

**Do high levels of extracurricular activities help or hinder child
development?**

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Summary of Findings

This study examines rates of extracurricular participation for Canadian children and youth aged 6 to 17 years using data from cycle 4 of the National Longitudinal Survey of Children and Youth (NLSCY). Part I presents rates of extracurricular activity participation and examines how these rates vary by socio-demographic characteristics. Part II examines whether high levels of activity participation help or hinder children's academic and behavioral outcomes, and whether they protect or increase the likelihood of youth participating in risk behaviours.

PART I

- The majority of children and youth (86%) participated in at least one extracurricular activity. Girls were more likely than boys to participate in non-sport lessons and clubs/community groups.
- Young children who lived in an urban area and who lived with two parents were more likely to participate in extracurricular activities.
- Participation in activities increased with family income for younger children aged 6 to 13, but not for youth aged 14 to 17.
- Children of all ages from the Western provinces had high participation rates in all activities, whereas young children from the Eastern provinces had higher rates of participation in clubs/community groups.

PART II

- Overall, activity participation seemed to benefit children and youth's development, particularly in the area of prosocial behaviour.
- High levels of participation did not hinder children and youth's academic or behavioural outcomes. For youth aged 10 to 13, activity participation showed a curvilinear relationship with the standardized math test score suggesting that increased activity is related to positive math outcomes only to a certain point; however, math test scores for the highest participating group were not significantly different than math test scores for youth who did not participate in any activities.
- For 14 to 17 year olds, participation in out of school activities was associated with more positive outcomes (standardized math test, self-image) and fewer negative outcomes (trying alcohol or marijuana) than in school extracurricular activity, over and above the effect of socio-economic status.

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Part I: Children and Youth's Extracurricular Activity Participation

Introduction

Participation in extracurricular activities has been associated with both short- and long-term positive outcomes in children and youth, including academic achievement and prosocial behaviours, as well as decreased negative outcomes such as dropping out of school and emotional and behavioural problems (Cooper et al., 1999; Mahoney & Cairns, 1997; Offord et al., 1998; Zaff et al., 2003). The majority of youth participate in extracurricular activities – research conducted with the 1994/1995 National Longitudinal Survey of Children and Youth (NLSCY) found that 63 to 67% of 6- to 11- year olds participated in supervised sports, yet fewer (31 to 37%) 6- to 11- year olds participated in the arts or community programs (Offord et al., 1998). However, children and youth's extracurricular activity participation rates vary by child and family socio-demographic characteristics such as child age and gender, family income, and whether or not the child lives in a single parent family (Offord et al., 1998; Eccles & Barber, 1999; Harrison & Narayan, 2003). Older children, children from families with higher incomes, and children who live with two parents have been shown to participate in extracurricular activities at higher rates. The majority of this research has been conducted in the United States. The most recent study conducted on rates of participation in Canada used data from 1994/95 and included only 6- to 11- year olds (Offord et al., 1998).

This article updates and adds to previously reported findings for Canadian children's extracurricular activities (Offord et al., 1998) by presenting more recent data for children of a larger age range and comparing participation rates by a more comprehensive set of socio-demographic characteristics. We use Cycle 4 data from the NLSCY to examine rates of extracurricular activity participation for a variety of activities (including sports, non-sport lessons, and clubs/community group) for Canadian children and youth aged 6 to 17 years, and look at how

these rates vary by child and family socio-demographic characteristics such as gender and family income.

Methods

Data Source

Data on extracurricular activity participation come from the National Longitudinal Survey of Children and Youth (NLSCY). The NLSCY is a comprehensive Canadian national survey collecting information on children's healthy development and the characteristics that have an impact on their well-being (Statistics Canada/Human Resources Development Canada, 2001). Cycle 4 (collected in the fall of 2000 and the spring of 2001) was selected as it is the most recent cycle that provides nationally representative, cross-sectional data for a sample of children aged 6 to 17 years. The NLSCY collected maternal-reported information on a variety of socio-demographic and socio-economic characteristics of the family as well as on children's activity participation. This analysis pertains to 5242 children who were aged 6 to 9 years and 6926 children and youth aged 10 to 17 years in 2000/01.

Extracurricular activity participation was reported either by parents (for children aged 6 to 9 years) or by youth self-report (for youth aged 10 to 17 years). Youth not currently in high school (about 10% of 16-17 year olds), and children not in school (3% of 6 to 9 year olds, mostly 6 year olds not yet in school or children who were homeschooled) were excluded from the current analysis because these groups of children and youth not in school may have more disposable time and thus would not be comparable to children attending school.

Definitions

Three types of activities were examined: sports, non-sport lessons, and clubs or community groups. Two questions were asked about sports participation – participation in sports with a coach or instructor, and participation in lessons or instruction in other organized physical

activities with a coach or instructor such as dance, gymnastics, or martial arts. Participation in any of these activities was aggregated into a single variable to represent participation in organized sports. Non-sport activities included lessons, clubs or groups in music, art, drama, or other non-sport activities. Examples of clubs or community groups included Brownies, Guides, Cubs, Scouts, church groups, 4-H. Youth aged 14 to 17 years were asked about participation in both school-related (but out of class) and out of school activities. School-related clubs (asked of 14 to 17 year olds only) included yearbook club, photography club, or student council. In this study, participation in either was considered participation in an extracurricular activity.

Most activity questions in the survey asked about frequency of activities in the past 12 months, including participation in sports, non-sport activities, and clubs or community groups. The exception was questions asked of 14- to 17- year olds about school-related activities. These inquired about school-related activities in the last 3 months. Thus, these school-related and out of school activities were examined separately. Response categories for parents of 6 to 9 year olds included “almost never”, “about once a month”, “about once a week”, “a few times a week”, and “most days.” Response categories for youth 10 to 17 years included “never”, “less than once a week”, “1-3 times a week”, and “4 or more times a week.” Responses of “almost never” or “never” were categorized as non-participation; all other responses were categorized as participation in an extracurricular activity.^{1,2}

Selected child and family socio-demographic characteristics included gender, whether the child lives with one or two parents, the ratio of family income to the low income cut-off (LICO), urban or rural area, and region of Canada (regions included the Eastern provinces of

¹ See Appendix A for items.

² Tables showing the percentage participation at each response level for each type of activity are available in Appendix B.

Newfoundland and Labrador, New Brunswick, Nova Scotia and Prince Edward Island; Quebec; Ontario; and the Western provinces British Columbia, Alberta, Saskatchewan, and Manitoba). The LICO is a statistical measure of the income thresholds below which Canadians likely devote a larger share of income than average to the necessities of food, shelter and clothing. To reflect differences in the costs of necessities among different community and family sizes, LICOs are defined for five categories of community size and seven of family size (Statistics Canada, 2004).

Analysis

Participation rates by socio-demographic characteristics were statistically tested for differences with chi-square tests. All analyses were weighted using a normalized population weight and variance estimation used the bootstrap technique to account for complex survey design (Rao et al., 1992; Rust & Rao, 1996; Yeo et al., 1999).

Results

Extracurricular Participation

The majority (86%) of Canadian children and youth participated in at least one extracurricular activity (Figure 1). Youth aged 10 to 13 years were the most likely to report participating – over 90% of children in this age group reported participating in an organized activity (including sports, non-sport lessons, and clubs or community groups). Compared to 10 to 13 year olds, significantly fewer youth (86%) aged 14 to 17 years reported participating in organized activities either out of school or in a school-related activity. Children aged 6 to 9 years were the least likely to participate in an extracurricular activity, with approximately 81% participating in an extracurricular activity in the last year (significantly different from youth aged 10 to 13 and 14 to 17 years).

Children and youth were significantly more likely to participate in organized sports compared to non-sport lessons and community clubs or groups. Approximately 71% of 6 to 9

year olds, 83% of 10 to 13 year olds, and 76% of 14 to 17 year olds participated in organized sports. Among 6 to 9 year olds, more children participated in clubs or community groups (29%) than in non-sport lessons (25%). In contrast, children aged 10 to 13 years were more likely to participate in organized non-sport lessons (47%) than in clubs or community groups (38%). Youth aged 14 to 17 years were equally likely to participate in non-sport lessons (38%) and clubs or community groups (38%). (All reported differences are statistically significant.)

Gender

Overall, boys were not more likely than girls to participate in at least one extracurricular activity (Table 1). However, gender differences were shown for each of the age groups. Among 6 to 9 year olds, boys were more likely to participate in sports and girls were more likely to participate in non-sport lessons and clubs or community groups. Moreover, girls age 10 to 17 were more likely than boys to participate in non-sport lessons and clubs or community groups, but equally as likely as boys to participate in sports.

Living with one or two parents

Overall, children aged 6 to 9 years and youth aged 14 to 17 who lived with two parents were more likely to participate in organized activities than children who lived with one parent, whereas youth aged 10 to 13 who lived with one and two parents were equally likely to participate in activities. Specifically, about 83% of children aged 6 to 9 years who lived with two parents participated in at least one extracurricular activity compared to 72% of children who lived with one parent. This difference was only significant for sports (73% of children living with two parents versus 58% of children living with one parent). No significant differences in participation rates were observed for children aged 10 to 13 years in terms of whether they lived with one or two parents. Youth aged 14 to 17 years who lived with two parents were also more likely to participate in extracurricular activities; 87% of youth who lived with two parents participated in

at least one activity compared to 80% of youth who lived with one parent. This difference was mainly driven by sports participation. Youth living with two parents were more likely to participate in sports (78% versus 69%).

Family income

Overall, participation in extracurricular activities varied more by family income for children (aged 6 to 13 years) than youth (aged 14 to 17 years) (Figure 2). The largest differences were observed for 6 to 9 year olds - 64% of children from families with incomes below the LICO participated in at least one extracurricular activity, compared to 94% of children from families with incomes 3 times the LICO or more. This gradient was present in sports, non-sport lessons, and clubs or community groups. Extracurricular activity participation also varied by family income for 10 to 13 year olds, particularly for sports participation. Over 92% of youth in the highest income group participated in sports compared to 73% of youth in the lowest income group. Youth in the highest income group were more likely to participation in non-sport lessons compared to youth in the lowest income group, but participation in sports and clubs or community groups did not vary by family income for 14 to 17 year olds.

Urban/Rural area

Overall, the gap in participation between urban and rural children was more evident for 6 to 9 year olds than for 10 to 17 year olds. Young children (aged 6 to 9 years) living in urban areas were more likely to participate in an organized activity than children of the same age in rural areas (as in all models, this association was over and above the effects of income and other covariates). This included both sports (72% vs. 65%) and non-sport lessons (26% vs. 19%). There were no differences in participation by urban/rural area for youth aged 10 to 13. There was also no difference in overall participation rates between urban and rural youth 14 to 17 years. However, urban youth aged 14 to 17 were significantly more likely to participate in sports (77%

vs. 70%) than rural youth of this age group. (Results by size of community are available in Appendix B.)

Region of Canada

In general, children in the Western provinces had high participation rates in extracurricular activities at all ages. Children in Quebec had the lowest participation rates. Specifically, young children (aged 6 to 9 years) in Quebec had significantly lower rates in both sports and non-sport lessons than children in the West and Ontario. Young children in the Eastern provinces participated less in sports compared to children from the other regions but had higher participation rates in clubs and community groups. At age 10 to 13 years, children in Quebec had significantly lower participation rates in non-sport lessons and clubs and community groups than youth from the other regions. For 14 to 17 year olds, youth in Quebec and the Eastern provinces participated less in sports, and youth in Quebec and Ontario participated less in non-sport lessons and clubs or community groups compared to youth from the other regions. (Results for individual provinces are available in Appendix C).

Discussion

The majority of Canadian children and youth participated in at least one extracurricular activity. However, participation rates varied by socio-demographic characteristics. Girls were generally more likely to participate in non-sport lessons and clubs or community groups than boys, but were equally likely to participate in sports as boys. Children from the Western region of Canada had high participation rates in sports and non-sport lessons, whereas young children from the Eastern region of Canada had high rates of participation in clubs or community groups. Young children who lived in an urban area and who lived with two parents were more likely to participate in extracurricular activities than children from rural areas or those living with single

parents. Activity participation varied by family income for young children but not for older children.

The rates of overall extracurricular activity participation found in this study are consistent with the literature. This study found that 81% of 6 to 9 year olds participated in at least one extracurricular activity in the past year; this is similar to research conducted in the U.S. that found 81% of 6- to 11- year olds participated in one or more sports, lessons, or clubs during the past year (Moore et al., 2000). As well, the current study found that 90% of 10 to 13 year olds and 86% of 14 to 17 year olds participated in at least one out of school or school-related extracurricular activity, compared to 83% of 12- to 17-year olds in the U.S. who participated in one or more sports, lessons, or clubs during the past year (Moore et al., 2000).

There were no overall gender differences for participation in one or more extracurricular activities, but girls and boys were more likely to participate in different types of activities. Girls in every age group were more likely to participate in non-sport lessons and clubs/community groups. Boys were generally more likely to participate in sports. These differences might reflect the differential socialization of boys and girls, with parents encouraging boys to participate in sports more than girls. Girls may also be encouraged to participate in arts or music lessons more than boys, and it may be more socially acceptable for girls to partake in non-sport clubs and community groups.

Activity participation varied by family income for young children but not for older children. As well, young children who lived in an urban area and who lived with two parents were more likely to participate in extracurricular activities, but these associations were not found for 10 to 13 year olds and were found only for sports participation for 14 to 17 year olds. One reason could be that more extracurricular activities are available at school for youth compared to younger children. It is also possible that for 14 to 17 year olds, many sports activities take place

out of school (hockey, soccer), whereas non-sport activities are more likely to be offered within the school setting (plays, musicals, activity clubs). Out of school activities are usually based on a fee and often require additional transportation, equipment, and planning for attendance (Hanvey, 2000), whereas school-related programs usually do not, which could explain the difference in terms of income and single parent families.

Sports participation was high in the Western provinces and participation in clubs and community groups was high in the Eastern provinces. High levels of sports participation in the Western provinces has been shown in the literature for adults – Cameron, Craig, and Paolin (Cameron et al., 2005) found that adults living in British Columbia and Alberta were more likely to be classified as moderately active and that adults living in New Brunswick, Prince Edward Island, Newfoundland, and Quebec were least likely to be classified as moderately active. These differences could be due to climate, cultural norms, or lifestyle factors. As well, the availability of activities and family resources may contribute to the differences in the rates of activity participation by region.

These results have several potential policy implications. New programs, particularly for younger children, could target children and youth from low income and single parent families to try to increase their participation in extracurricular activities. As well, policies could be directed toward increasing 14 to 17 year olds' sports participation in rural areas and for youth who live with a single parent. These policies would hopefully address the gaps in participation between those children/adolescents who do or do not have opportunities to participate in extracurricular activities.

Part II: Do high levels of extracurricular activities help or hinder child and youth outcomes?

Introduction

There is increasing evidence that children's extracurricular activity participation plays an important role in healthy child development (Cooper et al., 1999; Cooper et al., 1999; Zaff et al., 2003; Offord et al., 1998; Mahoney & Cairns, 1997). However, there is debate over whether an overabundance of scheduled activities may in fact be associated with negative child outcomes. Children involved in numerous extracurricular activities may have less time for free play and the burden of scheduling may be a cause for stress on the family. However, Mahoney, Harris, and Eccles' recent work (Mahoney & Cairns, 1997; Mahoney et al., 2006) with a nationally representative sample of American youth suggested that, 1) organized activities do not dominate young people's time and, 2) overall, youth who participate in organized activities do better than youth who do not (they are more likely to have higher academic achievement, finish school, do well in college, and be well-adjusted). Some outcomes showed a curvilinear trend, whereby very high levels of activities (e.g., more than 20 hours per week) were associated with worse outcomes than moderate levels of activities, but benefits were generally still greater than or equal to youth not engaged in any organized activities. In terms of risk behaviours, youth activity participation was associated with lowered rates of smoking and drug use, although one study found an association between sports participation and greater use of alcohol (Eccles et al., 2003).

No similar studies have been conducted using Canadian data yet high participation rates warrant an examination of the impact of participation on child and youth outcomes. Moreover, implications pertain to several policy domains (e.g., sport and physical activity, funding for infrastructure/programming at the community level). For instance, the recent creation of a Fitness Tax Credit (up to \$500) for families who enroll their child(ren) in sports demonstrates both the importance and the priority of supporting children's physical activity. While other

extracurricular activities (such as music, art) may not have the same cardiovascular benefits, social and emotional benefits are certainly possible and are largely ignored by such initiatives.

This section of the report addresses the following questions:

- 1) Do high levels of participation help or hinder children's academic or behavioural outcomes (e.g. standardized math test, hyperactivity, physical aggression)?
- 2) Do high levels of participation protect or increase the likelihood of youth participating in risk behaviours (e.g. smoking, alcohol, marijuana)?

Methods

Data Source

Data on extracurricular activity participation comes from the National Longitudinal Survey of Children and Youth. The NLSCY is a comprehensive Canadian national survey collecting information on children's healthy development and the characteristics that have an impact on their well-being (Statistics Canada/Human Resources Development Canada, 2001). Cycle 4 (collected in the fall of 2000 and the spring of 2001) was selected as it is the most recent cross-sectional cycle that provides nationally representative data for a sample of children aged 6 to 17 years. The NLSCY collects information on a variety of socio-demographic and socio-economic characteristics of the family as well as on children's activity participation. This analysis pertains to 5242 children who were aged 6 to 9, 3724 who were age 10 to 13, and 3202 youth aged 14 to 17 in 2000/01.

Definitions

Activity Participation

Extracurricular activity participation was reported either by parents (for children aged 6 to 9) or by youth self-report (for youth aged 10 to 17). Cycle 1 was examined regarding the agreement of parent and self-report (for 10 to 11 year olds). For sports, non-sport lessons, and

clubs/community groups, parent and self-report had Pearson correlation coefficients of 0.52, 0.46, and 0.54, respectively. These coefficients suggest only moderate agreement and that information based on different reporters should not be combined. In general in Cycle 1, parental reported activity participation was higher than participation rates reported by children themselves. Moreover, existing literature suggests that parent report is preferred for children less than 10 years of age (Epstein et al., 1996; Sirard & Pate, 2001).

Most activity questions in the survey asked about frequency of activities in the past 12 months. The exception was questions regarding 14- to 17- year olds' school-related activities, which inquired about school-related activities in the last 3 months. Response categories for parents of 6 to 9 years olds included "almost never", "about once a month", "about once a week", "a few times a week", and "most days." Response categories for youth 10 to 17 included "never", "less than once a week", "1-3 times a week", and "4 or more times a week."

A measure of total activity participation was developed by adding the level of participation in four extracurricular activities:

- 1) Sports with a coach or instructor.
- 2) Lessons or instruction in other organized physical activities with a coach or instructor such as dance, gymnastics or martial arts.
- 3) Non-sport lessons including lessons, clubs or groups in music, art, drama, or other non-sport activities (other than in class).
- 4) Clubs or community groups such as Brownies, Guides, Cubs, Scouts, church groups, and 4-H and school-related clubs (asked of 14 to 17 year olds only) including yearbook club, photography club, or student council.

(Full question wording for all age groups is available in Appendix A.)

Scores on this measure ranged from 0 (representing no participation) to 12 (representing participation in each of the 4 activities a few times a week for 6-9 year olds or 4 times a week or more for 10-17 year olds). We validated this measure by comparing it to other ways of spending time (hours watching television, hours playing video games/on computer, time spent playing alone or looking after a sibling). For example, children and youth with higher scores on the measure of total activities were less likely to watch more than two hours of TV per day (20% of 14 to 17 year olds who participated in the highest amount of school-related activities versus 52% of 14 to 17 year olds who participated in no school-related activities), suggesting that they were spending more time in other activities.

Academic Outcomes

Students aged 6 to 17 were administered two direct measures of their academic ability. Students aged 6 to 15 years in grade 2 and up were administered the standardized math test. This test was a shortened version (20 items) of the Mathematics Computation Test of the standardized Canadian Achievement Tests, Second Edition (CAT/2). CAT/2 is a series of tests designed to measure achievement in basic academic skills. Youth aged 16 to 17 years completed a problem solving assessment which consisted of 20 questions to assess strengths in reading comprehension, problem solving and decision making. It also tests some mathematical skills.

Parents and the youth themselves also reported on several academic outcomes. Parents of 6 to 15 year olds were asked, "Overall, how is your child doing in school?" Children whose parents responded excellent or very good were considered as doing well in school. Failing a grade in the last two years was reported by parents for 6 to 15 year olds and by youth self-report for 16 to 17 year olds. Failing a course in the last two years and skipping a class in the last month was reported by youth self report for 14 to 17 year olds.

Behavioural Outcomes

The four scales used as behavioural outcomes in this study (emotional-anxiety, hyperactivity, physical aggression, prosocial behaviour) were developed using items from the Ontario Child Health Study and the Montreal Longitudinal Study (Statistics Canada/Human Resources Development Canada, 1996; Boyle et al., 1987). The Emotional-Anxiety scale included 7 items (e.g. I feel unhappy or sad; I am not as happy as other people my age), the Hyperactivity scale also included 7 items (e.g. I can't sit still, I am restless; I can't concentrate, I can't pay attention), the physical aggression scale included 6 items (e.g. I destroy my own things; I get into many fights), and the prosocial behaviour scale included 10 items (I try to help someone who has been hurt; I show sympathy for someone who has made a mistake). Each item had three possible response categories: "Never" (scored as 0), "Sometimes" (scored as 1), and "Often" (scored as 2). The responses to the items for each scale were added to obtain the total score, with higher scores reflecting more problematic behaviors. These behaviour outcomes were reported either by parents (for children aged 6 to 9) or by youth self-report (for youth aged 10 to 17).

Youth also completed scales on self-image and depression. Youth aged 10 to 17 years responded to 4 questions on self-image (e.g. In general, I like the way I am; A lot of things about me are good). Each item had five possible response categories: "False" (scored as 0), "Mostly False" (scored as 1), "Sometimes False/Sometimes True" (scored as 2), "Mostly True" (scored as 3), and "True" (scored as 4). The responses were added to obtain the total score. Youth aged 16 to 17 answered 12 items regarding their symptoms of depression in the past week; the scale was a shorter version of the CES-D (Radloff, 1977; Statistics Canada/Human Resources Development Canada, 1996). Items included items such as: "I felt depressed", "I felt lonely", "I had crying spells." Each item had four possible response categories: "Rarely or none of the time (less than 1 day)" (scored as 0), "Some or little of the time (1 to 2 days)" (scored as 1), "Occasionally or a

moderate amount of the time (3 to 4 days)” (scored as 2), “Most or all of the time (5 to 7 days)” (scored as 3). The responses were added to obtain the total score.

Risk Behaviours

Risk behaviours (smoking, alcohol, marijuana) were modeled as dichotomous outcomes. Youth aged 10 to 17 years were asked if they had ever tried smoking – those who had smoked at least one puff were considered as having tried smoking. As well, youth aged 10 to 17 years were asked if they had ever had a drink of alcohol – those youth who had drunk at least one drink were considered as having tried alcohol. Lastly, youth aged 12 to 17 were asked if they had tried marijuana – as with smoking, those youth who had smoked at least one puff were considered as having tried marijuana.

Covariates

The following child and family socio-demographic characteristics were included in the models as control variables: gender, age, living with one or two parents, ratio of family income to the low income cutoff (LICO), and living in an urban or rural area. The LICO is a statistical measure of the income threshold below which Canadians likely devote a larger share of income than average to the necessities of food, shelter and clothing. To reflect differences in the costs of necessities among different community and family sizes, LICOs are defined for five categories of community size and seven of family size. (Statistics Canada, 2004) Urban areas were defined as areas with a population of at least 1,000 people and a minimum of 400 people per square kilometer; all other areas were categorized as rural.

Analysis

The relationships between total activity participation and child development outcomes were examined with linear and logistic regression models. Both linear and quadratic components of the total activities score were included in the models to assess if there was a curvilinear

relationship between activity participation and the outcomes. When the quadratic component was significant, a follow-up categorical analysis was performed to identify differences based on specific levels of participation. High categories of participation were collapsed (when necessary) to ensure sufficient sample size for analysis. Child and family socio-demographic characteristics included as control variables were gender, age of child, living with one or two parents, ratio of family income to the low income cutoff (LICO), and living in an urban or rural area.

The association of total activity participation with child development was assessed for four different groups: children aged 6 to 9, youth aged 10 to 13, youth aged 14 to 17 school-related activities, and youth aged 14 to 17 out of school activities. Age 6 to 9 were analyzed separately because activities were parent-reported whereas for ages 10 to 17 they were based on self-report. Youth activities for 14 to 17 year olds were divided into school-related and out of school activities as this age group is the only one in which questions are asked about both types of activities. Youth not currently in high school (about 10% of 16-17 year olds), and children not in school (3% of 6 to 9 year olds, mostly 6 year olds not yet in school or children who were homeschooled) were excluded from the current analysis to avoid confounding the availability of time for activities for those in school and those not in school.

Results

Age 6 to 9

For children aged 6 to 9, rates of participation in extracurricular activities were associated with positive outcomes (prosocial behaviour, doing well in school) but not with any negative outcomes (internalizing or externalizing behaviour problems, failing a grade) (Table 3 and Table 4). Children who participated in higher rates of extracurricular activities had higher scores of prosocial behaviour and were more likely to be rated by their parent as doing well in school. For the latter outcome, the quadratic component was significant (in the positive direction), suggesting

that there are larger benefits at higher levels of activity participation compared to lower levels of activity participation. To investigate this relationship further, we ran a categorical model, comparing each level of activity participation to no activity participation. Activity participation at the two highest levels (representing participation in at least one activity a few times a week and one activity most days) was significant, but not at the four lower levels (Table 5), meaning that the benefits of extracurricular activity on doing well at school were only seen for higher levels of participation. All of these effects were over and above the child and family level control factors.

Age 10 to 13

For 10 to 13 year olds, activity participation was associated with the standardized math test score (Table 6). The linear and quadratic components were both significant, suggesting that as activity participation increases, math test scores increase as well, but only up to a certain point. This relationship was investigated further by running a categorical model, comparing each level of total activity to no activity participation (Table 8). Scores of both 4 and 5 were associated with higher math scores (representing participation in one activity 4 times a week and one activity 1-3 times a week, or two activities 1-3 times a week). Math scores of students who had participation scores of higher than 5 (e.g. two activities 4 times a week or three activities 1-3 times a week) were not significantly different than the math scores of students who did not participate in extracurricular activities.

Furthermore, youth aged 10 to 13 who participated in more extracurricular activities had higher scores of prosocial behaviour. Activity participation was not associated with internalizing (anxiety) or externalizing (hyperactivity, aggression) behaviour problems, self-image, substance use, or the probability that a child had failed a grade in the last two years or skipped a class in the last month (Table 6 and Table 7).

Age 14 to 17

The final age group (14 to 17 year olds) was the only one for which questions were asked about both school-related and out of school activity participation. Overall, out of school activities were associated with a higher number of outcomes compared to school-related activities (Table 9 and Table 10).

Higher levels of participation in both school-related and out of school extracurricular activities were associated with higher scores on prosocial behaviour. In addition, higher levels of out of school activities (but not higher levels of school-related activities) were associated with higher math test scores, higher self-image, higher probability that parents would rate the youth as doing very well in school, and lower probability that the youth would have had a drink of alcohol or tried smoking marijuana.

Participation in extracurricular activities was associated with a decreased probability of having failed a grade in the past two years. Both the linear and quadratic components were significant, therefore this relationship was explored further using a categorical model (Table 11). Youth who had total activity scores of 2 or 3 for out of school activities or 2, 3, or 4 for school-related activities (representing participation in one activity more than once a week, or in one activity once a week and one activity 1-3 times a week) were less likely to have failed a grade in the last two years. Youth who had the highest level of activity participation in either school-related or out of school activities were not significantly more or less likely to have failed a grade in the last two years.

Discussion

Overall, activity participation seemed to benefit children and youth's development, particularly in the area of prosocial behaviour. High levels of participation did not hinder children and youth's academic or behavioural outcomes. For youth aged 10 to 13, activity

participation showed a curvilinear relationship with the standardized math test score; however, math test scores for the highest participating group were not significantly different than math test scores for youth who did not participate in any activities. For 14 to 17 year olds, participation in out of school activities was associated with more positive outcomes (standardized math test, self-image) and fewer negative outcomes (trying alcohol or marijuana) than school-related activities, over and above the effect of socio-economic status.

Activity participation at all ages was associated with higher scores of prosocial behaviour. One possible reason for this effect is that children and youth might gain experience in social relationships when participating in organized activities that they might not learn elsewhere (e.g. taking turns, working on a team, listening to an instructor and other participants). Participation in social activities may also allow children to *practice* prosocial strategies, either in terms of conflict management or for friendship development. Finally, it is also possible that children who are already prosocial are also more likely to engage in extracurricular activities. The correlational nature of the data does not permit an examination of the direction of the effect between extracurricular activity involvement and prosocial tendencies.

In previous research, Eccles and colleagues (Eccles et al., 2003) found that sports participation both within and outside of school was associated with increase alcohol use. In contrast, we found that youth who participated in higher levels of out of school extracurricular activities were less likely to have had a drink of alcohol. However, no association was found between the level of school-related activities and the likelihood of trying alcohol. Furthermore, out of school activity participation was also associated with a decreased likelihood of trying marijuana. It could be suggested that extracurricular involvement is a “positive” use of time for Canadian youth, whereas spending time with peers drinking or using drugs is a negative use of time, which is only engaged in when more productive activities are not available or attractive.

For 14 to 17 year olds, participation in out of school activities was associated with more positive outcomes and fewer negative outcomes than school-related activities, over and above the effect of socio-economic status. There are several possible reasons that activities in and out of school may have different effects on youth outcomes. School-related activities are often free or low-cost and usually do not require additional transportation, whereas out-of-school activities frequently incur costs and do require transportation. Although our study controlled for socio-economic variables, participation in out of school activities might be associated with other family characteristics (e.g., non-financial investment in the child such as time spent with child, social support available to the child, parental activity levels) that might also contribute to benefits for youth. In addition, different types of activities may stimulate different developmental experiences. For example, Larson, Hansen, and Moneta (Larson et al., 2006) found that service activities (which typically occur out of school) were uniquely associated with experiences related to the development of teamwork, positive relationships, and social capital.

For youth aged 10 to 13, activity participation showed a curvilinear relationship with the standardized math test score; however, math test scores for the highest participating group were not significantly different than math test scores for youth who did not participate in any activities. These results suggest that for 10 to 13 year old youth, moderate participation in extracurricular activities is positively associated with academic functioning. While it might be suggested that high participation was “detrimental” to academic performance, no differences were found between high participants and non-participants. Therefore, it can only be inferred that children who are participating at a high level are not worse off for doing so as compared to their non-extracurricular participating peers. On a positive note, however, it appears that moderate participation has a positive effect on pre-teen math scores.

It should be noted that our measure of activities is more of a measure of breadth (participating in a variety of activities) as opposed to depth (participating in one activity intensively). To our knowledge, there is no literature comparing the effects of breadth versus depth of participation in activities on children's academic or social functioning. However, it is possible that participation in multiple activities would garner greater social benefits than would participation in one activity over multiple occasions, given that a variety of settings would provide children and/or youth with a greater number of social contexts (and peers) in/with which to gain social experience (such as prosocial tendencies). However, participation in one activity might foster a greater depth of commitment and stronger bonds within that activity, which could have different ramifications for children's development. Future research should consider both breadth and depth of extracurricular involvement in order to examine the true impact of engagement on children's well-being.

These results have several potential policy implications. We found many positive and no negative effects of activity participation, suggesting that programs supporting participation in extracurricular activities could have benefits for children and youth. Certainly, our list of potential outcomes associated with extracurricular involvement is not exhaustive; however, one can suggest from the current findings that involvement in extracurricular activities is beneficial for children/youth of all ages, and can be influential on both social and academic levels. These results suggest not only that further research on the effects of extracurricular activities be conducted, but also that the importance of extracurricular activities be imparted to educators, parents, and policy makers alike. As such, extracurricular engagement can be explored as a means to enhance the social and academic success of Canadian children.

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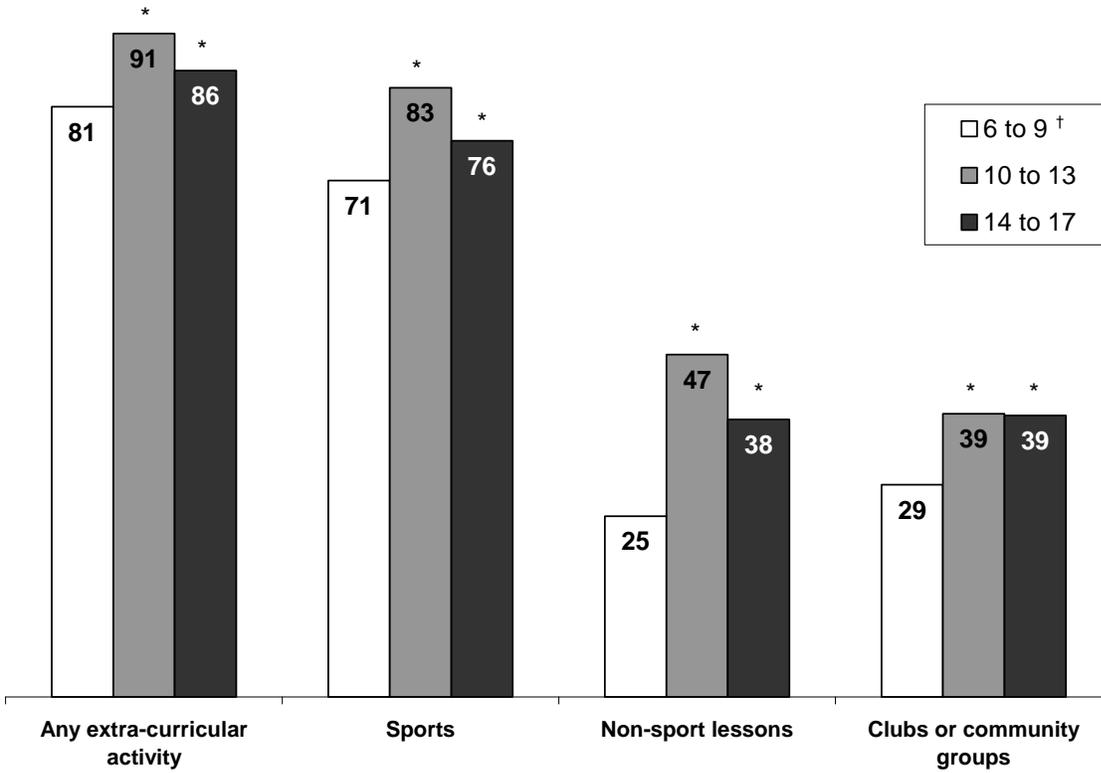
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Tables and Figures

Figure 1: Percent who participated in at least one extracurricular activity, by age group and type of activity, 2000/2001

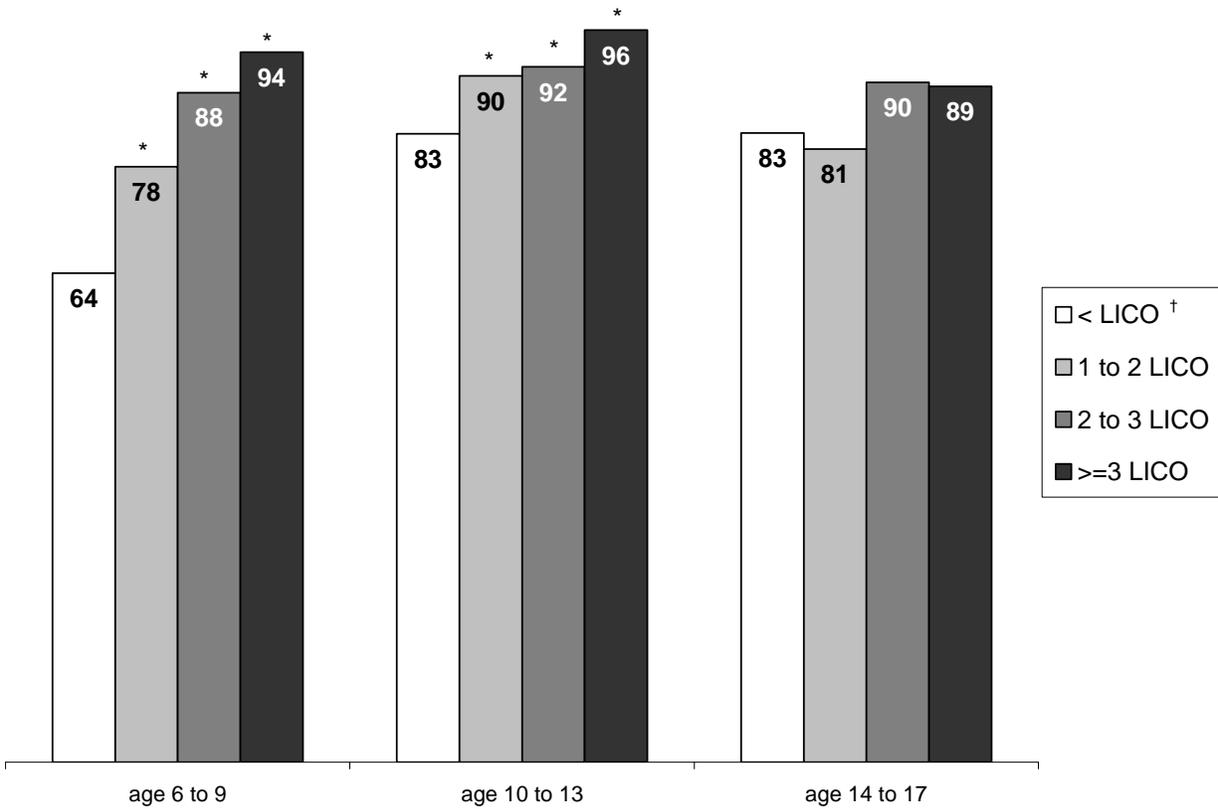


[†] Reference category

*significantly different from estimate for reference category (p<0.05)

Source: National Longitudinal Survey of Children and Youth, Cycle 4, 2000/2001

Figure 2: Percent who participated in at least one extra-curricular activity, by age group and ratio of family income to the low-income cutoff (LICO), Canada, 2000/2001



† Reference category

*significantly different from estimate for reference category (p<0.05)

Source: National Longitudinal Survey of Children and Youth, Cycle 4, 2000/2001

Table 1: Percent of children and youth participating in extra-curricular activities, Canada, 2000/2001

	Any extra-curricular activity	Type of activity		
		Sports	Non-sport lessons	Clubs or community groups
Total	85.5	76.4	35.7	35.0
Age				
6 to 9 [†]	80.9	70.7	24.8	29.1
10 to 13	90.9*	83.5*	46.9*	38.8*
14 to 17	85.8*	76.2*	38.0*	38.6*
Gender				
Age 6 to 9				
Female	79.3	67.5*	29.3*	32.7*
Male [†]	82.4	73.9	20.4	25.6
Age 10 to 13				
Female	92.7*	85.4	54.3*	45.8*
Male [†]	89.1	81.5	39.5	31.7
Age 14 to 17				
Female	86.7	74.6	48.2*	46.9*
Male [†]	84.9	77.8	27.8	30.1
Urban/rural area				
Age 6 to 9				
Urban	81.4*	71.5*	25.7*	29.0
Rural [†]	77.0	65.4	18.5	29.9
Age 10 to 13				
Urban	90.7	83.5	46.8	38.4
Rural [†]	91.8	83.0	47.7	40.9
Age 14 to 17				
Urban	86.4	77.2*	38.1	39.1
Rural [†]	82.3	70.1	37.4	35.2
Lives with one or two parents				
Age 6 to 9				
One parent	71.9*	58.3*	20.5	25.4
Two parents [†]	82.9	73.6	25.8	30.0
Age 10 to 13				

	Any extra-curricular activity	Type of activity		
		Sports	Non-sport lessons	Clubs or community groups
One parent	89.6	82.3	48.5	34.7
Two parents [†]	91.2	83.7	46.7	39.7
Age 14 to 17				
One parent	79.9*	69.2*	32.1	33.1
Two parents [†]	87.4	78.2	39.5	40.0
Region of Canada				
Age 6 to 9				
East	80.1	62.9	22.8	48.0*
Quebec	73.0*	65.0	17.9*	x
Ontario	83.3	72.9	27.2	32.9
West [†]	83.8	74.1	27.2	35.3
Age 10 to 13				
East	93.8	84.0	52.6	51.1
Quebec	88.4*	81.2	36.1*	23.2 ^E *
Ontario	89.8	83.4	48.6	41.3
West [†]	93.9	85.6	53.2	46.7
Age 14 to 17				
East	83.5*	73.4*	39.9	43.3
Quebec	78.4*	72.2*	30.2*	26.6*
Ontario	86.4*	75.6	35.6*	37.6*
West [†]	90.9	80.7	46.4	47.1
Ratio of family income group to the low income cut-off (LICO)				
Age 6 to 9				
< LICO [†]	64.4	48.7	17.8	22.0
1-2 LICO	78.5*	66.1*	22.2	27.5
2-3 LICO	88.2*	82.3*	25.7*	30.5
>= 3 LICO	93.6*	87.9*	36.4*	36.9*
Age 10 to 13				
< LICO [†]	82.8 ^E	71.8	38.0	38.5
1-2 LICO	90.5*	82.4*	46.5	39.8
2-3 LICO	91.6*	84.4*	46.1	39.0
>= 3 LICO	96.5*	92.1*	54.8*	37.7
Age 14 to 17				
< LICO [†]	82.9	72.5	32.1	40.3

	Any extra-curricular activity	Type of activity		
		Sports	Non-sport lessons	Clubs or community groups
1-2 LICO	80.8	71.1	32.6	37.5
2-3 LICO	89.6	78.6	39.6	37.9
>= 3 LICO	89.1	81.7	44.6*	39.9

† Reference category

^E use with caution

x. suppressed to meet the confidentiality requirements of the Statistics Act

*significantly different from estimate for reference group (p<0.05)

Source: National Longitudinal Survey of Children and Youth, Cycle 4, 2000/2001

Table 2: Definitions of variables in study

Variable	Age range	Definition
Covariates		
Gender	6-17	Male/female.
Age	6-17	In years.
Family Income	6-17	Ratio of the family income to the low income cutoff (LICO, determined by Statistics Canada).
Single parent	6-17	Child or youth lives with one or two parents.
Urban/rural area	6-17	Urban areas were defined as areas with a population of at least 1,000 people and a minimum of 400 people per square kilometer.
Outcomes		
Standardized Math Test	7-15	Shortened version of the Mathematics Computation Test of the standardized Canadian Achievement Tests, Second Edition (CAT/2). CAT/2 is a series of tests designed to measure achievement in basic academic skills. Students in grade 2 and up were tested.
Cognitive Skills Test	16-17	18 items assessing reading and mathematics.
Emotional-anxiety	6-15	7 items e.g. I feel unhappy or sad; I am not as happy as other people my age.
Hyperactivity	6-15	7 items e.g. I can't sit still, I am restless; I can't concentrate, I can't pay attention.
Physical aggression	6-15	6 items e.g. I destroy my own things; I get into many fights.
Prosocial behaviour	6-15	10 items e.g. I try to help someone who has been hurt; I show sympathy for someone who has made a mistake.
Self-image	10-17	4 items e.g. In general, I like the way I am; A lot of things about me are good.
Depression	16-17	12 items, a shorter version of the CES-D, items included: e.g. I felt depressed, I felt lonely, I had crying spells.
Parent-rated school performance	6-15	Parent reported that overall, youth was doing excellent or very good in school.
Failed grade	6-17	Failed a grade in the last two years.
Failed course	14-17	Failed a course in the last two years.
Skipped a class	14-17	Skipped a class in the last month.
Tried smoking	10-17	Has tried smoking (at least one puff).
Tried alcohol	10-17	Had tried alcohol (at least one drink).
Tried marijuana	12-17	Has tried marijuana (at least one puff).

Table 3: Summary of linear regression models predicting math test score and behavioural outcomes, 6 to 9 year olds

		Math test Beta (s.e.)	Emotional- anxiety Beta (s.e.)	Hyperactivity Beta (s.e.)	Physical aggression Beta (s.e.)	Prosocial behaviour Beta (s.e.)
Total activities	linear component	5.02 (2.60)	-0.01 (0.09)	0.08 (0.11)	-0.06 (0.07)	0.35 (0.16)*
	quadratic component	-0.56 (0.45)	0.00 (0.02)	-0.03 (0.02)	0.01 (0.01)	-0.03 (0.03)
<hr/>						
LICO ratio (continuous)		0.44 (1.77)	-0.06 (0.04)	-0.11 (0.04)**	-0.09 (0.02)***	-0.14 (0.12)
Male		-0.70 (3.18)	-0.05 (0.10)	0.97 (0.12)***	0.33 (0.07)***	-1.40 (0.18)***
Age of child		37.92 (1.65)**	0.14 (0.04)**	-0.18 (0.05)***	-0.04 (0.03)	-0.16 (0.08)*
Single parent		-0.63 (3.96)	0.16 (0.16)	0.38 (0.18)*	0.01 (0.12)	0.08 (0.23)
Rural		2.19 (3.71)	-0.27 (0.11)*	-0.03 (0.15)	0.08 (0.10)	-0.05 (0.19)

* p < .05; ** p < .01; *** p < .001

Table 4: Summary of logistic regression models predicting math test score and behavioural outcomes, 6 to 9 year olds

		Rated by parent as doing well in school OR (95% CI)	Failed grade in last two years OR (95% CI)
Total activities	linear component	0.99 (0.86-1.15)	0.89 (0.53-1.52)
	quadratic component	1.03 (1.00-1.06)*	0.94 (0.81-1.08)
LICO ratio (continuous)		1.06 (0.97-1.15)	0.50 (0.36-0.70)***
Male		0.59 (0.49-0.71)***	1.58 (0.97-2.57)
Age of child		0.92 (0.85-1.00)*	1.62 (1.42-1.85)***
Single parent		0.71 (0.56-0.92)**	0.54 (0.28-1.04)
Rural		1.10 (0.90-1.35)	1.58 (0.90-2.78)

* p < .05; ** p < .01; *** p < .001

Table 5: Summary of logistic regression model predicting “doing well in school” (as rated by parents), with total activities score as categorical variables, 6 to 9 year olds

	OR (95% CI)
Total activities score	0 (no activities)
	1 1.04 (0.79,1.38)
	2 1.16 (0.90,1.50)
	3 1.25 (0.94,1.66)
	4 1.47 (1.00,2.18)
	5 2.06 (1.28,3.31)**
	6 and higher 3.42 (1.64,7.12)***
	(2 activities each most days of the week, or 3 activities each a few times a week)
LICO ratio (continuous)	1.06 (0.97,1.15)
Male	0.59 (0.49,0.71)***
Age of child	0.92 (0.85,1.00)*
Single parent	0.72 (0.56,0.92)*
Rural	1.10 (0.90,1.35)

* p < .05; ** p < .01; *** p < .001

Table 6: Summary of linear regression models predicting math test score and behavioural outcomes, 10 to 13 year olds

		Math test Beta (s.e.)	Emotional- anxiety Beta (s.e.)	Hyperactivity Beta (s.e.)	Physical aggression Beta (s.e.)	Prosocial behaviour Beta (s.e.)	Self-image Beta (s.e.)
Total activities	linear component	9.98 (2.42)***	0.13 (0.09)	0.00 (0.11)	-0.07 (0.06)	0.27 (0.12)*	0.04 (0.08)
	quadratic component	-0.96 (0.23)***	-0.02 (0.01)	0.00 (0.01)	0.01 (0.01)	-0.01 (0.01)	0.01 (0.01)
<hr/>							
LICO ratio (continuous)		5.48 (1.36)***	-0.12 (0.05)*	-0.14 (0.04)**	-0.08 (0.02)***	0.11 (0.06)	0.12 (0.04)**
Male		-4.89 (4.14)	-0.62 (0.16)***	0.81 (0.17)***	0.70 (0.09)***	-1.95 (0.21)***	0.12 (0.14)
Age of child		40.38 (1.69)***	-0.07 (0.07)	0.05 (0.08)	0.03 (0.04)	-0.65 (0.09)	-0.30 (0.06)***
Single parent		-6.56 (5.22)	-0.07 (0.24)	-0.12 (0.21)	0.23 (0.16)	0.24 (0.31)	-0.10 (0.19)
Rural		-8.17 (4.39)	-0.11 (0.18)	0.01 (0.20)	-0.04 (0.12)	0.31 (0.22)	-0.13 (0.18)

* p < .05; ** p < .01; *** p < .001

Table 7: Summary of logistic regression models predicting school-related outcomes and risk behaviours, 10 to 13 year olds

		Rated by parent as doing well in school OR (95% CI)	Failed grade in last two years OR (95% CI)	Skipped a class in the last month OR (95% CI)	Tried Smoking OR (95% CI)	Tried Alcohol OR (95% CI)	Tried Marijuana OR (95% CI)
Total activities	linear component	1.13 (0.98-1.29)	0.91 (0.66-1.27)	0.79 (0.57-1.09)	0.91 (0.74-1.11)	1.01 (0.81-1.27)	1.06 (0.74-1.54)
	quadratic component	0.99 (0.98-1.00)	1.00 (0.97-1.04)	1.03 (1.00-1.06)	1.01 (0.98-1.03)	1.00 (0.97-1.02)	0.99 (0.96-1.03)
LICO ratio (continuous)		1.15 (1.06-1.26)***	0.55 (0.39-0.78)***	0.81 (0.63-1.04)	0.87 (0.74-1.02)	0.94 (0.81-1.10)	0.90 (0.74-1.10)
Male		0.54 (0.43-0.67)***	2.92 (1.70-5.00)***	0.98 (0.55-1.75)	0.92 (0.63-1.34)	1.15 (0.79-1.67)	1.55 (0.83-2.91)
Age of child		0.86 (0.78-0.95)**	1.22 (0.92-1.61)	1.62 (0.83-3.15)	2.11 (1.80-2.48)***	1.81 (1.49-2.19)***	4.08 (2.18-7.65)***
Single parent		1.23 (0.87-1.75)	1.18 (0.63-2.21)	1.94 (0.95-3.96)	1.37 (0.91-2.05)	1.53 (0.95-2.45)	2.19 (1.09-4.39)*
Rural		0.91 (0.72-1.17)	2.00 (1.03-3.89)*	1.94 (0.87-4.31)	0.86 (0.57-1.31)	1.09 (0.74-1.60)	0.65 (0.29-1.42)

* p < .05; ** p < .01; *** p < .001

Table 8: Summary of linear regression model predicting math test score, with total activities score as categorical variables, 10 to 13 year olds

		Beta (standard error)
Total activities score	0 (no activities)	1.00
	1	-9.85 (10.12)
	2	10.64 (7.89)
	3	6.47 (9.09)
	4	25.78 (9.69)**
	5	24.25 (9.88)*
	6	12.71 (8.82)
	7	10.24 (9.76)
	8	18.98 (10.52)
	9	9.50 (10.06)
	10 and higher (represents 3 activity 4 times a week and one activity once a week, or two activities 4 times a week and two activities 1-3 times a week)	-13.93 (12.45)
LICO ratio (continuous)		5.65 (1.35)***
Male		-4.24 (4.12)
Age of child		40.36 (1.66)***
Single parent		-6.60 (5.12)
Rural		-7.70 (4.43)

* p < .05; ** p < .01; *** p < .001

Table 9: Summary of linear regression models predicting test scores and behavioural outcomes, 14 to 17 year olds

		Math Test (14-15 year olds) Beta (s.e.)	Cognitive Skills Test (16-17 year olds) Beta (s.e.)	Emotional -Anxiety (14-15 year olds) Beta (s.e.)	Hyper- activity (14-15 year olds) Beta (s.e.)	Physical Aggression (14-15 year olds) Beta (s.e.)	Prosocial Behaviour (14-15 year olds) Beta (s.e.)	Self-image (14-17 year olds) Beta (s.e.)	Depression (16-17 year olds) Beta (s.e.)
Total school-related activities	linear component	2.91 (3.56)	0.08 (0.06)	-0.14 (0.12)	0.11 (0.12)	-0.02 (0.07)	0.46 (0.16)**	0.05 (0.10)	-0.30 (0.31)
	quadratic component	-0.16 (0.50)	0.00 (0.01)	0.00 (0.01)	-0.02 (0.02)	0.00 (0.01)	-0.03 (0.02)	0.02 (0.01)	0.01 (0.05)
Covariates	LICO ratio (continuous)	8.38 (2.43)***	-0.02 (0.04)	-0.09 (0.06)	-0.14 (0.08)	-0.08 (0.03)**	0.09 (0.09)	0.11 (0.06)*	0.06 (0.22)
	male	11.19 (6.55)	0.16 (0.10)	-1.71 (0.23)***	0.01 (0.24)	0.57 (0.13)***	-2.80 (0.30)***	0.79 (0.17)***	-2.25 (0.54)***
	age of child	16.57 (5.86)**	0.11 (0.10)	0.21 (0.23)	-0.38 (0.24)	-0.16 (0.12)	-0.27 (0.30)	-0.28 (0.07)***	0.14 (0.56)
	single parent	-9.95 (8.26)	-0.09 (0.14)	0.32 (0.31)	-0.05 (0.33)	0.07 (0.18)	0.15 (0.45)	-0.14 (0.23)	0.38 (0.78)
	rural	-27.71 (7.31)***	-0.24 (0.09)*	0.33 (0.25)	0.17 (0.27)	0.32 (0.17)	-0.79 (0.37)*	0.03 (0.20)	-1.22 (0.53)*
	Total out of school activities	linear component	8.31 (4.15)*	0.05 (0.06)	-0.20 (0.13)	-0.09 (0.15)	-0.10 (0.06)	0.54 (0.18)**	0.32 (0.09)***
	quadratic component	-0.72 (0.61)	0.01 (0.01)	0.01 (0.02)	0.00 (0.02)	0.01 (0.01)	-0.02 (0.02)	-0.02 (0.01)	0.04 (0.05)
Covariates	LICO ratio (continuous)	7.78 (2.45)**	-0.02 (0.04)	-0.09 (0.06)	-0.13 (0.07)	-0.07 (0.03)**	0.05 (0.09)	0.11 (0.06)	0.03 (0.22)
	male	10.87 (6.67)	0.14 (0.10)	-1.66 (0.23)***	0.02 (0.24)	0.55 (0.13)***	-2.82 (0.31)***	0.75 (0.16)***	-2.14 (0.55)***
	age of child	14.65 (6.00)*	0.15 (0.10)	0.19 (0.23)	-0.38 (0.23)	-0.17 (0.13)	-0.24 (0.29)	-0.23 (0.07)**	0.01 (0.56)
	single parent	-8.28 (8.30)	-0.07 (0.14)	0.30 (0.32)	-0.07 (0.34)	0.08 (0.18)	0.23 (0.44)	-0.06 (0.23)	0.30 (0.79)
	rural	-26.76 (7.14)***	-0.25 (0.09)**	0.33 (0.25)	0.16 (0.27)	0.31 (0.16)	-0.73 (0.36)*	0.06 (0.20)	-1.09 (0.52)*

* p < .05; ** p < .01; *** p < .001

Table 10: Summary of logistic regression models predicting school-related outcomes and risk behaviours, 14 to 17 year olds

		Rated by parent as doing well in school (14-15 year olds) OR (95% CI)	Failed grade in last two years (14-17 year olds) OR (95% CI)	Skipped a class in the last month (14-17 year olds) OR (95% CI)	Tried Smoking (14-17 year olds) OR (95% CI)	Tried Alcohol (14-17 year olds) OR (95% CI)	Tried Marijuana (14-17 year olds) OR (95% CI)
Total school-related activities	linear component	1.19 (0.98-1.44)	0.60 (0.47-0.76)***	0.87 (0.75-1.01)	0.93 (0.80-1.07)	0.87 (0.75-1.02)	0.91 (0.79-1.06)
	quadratic component	0.99 (0.97-1.01)	1.05 (1.02-1.09)**	1.01 (0.99-1.03)	1.00 (0.98-1.01)	1.01 (0.99-1.03)	1.00 (0.98-1.02)
Covariates	LICO ratio (continuous)	1.13 (1.01-1.26)*	0.72 (0.57-0.91)**	0.96 (0.87-1.06)	0.99 (0.91-1.08)	1.09 (0.97-1.23)	1.09 (0.99-1.19)
	male	0.75 (0.51-1.09)	1.84 (1.15-2.93)*	1.17 (0.91-1.50)	0.66 (0.52-0.84)***	0.69 (0.52-0.91)*	0.82 (0.64-1.05)
	age of child	0.91 (0.63-1.33)	1.47 (1.15-1.87)**	1.25 (1.11-1.41)**	1.43 (1.28-1.60)***	1.77 (1.55-2.03)***	1.73 (1.55-1.93)***
	single parent	0.89 (0.55-1.44)	2.05 (1.19-3.55)*	1.50 (1.06-2.11)*	1.67 (1.19-2.36)**	1.54 (1.06-2.24)*	1.90 (1.33-2.70)***
	rural	0.58 (0.41-0.84)**	1.57 (0.99-2.49)	1.08 (0.80-1.45)	1.45 (1.11-1.88)**	1.77 (1.31-2.38)***	1.07 (0.81-1.40)
	Total out of school activities	linear component	1.21 (1.02-1.44)*	0.71 (0.56-0.89)**	0.88 (0.76-1.01)	0.91 (0.78-1.05)	0.84 (0.72-0.98)*
	quadratic component	0.99 (0.97-1.01)	1.04 (1.01-1.07)*	1.01 (0.99-1.03)	1.00 (0.98-1.02)	1.01 (0.99-1.03)	1.02 (1.00-1.04)
Covariates	LICO ratio (continuous)	1.12 (1.01-1.24)	0.72 (0.57-0.92)**	0.96 (0.87-1.05)	0.98 (0.90-1.07)	1.09 (0.97-1.23)	1.08 (0.98-1.18)
	male	0.72 (0.49-1.04)	1.81 (1.11-2.93)*	1.21 (0.94-1.55)	0.67 (0.53-0.86)***	0.71 (0.54-0.94)*	0.86 (0.67-1.12)
	age of child	0.90 (0.63-1.29)	1.39 (1.09-1.76)**	1.23 (1.09-1.38)***	1.41 (1.26-1.58)***	1.72 (1.50-1.97)***	1.68 (1.50-1.87)***
	single parent	0.95 (0.58-1.54)	1.89 (1.08-3.31)*	1.47 (1.04-2.08)*	1.65 (1.15-2.35)**	1.46 (1.00-2.14)	1.77 (1.22-2.55)**
	rural	0.59 (0.42-0.84)**	1.58 (0.99-2.50)	1.08 (0.81-1.45)	1.47 (1.12-1.92)**	1.73 (1.29-2.32)***	1.04 (0.80-1.37)

* p < .05; ** p < .01; *** p < .001

Table 11: Summary of logistic regression model predicting failed grade in last two years, with total activities score as categorical variables, 14 to 17 year olds

		School-related activities OR (95% CI)	Out of school activities OR (95% CI)
Total activities score	0 (no activities)	1.00	1.00
	1	0.88 (0.26,2.96)	1.18 (0.34,4.12)
	2	0.30 (0.17,0.54)***	0.43 (0.23,0.80)**
	3	0.28 (0.13,0.63)**	0.26 (0.10,0.67)**
	4	0.31 (0.10,0.93)*	0.74 (0.35,1.56)
	5	0.49 (0.18,1.32)	0.36 (0.12,1.12)
	6 and higher (representing two activities each 4 times a week or three activities each 1-3 times a week)	0.43 (0.17,1.06)	0.63 (0.19,2.06)
LICO ratio (continuous)	0.73 (0.58,0.91)**	0.73 (0.58,0.91)**	
Male	1.91 (1.20,3.05)**	1.91 (1.17,3.13)*	
Age of child	1.46 (1.16,1.84)***	1.40 (1.10,1.80)**	
Single parent	2.12 (1.22,3.68)**	1.99 (1.19,3.32)**	
Rural	1.58 (0.99,2.50)	1.62 (1.03,2.55)*	

* p < .05; ** p < .01; *** p < .001

Appendix A: NLSCY questions regarding extracurricular activities

Sports

Age 6-9: In the last 12 months, out of school hours, how often has your child: taken part in sports with a coach or instructor (except dance or gymnastics)?

Age 6-9: In the last 12 months, outside of school hours, how often has your child: taken lessons or instruction in other organized physical activities with a coach or instructor such as dance, gymnastics or martial arts?

Age 10-13: During the past 12 months, how often have you played sports WITH a coach or instructor (swimming lessons, baseball, hockey, etc.)?

Age 10-13: During the past 12 months, how often have you taken part in dance, gymnastics, karate or other groups or lessons, other than in gym class?

Age 14-15: In the last 3 months, how often have you taken part in the following school-based activities (other than in class): Played sports WITH a coach or an instructor other than for gym class (e.g., school teams)?

Age 14-15: In the last 3 months, how often have you taken part in the following school-based activities (other than in class): Taken part in dance, gymnastics, karate or other groups or lessons, other than in gym class?

Age 14-15: Out of school, during the past 12 months, how often have you played sports WITH a coach or instructor (swimming lessons, baseball, hockey, etc.)?

Age 14-15: Outside of school, during the past 12 months, how often have you taken part in dance, gymnastics, karate or other groups or lessons (always organized outside of school)?

Age 16-17: In the last 3 months, how often have you taken part in the following activities in school (other than in class): Played sports WITH a coach or an instructor, other than in gym class (e.g., school teams)?

Age 16-17: In the last 3 months, how often have you taken part in the following activities in school (other than in class). Taken part in dance, gymnastics, karate or other groups or lessons other than in gym class?

Age 16-17: Out of school, in the last 12 months, how often have you: Played sports or done physical activities with a coach or instructor (e.g. swimming lessons, baseball, hockey, aerobics, etc.)?

Age 16-17: Outside of school, in the last 12 months, how often have you: Taken part in dance, gymnastics, karate or other groups or lessons (outside of school)?

Non-sport lessons

6-9: In the last 12 months, out of school hours, how often has your child: taken lessons or instruction in music, art or other non-sport activities?

10-13: During the past 12 months, how often have you taken part in art, drama or music groups, clubs or lessons outside of class?

14-15: In the last 3 months, how often have you taken part in the following school-based activities (other than in class): Taken part in art, drama or music groups, clubs or lessons, outside of class?

14-15: Out of school, during the past 12 months, how often have you taken part in art, drama or music groups, clubs or lessons (again out of school)?

16-17: In the last 3 months, how often have you taken part in the following activities in school (other than in class): Taken part in art, drama or music groups, clubs or lessons outside of class?

16-17: Out of school, in the last 12 months, how often have you: Taken part in art, drama or music groups, clubs or lessons (out of school)?

Clubs or Community Groups

6-9: In the last 12 months, out of school hours, how often has your child: taken part in any clubs, groups or community programs with leadership, such as Brownies, Cubs or church groups?

10-13: In the last 12 months, how often have you taken part in clubs or groups such as Guides or Scouts, 4-H club, community, church or other religious groups?

14-15: In the last 3 months, how often have you taken part in the following school-based activities (other than in class): Taken part in a school club or group such as yearbook club, photography club or student council?

14-15: Out of school, during the past 12 months, how often have you taken part in clubs or groups such as Guides or Scouts, 4-H club, community, church or other religious groups?

16-17: In the last 3 months, how often have you taken part in the following activities in school (other than in class): Taken part in a school club or group such as student council, yearbook club or photography club?

16-17: Out of school, in the last 12 months, how often have you: Taken part in clubs or groups such as Guides or Scouts, Junior Farmers, community, political, church or other religious groups?

**Appendix B: Tables showing all response categories of activity participation
by activity and socio-demographic characteristics**

Table 12: Percent participating in extracurricular activity by gender and age group and type of activity (with all response categories)

Age group	Response	Organized sports		Organized sport-related lessons		Non-sport lessons		Clubs/ community groups	
		Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
6 to 9	Almost never	46.65	33.43	60.49	72.95	72.93	82.60	62.34	71.15
	About once a month	F	F	F	F	F	F	F	F
	About once a week	26.50	25.42	26.09	14.54	20.11	13.16	30.47	23.70
	A few times a week	21.70	35.21	10.25	9.25	F	F	F	F
	Most days	F	F	F	F	F	F	F	F
10 to 13	Never	23.07	20.30	37.70	53.33	42.18	60.77	53.58	64.42
	Once a week	11.67	11.21	13.80	12.03	15.97	13.44	15.80	12.54
	1-3 times a week	43.81	40.87	37.37	25.09	32.86	18.93	26.01	19.36
	4 or more times a week	21.45	27.61	11.13	9.55	9.00	F	F	F
14 to 17 year olds school-related activities	Never	51.09	40.01	65.53	77.75	55.75	74.12	65.25	81.25
	Once a week	15.66	13.83	10.47	7.98	13.13	8.06	12.38	8.79
	1-3 times a week	23.32	29.77	19.08	11.57	25.44	14.37	19.15	8.28
	4 or more times a week	9.92	16.39	F	F	F	F	F	F
14 to 17 year olds out of school activities	Never	45.93	40.48	63.19	77.98	63.07	80.58	73.82	80.00
	Once a week	12.11	10.10	12.54	9.08	12.35	F	10.69	F
	1-3 times a week	28.20	30.16	19.95	10.10	20.66	10.62	15.01	11.42
	4 or more times a week	13.76	19.26	F	F	F	F	F	F

Table 13: Percent participating in extracurricular activity by living in urban or rural area and age group and type of activity (with all response categories)

Age group	Response	Organized sports		Organized sport-related lessons		Non-sport lessons		Clubs/ community groups	
		Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
6 to 9	Almost never	38.46	45.11	65.28	72.51	76.94	81.19	67.37	64.94
	About once a month	F	F	F	F	F	F	F	F
	About once a week	26.99	22.21	21.12	16.85	17.59	12.85	26.72	28.09
	A few times a week	28.90	27.49	10.00	8.77	F	F	F	F
	Most days	F	F	F	F	F	F	F	F
10 to 13	Never	21.84	21.31	44.34	48.54	51.75	49.48	60.57	53.08
	Once a week	11.12	12.55	12.66	13.89	14.29	16.30	13.86	15.40
	1-3 times a week	43.00	40.29	32.64	27.19	26.15	25.78	21.52	26.98
	4 or more times a week	24.04	25.84	10.36	F	7.81	F	F	F
14 to 17 year olds school-related activities	Never	46.60	43.00	69.95	76.11	64.48	65.04	73.38	71.68
	Once a week	14.65	15.17	8.93	F	10.52	11.21	10.75	F
	1-3 times a week	25.77	28.57	16.51	12.09	20.02	20.35	13.49	15.19
	4 or more times a week	12.98	13.25	F	F	F	F	F	F
14 to 17 year olds out of school activities	Never	43.10	43.88	69.75	72.30	71.73	71.09	77.36	75.11
	Once a week	11.34	F	9.96	13.70	8.90	11.68	8.43	F
	1-3 times a week	28.17	32.22	16.10	12.24	15.93	15.33	13.27	13.25
	4 or more times a week	17.39	13.41	F	F	F	F	F	F

Table 14: Percent participating in extracurricular activity by living with one or two parents and age group and type of activity (with all response categories)

Age group	Response	Organized sports		Organized sport-related lessons		Non-sport lessons		Clubs/ community groups	
		Single parent	Two parents	Single parent	Two parents	Single parent	Two parents	Single parent	Two parents
6 to 9	Almost never	51.10	37.58	73.36	65.51	83.44	76.64	70.29	66.06
	About once a month	F	F	F	F	F	F	F	F
	About once a week	22.37	26.68	16.23	21.04	11.51	17.65	22.37	28.06
	A few times a week	20.94	30.17	F	10.14	F	F	F	F
	Most days	F	F	F	F	F	F	F	F
10 to 13	Never	25.86	20.83	45.93	45.00	53.16	50.89	63.97	57.83
	Once a week	F	11.48	14.43	12.70	17.11	14.26	13.77	14.33
	1-3 times a week	40.40	42.78	29.88	31.81	21.18	27.03	17.61	23.84
	4 or more times a week	22.42	24.92	F	10.48	F	7.82	F	F
14 to 17 year olds school-related activities	Never	50.86	44.63	76.72	70.31	70.99	63.30	76.10	72.27
	Once a week	13.38	14.95	F	9.56	F	11.55	F	11.10
	1-3 times a week	24.28	27.01	F	16.18	17.18	20.59	12.62	14.13
	4 or more times a week	F	13.42	F	F	F	F	F	F
14 to 17 year olds out of school activities	Never	52.08	41.16	74.43	69.33	75.38	70.65	84.28	74.92
	Once a week	F	11.43	F	11.31	F	10.14	F	9.82
	1-3 times a week	25.00	30.21	F	15.86	13.26	16.37	F	14.25
	4 or more times a week	12.88	17.21	F	F	F	F	F	F

Table 15: Percent participating in extracurricular activity by region of Canada and age group and type of activity (with all response categories)

Age group	Response	Organized sports				Organized sport-related lessons				Non-sport lessons				Clubs/ community groups			
		West	Ontario	Quebec	East	West	Ontario	Quebec	East	West	Ontario	Quebec	East	West	Ontario	Quebec	East
6 to 9	Almost never	46.53	46.02	36.22	34.78	75.21	69.65	62.28	63.95	77.40	82.81	76.74	75.81	52.23	91.16	66.43	62.27
	About once a month	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
	About once a week	19.75	29.40	30.14	24.87	13.77	19.74	23.12	21.58	15.95	12.57	18.40	18.16	37.61	F	29.35	30.85
	A few times a week	28.40	20.75	28.42	33.81	9.02	F	10.88	10.65	F	F	F	F	F	F	F	F
	Most days	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
10 to 13	Never	22.87	27.77	21.62	16.41	43.30	46.92	46.52	44.88	45.87	65.22	50.07	46.61	49.03	81.06	58.78	52.55
	Once a week	10.74	11.57	12.30	10.53	12.57	12.81	13.23	12.47	14.27	14.14	14.69	15.24	16.30	F	13.65	16.19
	1-3 times a week	39.61	44.13	42.57	43.90	31.70	34.61	30.29	30.51	30.21	15.97	27.07	29.25	29.25	F	23.51	26.27
	4 or more times a week	26.78	16.53	23.51	29.16	12.43	F	F	12.14	F	F	F	F	F	F	F	F
14 to 17 year olds school-related activities	Never	47.40	48.44	51.81	38.29	73.11	73.83	73.92	66.63	62.20	73.83	68.99	57.55	70.73	80.23	75.70	68.31
	Once a week	16.05	F	12.40	16.85	12.33	F	F	F	12.20	F	F	10.72	F	F	11.03	10.82
	1-3 times a week	23.03	30.66	23.68	28.77	12.18	16.41	11.99	20.24	20.98	13.67	17.18	25.38	15.75	F	12.01	16.72

Extracurricular Activity Participation

	4 or more times a week	13.52	F	12.12	16.08	F	F	F	F	F	F	F	F	F	F	F	F
14 to 17 year olds out of school activities	Never	43.15	53.66	45.17	35.85	71.43	74.26	72.87	65.06	68.92	77.03	76.51	66.30	74.67	88.29	78.46	70.54
	Once a week	11.93	F	11.47	12.90	12.67	F	F	12.49	11.05	F	F	10.61	11.05	F	F	10.73
	1-3 times a week	29.16	28.12	28.39	30.49	13.70	14.46	12.87	18.62	16.94	13.27	12.52	18.93	13.40	F	12.45	17.85
	4 or more times a week	15.76	F	14.97	20.77	F	F	F	F	F	F	F	F	F	F	F	F

Table 16: Percent participating in extracurricular activity by ratio of family income to low income cutoff (LICO) and age group and type of activity (with all response categories)

Age group	Response	Organized sports				Organized sport-related lessons				Non-sport lessons				Clubs/ community groups			
		West	Ontario	Quebec	East	West	Ontario	Quebec	East	West	Ontario	Quebec	East	West	Ontario	Quebec	East
6 to 9	Almost never	62.27	45.78	30.51	20.54	78.81	70.64	61.94	55.46	86.69	81.03	75.77	65.30	72.48	67.03	65.93	63.78
	About once a month	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
	About once a week	17.31	23.09	31.40	32.32	12.14	18.13	23.40	26.27	F	13.90	18.31	27.14	20.03	26.37	28.97	30.92
	A few times a week	16.15	25.62	33.13	40.22	F	8.25	10.81	14.38	F	F	F	F	F	F	F	F
	Most days	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
10 to 13	Never	33.62	23.29	18.49	14.81	58.24	47.48	43.09	35.69	60.68	52.70	51.48	41.27	60.11	58.82	58.84	59.19
	Once a week	F	10.51	10.96	F	F	13.62	12.34	12.19	15.67	13.70	15.07	15.34	F	14.66	13.80	14.36
	1-3 times a week	33.90	43.08	44.06	44.80	19.89	30.24	33.60	38.69	15.10	26.08	24.77	35.63	20.51	22.30	23.38	22.59
	4 or more times a week	18.08	23.12	26.48	29.45	F	8.66	10.97	13.43	F	F	F	F	F	F	F	F
14 to 17 year olds school-related activities	Never	51.67	47.99	44.10	42.31	75.09	71.69	71.99	68.41	68.40	66.92	63.65	61.07	75.75	73.10	73.77	70.52
	Once a week	F	13.68	17.71	13.12	F	9.87	9.82	F	F	10.30	9.96	12.41	F	11.82	10.83	F
	1-3 times a week	25.28	25.30	26.17	29.06	F	15.40	14.29	18.19	F	18.87	21.81	20.59	F	12.47	13.17	16.78

Extracurricular Activity Participation

	4 or more times a week	F	13.03	12.03	15.51	F	F	F	F	F	F	F	F	F	F	F	F
14 to 17 year olds out of school activities	Never	51.29	47.45	41.48	36.30	77.12	70.24	72.17	65.01	75.28	73.10	70.59	69.08	74.54	77.03	76.52	77.93
	Once a week	F	11.92	10.65	F	F	11.47	10.21	11.33	F	10.63	F	F	F	F	F	F
	1-3 times a week	23.25	27.19	30.72	32.34	F	15.15	13.92	18.98	F	13.67	16.84	18.01	F	13.54	13.93	11.60
	4 or more times a week	F	13.43	17.15	21.33	F	F	F	F	F	F	F	F	F	F	F	F

Appendix C: Activity participation by province and community size

Table 17: Percent participating in organized activities, by age group, activity and province

		Province										chi-square
		NL	PEI	NS	NB	QC	ON	MB	SK	AB	BC	
Age 6 to 9	Any extra-curricular activity	74.8	84.8	84.1	76.8	72.6	83.1	78.3	86.1	83.6	85.2	38.02***
	Sports	53.1	74.6	68.6	59.9	65.0	72.8	67.7	73.9	74.6	75.6	42.73***
	Non-sport lessons	21.7 ^E	21.8 _E	26.5 _E	17.6 _E	17.4	27.4	25.5 _E	22.6 _E	29.3	26.8	32.59***
	Clubs or community groups	51.2	40.0	51.4	42.3	F	33.1	33.7	40.0	35.7	35.9	379.35***
Age 10 to 13	Any extra-curricular activity	93.2	93.3	95.9	91.6	88.4	88.1	93.3	93.6	94.5	94.1	17.49*
	Sports	83.0	85.1	85.5	81.7	81.0	81.7	85.4	87.7	88.0	81.9	9.18
	Non-sport lessons	51.9	55.8	59.6	43.6	35.9	47.5	51.8	55.5	54.5	51.9	33.82***
	Clubs or community groups	50.0	58.1	56.9	44.1	23.5 _E	40.4	42.7	46.0	47.2	47.9	74.54***
Age 14 to 17 (school-related)	Any extra-curricular activity	72.2	73.5	74.3	74.8	67.1	71.8	81.1	80.8	76.0	85.5	28.76***
	Sports	59.3	64.1	57.8	56.1	56.8	54.1	65.6	71.2	62.6	71.7	28.04***
	Non-sport lessons	37.3	35.5 _E	36.6	38.9	25.5	31.6	48.8	42.9	38.4	44.9	35.42***
	Clubs or community groups	23.9 ^E	29.9 _E	34.0 _E	29.1 _E	20.6 _E	26.8	32.4 _E	33.4	26.1 _E	31.9 _E	17.03*
Age 14 to 17 (out of school)	Any extra-curricular activity	69.3	77.9	75.2	69.3	60.7	72.0	77.6	79.3	76.6	76.7	26.85**
	Sports	59.3	68.2	66.4	57.6	53.9	64.7	66.3	72.3	63.4	60.6	19.94*
	Non-sport lessons	30.0 ^E	34.1 _E	31.0 _E	31.6 _E	22.9 _E	22.1	35.6	33.1	32.7	30.9 _E	20.23*
	Clubs or community groups	26.3 ^E	F	24.3 _E	27.0 _E	F	20.1	31.1 _E	32.5 _E	24.3 _E	31.5 _E	36.51***
Age 14 to 17 (both school-related and out of school)	Any extra-curricular activity	81.0	85.5	85.5	82.2	78.5	86.3	88.8	89.8	85.9	94.7	48.08***
	Sports	73.1	77.1	75.6	69.4	72.3	75.6	78.5	84.1	76.8	82.6	16.16
	Non-sport lessons	38.4	42.3 _E	38.0	42.1	30.1	35.3	51.9	46.5	42.4	46.5	28.99***
	Clubs or community groups	39.9	43.4 _E	43.2	46.0	26.5	37.7	49.5	48.8	39.7	50.0	38.75***

* $p < .05$

** $p < .01$

*** $p < .001$

^E use with caution

F too unreliable to be published

Table 18: Percent participating in organized activities, by age group, activity and community size

		Community Size				Chi-square	
		Rural	< 30,000	30,000-99,999	100,000-499,999		>500,000
Age 6 to 9	Any extra-curricular activity	76.1	79.8	81.9	84.2	80.4	12.68*
	Sports	64.7	66.5	71.8	75.0	71.6	17.28**
	Non-sport lessons	18.3	20.6	19.1 ^E	24.2	29.1	21.46***
	Clubs or community groups	30.0	34.8	27.4	37.7	23.8	29.74***
Age 10 to 13	Any extra-curricular activity	86.9	91.6	92.5	90.2	90.5	2.16
	Sports	78.5	80.7	84.0	84.8	83.4	3.55
	Non-sport lessons	44.4	43.1	46.1	47.5	48.0	2.15
	Clubs or community groups	38.4	41.9	41.1	38.5	36.9	1.89
Age 14 to 17 (school-related)	Any extra-curricular activity	71.9	75.7	75.9	74.3	73.1	1.80
	Sports	58.1	62.2	62.9	60.6	56.8	3.00
	Non-sport lessons	32.7	34.1	30.8	35.5	34.9	1.35
	Clubs or community groups	23.1	26.5	27.8 ^E	27.2	27.5	2.95
Age 14 to 17 (out of school)	Any extra-curricular activity	66.4	71.5	67.2	74.2	72.1	5.89
	Sports	55.7	62.2	58.2	63.9	63.7	7.40
	Non-sport lessons	25.5	25.8	25.3 ^E	28.2	25.7	1.05
	Clubs or community groups	22.6	20.6	19.5 ^E	23.7	21.5 ^E	1.49
Age 14 to 17 (both school-related and out of school)	Any extra-curricular activity	81.4	87.1	83.9	85.9	87.0	6.50
	Sports	69.4	78.0	73.2	75.5	78.8	9.40
	Non-sport lessons	36.8	38.3	35.0	40.3	37.3	1.60
	Clubs or community groups	34.5	38.2	39.9	39.4	39.0	2.62

*p<0.05

**p<0.01

***p<0.001

^E use with caution

F too unreliable to be published