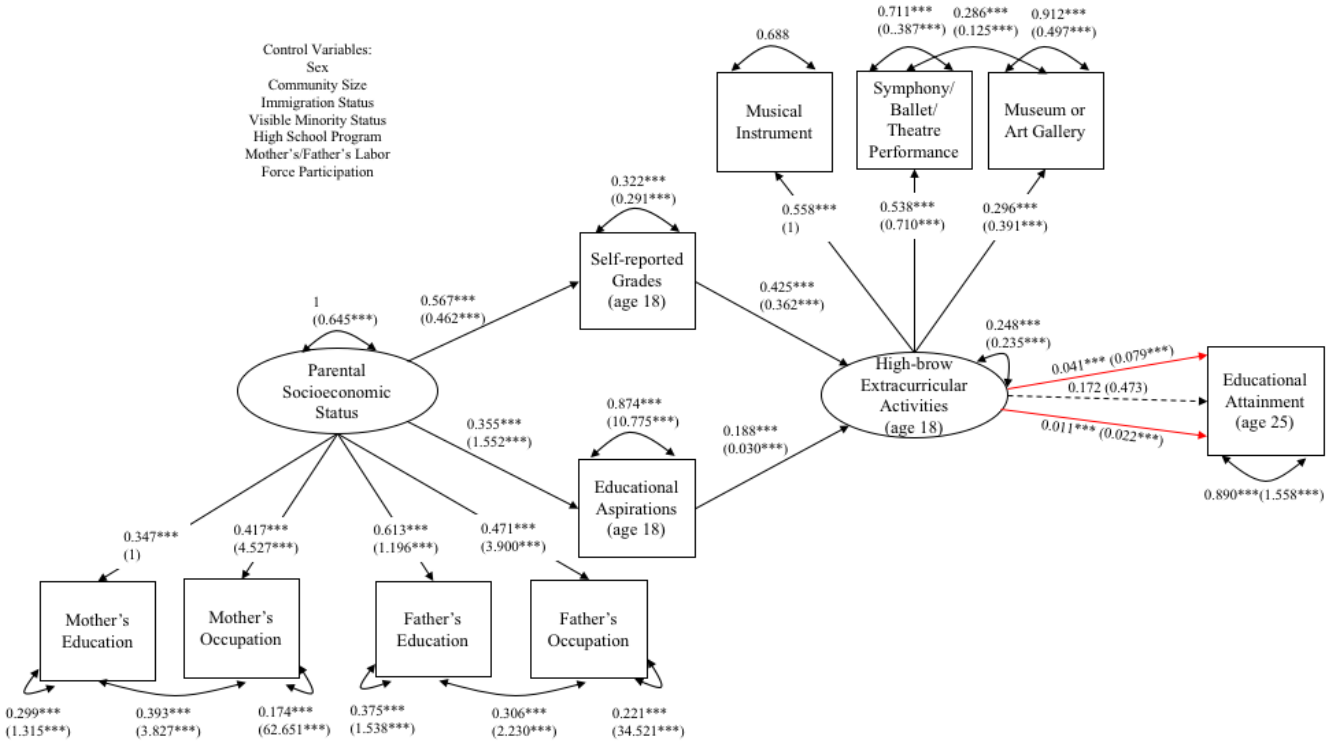
In order to test the research question 4, "Do postsecondary aspirations and self-reported academic performance (Grade 12 marks) at age 18 mediate the relationship between parental SES and students' high-brow extracurricular activity participation at age 18 and their educational outcomes at age 25?," I tested a structural regression model with postsecondary aspirations, self-reported grades, and high-brow activity participation. This model is displayed in Figure 5. The x^2 test of model fit, $x^2 = 891.512, df = 30, p<0.000$, and the global fit indices, $RMSEA = 0.103, CFI = 0.758, TLI = 0.678, WRMR = 3.537,$ for this model indicated poor model fit. In light of these fit statistics, I rejected this model. I then tested an alternative model, depicted in Figure 6. Although global fit indices indicate improved fit ($x^2 = 434.993, df = 29, p<0.000$, $RMSEA = 0.072, CFI = 0.849, TLI = 0.843, WRMR = 2.233$), the overall fit was still poor. The x^2 difference test also did not indicate improved model fit. Therefore, postsecondary aspirations and self-reported academic performance (Grade 12 marks) do not mediate the relationship between high-brow activity participation and the focal relationship.

Figure 5: Structural Regression Model for Self-reported Grades, Educational Attainment, High-brow Activity Participation and Parental SES and Respondents' Postsecondary Educational Attainment



*Note: ***p<0.05. x^2 = 891.512, df = 30, p<0.000. RMSEA = 0.103, CFI = 0.758, TLI = 0.678, WRMR = 3.537.*

Figure 6: Structural Regression Model for Mid-brow Activity Participation and Parental SES and Respondents' Postsecondary Educational Attainment

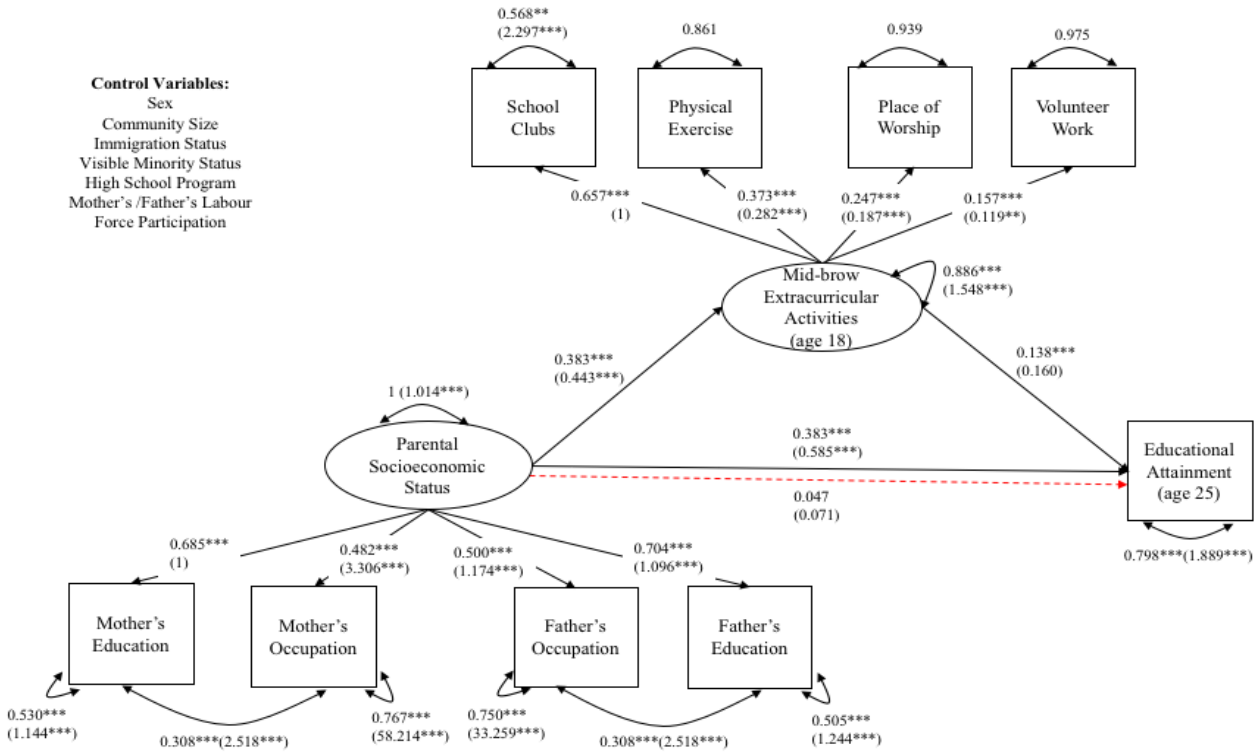


*Note: ***p<0.05. x^2 = 434.993, df = 29, p<0.000. RMSEA = 0.072, CFI = 0.849, TLI = 0.843, WRMR = 2.233.*

In order to address research question 1 and 2 for respondents' mid-brow activity participation, I tested a model with mid-brow activity participation, parental SES, and respondents' postsecondary educational attainment (displayed in Figure 7). Although the x^2 test was significant ($x^2 = 82.949, df = 23, p<0.000$), the global fit indices, *RMSEA = 0.031, CFI = 0.968, TLI = 0.950, WRMR = 1.155,* for this model indicated close fit. Thus, I accepted this model and examined the path coefficients to check whether research questions 1 and 2, (1) "Does students' extracurricular activity participation in mid-brow activities differ by parental SES?" and (2) "Does students' extracurricular activity participation in mid-brow activities at age 18 have an effect on respondents' educational attainment at age 25?," were supported. The coefficient for the relationship between parental SES and mid-brow activity participation (β = 0.383) indicated a positive and moderate relationship between greater parental SES and higher levels of participation in mid-brow activities. Similarly, the coefficient for the relationship between greater mid-brow activity participation and respondents' educational attainment (β = 0.138) also suggested a positive but small association.

I then tested research question 3, "Does extracurricular activity participation in mid-brow activities mediate the relationship between parental SES and respondents' educational attainment in early adulthood?". The coefficients indicated a small and positive indirect relationship (β = 0.047) between parental SES and respondents' educational attainment when mid-brow activity participation is examined as a mediator. Moreover, the coefficient for parental SES and respondents' education (β = 0.383) remained moderate and positive suggesting that the indirect path hypothesized in this study did not explain much of the relationship between the two focal variables.

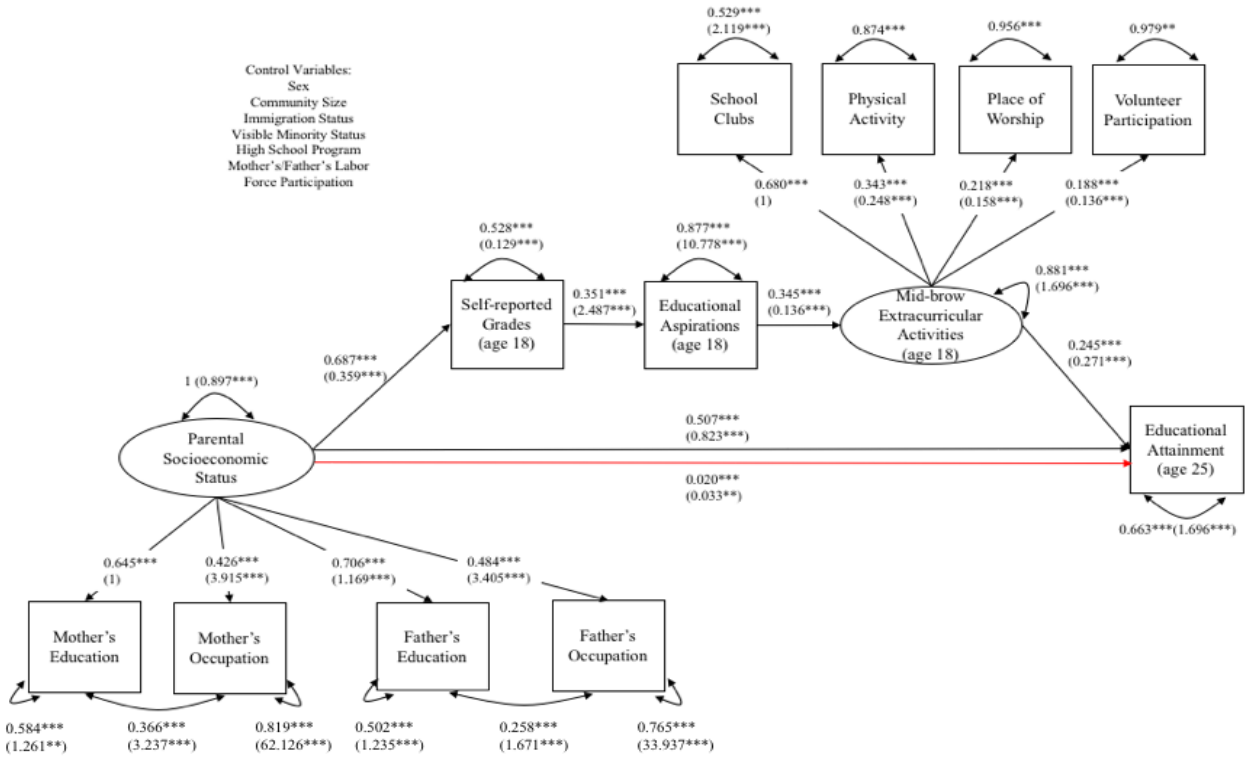
Figure 7: Structural Regression Model for Mid-brow Activity Participation and Parental SES and Respondents' Postsecondary Educational Attainment



*Note: ***p<0.05. x^2 = 82.949, df = 23, p<0.000. RMSEA = 0.031, CFI = 0.968, TLI = 0.950, WRMR = 1.155.*

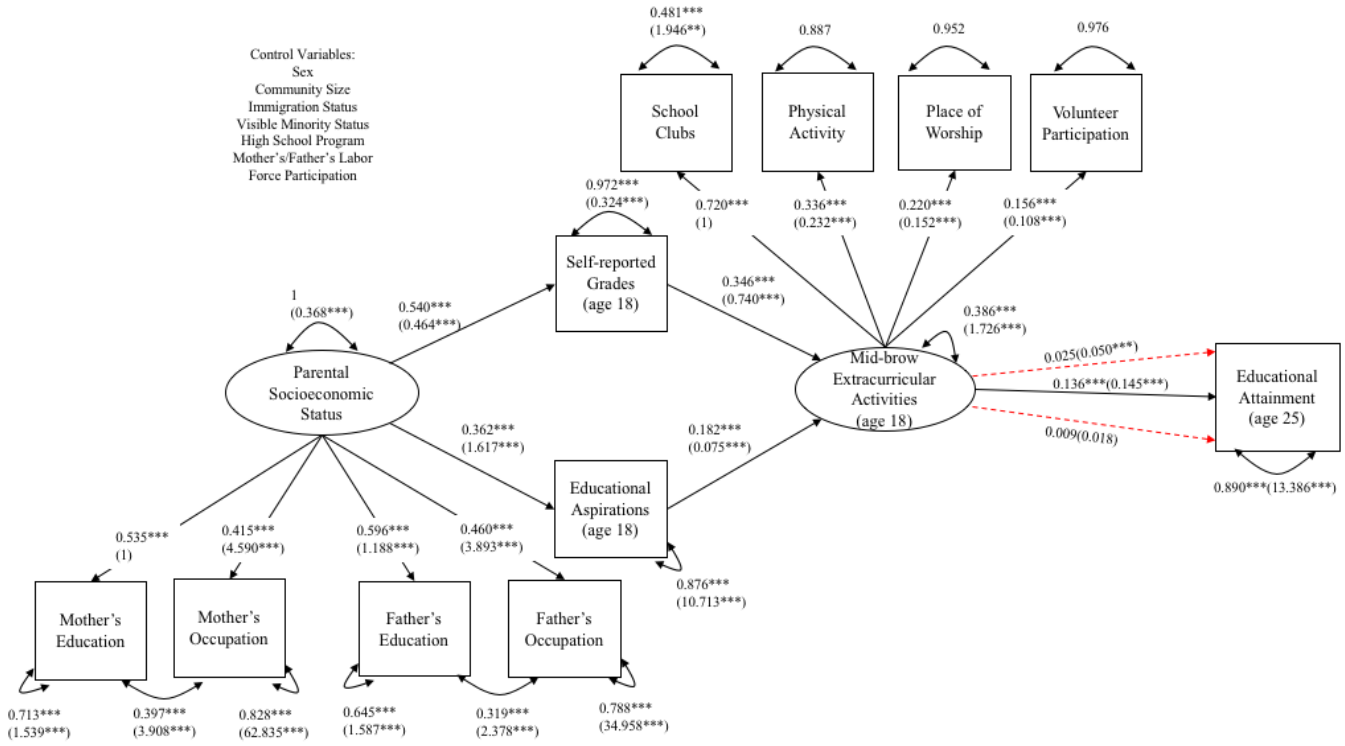
I then tested research question 4, "Do postsecondary aspirations and self-reported academic performance (Grade 12 marks) at age 18 mediate the relationship between parental SES and students' extracurricular activity participation in mid-brow activities at age 18 and their educational outcomes at age 25?" The model, depicted in Figure 8, with mid-brow activity participation as a mediator of the focal relationship yielded poor model fit. The x^2 test of model fit, $x^2 = 815.598, df = 40, p<0.000$, was significant, indicating poor model fit. Similarly, the global fit indices, *RMSEA = 0.085, CFI = 0.808, TLI = 0.736, WRMR = 3.208,* also indicated poor model fit. As I did for high-brow activity participation, I also tested an alternative model for mid-brow activities (cf. Figure 9). Again, as was the case for the high-brow activity participation model, the fit indices indicated improved fit ($x^2 = 338.721, df = 39, p<0.000$, *RMSEA = 0.054, CFI = 0.926, TLI = 0.895, WRMR = 1.972*), however, the overall fit was still poor. Therefore, I concluded that mid-brow activity participation, postsecondary aspirations, and self-reported academic performance do not mediate the relationship between parental SES and respondents' postsecondary educational attainment.

Figure 8: Structural Regression Model for Self-reported Grades, Educational Attainment, Mid-brow Activity Participation and Parental SES and Respondents' Postsecondary Educational Attainment



*Note: ***p<0.05. x^2 = 815.598, df = 40, p<0.000. RMSEA = 0.085, CFI = 0.808, TLI = 0.736, WRMR = 3.208.*

Figure 9: Alternative Structural Regression Model for Self-reported Grades, Educational Attainment, Mid-brow Activity Participation and Parental SES and Respondents' Postsecondary Educational Attainment



*Note: ***p<0.05. x^2 = 338.721, df = 39, p<0.000, RMSEA = 0.054, CFI = 0.926, TLI = 0.895, WRMR = 1.972.*

As previously mentioned, due to a poor fitting model for low-brow activity participation, I was unable to test a structural regression model with low-brow activities as a mediator for the relationship between parental socioeconomic status and students' postsecondary educational attainment.

Chapter 5
Discussion

5.1 Prior Literature and the Present Study

Higher educational levels are not only predictors of individuals' economic and labour market outcomes but are also predictors of their wellbeing in later life (Ermisch & Pronzato, 2010). More so, it may be argued that higher education is essential to the maintenance of democracy and for the improvement of society as it exposes individuals to other points of views, allows them to learn about the democratic process, and broadens their understanding of the world's "diverse peoples, sciences, languages, literatures, and histories" (Brown, 2015, p. 187; Campbell & Horowitz, 2016). Although it has been established that a significant component of individuals' higher educational attainment can be reliably predicted by their parents' SES, the mechanism through which this occurs is still not fully understood. Other researchers have proposed a wide variety of mediators for the relationship between parental SES and children's educational achievement and attainment. These mediators range from in-home resources to neighbourhood conditions to children's leisure-time activities (Dandy & Nettelbeck, 2002; Garner & Raudenbush, 1991; Goux & Maurin, 2007). This study explored the mediating role of extracurricular activity participation during high school on the relationship between parental SES and respondents' postsecondary educational attainment in Alberta.

Although various extracurricular programs exist within Canadian schools and communities, an examination of which extracurricular activities are most useful for bridging the gap between achievement levels of high- and low- SES students has not yet been conducted. Furthermore, prior studies on this topic have not explored whether these programs are successful in bridging achievement gaps and if not, whether they have other benefits that would support their implementation over other programs. Exploring whether mediators, such as extracurricular activities, are effective in different contexts is especially important because such an analysis will provide direction for program and policy interventions in underperforming schools and neighbourhoods and allow for individualized plans to be created for each context or community. Therefore, in this study I ask the following research questions: (1) Does students' extracurricular

activity participation, in high-, mid-, or low- brow activities, differ by parental SES? (2) Does students' extracurricular activity participation (in high-, mid-, or low- brow activities) at age 18 have an effect on respondents' educational attainment at age 25? (3) Does extracurricular activity participation, in high-, mid-, and low- brow activities, mediate the relationship between parental SES and respondents' educational attainment in early adulthood? (4) Do postsecondary aspirations and self-reported academic performance (Grade 12 marks) at age 18 mediate the relationship between parental SES and students' extracurricular involvement, in high-, mid-, and low- brow activities, at age 18 and their educational outcomes at age 25?

In order to answer these questions, I use structural regression models to test whether participation in different types of extracurricular activities (high-, mid-, and low- brow), postsecondary aspirations, and self-reported academic performance had a mediating effect on the relationship between parental socioeconomic status and students' educational attainment at age 25. Using Bourdieu and Passeron's (1990) theory of cultural reproduction in education, I situate extracurricular activities as sites of cultural reproduction where the intergenerational transfer of socioeconomic advantage between parents and their offspring takes place. Following Lareau's (2002) model of concerted cultivation, I also argue that the process through which this takes place is contingent on parenting styles adopted by and accessible to parents from different socioeconomic backgrounds. I also use Chan and Goldthorpe's (2005; 2007a; 2007b) omnivore-univore hypothesis to predict that high-SES students will have broader and more diverse extracurricular activity portfolios, whereas low-SES students will have more limited activity portfolios.

Based on prior literature on this topic, I expected to find that differences in extracurricular activity participation exist due to students' socioeconomic background. Previous studies demonstrate higher levels of activity participation among students from high-SES backgrounds (Covay & Carbonaro, 2010; Dumais, 2006; Stearns & Glennie, 2010; Weininger et al., 2015; White & Gager, 2007). Moreover, they demonstrate that participation in different types of extracurricular activities is also a function of students' SES background. For example, students from low-SES backgrounds are less likely to partake in private lessons or classes than their high-SES peers. They are also more likely to rely on activities available in the community

or to engage in activities with members of their immediate and extended family (Bennett, Lutz, & Jayaram, 2012). However, even when community- or school-based activities are available, high-SES students make greater use of them (Dumais, 2008). Furthermore, I expected to find a positive effect of greater participation in high- and mid- brow activities on respondents' level of educational attainment at age 25. I also expected to find that students with greater postsecondary aspirations at age 18 had greater levels of postsecondary education at age 25 and were more likely to partake in high- and mid- brow activities.

5.2 Summary of Findings and Implications

Unlike prior research conducted in the U.S. (cf. Broh, 2002; Cooper et al., 1999; Dumais, 2008; Jæger 2011, Jordan, 1999; Schreiber & Chambers, 2002), I did not find a mediating effect of students' extracurricular activity participation on the relationship between their parents' SES and their educational achievement. I did find positive and strong relationships between parental SES and levels of participation in high- and mid-brow activities. Moreover, I found positive and moderate associations between students' participation in high- and mid-brow activities at age 18 and their educational attainment at age 25. Due to poor model fit, I was unable to test whether low-brow activity participation was greater among students from low-SES backgrounds.

Although I did not find a strong mediating effect of extracurricular activity participation, the findings do suggest that parental SES impacts students' participation in high- and mid- brow extracurricular activities. As theorized by Bourdieu and Passeron (1990), upper-class students are more likely to be participating in activities reflecting upper-class culture, such as high arts and music. Thus, I find quantitative differences in the levels of participation since high-SES students are more involved in both high- and mid- brow activities. Moreover, I find high-SES students are more likely to participate in activities that are more structured and formal, such as school clubs, volunteer work, or playing a musical instrument, compared to their low-SES peers. These findings are in line with those of previous studies in the U.S. (cf. Bennett, Lutz, & Jayaram, 2012; Dumais, 2008; Stearns and Glennie, 2010; White & Gager, 2007) and Davies and Aurini's (2013) study of summer-learning gaps in Ontario. Due to an ill-fitting model for low-brow activities, I was unable to test Chan and Goldthorpe's (2005; 2007a; 2007b) univore-

omnivore hypothesis of cultural consumption. However, the findings for high- and mid- brow activity participation do suggest that high-SES students have greater levels of participation in both types of extracurricular activities. [9]

One possible reason for a lack of a mediating effect of extracurricular activities on the relationship between parental SES and respondents' postsecondary education in this study may be the unique socioeconomic composition of Alberta and the time period during which the data were collected. Alberta's socioeconomic situation is distinct in Canada because of its economic dependence on natural resourcesc which has led to the proliferation of trades occupations in the province. These professions often pay high wages and require lower levels of postsecondary education. This unique feature of the economy means that the labour market demand for university degree credentials is still relatively low (Krahn & Barron, 2016). In turn, this low demand for university educational credentials and the prevalence of higher paying trades occupations may result in more students aspiring to trades careers, regardless of their SES background. The effect of the resource economy and its lower demands for postsecondary credentials may have been further exacerbated by the time period during which the second wave of this survey was collected. During the early 2000s, Alberta underwent an economic boom period. This economic boom created new jobs, particularly in the resource-energy sector, and thus may have impacted respondents' educational and occupational decisions (i.e., many students may have forgone university credentials to enter the labour market since more trades jobs became available).

Furthermore, since Alberta's labour market consists of well-paying trades occupations, students from low-SES (low parental education and occupational status) backgrounds may still have had financial resources that are comparable to their peers from high-SES backgrounds and needed for postsecondary education. Although, postsecondary education is an apparent indicator of upper-class cultural participation, extracurricular activities may be conceptualized as a hidden form of upper-class cultural knowledge. Bourdieu (1984) argues that although low-SES

[9] Moreover, I tested a model with a composite variable that combined participation levels in all activities. X^2 test of model fit was close to non-significant ($x^2 = 12.866, df = 6, p = 0.045$) and the global fit indices indicated good model fit (*RMSEA = 0.021, CFI = 0.997, TLII = 0.992, SRMR = 0.010*). Parental SES was positively and moderately associated with students' overall level of extracurricular participation ($\beta = 0.214$).

individuals will be able to replicate aspects of upper-class culture in order to be socially mobile, they will not have access to knowledge about more concealed upper-class cultural activities and habitus. Thus, it may be possible that low-SES parents' higher income and wealth would allow their children to partake in the more apparent upper-class cultural activities, such as postsecondary education, but still not give them to access to knowledge regarding the more hidden indicators of upper-class status, such as leisure-time activities.

Another potential reason for a lack of a mediating effect in the Canadian context may be the relatively low importance that is given to extracurricular activities on students' postsecondary admissions. Admission decisions at most Canadian undergraduate universities are made mostly on the basis of students' academic performance and not their extracurricular activity portfolios. Thus, respondents' extracurricular activity participation may not have a strong effect on their postsecondary educational attainment.

Other reasons why I did not find a mediating effect of extracurricular activities on the focal relationship pertain to the research design of this study in comparison to those of prior studies, including differences in the educational outcomes and the types of extracurricular activities examined. Whereas most prior studies used students' grade point averages while in school or their performance on standardized math and reading tests, this study made use of respondents' entry and completion of postsecondary education. Since both the theory of cultural reproduction by Bourdieu and Passeron (1990) and the concerted cultivation model proposed by Lareau (2002) conceptualize teachers as participants in and gate keepers of upper-class culture, it is possible that the effect of participation in extracurricular activities has the most impact on students' school academic performance rather than their postsecondary attainment.

Similarly, this study and prior studies also differed in the types of extracurricular activities that were used as indicators and the methods in which data about students' extracurricular activities was collected. For example, Fletcher et al. (2003) made use of parents' reports of their children's participation, whereas Dumais (2008) examined the amount of time students spent in different types of activities. In contrast, Schreiber & Chambers (2002) analyzed a large variety of activities which they categorized according to the nature (academic/non-

academic), the structure (organized/unorganized), and the location (in-school and out-of-school) of the activity. In particular, Lareau's (2002) seminal work, which served as a framework for this study, was qualitative in nature and thus was able to make fine distinctions between students' various leisure-time activities. For example, although this study views physical exercise as a single item, Lareau was able to discern students' participation in private, competitive sports teams from their participation in neighbourhood pickup games. Her ability to make such qualitative distinctions allowed her to reveal some of the less apparent differences in high- and low- SES students' leisure-time use.

Lastly, broader societal differences in the structure of inequality and disadvantage in the U.S. (where the majority of prior research took place) and Canada may also be responsible for the lack of mediating effect of extracurricular activities on the focal relationship in this study. Since inequality is measured in a relative sense in this study (i.e., those considered low-SES are those who have lower educational and occupational statuses), it may be that the nature of inequality in the U.S. and Canada differs. In other words, those at the bottom of the SES ladder in the U.S. may be more disadvantaged than those at the bottom in Canada, since income inequality is greater in the U.S. than in Canada (Green, Riddell, & St-Hilaire, 2016). Therefore, I speculate that being poor or low-SES in the U.S. is more restrictive than it is in Canada. In other words, the differences in extracurricular activities between high and low-SES high school students may be greater in the U.S.

5.3 Limitations

The dataset used for this study has some limitations. As is the case with most survey data, certain populations are most likely underrepresented within the study sample. Study participants who did not have access to a phone or were homeless at age 25 may be underrepresented in this study as the Time 2 survey was administered either by phone or through a mail-out paper questionnaire. Thus, individuals who are economically disadvantaged or individuals who chose not to have a phone due to other reasons are less likely to be represented in the data. Krahn (2004) also highlights that individuals of visible minority status, those with disabilities, and those born outside Canada had a lower response rate for the *Follow-up Survey (2003)* (Krahn, 2004).

Therefore, sample attrition is a limitation of the sample and may result in selection bias, that is individuals who responded to the follow-up questionnaire are likely to be distinct (in socio-demographic or personal characteristics) compared to those who did not.

Sampling limitations aside, the dataset lacks information on several measures that might have affected the findings of this study. For example, the survey was not administered to students attending private schools. It may be argued that parents who are exercising choice in their children's extracurricular activities will also be more likely to exercise choice in their children's schools. Moreover, the dataset also lacked several details about students' extracurricular activities, which would allow for one to make qualitative distinctions between activities. The survey questions did not distinguish between private, school-based, or community-based activities. For instance, the survey question used to measure physical activity participation simply asked respondents whether or not they had participated in physical activity in the past four weeks. I was unable to account for specific type of physical activity, such as soccer, swimming, or tennis, and the quality of the activity, such as private lessons/league, school team, or playing sports with friends. Similarly, students were only asked to answer whether they consumed high arts, such as by attending the symphony/ballet/theatre performance, and how often they consumed high arts. They were not asked whether they participated in high arts or about the nature of their participation, such as school trips or family excursions. The survey also did not ask about out-of-school academic activities, e.g. taking math classes or tutoring. Furthermore, the dataset does not include many community-based or family-based activities, which have been used as indicators of working-class activities in prior studies (Bennett, Lutz, & Jayaram, 2012; Lareau, 2002). Since the model fit for the latent variable low-brow activity participation was poor in this study, a larger variety of measures of low-brow activities might allow for a better fitting model.

Moreover, the dataset is slightly dated as the *Follow-up Survey* was administered in 2003. It is likely that technological changes, such as widespread access to the internet and personal electronic devices such as computers and cellphones, have impacted the leisure-time use of students today. Since the survey was first administered when respondents were in Grade 12, it lacks information on students who had already dropped out due to poor performance or alternate

educational/occupational ambitions, for example, apprenticing for a trade. The survey only tracks respondents till age 25. Although, many respondents (84.3%) had participated in some form of postsecondary education by age 25, the dataset does not have information on those who returned to school to attain further credentials. Also, many students may have taken gap years and thus delay their postsecondary education. The educational outcomes of these students may not have been accurately represented in the Time 2 sample.

5.4 Future Research

Considering the findings and limitations of this study, future research would benefit from having access to a more current sample where researchers are able to account for the influence of personal computing technologies on the extracurricular activities of youth. Moreover, future research might benefit from employing time-use diaries as a data collection method as this would allow researchers not only to have access to the levels of students' participation in specific activities but also allow them to make inferences regarding the frequency and intensity of participation. Details provided in time-use diaries would also allow researchers to make finer distinctions between the type and quality of extracurricular activities.

Likewise, collecting parents' reports of students' extracurricular pursuits may also provide more detail regarding these activities, especially with regards to their cost and time commitment. Moreover, parents could be asked about their views on parenting, about their involvement in their children's extracurricular activities, and about their motivations for enrolling their children in particular activities. Parental reports could also provide details regarding the factors determining their child's extracurricular participation. For example, they could provide a sense for whether students are making decisions regarding their extracurricular activities or whether parents are involved in decision making. Such information would be important in discerning the process of intergenerational transfer of socioeconomic advantage and disadvantage.

Researchers may also consider the impact of neighbourhood resources on high- and low-SES students' access to certain types and qualities of extracurricular activities. In the same vein,

future research may also benefit from gathering greater details about the various in-school extracurricular activities available to students and analyzing differences not only at the family level but also at the school-level. For example, the Canadian *Youth in Transitions (YITS)* study [10] provides greater details regarding school-level extracurricular activities. Finer distinctions between students' extracurricular activities may also be better captured through a qualitative research design, which would not only allow researchers to gather greater details regarding students' leisure time use but also regarding their personal and their parents' motivations for participating in particular activities.

In terms of outcomes, future research may also benefit from access to students' scores on standardized tests. Access to these scores would allow for researchers to control for prior academic ability instead of using school grades, which are often influenced by teachers' perceptions or evaluations of students. Similarly, collecting data at more time points following high school graduation would provide greater detail on respondents' educational trajectories. For example, some students may choose to delay entry into postsecondary education and thus have lower levels of educational attainment at age 25. In light of the findings of this study, it would be useful to examine whether the findings of this study are context-specific or hold across different provinces/communities of Canada. Moreover, a comparative study across the U.S. and Canada may also yield interesting results and reveal similarities or differences that can be useful in informing educational policy.

Future research would also benefit from an exploration of possible moderators of the relationships explored in this study. Prior studies indicate that gender, immigrant status, visible minority status, and community size have an impact on students' extracurricular participation (cf. Feldman & Matjasko, 2007; Guèvremont et al., 2008; Peguero, 2011; Okamoto et al., 2013) and their postsecondary aspirations (cf. Cooper, 2009; Gil-Flores et al., 2011; Krahn & Talyor, 2005; Majoribanks, 2003; Wilks & Wilson, 2012). Such an analysis may reveal important differences or similarities in the levels and types of students' extracurricular activity participation. Moreover,

[10] Finnie & Mueller (2008) examine YITS data to explore the effects of family socioeconomic factors on access to higher education in Canada.

they may reveal the lesser or greater impact of participation in extracurricular activity participation for students of different backgrounds.

5.5 Conclusion

In conclusion, although I do not find a mediating effect of extracurricular activities on the relationship between parental SES and respondents' postsecondary educational attainment, the findings do indicate differences in participation in high- and mid- brow activities of students from different SES backgrounds. Moreover, I find a relationship between greater levels of activity participation at age 18 and respondents' higher educational attainment at age 25. These findings support Bourdieu's (1990) argument that high-SES individuals are more likely to participate in high-SES activities. However, due to model's poor local fit, I was unable to make any conclusions about their low-brow activity participation. Similarly, I find support for Lareau's (2002) claim that structured and formal activities are rewarded in the postsecondary milieu. However, I did not find support for Lareau's (2002) claim that students' leisure-time activities are a way for parents to influence their children's educational achievements.

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Appendix

Table 11: High Schools Sampled in 1996

Grande Prairie Public Districts
- Grande Prairie Composite High
- Sexsmith Secondary School
- Peace River High
- Fort Vermillion Public School

Other North-Central Alberta Public Districts
- Lorne Jenken High (Barrhead)
- Fort McMurray Composite High
- Bonnyville Central High
- Grande Cache High School
- Two Hills High School
- J.R. Robson (Vermillion)
- Wainwright High School

Other Northern Alberta Catholic Districts
- Father Patrick Mercredi (Fort McMurray)

Edmonton City Public Schools
- Harry Ainlay
- Ross Sheppard
- Jasper Place
- Victoria
- Eastglen
- J. Percy Page
- Bonnie Doon
- Strathcona

Edmonton City Catholic Schools
- Archbiship O'Leary
- St. Francis Xavier
- Louis St Laurent

Edmonton Rural Public Districts
- Salisbury Composite High (Sh. Park)
- Paul Kane High (St. Albert)
- Leduc Composite High
- Wetaskiwin Composite High
- Camrose Composite High
- Tofield School
- New Sarepta Community High
- Andrew School

Edmonton Rural Catholic Districts
- St. Albert Catholic High
- St. Mary's School (Vegreville)
- Morinville Community High

Red Deer Public Schools
- Lindsay Thurber Composite High
- Lacombe Composite High
- Innisfail Jr-Sr High
- Alix School
- Caroline School

Calgary City Public Schools
- Lord Beaverbrook High
- Western Canada Senior High
- Sir Winston Churchill High
- Lester B. Pearson High
- Forest Lawn High
- Jack James High
- Shaughnessy High

Calgary City Catholic Schools
- St. Francis High
- Bishop McNally High

Calgary Rural Districts
- Foothills Composite (Okotoks)
- Drumheller Composite High
- Canmore Collegiate
- Acme School

Lethbridge Public Districts
- Lethbridge Collegiate Institute
- Medicine Hat High
- Brooks Composite High
- Allan Watson
- Coalhurst High

Lethbridge Catholic Districts
- Catholic Central High

Note. Reprinted from *School-Work Transitions Project*. Alberta High School Graduate Survey (1996-2003) [codebook]. Edmonton: Population Research Laboratory, University of Alberta.

Table 12: "Sampling Design, Original and Weighted Samples by School Zone/District, 1996 and 2003" (Krahn, 2004).

Geographic Region	1995 Gr. 12 Enroll. [1]	1996 Survey Target Sample[2]	1996 Survey Final Sample	1996 Survey Weighted Sample[3]	2003 Follow-up Final Sample	2003 Follow-up Weighted Sample [4]
Grande Prairie						
Public	1876	101	110	111 *(1.007)*	57	49 *(0.862)*
Other North-Central Alberta						
Public	3055	165	222	180 *(0.812)*	116	82 *(0.705)*
Catholic	518 (+ 352)	48	37	51 *(1.374)*	19	23 *(1.226)*
Edmonton						
Public	7101	940	747	419 *(0.560)*	308	188 *(0.610)*
Catholic	2800	150	128	165 *(1.291)*	63	75 *(1.190)*
Edmonton Rural						
Public	6238	336	313	368 *(1.176)*	161	167 *(1.038)*
Catholic	1354 (+ 324)	88	106	99 *(0.934)*	53	45 *(0.848)*
Red Deer and District						
Public	3946	212	164	232 *(1.416)*	77	106 *(1.373)*
Calgary						
Public	8582	461	417	506 *(1.213)*	178	230 *(1.292)*
Catholic	2818	150	122	166 *(1.363)*	41	75 *(1.841)*
Calgary Rural						
Public	2214	120	117	131 *(1.117)*	47	59 *(1.262)*
Lethbridge						
Public	3625	194	166	214 *(1.288)*	76	97 *(1.277)*
Catholic	581 (+ 230)	35	32	39 *(1.233)*	22	22 *(0.987)*
TOTAL	**45,476**	**3000**	**2681**	**2681**	**1218**	**1218**

[1] Estimated 12th grade enrollment based on 1995 Alberta Learning tabulations; estimated populations for several small Catholic school districts (Grande Prairie, Red Deer, Calgary rural) merged with larger adjacent Catholic districts (other North-Central, Edmonton rural, Lethbridge) to improve sampling efficiency. See Lowe et al. (1997: 15-17) for details.

[2] Probability sample based on estimated number of Grade 12 students in zone / district (column 1), with the exception of Edmonton public schools which were over-sampled to maintain comparability with an earlier similar study of the Edmonton graduating "class of 1985."

[3] 1996 final sample weighted to match estimated proportions of provincial Grade 12 class in each zone / district in 1995 (column 1); 1996 weighting factors in parentheses.

[4] 2003 final sample weighted to match estimated proportions of provincial Grade 12 class in each zone / district in 1995 (column 1); 2003 weighting factors in parentheses.

Note. Reprinted from *School-Work Transitions Project*. Alberta High School Graduate Survey (1996-2003) [codebook]. Edmonton: Population Research Laboratory, University of Alberta.