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Strengthening Canada The Socio-economic Benefits of Sport Participation in Canada



Strengthening Canada: The Socio-economic Benefits of Sport Participation in Canada
by Michael Bloom, Michael Grant and Douglas Watt

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Preface

Enhancing participation in sport is one of the four policy goals of the *Canadian Sport Policy*, which the federal-provincial-territorial ministers responsible for sport, physical activity and recreation endorsed in 2002. Yet there is relatively little empirical knowledge about the way sport participation benefits Canadians through its impact on health, education, social cohesion and the economy. As a result, policy-makers lack the evidence required to make informed policy decisions and to connect sport issues to other policy priorities.

The objective of this report is to improve knowledge of the socio-economic benefits of participation in sport so that Canadians and the federal, provincial and territorial governments can better understand its economic and social importance.

The report examines the impacts and benefits of sport participation on individuals and communities, and on the Canadian economy and society. It finds that sport participation has important benefits related to health, skills development, social cohesion and economic performance. The report also considers the connections between enhanced sport participation and public policy priorities, and recommends a holistic approach to sport policy-making to explicitly link sport participation to a broader strategy to foster physical activity and other actions that improve health and fitness. Finally, it identifies areas for future research on the specifics of sport impacts and ways to achieve them, which could help policy-makers and individual Canadians make informed choices.

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Strengthening Canada

The Socio-economic Benefits of Sport Participation in Canada

Strengthening Canada examines the impacts and benefits of sport participation on individuals and communities, and on Canada's economy and society.¹ It explores how sport participation affects economic performance, health, skills development and social cohesion. It considers the connections between enhanced sport participation and other public policy priorities.

This report is based on analysis of original data from The Conference Board of Canada's National Household Survey on Participation in Sport, and an international literature review conducted by the Conference Board. (See box, "Research Methodology," on page ii.)

Sport is defined as an activity that requires a degree of physical exertion and skill and that typically involves competition with others and a set of rules, or as a physical activity undertaken to improve personal sporting performance (for example, training to reduce time or improve distance). The definition excludes competitions using motorized vehicles and physical activities that involve neither competition nor the intention of improving personal sporting performance.

Sport touches many aspects of Canadians' lives, yet many people are unaware of how powerfully sport affects them.

This study examines three types of participation in sport:

- Active participants—individuals who engage in sport for the purposes of competition with others, under a set of rules, or to improve their personal sporting performance;

- Volunteers—individuals who volunteer their time and expertise in sport; and
- Attendees—individuals who attend sporting games or events to observe.

This lack of awareness may be why we are experiencing a national decline in active sport participation—the proportion dropping from 45 to 31 per cent of the adult population between 1992 and 2004.

Sport touches many aspects of Canadians' lives, yet many people are unaware of how powerfully sport affects them:

- It changes individuals—including their health and well-being, their social networks and sense of social connection, and their skills.
- It affects communities—including the social cohesion and social capital of communities.
- It has an impact on the economy—creating jobs and providing work for thousands.
- It helps to shape our national and cultural identities.

This lack of awareness may be why we are experiencing a national decline in active sport participation. About 55 per cent of all adults participate annually in sport, as active participants, volunteers and attendees. Yet, from 1992 to 2004, the proportion of adults who actively participated in sport dropped from 45 per cent to 31 per cent. During the same period, Canadians were not finding adequate alternatives to sport to keep them fit. In recent years, more people have become obese or overweight, with negative implications for health.

To help correct these trends, governments in Canada issued the first-ever *Canadian Sport Policy*, in 2002, with four overarching goals related to enhancing participation, excellence, capacity and interaction. Achieving this vision will require public resources.

KEY DRIVERS OF PARTICIPATION

Canadians participate in many sports but focus their energy on a few. Out of nearly 100 sports played, involvement is strongly concentrated in about a dozen sports, including ice hockey, golf, soccer, baseball, basketball, volleyball, skiing, swimming and cycling.

The key drivers of participation in sport include age, gender, household composition, educational attainment and income. Active participation strongly correlates to age, falling steadily through to the senior years. Men are much more likely than women to be active participants in sport. The gap is longstanding and does not appear to be closing. The presence of children in the household has a significant impact on the *pattern* of adult participation in sport, especially adult volunteerism, which doubles. People with high incomes are much more likely to participate in sport than are people who earn less. Similarly, the greater someone's education, the more likely he or she is to participate.

Research Methodology

The study's methodology included a literature review and the National Household Survey on Participation in Sport. Quantitative and qualitative survey data were analyzed.

- The literature review was a review of national and international studies organized around each of the four pillars of impact analysis: health, skills, social cohesion and the economy.
- The National Household Survey on Participation in Sport was a national representative household survey of 2,408 Canadian households, using stratified random sample methodology. The top-line incidence of sport participation, 54.9 per cent, is accurate +/- 2 per cent, 19 times out of 20.
- The initial survey sample was obtained from commercial directory sources using a random digit dialling (RDD) methodology. The sample frame was adjusted to ensure adequate regional representation across Canada.
- All data for participation rates relate to the one-year period ending December 2004.
- Results from the survey respondents were used to extrapolate to the entire adult population of Canada, employing widely accepted statistical techniques.

BENEFITS

Adults in 2004 saw more individual and household benefits from sport than they did in 1998. Survey respondents rated seven major types of benefits: physical fitness and health gains; fun, recreation and relaxation; sense of achievement; opportunities for family or household activity; skills development; new friends and acquaintances; and preparation for competition.

HEALTH BENEFITS

Participation in sport and *excellent health* are closely linked in Canadians' minds. Active participants attach very high levels of importance to sport as a source of relaxation, fun and recreation; physical fitness; improved quality of life due to better health; and stress relief.

The average energy expenditure of active participants meets targets for weekly energy expenditure to support health.

Individuals can gain significant health benefits from physical activity through sport (or other means) by achieving the right levels of frequency, duration and intensity of activity. Our Household Survey found that adult active participants engage in an average of 1.91 sports, 2.8 times per week, for about one hour per time, for a total of about three hours of physical activity per week, mainly of moderate or vigorous intensity. The median expenditure for adult females is 586 kcal/week; for males, it is 1,190 kcal/week. Our calculations provide evidence that the average energy expenditure of active participants meets targets for weekly energy expenditure to support health. However, active participants did not meet the recommended minimums of five days per week for moderate activity and four days per week for vigorous activity. To achieve frequency targets, individuals may need to combine a sport regime with other forms of fitness and physical activity.

Improving health through sport and other forms of physical activity would significantly reduce health-care costs. Recent estimates of health-care spending due to physical inactivity range from \$2.1 billion to \$5.3 billion annually, representing as much as 4.8 per cent of total

health-care costs. On this basis, increasing sport participation could significantly reduce national health-care costs. This fact has implications for government policies and programs. If sport (along with other forms of physical activity) is seen as an effective way to reduce health-care costs, it may be selected as a locus for new policy and investment. If so, governments will face two challenges: increasing the number of active participants and getting them to take part in a *broader* physical fitness regime of which sport is a part.

SKILLS BENEFITS

According to survey respondents, sport participation develops a wide range of skills and attitudes, including teamwork, leadership, problem-solving, decision-making, communications, personal management and administrative skills. Sport also builds character and personal qualities, such as courage and the capacity to commit to a goal or purpose, as well as values, such as respect for others, self-discipline, a sense of fair play and honesty. Young people find sport enables them to channel their energy, competitiveness and aggression in socially beneficial ways.

Almost 90 per cent of active participants believe that sport has some positive impact on their personal skills.

More than 50 per cent of active participants believe that sport is very important to their personal skills development; almost 90 per cent believe that it has some positive impact. The vast majority of active participants, volunteers and attendees rate sport as an important source of skills that they can apply *away* from sport. These skills also help people to play a more positive role in their communities and family life.

SOCIAL COHESION BENEFITS

Sport improves social cohesion. Sport participants experience a high degree of interaction with other individuals, which improves interpersonal relationships, establishes the basis for trust and builds teamwork skills that generate gains in social cohesion. Social cohesion, in turn, is fundamental to building social capital. Sport works by constructing associations of people that constitute

social networks with a defined purpose. These networks generate trust and a willingness to interact with others *outside of sport*. This willingness can be harnessed to social and economic advantage.

Public investment in sport brings many benefits to communities. Most respondents feel that sport participation strongly encourages individuals from different backgrounds to work and play together in a positive way. It gives individuals *of all ages* good opportunities to be actively involved in their communities, which helps them learn positive lessons about responsibility and respect for others, and gives them the chance to give back to their communities.

ECONOMIC BENEFITS

Household spending on sport has a significant impact on the Canadian economy:

- \$15.8 billion of household spending was on sport (in 2004). This figure constitutes 1.2 per cent of Canada's 2004 gross domestic product (GDP) of \$1.3 trillion.
- \$1,963 was spent on sport by each participating household.
- 2.18 per cent of total household spending was on sport (comparable to spending on sport in other developed countries, which typically ranges from 1.5 to 3.0 per cent).
- Sport spending has risen significantly since 1996, when it was 0.9 per cent of GDP.

The biggest spenders participate in sport in more than one way. Volunteers spent the most—an average of \$3,367—since they were most frequently multi-participants (as active participants, attendees or both, as well as volunteers). Sport spending is characterized by large numbers of relatively small purchases and expenditures on a variety of different goods and services. Income plays a significant role in sport spending by households. Income elasticity in relation to sport is 3.0 per cent, meaning that participants will tend to spend about 3 cents of every additional dollar earned on sport. Spending is optimized at two children in the household, after which household spending on sport starts to decline slightly, possibly because demands for expenditure on necessities rise with more children, tending to constrain spending on sport.

\$15.8 billion of household spending was on sport (in 2004). This figure constitutes 1.2 per cent of Canada's 2004 gross domestic product (GDP) of \$1.3 trillion.

CONCLUSIONS

1. Sport *significantly strengthens* Canada's economy and society.
2. Sport spending totals almost \$16 billion per annum—about 2.2 per cent of consumer spending and 1.2 per cent of GDP in 2004, up from 1990 levels. Sport supports about 2 per cent of the jobs in Canada.
3. Sport is only one route to good health. The main avenues to health include a *combination* of physical activity (both sport and non-sport activity), a sensible diet and avoidance of harmful behaviours, such as smoking.
4. Sport is a valuable element in Canada's learning culture that builds a wide set of transferable skills that are important in work and life.
5. Sport has negative social features that reduce the social benefits of sport.
6. Overall, survey respondents see a strong *net* positive social impact of sport participation.
7. Despite its benefits, adult participation in sport has been declining gradually since at least 1992.
8. Given the value of sport to our economy and society, and the gradual weakening of involvement, government has a strong motive to promote sport.

IMPLICATIONS FOR FUTURE ACTION

Governments should consider doing the following.

1. Develop sport policy within the broader context of larger health, education, skills and labour market development policy frameworks.
2. Set performance targets that recognize sport as part of a larger strategy to improve fitness and health.
3. Build financial targets for health-care savings into medium- and long-term performance measurement of sport policy and program performance.
4. Identify the most potent messages and communicate them using a comprehensive approach to social marketing.
5. Offer incentives to stimulate individual and community investment and engagement in sport.
6. Fund longitudinal research to gain a stronger empirical basis for setting policy directions and identifying program priorities.

Success demands large-scale collaboration. Restoring sport participation to 1990 levels, or better, will require engagement of federal, provincial and territorial governments, municipalities, communities, educators, health-care professionals and groups representing the under-represented in sport, as well as the organizations that organize, oversee and support sport throughout Canada. The engagement process itself will require investment, as will building our capacity to deliver sport opportunities to all Canadians, but the potential rewards are great.

¹ For the purposes of this study, sport includes both non-professional and professional sport.

Introduction

Canadians love sport. It gives them pleasure, helps them to define themselves and their communities, and contributes to their sense of what it means to be Canadian.¹ In any one year, more Canadians are involved as active participants in sport—more than 8 million people in 2004—than take part in public education at all levels combined.² Millions more take part as volunteers and attendees. In all, about half the entire population of Canada is involved annually with sport, including 55 per cent of all adults.

It is because sport engages so many—as families, friends, communities and individuals—that Canadians experience its effects so strongly. Sport touches many aspects of their lives, directly and indirectly, yet many people are unaware of how powerfully sport affects them:

- It changes individuals—including their health and well-being, their social networks and sense of social connection, and their skills.
- It affects communities—including the social cohesion and social capital of communities.
- It has an impact on the economy—creating jobs and providing work for thousands of Canadians in manufacturing, retail and service industries.
- It helps to shape our national and cultural identities.

Sport touches many aspects of our lives, directly and indirectly, yet many people are unaware of how powerfully sport affects them.

This lack of awareness may be why we are experiencing a national decline in active sport participation.³ In 1992, 45 per cent of adults aged 16 or older reported actively participating in sport. By 1998 the figure had dropped to 34 per cent. Today, the proportion of adults 16 or older actively participating in sport is 31 per cent.⁴ At the same time, Canadians are not finding adequate alternatives to sport to keep them fit. In 2001, results from the Canadian Community Health Survey revealed that 56 per cent of Canadians did not achieve nationally recommended levels of physical activity for personal

fitness and good health.⁵ In addition, adult weight is rising: in 1998, 15 per cent of 20- to 64-year-olds were obese, and another 33 per cent were overweight.⁶ By 2004, results from the Canadian Community Health Survey showed that excess weight and obesity had risen further: 23 per cent of adults were obese and 36 per cent more were overweight. These figures have increased dramatically over the past 25 years. Obesity rates among adolescents aged 12 to 17 have tripled from 3 to 9 per cent; among adults aged 25 to 34, the obesity rate has

Definition of Sport

For the purposes of this study, sport is defined as:

- An activity that requires a degree of physical exertion and skill, which typically involves competition with others and a set of rules (such as ice hockey, soccer and bowling); or
- Physical activity undertaken to improve personal sporting performance (for example, training to reduce time or improve distance).

This study *excludes* from its definition of sport competitions that use motorized vehicles. It also *excludes* physical activities that involve neither competition nor the intention of improving personal sporting performance (for example, activities such as jogging for exercise and biking to work).¹

1 Other jurisdictions, including the European Union and the United Kingdom, use a broader definition of sport (including walking), which tends to affect participation rates and statistical findings, producing higher participation rates.

Source: The Conference Board of Canada.

Definition of Participation

This study examines three types of participation in sport within a 12-month period (January to December 2004):

1. Active participants—individuals who engage in sport for the purposes of competition with others, under a set of rules, or to improve their personal sporting performance;
2. Volunteers—individuals who volunteer their time and expertise in sport (for example, as a coach, a driver, an official or a fundraiser); and
3. Attendees—individuals who attend sporting games or events to observe.

Source: The Conference Board of Canada.

Research Methodology

The study has employed a combination of methodologies, including a literature review and the National Household Survey on Participation in Sport telephone survey. Quantitative and qualitative data from the survey have been analyzed. The results are presented in the body of the report.

- Literature review—a review of national and international studies organized around each of the four pillars of impact analysis (health, skills, social cohesion and the economy).
- National Household Survey—a national representative household survey of 2,408 Canadian households, using stratified random sample methodology.
 - All data for participation rates relate to the *one-year period* ending December 2004, when the survey took place.
 - Data were collected about three types of participants: active participants, volunteers and attendees. Some individuals took part solely in one of these categories; many others took part in more than one category.

See Appendix A for a detailed explanation of the survey methodology used in this study.

Source: The Conference Board of Canada.

more than doubled, from 9 to 21 per cent. Peak obesity levels of 30 per cent are found among adults aged 45 to 65. Overall, age-adjusted obesity rates among Canadian adults rose from 14 per cent in 1979 to 23 per cent in 2004—some 5.5 million adults were recorded as obese. Another 36 per cent of adults were overweight, for a total of nearly 60 per cent of adults facing health risks associated with excess body weight. Significantly, obesity is correlated to levels of physical activity: 27 per cent of sedentary men were obese, in comparison to only 20 per cent of active men.⁷

In 2004, nearly 60 per cent of Canadian adults faced health risks due to excess body weight.

Recognizing the importance of sport to Canada, and aware of declining participation rates at a time when most adult Canadians were physically inactive, the federal-provincial-territorial ministers responsible for sport, fitness and recreation issued the first-ever *Canadian Sport Policy*, in 2002. This policy committed governments to an elevated vision for sport: “[a] dynamic and leading-edge sport environment that enables all Canadians to experience and enjoy involvement in sport to the extent of their abilities and interests and, for increasing numbers, to perform consistently and successfully at the highest competitive levels.”⁸ Its four overarching goals relate to

enhancing participation, excellence, capacity and interaction. The policy recognizes several fundamental principles, including those contained in the *Expectations for Fairness in Sport* declaration of 2001:⁹

- Sport is a vital part of Canada’s tradition and history.
- People encounter sport in a variety of ways—as athletes, coaches, officials, parents, supporters, volunteers, leaders, scientists, medical personnel, sponsors, artists, media, fans and spectators.
- Sport is for fun, it brings joy, it can make the spirit soar and it can enrich lives.
- Sport tests and builds character. Sport offers the opportunity for children and young people to build the values of teamwork, dedication and commitment. Sport requires honesty and fair play. Sport builds courage.
- Sport builds healthy bodies as well as good character. Frequent, high-quality physical activity through sport leaves a legacy of health that can last a lifetime.
- Sport is one of the areas of human activity that allows the quest for excellence.
- Sport builds communities. Young people, their parents and coaches, volunteers, sponsors and supporters are brought together by sport. Sport builds communities as people come together for sport on the fields, on the diamonds and inside the arenas to leave not just as neighbours, but also as friends.

In the United Kingdom, a recent study emphasized that in order to compete with many other worthy causes for a share of limited public resources, sport needs to better demonstrate tangible benefits to individuals, communities and countries as a whole.¹⁰ To this end, the *Canadian Sport Policy* made it a priority to increase governments’ awareness of the value of sport by presenting compelling evidence of the benefits of regular participation in sport to targeted government departments (such as health, justice, education and social services), in order to increase collaboration and program partnerships.¹¹

Despite sport’s significance, and the compelling need for empirical evidence to build awareness and interest among policy-makers and the public, there is no recent study of the overall socio-economic impact of sport on Canada and Canadians, based on original data.¹² The lack of in-depth examination of the broad range of impacts of sport participation on individuals, communities, organizations and the country has meant that policy-makers have lacked the empirical basis for developing sport policies that connect sport to the wider framework of government policy-making.

This report, which is based on new data generated by The Conference Board of Canada through a stratified random sample household survey, combined with a literature review and analysis,¹³ is intended to help fill the knowledge gap by providing policy-makers and the public with a credible perspective on a wide range of sport impacts and benefits that can provide a basis for further policy and program development.

Reflecting the wide range of effects due to sport, key findings are grouped into four main pillars of impact: health, skills, social cohesion and the economy. The study explores the nature and extent of participation in sport, including the drivers of participation (such as health concerns, social needs and community objectives) and the impact that this participation has on different facets of

our economy and society, building from largely individual impacts (health and skills) to societal impacts (social cohesion and the economy).

Research is an iterative process. While this study has generated data and developed interpretations and conclusions that, we believe, yield compelling evidence of the benefits that sport brings in the areas of health, skills development, social cohesion and the economy, longitudinal and other forms of research will be required to fully validate and explore the nature and magnitude of these beneficial impacts. In fact, one of the more valuable outcomes of this project may be that it has enabled us to pinpoint where more research is needed to shed further light on the nature of sport and the significance of sport to Canada and Canadians.

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- 1 For the purposes of this study, sport includes both non-professional and professional sport. Statistically, the scale of non-professional sport is so large compared with professional sport (except for economic impacts) that the study of sport impacts on a *national scale* is largely a study of non-professional sport impacts.
 - 2 Unless otherwise stated, all figures for participation in sport and impacts of sport participation are generated from The Conference Board of Canada's Sport Participation Impact Analysis Household Survey, a questionnaire-based representative national telephone survey of Canadian adults (aged 16 or older) about their own and their household's participation in sport and its impact on them and their household. R.A. Malatest & Associates Ltd. conducted this survey for the Conference Board in November and December 2004, following field testing to refine the survey instrument. Results from the survey respondents were used to extrapolate to the entire adult population of Canada, employing widely accepted statistical techniques. See Appendix A for a detailed explanation of the survey methodology.
 - 3 Other explanations suggested for the decline include increased time pressure on individuals at work, a desire for more flexible methods of engaging in physical activity, declining interest in team sports and a corresponding rise in individualism. See F. Coalter, M. Allison and J. Taylor, *The Role of Sport in Regenerating Deprived Urban Areas* (Edinburgh: The Scottish Executive Central Research Unit, 2000). Summarized in Sport England, *The Value of Sport* [online]. <www.sportengland.org/vsm>.
 - 4 Sport Canada, *Sport Participation in Canada, 1998* (Ottawa: Sport Canada, 2000), p. 1, citing findings from Statistics Canada, *General Social Survey 1998* (Ottawa: Statistics Canada, 1998); The Conference Board of Canada, *Sport Participation Impact Analysis Household Survey*, December 2004.
 - 5 Canadian Fitness and Lifestyle Research Institute, *2002 Physical Activity Monitor* [online]. (Ottawa: Canadian Fitness and Lifestyle Research Institute, 2002). <www.cflri.ca/cflri/pa/surveys/2002survey/2002survey.html>.
 - 6 C.L. Craig and C. Cameron, *Increasing Physical Activity: Assessing Trends from 1998–2003* (Ottawa: Canadian Fitness and Lifestyle Research Institute, 2004), p. 7. "Obese" is defined as having a body mass index (BMI) of 30.0 or higher; "overweight" as having a BMI of between 25.0 and 29.9.
 - 7 Canadian Community Health Survey 2004, as analyzed in Michael Tjepkema, *Adult Obesity in Canada: Measured Height and Weight* (Ottawa: Statistics Canada, July 2005), Cat. No. 82-620-MIE.
 - 8 Sport Canada, *The Canadian Sport Policy* [online]. (Ottawa: Department of Canadian Heritage, 2002). <www.pch.gc.ca/progs/sc/pol/pcs-csp/2003/1_e.cfm>.
 - 9 *Expectations for Fairness in Sport: A Declaration, Enacted by the Federal–Provincial/Territorial Sport Ministers* [online]. (London, Ontario, August 10, 2001). <www.tourism.gov.on.ca/english/sportdiv/sport/expect.htm>. The federal, provincial and territorial ministers agreed to make this declaration widely known. In 2001 and 2002, they adopted a policy framework and action plan for developing and implementing a comprehensive Canadian Strategy on Ethical Conduct in Sport.
 - 10 Sport England, *The Value of Sport to Local Authorities* (London, England: Sport England, June 1999), Ref. No. 901.
 - 11 Sport Canada, *The Canadian Sport Policy: Federal–Provincial/Territorial Priorities for Collaborative Action 2002–2005* (Ottawa: Department of Canadian Heritage, 2002) and Sport Canada, *The Canadian Sport Policy*. Endorsed by ministers in Iqaluit, Nunavut, on April 6, 2002.
 - 12 There are significant gaps in the research on sport impacts; much of the work in Canada on the benefits of sport is anecdotal and lacks quantitative data to support it or theory to explain it systematically. Several studies have been carried out in other countries and regions in the past decade. For a recent example, see European Commission, *The Citizens of the European Union and Sport* (Brussels, Belgium: European Commission, November 2004).
 - 13 For a detailed explanation of the household survey methodology employed in this study and discussion of the validity and value of the survey findings, see Appendix A.

Overview of Canadian Participation Rates in Sport

Nearly 13.7 million adult Canadians—55 per cent of the adult population—take part in sport as active participants, volunteers, attendees or some combination of the three.¹ In fact, most adults who participate in sport do so in more than one way:

- Active participants total 7,732,000, representing 31.0 per cent of the adult population aged 16 or older.²
- Volunteers total 4,565,000, representing 18.3 per cent of the adult population.³
- Attendees total 11,324,000, representing 45.4 per cent of the adult population.

Individuals are more likely to attend a sporting event (45.4 per cent) than to participate actively (31.0 per cent) or volunteer (18.3 per cent). Most of the attendees, however, are not merely sedentary; almost two-thirds of the attendees are also involved in sport as active participants or volunteers. The same is true of volunteers: the majority also participate as active participants or attendees. Similarly, nearly three-quarters of active participants also attend and volunteer. Table 1 summarizes the combinations of participation in sport in Canada.

While impressive, figures for sport participation are lower than those for fitness activities in general. One reason for this difference is that fitness activity participation usually includes within its scope a much broader set of physical activities than are contained in our definition of sport, including popular pastimes such as walking for exercise, gardening and yard work, bicycling, social dancing, home exercise and fishing.⁴

Another reason may be that the performance bar for active sport participation is higher than for most fitness activities. Active participation in sport, more than in fitness activities, tends to call for a fair degree of skill as well as physical fitness. Many popular sports, such as ice hockey, baseball, skiing and soccer, require active participants to have a considerable capacity for applying tactics and strategies while engaging in relatively strenuous physical activity. They also require specialized neuromuscular skills because they are relatively difficult to perform.⁵

Requirements for substantial physical fitness are much less common for volunteers. For a small minority of people, being a sport volunteer requires a degree of strenuous physical effort, especially during a sporting event. In some sports, volunteer officiating can be quite strenuous, as officials are required to run or skate adeptly in order to keep up with the action on the rink or playing

Table 1
Activity of Canadian Adults in Sport, by Type of Participation, Adult Population

Attendees	Active participants	Volunteers	Percentage and number
✓			17.0 4,240,000
	✓		7.3 1,821,000
		✓	1.0 249,000
✓	✓		12.3 3,068,000
✓		✓	5.9 1,472,000
	✓	✓	1.2 299,000
✓	✓	✓	10.3 2,569,000
Total 45.4% 11,324,000	Total 31.0% 7,732,000	Total 18.3% 4,565,000	Total (all types) 54.9% 13,718,000

Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

field. On the other hand, in many sports it is possible to be an official without expending very much energy. Popular sports where this is true include track and field, speed skating, ski jumping, rowing, archery, all racquet sports, curling, baseball and more. In addition, volunteer activities before and after sporting events are usually quite sedentary.

Seventeen per cent of the people who participate in sport limit themselves exclusively to the role of attendee. Since attending as a spectator requires less time and much less energy than actively participating (and some forms of volunteering), it attracts many individuals who are not at all athletic in their own right but who are interested in sport nonetheless.

MOST POPULAR SPORTS

Canadians participate in many sports but focus their energy on a few. Out of nearly 100 sports played, involvement is strongly concentrated in about a dozen sports, including ice hockey, golf, soccer, baseball, basketball, volleyball, skiing, swimming and cycling. (See Table 2.) The 2004 pattern of active participation closely resembles that in 1998, with the same 13 sports appearing in the top 15 in both years. Ice hockey, golf and baseball easily dominate both lists. The most noticeable differences are that curling, bowling and swimming figures for 2004 are only half those for 1998, while weightlifting has dropped out of the 2004 top 15, replaced by running.⁶

The national focus on a core group of sports is mirrored in the behaviour of individual participants. Although some passionate sport lovers take part in as many as 10 different sports, as active participant, volunteer or attendee, this is very unusual. Nearly half of active participants take part in only one sport (47.1 per cent). The overwhelming majority of the multi-sport active participants take part in only 2 or 3 sports (44.3 per cent). A mere 8.7 per cent compete in four or more. (See Chart 1.)

DURATION OF ACTIVITY

Active participants tend to engage in sport for significant periods of time—on average, an hour or more at a time. Nearly 80 per cent of active participants said that they competed for 60 or more minutes at a time. Only 8.3 per cent competed for 45 minutes or less at a time. (See Chart 2.) Duration of participation per active

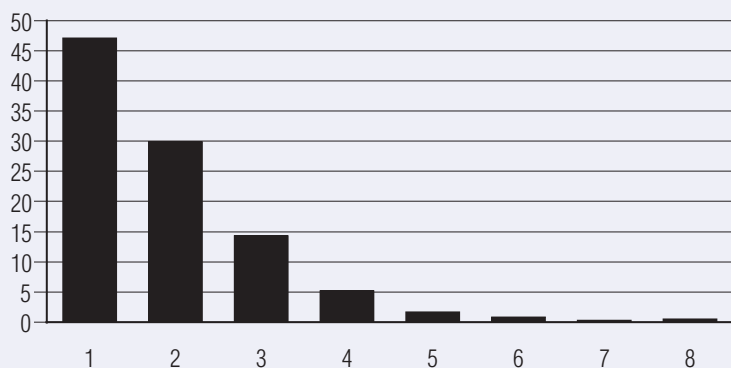
Table 2
Most Popular Sports, by Type of Participation, Adult Population

Active participants	Volunteers	Attendees
Ice hockey 6.6% 1,646,000	Ice hockey 4.7% 1,172,000	Ice hockey 20.7% 5,163,000
Golf 6.5% 1,621,000	Soccer 4.1% 1,023,000	Soccer 11.8% 2,943,000
Baseball 4.7% 1,172,000	Baseball 2.5% 624,000	Baseball 7.9% 1,970,000
Skiing 4.0% 998,000	Volleyball 2.0% 499,000	Basketball 6.1% 1,522,000
Soccer 3.8% 948,000	Basketball 1.6% 399,000	Volleyball 4.5% 1,122,000
Volleyball 3.1% 773,000	Skiing 0.7% 175,000	Football 4.4% 1,097,000
Basketball 2.8% 698,000	Swimming 0.6% 150,000	Swimming 2.4% 599,000
Tennis 2.6% 649,000	Skating 0.6% 150,000	Cycling 2.2% 549,000
Curling 2.6% 649,000	Curling 0.5% 125,000	Skating 2.0% 499,000
Bowling 2.4% 599,000	Football 0.5% 125,000	Curling 1.5% 374,000
Swimming 2.4% 599,000	Martial arts 0.4% 100,000	Martial arts 1.4% 349,000
Cycling 2.2% 549,000	Golf 0.4% 100,000	Gymnastics 1.2% 299,000
Running 1.9% 474,000	Gymnastics 0.4% 100,000	Track and field 1.1% 274,000
Badminton 1.5% 374,000	Bowling 0.3% 75,000	Rugby 1.0% 249,000
Squash 1.0% 249,000	Badminton 0.3% 75,000	Tennis/bowling 0.9% 224,000

Note: The shading of table cells is explained in the section "Four Patterns of Participation" on pages 6 and 7.
Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

Chart 1

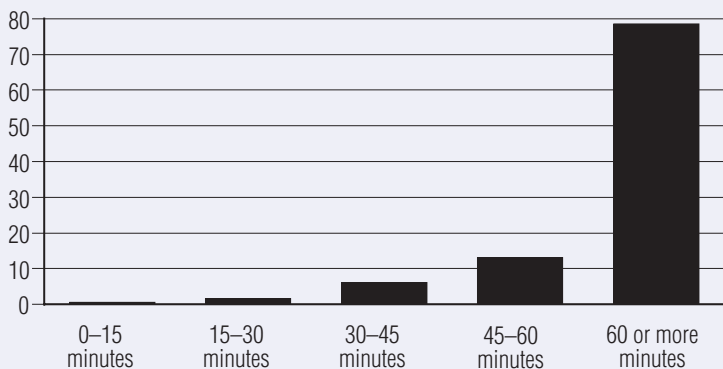
Number of Sports Participated In by Individuals
(per cent; share of Canadian population aged 16+)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

Chart 2

Duration of Activity
(per cent)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

session is sport dependent; sports such as ice hockey require significant time to complete a game while other sports allow more flexibility in session length. Duration issues and the differences between sports have potential significance for health policy-makers. See Chapter 5, “Health Impacts,” for a fuller discussion.

FREQUENCY OF ACTIVITY

Active participants engaged in sporting activities an average of 2.8 times per week. Recommended minimums in *Canada’s Physical Activity Guide to Healthy Active Living* (CPAG) are five days per week for moderate activity and four days per week for vigorous activity. Lack of frequency of participation is one of the major obstacles to increasing the beneficial health effects of sport.

FOUR PATTERNS OF PARTICIPATION

Table 2 identifies the most popular sports by type of participation. The percentages in Table 2 are based on percentages for the adult population in Canada converted from the results for the participants in the survey population. (See Appendix B.) Based on Table 2, four patterns of participation stand out.

The *first pattern* of participation, and numerically most significant, involves sports that attract large numbers of adult participants in all three categories of participation: active participation, volunteering and attending. (See the light purple cells in Table 2.)

Five sports fit this pattern and engage very large numbers of adults: ice hockey, baseball, soccer, volleyball and basketball. Each draws between roughly 700,000 and 1.65 million active participants annually, together with even larger numbers of attendees, and from 400,000 to more than a million volunteers. All five place among the top 15 most popular sports in all three categories. In this regard, ice hockey, a part of the traditional Canadian identity, stands in a class of its own as the most popular sport in every category. It attracted 1.66 million adult active participants, over a million volunteers and more than 5 million attendees in 2004—altogether, more than one-fifth of the entire adult population of Canada, and nearly half of all Canadian adults who attended a sporting event last year.

Why are these sports so popular? One reason is that they are team sports with important family associations for many people. They are often played by several members of a family at the same time, including both adults and children, which may encourage other family members to seek to share in the experience by volunteering and attending. This would help to explain why these sports are able to draw significantly larger numbers of participants overall than are sports geared essentially for individuals. Another plausible factor is the visible presence of popular professional leagues for all these sports except volleyball. These professional league sports are broadcast widely and prominently throughout Canada, creating popular role models whom people want to emulate, thus building a broad constituency for participation.⁷

The *second pattern* involves sports that attract relatively few adult active participants but inspire a depth of dedication that draws many adult attendees and volunteers,

placing them among the 15 most popular sports in each of these categories. Four sports occupying this special niche are football, gymnastics, ice skating and martial arts. Each engages between 100,000 and 150,000 volunteers annually and from 300,000 to more than a million attendees. This pattern can be attributed to various factors. First, these sports tend to involve high physical impact levels and to require a relatively high degree of flexibility that is difficult for many adults to attain. Second, they are child-oriented sports whose spectacle offers great spectator appeal. This combination may deter adults from being active participants themselves. The more artistic of these sports, gymnastics and ice skating, offer particularly compelling spectacles that attract many people who are not interested in sport solely on the basis of athleticism or team competition. Furthermore, the fact that these sports are more popular among children would tend to increase the level of adult volunteers and attendees who come to assist their children in actively participating and to watch them perform. (See the dark purple cells in Table 2.)

The *third pattern* involves sports that attract large numbers of active participants but relatively few volunteers and attendees. The best examples are golf and skiing. Each engages at least a million active participants, seeking to improve their personal performance and occasionally participating in formal competitions, but there are only small numbers of volunteers to assist and attendees to watch them. One possible explanation for this pattern is that these sports offer fewer opportunities for volunteering and attending. Both skiing and golf are

seasonal sports and the number of events in any one city is more limited when compared to hockey (which is frequently played on indoor rinks that are available year round). Furthermore, both these sports are more easily viewed on television than at the actual event. Finally, the venues for golf and skiing are heavily commercialized because of the large investment required to create the requisite sporting environment and are run by professional staff without much volunteer involvement. (See the dark grey cells in Table 2.)

Ice hockey stands in a class of its own as the most popular sport in every category (participant, volunteer, attendee). In 2004, it attracted one-fifth of the entire adult population of Canada.

The *fourth pattern* involves sports that attract large numbers of active participants and attendees but lack a large volunteer component. Two sports, swimming and cycling, fit this pattern. Both may be viewed as individual sports or team sports, since active participants often perform individually but sometimes compete as a team. Both are very popular as competitive activities, each engaging more than half a million adults annually as active participants and attracting more than half a million adults as attendees, yet they have far smaller numbers of volunteers. It is not yet fully clear why. Further research is required to reach definitive conclusions. (See the light grey cells in Table 2.)

1 The Conference Board of Canada, Sport Participation Impact Analysis Household Survey, December 2004. Out of an adult population of almost 25 million (24,943,000) in December 2004, 1 per cent of that population is approximately 250,000.

2 This figure compares with the finding in Statistics Canada, General Social Survey 1998 (Ottawa: Statistics Canada, 1998) that 8.3 million Canadians 15 or over (34 per cent) regularly participated in at least one sport. Differences between the 1998 and 2004 findings may be due in part to the inclusion of 15-year-olds in the 1998 study, as well as to slight differences in the definition of sport employed in the survey. The differences may also represent an extension of the trend to lower levels of adult active participation seen in the decline between 1992 and 1998, when participation rates dropped from 45 per cent to 34 per cent. See Sport Canada, *Sport Participation in Canada, 1998* (Ottawa: Sport Canada, 2000), p. 1, citing findings from Statistics Canada, General Social Survey 1998.

3 The figure for volunteers is much higher than that cited in Statistics Canada, 2000 National Survey of Giving, Volunteering and Participating (Ottawa: Statistics Canada, August 2001), which found that "more than 2 million Canadians volunteer in sport, recreation, arts and culture" combined.

4 Canadian Fitness and Lifestyle Research Institute, *2001 Physical Activity Monitor* [online]. (Ottawa: Canadian Fitness and Lifestyle Research Institute, 2001). <www.cflri.ca/cflri/pa/surveys/2001survey/2001survey.html>.

5 Sport Canada, *Sport Participation in Canada, 1998* (Ottawa: Sport Canada, 2000), p. 7.

6 Sport Canada, *Sport Participation in Canada, 1998* (Ottawa: Sport Canada, 2000), p. 23.

7 A similar pattern of behaviour may occur in relation to sports that gain maximum attention during Olympic Games. When a Canadian athlete wins a gold medal, or gains great media attention, a surge of popular interest may stimulate increased participation in that athlete's sport afterwards. How strong the impact is and whether it results in sustained growth in participation has not been systematically studied.

Key Drivers and Modifiers of Participation

The key drivers of participation in sport are interrelated. The principal drivers include age, gender, household composition, educational attainment and income. Education and income are closely correlated, as are age and household composition.

AGE

Figures for active participation in sport are impressive for all age groups. Rates are the highest for young adults: more than two-thirds of 16- to 19-year-olds are active participants. Many of them participate through their schools. Active participation strongly correlates to age, falling steadily through to the senior years, yet the decline is slow. The 40- to 49-year-old cohort rate is still half the teenage cohort rate. Remarkably, active sport participation continues to engage more than a quarter of all Canadians over 60, testimony to an enduring passion for sport and for physical activity in general among those who have chosen physical pastimes earlier in life. (See Table 3.)

These findings are consistent with other findings for physical activity. In 1995, the Canadian Fitness and Lifestyle Research Institute found that 61 per cent of

young adults aged 18 to 24 were physically active at least every other day, compared with 59 per cent of 25- to 44-year-olds and 53 per cent of 45- to 64-year-olds.¹

Active participation strongly correlates to age, falling steadily through to the senior years.

Retention rates are even more impressive among volunteers. The initial high rate of over 27 per cent for adults under 20 may be partly explained by the requirement in some provinces for young adults to complete a certain amount of volunteer activity as part of their secondary school graduation requirements. This figure falls off somewhat for people in their twenties, but rises again once they reach their thirties. One reason for the increase in volunteering for the post-29 cohort may be that 30- to 39-year-olds volunteer in sports in which their children actively participate, as well as in sports in which other adults participate. Thereafter, rates of volunteering are stable across the adult age spectrum until they begin to dip among adults over 50, falling more steeply for those over 60.

Rates of attending sport do not drop off as quickly as active participation and volunteering rates. Since attending an event or competition does not require much physical fitness or skill, it is easier for adults to remain involved with sport as attendees and spectators at an advanced age than it is for them to actively participate or volunteer. For this reason, the participation rate of adult attendees can remain as high as 50 per cent among people 60 or over.

GENDER

Men are much more likely than women to be active participants in sport. Almost two-fifths of all Canadian men are active participants, compared with less than one-quarter of all women.² (See Table 4.) This significant

Table 3
Participation Rates by Age, Adult Population
(per cent)

Age	Active participants	Volunteers	Attendees
Under 20 years of age	67.2	27.6	63.8
20 to 29	53.7	23.3	56.0
30 to 39	42.5	27.1	62.7
40 to 49	33.3	28.9	58.7
50 to 59	29.6	18.8	50.0
60 years of age or older	26.1	7.2	41.4

Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

difference is similar to earlier findings, and the gap does not appear to be closing. The gender gap is narrower for volunteers and attendees, however. In these categories, men participate at only slightly higher rates than those for women. In general, female participation rates demonstrate that sport is an important element in women's lives, even if not as prevalent an element as it is in the lives of men.

HOUSEHOLD COMPOSITION

The presence of children in a household has a significant impact on the *pattern* of adult active participation in sport compared with single person or adults-only households. For example, the ranking of sports differed among households with children in comparison to single-person and adults-only households. Soccer (31.6 per cent) supersedes ice hockey (23.1 per cent) as the sport of choice, followed by baseball (18.1 per cent), volleyball (14.9 per cent), basketball (14.7 per cent) and swimming (12.5 per cent). On the other hand, golf, which ranked second (21 per cent) in popularity in adult-only households, appears seventh on the list (11 per cent) where children are in the household.

Patterns of volunteerism are similarly altered. Ice hockey is the number one volunteering sport (29.5 per cent), followed by soccer (26.8 per cent), baseball (15.8 per cent), volleyball (12.9 per cent) and basketball (10.3 per cent). Much lower levels of volunteering are reported for sports such as skiing (3.9 per cent), swimming (3.9 per cent), skating (3.9 per cent), curling (3.2 per cent), football (2.9 per cent), martial arts (2.6 per cent), golf (2.4 per cent) and gymnastics (2.4 per cent).

Other factors that affect the scale of volunteering also come into play. As noted, some sports by nature do not require as many volunteers as others do. In some sports, such as skating, swimming and skiing, instructors are typically paid. These are sports where successful active participation requires a high degree of skill, which most people can obtain only through a combination of specialized instruction and practice.

The presence of children in households had an especially strong impact on rates of adult volunteerism: with children present in the household, the rate is 32 per cent; without children, it is only 16 per cent. Men are especially likely to volunteer: over 38 per cent of men in households with children volunteered. (See Table 5.)

Table 4
Participation Rates by Gender, Adult Population
(per cent)

Gender	Active participants	Volunteers	Attendees
Male	39.0	20.8	47.2
Female	23.4	15.9	43.8

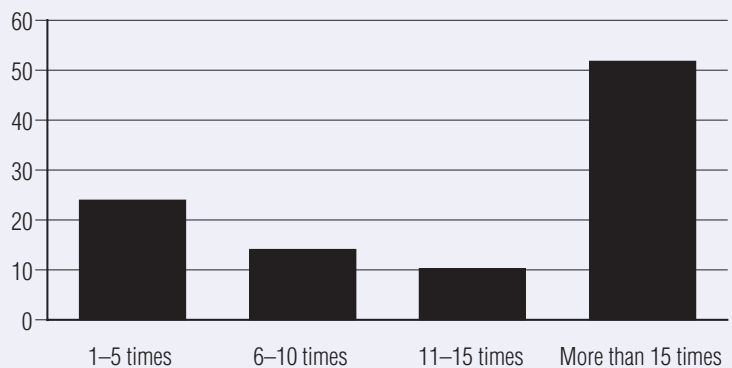
Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

Table 5
Impact of Children in the Household on Adult Participation Rates: Active Participants, Volunteers and Attendees
(per cent)

Household makeup	Active participants	Volunteers	Attendees
No children	37.0	15.9	47.4
With children	37.6	31.9	66.3
Women with no children	27.0	12.8	42.6
Women with children	27.1	26.8	62.7
Men with no children	47.8	19.2	52.5
Men with children	50.7	38.2	70.8

Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

Chart 3
Frequency of Volunteering, Number of Times Individuals Volunteered
(per cent)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

Perhaps the connection with children is why volunteers are so committed: more than half of the people who volunteer do so more than 15 times per year. (See Chart 3.) These findings are consistent with those of the 2000 National Survey of Giving, Volunteering and Participating (NSGVP), which found that about 27 per cent of Canadians volunteer

annually, donating an average of 162 hours each year. About 26 per cent of volunteer hours were spent on sport, recreation, arts and cultural activities.³

The presence of children also has a significant, but not as potent, impact on rates of attendance at sporting events. Adults in 66 per cent of households with children attend sporting events, compared with adults in 47 per cent of households without children. (See Table 5.)

There is a very high likelihood (about 80 per cent) of “other people” in the household participating in sport when an adult participant has children—implying that many children participate in sport and that adults volunteer and attend their children’s sports. This effect is true for both males and females, although males consistently participate in sport at higher rates than females.

EDUCATIONAL ATTAINMENT

Education predicts sport involvement: the greater the educational attainment of a person, the more likely he or she is to participate actively, volunteer and attend sporting events. The most significant behavioural dividing point is between secondary school graduates and people who did not complete secondary school. While only 17 per cent of high school non-completers⁴ are active participants in sport, twice as many high school graduates actively participate. The figures rise more gradually for different categories of post-secondary graduates, reaching a peak among university graduates, nearly half of whom are active participants. (See Table 6.)

Table 6
Impact of Educational Attainment on Participation Rates, Adult Population (per cent)

Educational attainment	Active participants	Volunteers	Attendees
Less than high school	16.7	8.3	33.9
High school graduation certificate or some post-secondary	34.7	19.2	54.6
Trades certificate or diploma	33.1	22.8	52.8
College certificate or diploma	36.7	24.5	58.5
University certificate, diploma or degree	46.7	26.7	57.8

Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

A similar pattern holds true for volunteers. Fewer than one in 10 high school non-completers volunteers, compared with one in five adult secondary school graduates, and one-quarter of college and university graduates. These ratios roughly match the general pattern for volunteers in all sectors, although the figures are proportionately higher when all forms of volunteering are considered. Overall, 19 per cent of high school non-completers volunteered in 2000, compared with 39 per cent of university graduates. However, the gap between high school non-completers and high school graduates was much less pronounced.⁵

Education predicts sport involvement. The most significant dividing point is between secondary school graduates and people who did not complete secondary school.

The pattern is somewhat different for attendees. Here, the only statistically significant difference is between high school non-completers and high school graduates: one-third of the former attend sport events, compared with more than one-half of the latter. Beyond this level, education has no appreciable impact on attendance rates.

INCOME

People with higher incomes are much more likely to participate in sport than people with lower incomes. As with educational attainment, this effect is most pronounced when comparing people at the lowest level of income with those at higher levels. The difference is particularly marked among volunteers. The percentage of volunteers from households with an annual income of between \$40,000 and \$60,000 is three times higher than that from households earning less than \$20,000. People from households earning over \$100,000 are almost five times as likely to volunteer as people in under-\$20,000 households. The most likely explanation for the difference is that participation in sport typically involves substantial spending on equipment, registration fees, travel, accommodation and food, which precludes many lower income earners from taking part due to limited discretionary income. (See Chapter 8, “Economic Impacts.”)

The volunteer pattern for sport differs significantly from the pattern for overall volunteering across all sectors. For all sectors, the volunteering rate for households with incomes under \$20,000 was 17 per cent in 2000, more than twice the volunteer rate for sport alone. By comparison, at the upper end of the distribution, in households with annual incomes over \$100,000, the figure was 39 per cent, not much more than the 34-per-cent volunteer participation rate for sport.⁶

The pattern of income influencing participation rates is also found in earlier studies. In 1994, participation in sport was twice as high for Canadians with a family income of over \$80,000, compared with those with a family income of under \$20,000.⁷ (See Table 7.)

Table 7
Impact of Income on Participation Rates, Adult Population
(per cent)

Annual household income	Active participants	Volunteers	Attendees
Under \$20,000	21.7	7.2	37.3
\$20,000 to \$39,999	26.1	13.6	46.6
\$40,000 to \$59,999	35.5	21.3	52.5
\$60,000 to \$79,999	41.9	25.2	60.4
\$80,000 to \$99,999	46.3	28.6	61.5
\$100,000 or over	55.1	34.7	68.0

Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

1 Canadian Fitness and Lifestyle Research Institute, "Patterns of Physical Activity," *Progress in Prevention 2* (May 1996). <www.cflri.ca/pdf/e/pip02.pdf>.

2 This figure compares with slightly higher rates for 1998 in Statistics Canada, General Social Survey 1998 (Ottawa: Statistics Canada, 1998), which found an adult male (15 and over) participation rate of 43 per cent and an adult female (15 and over) participation rate of 26 per cent.

3 Michael Hall, Larry McKeown and Karen Roberts, *Caring Canada, Involved Canadians: Highlights from the 2000 National Survey of Giving, Volunteering and Participating* (Ottawa: Statistics Canada, 2001), pp. 40–41. Subsequent surveys in this series are now known as the Canada Survey of Giving, Volunteering and Participating. <www.givingandvolunteering.ca/pdf/n-2000-hr-ca.pdf>.

4 Almost all adult high school non-completers, 18 and over, are dropouts; a small number are 18- to 21-year-olds who are still in high school.

5 Michael Hall, Larry McKeown and Karen Roberts, *Caring Canada, Involved Canadians: Highlights from the 2000 National Survey of Giving, Volunteering and Participating*, p. 33.

6 Michael Hall, Larry McKeown and Karen Roberts, *Caring Canada, Involved Canadians: Highlights from the 2000 National Survey of Giving, Volunteering and Participating*, Table 2.2, p. 34.

7 Sport Canada, *Sport Participation in Canada, 1994* (Ottawa: Sport Canada, 1994). <www.pch.gc.ca/progs/sc/pubs/status_e.cfm>.

Major Benefits of Sport Participation

The impacts and benefits of sport participation can be considered from the point of view of individuals and households; from the point of view of workplaces and employers; and from the aggregated perspective of communities, regions, provinces and the country as a whole. This study focuses its attention on two levels in particular—individuals and households, and communities and the country. This section focuses on *self-reported* benefits to individuals and households. Later sections will examine the impacts and benefits on an aggregated scale under four headings: health impacts, skills impacts, social impacts and economic impacts.

It is important to recognize that self-reported benefits are not always reliable. It would be invaluable in future to develop independent empirical data about impacts and benefits to confirm or modify the survey findings.

Survey respondents rated seven major types of benefits gained by participating in sport. Improved physical fitness and health ranked number one.

When asked about the benefits that they gained by participating in sport, or that members of their households gained, survey respondents rated seven major types of benefits. They are, in ranked order of importance, as assessed by active participants:

1. Improved physical fitness and health;
2. Fun, recreation and relaxation;
3. Enhanced sense of achievement;
4. More opportunities for shared family and household activities;
5. Improved social, analytical and life skills;
6. Opportunities to socialize and make new friends; and
7. Preparedness for sport competitions.

Five of the seven categories of benefits covered in 2004 were also studied in 1998; the five common categories were ranked in the same order of importance in both years. (See Table 8.)

A recent European survey produced similar results. In 2004, the European Commission's Directorate General, Education and Culture conducted a survey on the educational and social values of sport in the European Union (EU). A majority of citizens in the EU cited improving health as the principal benefit of sport (78 per cent), followed by developing physical performance (46 per cent), relaxing (43 per cent), having fun (39 per cent) and being with friends (24 per cent). Sixteen per cent of EU citizens said that the principal benefit of sport was developing new skills, and another 15 per cent said that sport helped to build character and identity.¹

IMPROVED PHYSICAL FITNESS AND HEALTH

When asked to rate the importance of sport in providing them personally with benefits, active participants attached the highest importance to the positive physical and psychological effects of sport that helped them to maintain or improve personal health. About 80 per cent of adult active participants in 2004—more than 6.2 million people—rated sport as very important in improving their physical fitness and health. (See Table 8.) These figures are higher than the results from the 1998 survey, which showed that just over 70 per cent, about 5.9 million people, felt that sport was very important to their physical fitness and health. The importance of sport participation in providing people with the physical activity they require to enhance or maintain their level of fitness and health is discussed at length in Chapter 5, "Health Impacts."²

Table 8

Major Benefits to Individuals of Sport Participation, Adult Participants, 1998 and 2004

	Conference Board, 2004		Sport Canada, 1998
	Active participants	Volunteers and attendees	Active participants
Physical fitness and health			
Very important	81.0% 6,263,000	68.6%	70.6% 5,865,000
Somewhat important	15.4% 1,191,000	19.7%	25.8% 2,146,000
Not important at all	3.6% 278,000	11.7%	3.5% 287,000
Fun, recreation and relaxation			
Very important	78.6% 6,077,000	61.4%	68.5% 5,688,000
Somewhat important	18.6% 1,438,000	34.3%	26.6% 2,209,000
Not important at all	2.8% 216,000	4.3%	4.8% 402,000
Sense of achievement			
Very important	60.9% 4,709,000	56.4%	57.2% 4,752,000
Somewhat important	32.7% 2,528,000	29.6%	32.6% 2,712,000
Not important at all	6.4% 495,000	13.9%	10.1% 836,000
Family or household activity			
Very important	53.4% 4,129,000	59.9%	42.5% 3,531,000
Somewhat important	31.6% 2,443,000	31.4%	33.0% 2,743,000
Not important at all	14.9% 1,152,000	8.7%	24.4% 2,027,000
Skill development			
Very important	52.2% 4,036,000	49.0%	Not asked
Somewhat important	40.6% 3,139,000	35.5%	Not asked
Not important at all	7.2% 557,000	15.5%	Not asked
New friends and acquaintances, socialization			
Very important	49.3% 3,812,000	42.4%	40.9% 3,395,000
Somewhat important	39.5% 3,054,000	41.6%	41.9% 3,482,000
Not important at all	11.2% 866,000	16.0%	17.1% 1,423,000
Preparation for competition			
Very important	37.2% 2,876,000	44.9% 5,330,000	Not asked
Somewhat important	35.8% 2,768,000	26.9% 3,193,000	Not asked
Not important at all	27.0% 2,088,000	28.3% 3,360,000	Not asked

Sources: The Conference Board of Canada, Household Survey, December 2004, Household Survey, 1998; Sport Canada, Sport Participation in Canada: 1998 Report.

FUN, RECREATION AND RELAXATION

Nearly 79 per cent of active participants in 2004, or almost 6.1 million people, ranked sport as a very important source of fun, recreation and relaxation. By comparison, about 69 per cent of active participants in the 1998 survey, or 5.7 million people, rated sport very important in this category, making fun, recreation and relaxation the second-highest ranked impact on both surveys. (See Table 8.)

SENSE OF ACHIEVEMENT

The sense of achievement that adult active participants gain from participating in sport was the third-highest ranked impact in both 2004 and 1998. Just more than 4.7 million active participants in both years identified sport as a key source of an enhanced sense of personal achievement and satisfaction. This figure represented 61 per cent in 2004, an increase from 57 per cent in 1998. (See Table 8.)

Methodology for Comparative Analysis of Impacts and Benefits

Benefits from involvement in sport activities vary depending on the nature of the participation, whether it is as an active participant, volunteer or attendee-spectator. Active participants, for example, gain a different pattern of benefits than do volunteers or attendees.

Our methodology allows us to define three groups among the households surveyed:

- A. Active participants (some of whom are also volunteers and attendees, n=747);
- B. Volunteers and attendees (who are not also active participants, n=575); and
- C. Non-participants (who are not active participants, volunteers or attendees, n=504).

The methodology enables valid comparisons of participants (A+B) with non-participants (C), but it is not valid to combine B+C to analyze non-participants, because the number of non-participants was capped at 504. So the possible comparisons are:

- Between A and B and C; and
- Between A + B and C.

Comparisons can also be made *within* the three activity categories (active participants, volunteers and attendees), but the fact that many people are involved in a combination of the three limits the usefulness of this approach. To maintain a large numerical basis for comparison, which allows a high level of confidence in the accuracy of the findings, it is best to compare large data aggregations.

Source: The Conference Board of Canada.

MORE OPPORTUNITIES FOR SHARED FAMILY AND HOUSEHOLD ACTIVITIES

Next most important were the social benefits derived from involvement. In 2004, 53 per cent of active participants, or 4.1 million people, rated sport as very important in providing their family or household with activities to undertake. These figures are higher than the 1998 results, when 43 per cent of active participants, or 3.5 million people, rated sport as very important in this category. (See Table 8.)

Interestingly, in 2004, volunteers and attendees rated the value of sport as a source of social activity even higher than did active participants. This result may be tied to the tendency of adults to volunteer more frequently when they have children in their household, thereby presumably bringing them together in a shared experience of sport that they particularly value. Another part of the explanation may be that families tend to attend games and events together, providing an important social outlet for sharing a common experience as spectators. (See Table 8.) The evidence from 1998 points in this direction. The ratings by age cohort show a dramatic jump from the 19- to 24-year-old group, 26 per cent of whom rated sport as very important to family activities, to the 25- to 34-year-old group, typically the “new parent” cohort, 43 per cent of whom rated sport as very important in this regard. The rating from the 35- to 54-year-old group is even higher, at 53 per cent.

IMPROVED SOCIAL, ANALYTICAL AND LIFE SKILLS

Skills development was a very important outcome of participation in sport for the majority of active participants in 2004. (See Table 8.) Interestingly, volunteers also viewed their role in sport as a valuable way for them to develop their own transferable skills: about 85 per cent of them rated it very important or important.

Skills gains are among the most important benefits of sport participation because they contribute to personal development and well-being, more productive work performance and improved business performance, which underpins economic growth. See Chapter 6, “Skills Impacts,” for a fuller discussion.

OPPORTUNITIES TO SOCIALIZE AND MAKE NEW FRIENDS

Social benefits extend further than the household. Nearly half of active participants—and more than 40 per cent of volunteers and attendees—rate sport as very important for them in meeting new friends and acquaintances and in providing venues for socializing beyond the immediate family or household. This figure is up appreciably from the 1998 survey, in which about 41 per cent of active participants rated sport as very important in this category. (See Table 8.)

Nearly half of active participants—and more than 40 per cent of volunteers and attendees—rate sport as very important for them in meeting new friends and acquaintances and in providing venues for socializing beyond the immediate family or household.

Sport participation contributes to community and social cohesion, which engenders social capital. That, in turn, is an important constituent of our national capacity to compete, grow and sustain ourselves. See Chapter 7, “Social Impacts,” for a fuller discussion.

PREPAREDNESS FOR SPORT COMPETITION

Relatively less important, but still significant, was preparation for sport competition. About 37 per cent of active participants rated their sport participation as very important preparation for subsequent competition, with another 36 per cent rating it as somewhat important. Interestingly, volunteers and attendees are more inclined than active participants to view their participation in sport as very important in preparing them for future competition. There are several possible explanations. First, some of the volunteers and attendees are also active participants and may be answering from that perspective. Second, some of them may believe that their volunteering and attending gives them insights into the underlying nature of competition that are transferable to the workplace and beyond. Third, some of them may see preparedness in terms of their ability to help prepare children to take part in sport competition, such as hockey and soccer tournaments, by teaching them what they have learned about the “game” while watching or volunteering. Fourth, some volunteers may feel that their work as adult organizers, supervisors and coaches creates competitive environments that allow children to actively participate. Fifth, as attendees, they might take children to events to show them what is involved in actively participating and encourage them to participate in the future, thereby preparing them to choose to become active themselves. (See Table 8.)

1 European Commission, *The Citizens of the European Union and Sport* (Brussels, Belgium: European Commission, November 2004, Special Eurobarometer 213/Wave 62.0—TNS Opinion & Social), p. 13.

2 Part of the difference may be due to the fact that the 1998 survey profiled Canadians 15 years and older, whereas the 2004 survey profiled Canadians 16 years and older. There is also a slight difference in the language used to define “participation in sport” in the two surveys.

Health Impacts

The first of the four major categories of sport impact is health. Participation in sport and *excellent health* are closely linked in the minds of Canadians. More than 70 per cent of active participants describe their overall state of health as either excellent or very good, compared with less than 50 per cent of

non-participants. Volunteers and attendees rank their health even higher than active participants: 86 per cent rate it as excellent or very good. This is a surprising finding that invites further research to probe its meaning. (See Chart 4.)

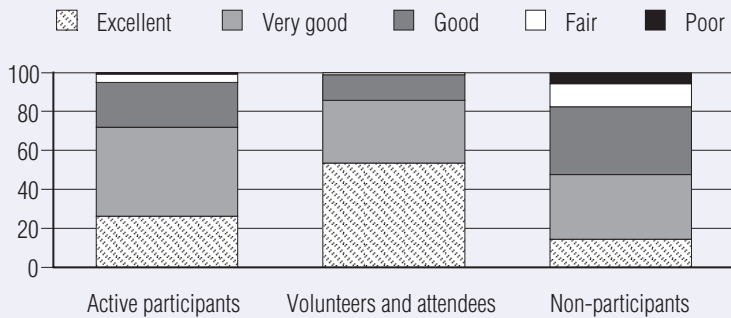
Active participants are most likely to associate health benefits with their participation. Volunteers and attendees tend to see other causes for their well-being, including good diet and alternative forms of physical activity. (See Chart 5.)

Active participants attach very high levels of importance to sport as a source of relaxation, fun and recreation (4.64 on a scale of 1 to 5); physical fitness (4.55); improved quality of life due to better health (4.40); and stress relief (4.32). These findings are largely consistent with previous studies of physical activity, both sport and fitness activities, which have generally found a close relationship between health and physical activity. (See Chart 6.)

Rather surprisingly, sport as a means of weight control was rated significantly lower in importance (3.85). However, this perception does not appear to have prevented active participants from rating their overall personal health highly. This suggests that weight control is not a major concern for them, even though objective research shows that weight, especially obesity (a body mass index, or BMI, of 30 or more), has a major impact on actual health levels.¹ Alternatively, active participants may simply feel that their weight is already at the right level for excellent health. More research would be useful to understand how well Canadians relate specific elements of health such as weight to their own state of health. (See Chart 6.)

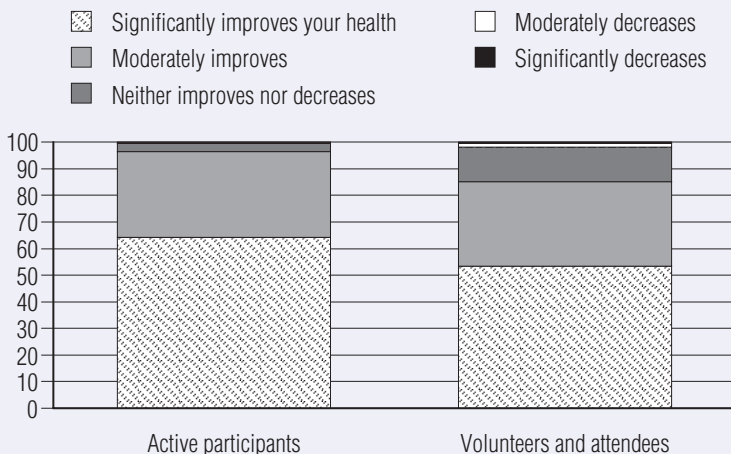
Although it may be a key to *excellent health*, in the view of most people, participation in sport is not seen as a prerequisite to simple *good health*. When it comes to attaining or maintaining good health, as compared with excellent health, most people consider physical activity of all kinds, not just sport, to be a useful way of improving their overall state of health. Most non-participants

Chart 4
Active Participation in Sport and Overall State of Health, Participants' and Non-participants' Self-assessment (per cent)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

Chart 5
Impact of Participation in Sport on Health, Active Participants' versus Volunteers and Attendees' Perspectives (per cent)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

Table 9
Visits and Telephone Calls to a Doctor, Overall and Due to Sport Injury

Category	Overall			Due to sport injury		
	Number	Total visits and calls	Average visits and calls per person	Number	Total visits and calls	Average visits and calls per person
Active participants	746	3,990	5.3	547	881	1.6
Volunteers and attendees	568	4,676	8.2	206	446	2.2
Total	1,314	8,666	6.6	753	1,327	1.8
Non-participants	498	2,763	5.5	n.a.	n.a.	n.a.

Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

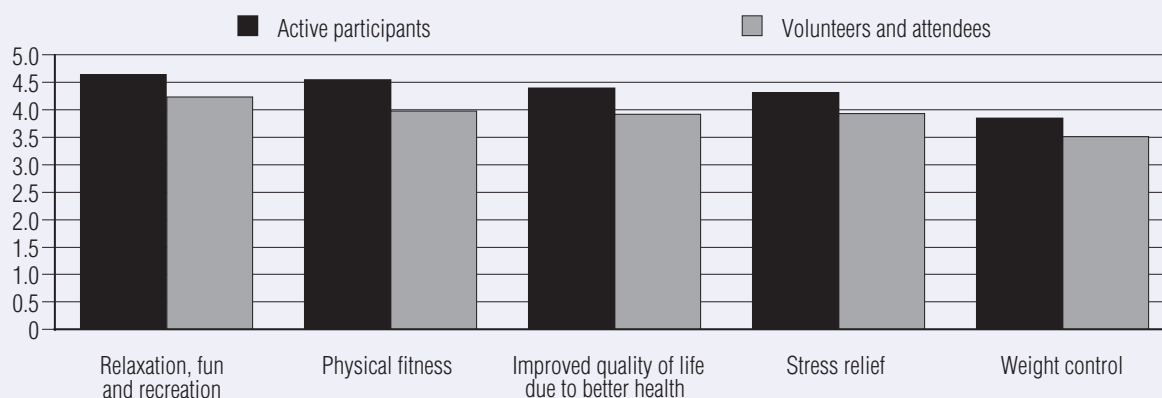
in this study thought that they were in good health, with more than 82 per cent rating their overall health as good or better than good (compared with 95 per cent of active participants and 99 per cent of volunteers and attendees). The most common reason they gave is that they claim to get exercise outside of sport and follow sensible diets.

Respondents' reports of actual use of the health-care system for calls and visits to health-care professionals—such as general practitioners, family doctors, nurses, surgeons, dentists and physiotherapists—matched the results of their self-assessment of health in some significant ways. When asked about calls and visits to health-care professionals, active participants reported 5.3 calls and visits per year on average, compared with 5.5 annually for non-participants. (See Table 9.)

The gap in the number of calls and visits would be greater except that active participants averaged 1.6 annual calls or visits to health-care professionals due to sport injuries they suffered. Partly, this result is due to the fact that participation in contact sports and sports that put prolonged stress on the body generates significant numbers of sport-related injuries. On the other hand, this relationship does not explain the even higher rates of calls and visits by volunteers and attendees.

Sport-related calls and visits by some active participants may be partly motivated by their desire for medical advice and treatment that will help them achieve a *higher standard* of bodily fitness than non-participants. Their goal may be to achieve a level of fitness that will enable them to continue their active participation in sport—a

Chart 6
Overall Assessment of Health Benefits, Active Participants' versus Volunteers and Attendees' Perspectives
(my participation in sport has provided me with . . . ; mean scores, on a scale of 1 to 5)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

significantly higher level of fitness than most non-participants require or seek. In other words, some active participants may visit doctors in order to become performance-ready, not merely healthy.

If the number of sport injury- and sport performance-related visits is subtracted from the figure for active participants, the average number of calls and visits declines to only 3.7 per year related to general health issues—such as illness, disease and chronic care treatment—which motivate visits to doctors for non-participants and participants alike. This figure is more than 40 per cent lower than the average for non-participants.

Active sport participation has a moderate beneficial impact on the amount of stress individuals experience.

The number of calls and visits to health-care professionals translates into different patterns of workdays lost to injury or illness. Compared with sport participants, non-participants lost significantly fewer workdays. Whereas active participants reported losing an average of 5.9 workdays per year due to injury or illness, or just over one workday lost for each call or visit to a health-care professional, non-participants lost only 3.4 days annually, or only about 0.6 workdays per call or visit. (See Table 10.)

The difference in the number of workdays lost may be partly due to the fact that active participants are staying home for the same reason they sometimes seek health care: to achieve a *higher standard* of bodily fitness, and become performance-ready, not merely healthy. Also, active sport participants earn more and are better educated than non-participants, on average. People with higher

incomes and better education tend to take a more proactive approach towards their own health care and may have more job flexibility to take time off to recover.

Active sport participation also has a moderate beneficial impact on the amount of stress individuals experience. Non-participants are somewhat more likely to say that they are “quite stressed” than are active participants. However, sport does not reduce stress among volunteers and attendees as a group: they are actually more likely to feel extremely or quite stressed than are non-participants. (See Chart 7.)

IMPACT OF PHYSICAL ACTIVITY FROM SPORT

Individuals can obtain significant health benefits from dedicated physical activity throughout their lifetime by combining appropriate levels of frequency, duration and intensity of activity. *Canada’s Physical Activity Guide to Healthy Active Living (CPAG)*² recognizes that the time needed to realize health benefits from active living depends on the amount of effort expended during the activity. The Public Health Agency of Canada follows CPAG in recommending that people engage in 60 minutes of low-intensity activity daily,³ 30 minutes of moderate activity five days per week,⁴ or 20 to 30 minutes of vigorous activity⁵ four days per week, if they want to enjoy the health benefits of physical activity. CPAG also suggests that personal exercise should involve three kinds of activities for participants to achieve maximum health benefit: endurance, flexibility and strength activities. Many national health organizations endorse CPAG’s recommendations for physical activity on the basis that they are important to achieving fitness gains that underpin overall improvements in personal health.⁶

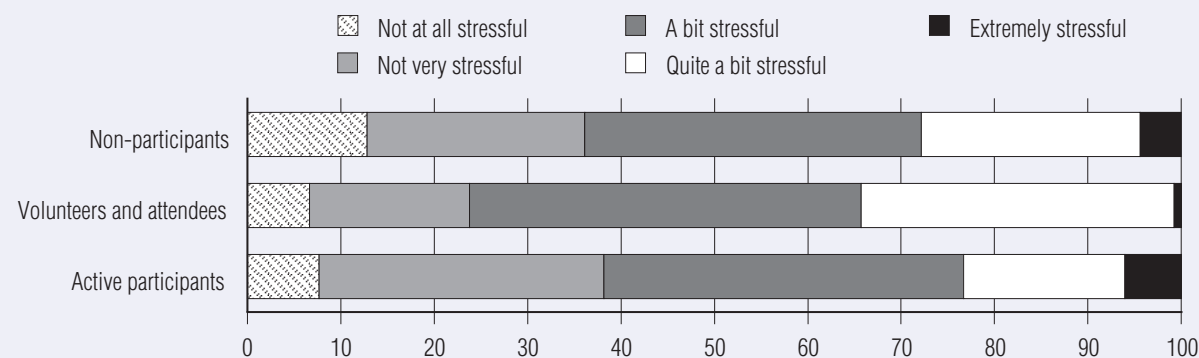
A person who does not attain at least one of the three activity levels recommended by CPAG is considered inactive. The idea behind the CPAG-recommended targets is that frequency, duration and intensity of activity combine to determine the actual amount of energy people expend in physical activity. Expending energy actively can have a profound effect on personal health. As a recent published report observed, “[P]hysical activity expending 1,000 kcal/wk (4,200 kJ/wk) is associated with as much as a 30 per cent reduction in all causes of mortality rates.”⁷ Meanwhile results from the 2000–2001 Canadian Community Health Survey reveal that 56 per cent of Canadians are inactive.⁸ Therefore large numbers of Canadians are at high risk because of their inactivity.

Table 10
Work Days Lost to Illness and Injury

Category	Number	Total days lost	Average days per person
Active participants	661	3,873	5.9
Volunteers and attendees	485	2,728	5.6
Total	1,146	6,601	5.8
Non-participants	356	1,196	3.4

Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

Chart 7
How Do People Rank Their Stress?
(per cent)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

Our Household Survey found that Canadian adult active participants engage in an average of 1.91 sports, and participate in sport an average of 2.8 times per week, at an average duration of about one hour per time.⁹ This amounts to an average of almost three hours of physical activity per week, much of which is of moderate or vigorous intensity. A great majority of the most popular sports, measured by participation rates, involve considerable physical activity for active participants.¹⁰ Given the duration and frequency reported, and the typical intensity values for these sports, it is likely that many adult active participants are reaching CPAG-recommended activity levels. Further research, perhaps involving systematic observation and monitoring of performance by non-professionals in addition to more detailed surveying, is needed to establish exactly how many active participants are achieving one or more of the three recommended activity levels.

It is likely that many adult active participants are reaching CPAG-recommended activity levels.

ENERGY EXPENDITURE IN 55 SPORTS

To evaluate whether adult active participants in sport are reaching CPAG targets—levels of energy expenditure that will improve health and substantially reduce mortality rates—we examined data from our Household Survey related to participation in 55 sports in which survey respondents had competed, or tried to improve their personal sporting performance, over a 12-month period.¹¹ We used the data for the 55 sports to estimate energy expenditure.

FREQUENCY

Survey respondents were asked how often they actively participated in each sport. Their answers typically provided the number of times per week, month or year they participated in a stated sport. Frequencies were all converted to a common time period of weeks to calculate energy expended.

DURATION

The duration data for our calculation were drawn from respondents' answers to the survey question: *on average, for how long are you actively competing or actively seeking to improve your performance in sport?* These data were collected in ranges, starting with 0 to 15 minutes. To calculate energy expenditure, the average for each range was used (for example, 7.5 minutes for the 0- to 15-minute range).

WEIGHT

Calculating energy expenditure also requires a weight value. For the purposes of our calculations, we used the average weight of adult Canadian females over age 15 (65.1 kg) and adult Canadian males over age 15 (80.0 kg).¹²

HOW WE SCORE

To estimate whether adult active sport participants are reaching CPAG targets, we looked at energy expenditure, duration and frequency data from our Household Survey. Using the data for 55 sports, we estimated the median weekly energy expenditure for females and males and compared the medians with CPAG targets.

About Metabolic Equivalent (MET)

Metabolic equivalent (MET) is the ratio of the working metabolic rate to the resting metabolic rate. One MET is defined as 1 kilocalorie/kilogram/hour (kcal/kg/hr) and is approximately equivalent to the energy consumed in resting or sitting quietly. MET values are useful in determining energy expenditure in physical activity, including sport.

An activity that burns 1.0 to 2.9 METs is considered low-intensity physical activity; 3.0 to 5.9 METs is considered moderate physical activity; and an activity that burns 6.0 METs or more is considered vigorous physical activity.¹

The MET values for individual sports used in this study were taken from B.E. Ainsworth's *The Compendium of Physical Activities Tracking Guide*.²

1 Centers for Disease Control and Prevention, *Physical Activity for Everyone: Measuring Physical Activity Intensity: Metabolic Equivalent (MET) Level* [online]. (Atlanta, Georgia: Centers for Disease Control and Prevention, July 2005). <www.cdc.gov/nccdphp/dnpa/physical/measuring>.

2 B.E. Ainsworth, *The Compendium of Physical Activities Tracking Guide* (South Carolina: Prevention Research Center, Norman J. Arnold School of Public Health, University of South Carolina, 2002). <prevention.sph.sc.edu/tools/docs/documents_compendium.pdf>.

Source: The Conference Board of Canada.

Example: Calculating Energy Expenditure of Active Participation in Sport

How much energy does an adult male of average weight (80 kg) expend playing hockey an average of once a week, for an average duration of 60 minutes per game?

Key data

Gender: male

Sport: hockey

MET value of hockey: 8.0

Frequency of active participation: once a week

Duration of active participation: 60 minutes per game

Weight of participant: 80.0 kg

Calculation

Energy expenditure formula = (energy expenditure *at rest* in kilocalories/kilogram/minute) × (MET value for the sport) × (weight of adult) × (duration of active participation)

- Energy expenditure at rest for an adult male of average weight is 0.01667 kilocalories/kilogram/minute (kcal/kg/min).
- The MET value for hockey is 8.0.

Energy expenditure solution = (0.01667 kcal/kg/min) × (8.0 METs) × (80.0 kg) × (60 min/week) = 640.13 kcal/week

Therefore, an adult male who weighs 80.0 kg and plays hockey once a week for 60 minutes per game will expend 640 kcal per week.

Source: The Conference Board of Canada.

ENERGY EXPENDITURE

We determined the actual energy expended *per sport* by individuals each week, using metabolic equivalent (MET) values for each sport, based on the duration and frequency of sport activity stated by the respondent, and multiplied by the average weight of participants by gender. We added the energy expended on each sport by each individual. We then calculated averages and found the median value. The median expenditures for adult females and males are 586 kcal/week and 1,190 kcal/week, respectively.¹³ (See Table 11.) CPAG guidelines for moderate and vigorous activity¹⁴ show that females should expend between 488 and 1,042 kcal/week and males should expend between 600 and 1,280 kcal/week. (See box, “CPAG Targets.”) Our calculations provide evidence that the average energy expenditure of active participants meets the CPAG targets for weekly energy expenditure.

DURATION

Our calculations indicate that average Canadian male active participants take part in sport for 92.5 minutes per week per sport × 1.91 sports, or 177 minutes per week; average females take part in 84.6 minutes per week per sport × 1.91 sports, or 162 minutes per week. Active participants tend to engage in sport for significant periods. Nearly 80 per cent of active participants said that they compete for 60 or more minutes at a time. Only 8.3 per cent compete for 45 minutes or less at a time. Almost all sports in our Household Survey, including the 15 most popular sports, have MET levels in the moderate to vigorous range. Accordingly, participation in these sports for these average weekly durations exceeds CPAG minimum targets. (See box, “CPAG Targets.”)

FREQUENCY

Our calculations indicate that active participants engaged in sporting activities an average of 2.8 times per week, compared with CPAG-recommended minimums of five days per week for moderate activity and four days per week for vigorous activity. Thus, the average active participant is not meeting CPAG recommended frequency minimums. There is a structural explanation: the complications of organizing groups of participants and the nature of team sports mean that sport is usually undertaken for longer periods at a time, but less frequently than the targets recommend. Specifically, sport activities are often structured in “game” or “competitive” sessions that last an hour or more, making frequent sessions difficult. Another factor is that sport is often a widely shared activity involving many people interacting on teams or in competition

with one another, which makes scheduling difficult. It also requires considerable organization and effort to bring them together each time; this fact leads to fewer sessions of longer duration rather than many short sessions. Finally, many sports have an uneven and cyclical nature throughout the year, so it is difficult to achieve a pattern of regular physical activity for the 12 calendar months.

Changing patterns of infrequent participation is difficult because sport participation is often organized around lengthy games or competition sessions.

SUMMARY

This analysis suggests that *on average*, adult active participants are meeting CPAG’s duration and energy expenditure targets for maintaining good health, but not the frequency targets. Since many of the benefits of active participation come from adhering to a cycle of fairly frequent periods of physical activity, followed by corresponding periods of rest that allow time for muscle recovery, allocating time for active sport participation over several days per week is important. Less frequent periods of activity may limit the health benefits of participation.

Changing patterns of relatively infrequent participation is difficult because sport participation is often organized around lengthy games or competition sessions lasting an hour or more, so that adding even one more session weekly constitutes a significant change in behaviour. Indications are that many people have neither the time nor the inclination to commit to such lengthy periods of active participation in organized sport beyond their current levels. Therefore, the best strategy to improve physical fitness in the general population may be to encourage a complementary regime of less formal physical activity in addition to sport participation, rather than seeking to substantially increase the frequency of sport participation.

More research is necessary to confirm this finding in order to establish the exact proportion of adults who reach the target levels, and to identify patterns of sport and non-sport activity that most frequently enable these individuals to reach or exceed the targets. It would also be helpful to carry out research that would establish the extent to which engaging in physical activity at these target levels by actively participating in sport benefits both individuals with health problems who want to improve their health and those already in good health.

ECONOMIC IMPLICATIONS OF IMPROVING HEALTH

Improving health through sport and other forms of physical activity would significantly reduce health-care costs. In 2000, an estimated \$2.1 billion of annual health-care spending, or 2.5 per cent of total direct health-care costs in Canada, were attributable to physical inactivity.¹⁵

Table 11
Median Weekly Energy Expenditure by Individual Active Participants
(kilocalories per week)

Category	Median energy expenditure (kcal/wk)
Females	586
Males	1,190
Combined	894

Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

CPAG Targets

CPAG suggests people should engage in 30 minutes of moderate physical activity five days per week, or 20 to 30 minutes of vigorous physical activity four days per week. Using this information, and employing the shorter duration for high vigorous activity, we can calculate the upper and lower values for recommended energy expenditure for the average adult Canadian female and male:

- Low moderate activity (3.0 METs)
- High vigorous activity (12.0 METs)
- Females: 65.1 kg average weight
- Males: 80.0 kg average weight
- Duration: 150 min/week low moderate activity; 80 min/week high vigorous activity

Females

METs 3.0

Energy expenditure (females) = (0.01667 kcal/kg/min) × (3.0 METs) × (65.1 kg) × (150 min/week) = **488 kcal/week**

METs 12.0

Energy expenditure (females) = (0.01667 kcal/kg/min) × (12.0 METs) × (65.1 kg) × (80 min/week) = **1,042 kcal/week**

Males

METs 3.0

Energy expenditure (males) = (0.01667 kcal/kg/min) × (3.0 METs) × (80.0 kg) × (150 min/week) = **600 kcal/week**

METs 12.0

Energy expenditure (males) = (0.01667 kcal/kg/min) × (12.0 METs) × (80.0 kg) × (80 min/week) = **1,280 kcal/week**

Source: The Conference Board of Canada.

A 10-per-cent decrease in the number of inactive Canadians would save \$150 million a year in direct costs and \$5 billion in indirect costs, according to Dr. David Lau, President of Obesity Canada.¹⁶ A recent study of data for 2001 placed an even higher figure on the health costs. It estimated direct costs of physical inactivity at \$1.6 billion annually, along with indirect costs—including the value of economic output lost due to illness, injury-related work disability and premature death—of \$3.7 billion, for an annual total of \$5.3 billion. The same study estimated the direct cost of obesity (partly due to physical inactivity) at \$1.6 billion, with a further \$2.7 billion in indirect costs, for an annual total of \$4.3 billion.

Increasing sport participation as a strategy for improving Canadians' health could significantly reduce national health-care costs.

In 2001, the total economic costs of physical inactivity and obesity represented 2.6 per cent and 2.2 per cent, respectively, of Canada's total health-care costs, for a combined total of 4.8 per cent.¹⁷ These results were consistent with an earlier study in British Columbia that found that in the decade 1981–91, a cumulative total of \$4.4 billion in health-care costs could have been avoided by increasing the rate of physical activity.¹⁸ Nationally, using the same per capita costs, this figure would have represented an annual cost of about \$4 billion then, or more than \$5 billion in current dollars. On this basis, increasing sport participation as a strategy for improving Canadians' health could significantly reduce national health-care costs.

Canada shares the inactivity problem with the United States where it is even more severe. A 1999 U.S. study estimated that physical inactivity, defined as the absence of leisure-time physical activity, was responsible for US\$24 billion or 2.4 per cent of U.S. health-care expenditure. In addition, the direct costs of obesity, defined as a BMI of greater than 30, totalled a further US\$70 billion in 1995 dollars, equivalent to 7.0 per cent of U.S. health-care expenditure at the time. Thus, direct costs of inactivity and obesity totalled 9.4 per cent of U.S. health-care expenditure. The study concluded that “[i]nactivity, with its wide range of health consequences, represents a major avoidable contribution to the costs of illness in the United States and other countries”¹⁹ A 2000 study found that the average annual direct medical costs in the U.S. of physically

active persons 15 and older were US\$330 less per person in 1987 dollars than those of inactive persons (US\$1,019 versus US\$1,349). These findings were consistent across age groups and genders. To the authors, “The mean net annual benefit of . . . \$330 per person . . . suggest[s] that increasing participation in regular moderate physical activity among the more than 88 million inactive Americans over the age of 15 might reduce annual national medical costs by as much as \$29.2 billion in 1987 dollars—\$76.6 billion in 2000 dollars.”²⁰

The scale of these costs has potential significance for health policy-makers. It suggests that there is a high potential *economic* value in increasing active sport participation as part of a broader strategy of increasing physical activity in order to improve the overall health of the Canadian population. This improvement in average health levels of individuals through increased physical activity could significantly cut health-care delivery costs, with potential savings of billions of dollars annually.

Since engaging in CPAG target duration, frequency and intensity levels of physical activity is a determinant of good health, and good health affects longevity, adult active participants who achieve the target levels are likely to live longer and healthier lives, on average, as a result. (The benefits of active participation at levels below the CPAG targets are less clear.) A longer healthy life may translate into greater productivity in aggregate over the course of a lifetime; maintaining health would enable a person to be productive to a later age. If so, this would more than offset the additional days off for injury that sport participants take annually compared with non-participants. Their capacity to be more productive for longer periods could have important implications as our national demographic profile alters and more people reach the traditional retirement age. Further research is required to establish the exact nature and strength of the relationship between sport participation and the achievement of physical activity targets; the impact of physical activity on health levels; and the relationship of improvements in average health levels to productivity.

The significance of sport in raising health levels has implications for government policies and programs. The cost to government of supporting sport is small in comparison with health spending related to inactivity. If sport (along with other forms of physical activity) is seen as an effective way to reduce health-care costs, it may be selected as a focus for new policy and investment. Sport

advocates in the United Kingdom are encouraging their government to review this connection and consider its choices for these reasons. As one U.K. study has put it: “The Government spends £1,135.00 per person on health compared to just £1.38 on sport. A small shift in the health budget would create a step change in sport provision and health promotion.”²¹ The same could be true in Canada.

If so, governments (and their community and corporate partners) will face three challenges: broadening the proportion of the population that actively participates in sport, stimulating active participants to take part in a broader physical fitness regime of which sport is a part, and encouraging people to take part in sport frequently enough to make a difference to their fitness and health.

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- 1 Katherine Flegal et al., “Excess Deaths Associated with Underweight, Overweight and Obesity,” *Journal of the American Medical Association* 293, 15 (April 20, 2005), pp. 1861–1867.
 - 2 *Canada’s Physical Activity Guide to Healthy Active Living* (Ottawa: Public Health Agency of Canada, 1998). <www.phac-aspc.gc.ca>.
 - 3 For example, light walking, easy gardening or stretching. CPAG notes that during the activity, people would start to feel warm and slightly increase their breathing rate.
 - 4 Examples include brisk walking, biking, raking leaves, recreational swimming, dancing or water aerobics. CPAG notes that during the activity, people will feel warmer and experience a great increase in breathing rate.
 - 5 Examples include aerobics, jogging, hockey, basketball, fast swimming or fast dancing. CPAG notes that during the activity, people will feel quite warm and be more out of breath.
 - 6 *Canada’s Physical Activity Guide to Healthy Active Living*, Guide Endorsers (Ottawa: Public Health Agency of Canada). <www.phac-aspc.gc.ca/pau-uap/paguide/endorsers.html>.
 - 7 Y.K. Kesaniemi et al. “Dose-response Issues Concerning Physical Activity and Health: An Evidence-based Symposium,” *Medicine and Science in Sports and Exercise* 33, 6 (Suppl.) (June 2001), pp. S351–358.
 - 8 Canadian Fitness and Lifestyle Research Institute, *2002 Physical Activity Monitor* [online]. (Ottawa: Canadian Fitness and Lifestyle Research Institute, 2002). <www.cflri.ca/cflri/pa/surveys/2002survey/2002survey.html>.
 - 9 Nearly 80 per cent of active participants said that they compete for 60 or more minutes at a time. Only 8.3 per cent compete for 45 minutes or less at a time. Given that no upper limit was defined, the figure of only 60 minutes was used as the upper value for purposes of calculation when respondents reported 60 minutes or more as the typical duration. Using this very conservative valuation yields a result that can be considered a minimum for average duration of active participation, which is probably exceeded. (See Chart 2.)
 - 10 These include 11 of the 15 most popular sports: ice hockey, skiing, soccer, volleyball, basketball, tennis, swimming, cycling, running, badminton and squash. The other four—golf, baseball, curling and bowling—are somewhat less strenuous, on average. Further research is required to determine what proportion of the time spent in active participation involves physical activity at moderate or vigorous levels, as measured by impact on heart rate and other quantifiable physical characteristics.
 - 11 Question 2a of the main questionnaire of the Household Survey.
 - 12 Statistics Canada, *Health Reports 1998–99* 12, 3 (Ottawa: Statistics Canada, 2000).
 - 13 Estimates are based on data for the first three sports mentioned by each respondent (only 8 per cent of respondents engaged in more than three sports). In total we obtained usable data on 55 sports. The energy expenditure estimates based on these data are subject to several constraints. Firstly, respondents provided an average duration for all sports they participate in; a more accurate calculation would require durations based on each sport in which each individual participated. Secondly, the MET values used in the estimation were average MET values for each sport; a more accurate calculation would require values reflecting actual level of effort expended by each individual. Thirdly, we used average weights for males and females; a more accurate calculation would require the actual weight of each individual. We have used the median values for energy expenditure to err on the conservative side; the mean values are about 80 per cent higher for females and 35 per cent higher for males. This discrepancy reflects the fact that about a quarter of the active participants expend very large amounts of energy in sporting activity weekly.
 - 14 MET values used to calculate CPAG targets are moderate activity (3.0 METs) and vigorous activity (6.0 METs).
 - 15 Peter T. Katzmarzyk, Norman Geldhill and Roy Shepard, “The Economic Burden of Physical Inactivity in Canada,” *Canadian Medical Association Journal* 163, 11 (November 28, 2000), pp. 1435–1440.
 - 16 Canadian Sport Centre, *Benefits of Health and Physical Activity for Canada and Its Citizens* [online]. (Calgary: Canadian Sport Centre). <www.calgarysportcouncil.com/pdf%20folder/benefits-federal.pdf>.
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 - 18 Sport and Community Development Branch, British Columbia Ministry of Small Business, Tourism and Culture, *Sport and Physical Activity Statistics for British Columbia* (Victoria, B.C.: B.C. Ministry of Small Business, Tourism and Culture, 2001), citing a 1995 Canadian Fitness and Lifestyle Research Institute study.
 - 19 Graham Colditz, “Economic Costs of Obesity and Inactivity,” *Medicine & Science in Sports & Exercise* 31, 11 (Suppl.) (November 1999), pp. 663–667.
 - 20 Michael Pratt, Caroline A. Macera and Guijing Wang, “Higher Direct Medical Costs Associated with Physical Inactivity,” *The Physician and Sportsmedicine* 28, 10 (October 2000). <www.physsportsmed.com/issues/2000/10_00/pratt.htm>.
 - 21 The Central Council of Physical Recreation, *Everybody Wins: Sport and Social Inclusion* (London, England: The Central Council of Physical Recreation, October 2002), p. 5. <www.sportdevelopment.org.uk/Everybodywins.pdf>. The Council is an advocacy body promoting sport and physical recreation.

Skills Impacts

The term “skills” is actually short for “skills, attitudes and behaviours.” Everyone needs a combination of these elements to meet the basic personal challenges of life and work. For this reason, human capital strategies focusing on skills and knowledge development are becoming prominent in the policy frameworks of many countries.

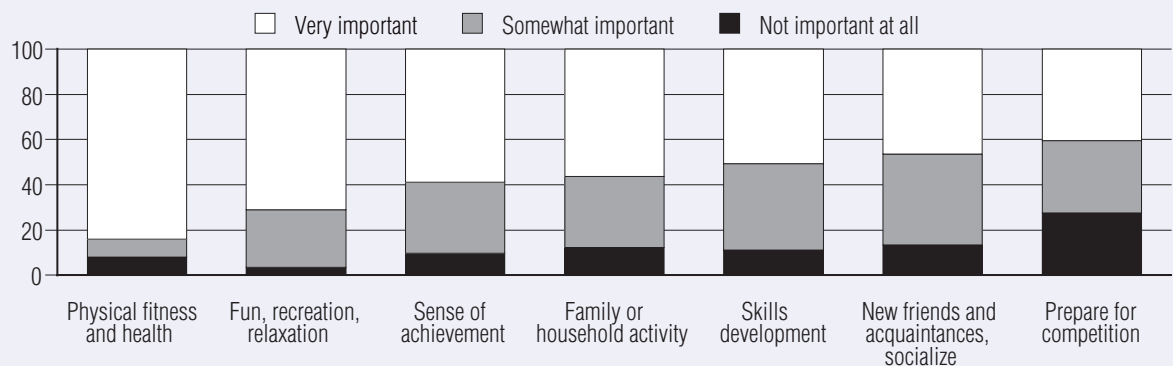
Our survey findings and qualitative research indicate that sport participation helps people to develop skills and attitudes that are important for success in work and that allow them to enjoy a fuller, happier family and community life. According to survey respondents, sport participation develops a wide range of skills and attitudes, including teamwork, leadership, problem-solving, decision-making, communications, personal management and administrative skills. Many skills gained through sport, such as teamwork and leadership skills, have a strong attitudinal dimension. Sport can also build character and personal qualities, such as courage, integrity and the capacity to commit to a goal or purpose, as well as values such as a sense of responsibility to others, respect for others, self-discipline, a sense of fair play and fair dealing, and honesty. Sport offers individuals the opportunity to enhance the values of dedication and commitment. As Canada’s ministers of sport put it in 2001, “Sport tests participants’

willingness to try, to fail and to try again.”¹ In addition, young people may find that sport gives them an appropriate outlet for their energy, aggression and competitive urges.² (See Chart 9.)

In 2004, the European Commission’s Directorate General, Education and Culture, conducted a survey on the educational and social values of sport in the European Union. When asked about the importance of sports and the values that it develops, survey respondents most frequently identified team spirit (52 per cent), followed by discipline (46 per cent), friendship (38 per cent), effort (36 per cent), self-control (33 per cent), fair play (32 per cent), respect for others (32 per cent) and sticking to the rules (31 per cent).³

Sport-derived skills have a significant impact on the lives of the millions who participate in sport annually. Their standard of living is determined largely by the skills they develop and deploy over their lifetime to meet the personal challenges of work and life. The fact that many skills gained through sport are *transferable* beyond the sporting context is central to their value to individuals and the country as a whole. These transferable skills (often called employability skills) can be put to good use in every kind of workplace, at every level of responsibility

Chart 8
Benefits of Participation in Sport
(per cent)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

within organizations.⁴ Sport participation gives people many opportunities to develop skills that help them to interact well with others and to understand the value of working cooperatively.

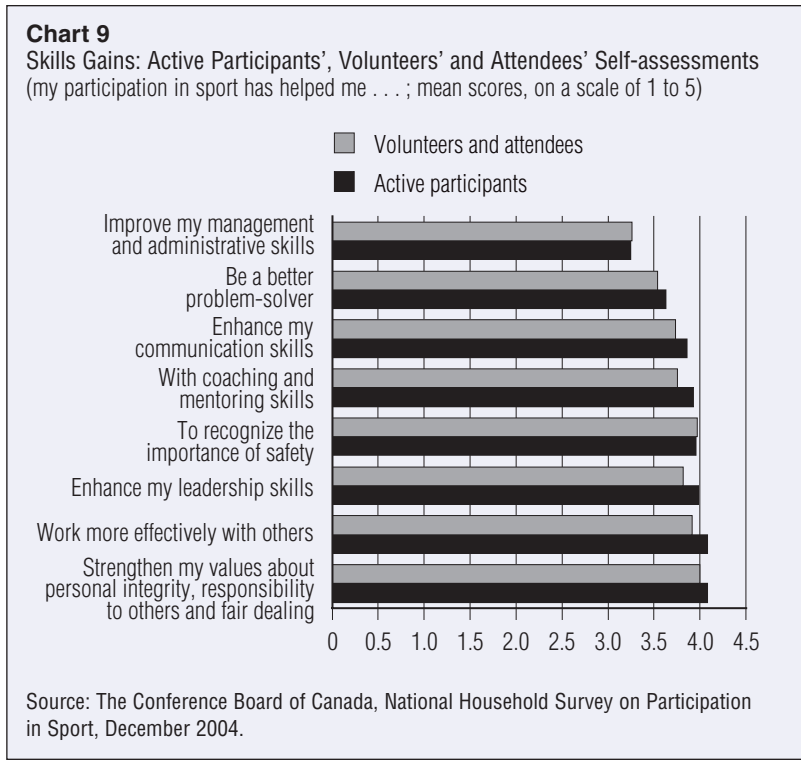
More than 50 per cent of participants believe that sport is very important to their personal skills development; almost 90 per cent believe that it has some positive impact. The vast majority of active participants, volunteers and attendees rated sport as an important way to gain skills that they can apply *away* from sport. The most important skills gained are transferable skills, which can be put to good use in every kind of workplace and at every level of responsibility within an organization. Employers highly prize these transferable skills, which also help people to play a more positive role in their communities and family life.

Active participants are somewhat more likely than volunteers and attendees to identify sport participation with skills gains they can apply beyond sport—92.8 per cent compared with 84.5 per cent—but both rate this aspect of sport participation highly. Nearly everyone who takes some active part in sport becomes aware of the skills-building dimension of his or her sport. (See Chart 8, and Table 8 on page 13.)

Employers highly prize transferable skills, which also help people to play a more positive role in their communities and family life.

Active participants place a slightly higher value on sport as a means of personal skills development than do volunteers and attendees, but all participants rated sport as an important avenue for building their skills. Volunteers and attendees feel that their involvement helps to strengthen the values of personal integrity, responsibility to others and fair dealing; helps them better recognize the importance of safety in work; and enhances their teamwork skills. (See Chart 9.)

Skills gains through sport are not automatic. Developing skills often requires stakeholders—including athletic associations, regulating bodies, media, parents and spectators, coaches and athletes—to make conscious decisions to integrate skills development goals into the way sporting



activities are conducted, rewarded and covered in the media. Often people first acquire skills in the family and at school. They also learn skills in community-based organizations, sporting leagues, clubs and associations throughout life. In countries with a relatively strong sporting culture, such as Canada, parents, teachers, youth leaders and others volunteer a great deal of time to coach and organize sports.⁵

Volunteers perceive their volunteering to be highly valuable as a way to develop their skills. They identified even stronger skills gains than did active participants among the eight categories of skills they were asked to rate. They particularly valued coaching and mentoring skills, personal integrity, responsibility to others, fair dealing, and leadership and teamwork skills. (See Chart 9.) One reason that volunteers rated their skills gains as especially important may be that they acquire them through coaching, officiating and mentoring activities that closely mirror workplace and family behaviours and relationships, and it is clear to them that these skills can be transferred and applied for significant reward and desirable results. As such, the connections may be more obvious and easy to appreciate. Volunteers may also enhance their sense of self-esteem and self-purpose because of the perceived high social and economic value of sport.⁶

IMPLICATIONS OF SKILLS IMPACTS

Skills are vital to a nation's economic performance. As one observer has written, "Skills are the backbone of a successful economy and a measure of a nation's ability to survive in a global marketplace."⁷ They are also important assets to individuals who possess them. Skills gains play a defining role in shaping Canada's prosperity and competitiveness, since they influence at least four of the major elements that contribute to national economic growth.⁸ On a national level, if we fail to keep investing in human capital, the skills and knowledge that underpin our economy will decline, leading to skills gaps that will damage productivity and performance.⁹ Research also shows that improved skills help families and communities—as people become more skilful, their performance, behaviour and interactions change, leading to safer and more cohesive communities, greater civic participation, better integration of newcomers, lower health-care costs and more.

"Skills are the backbone of a successful economy and a measure of a nation's ability to survive in a global marketplace."

A well-balanced education does not end in the classroom and cannot be judged solely on formal academic results. Research about skills development indicates that adult learning and skills development is typically situational and that "participants" benefit from clear forms of motivation, recognition and reward. Sport fits this pattern very well. Sport offers many informal learning opportunities and environments where people can develop their skills. Sport participation regularly places people in training and competitive situations that require them to continuously develop skills in order to participate under the rules of a given sport and act appropriately, in a timely fashion, when interacting with fellow participants and team members. Sport places people in conditions that stimulate them to learn and apply their knowledge to accomplish clear tasks and goals which, when accomplished, are often clearly recognized and rewarded through the performance measurements that are an integral part of sport.

Claims about the extent and breadth of skills gains due to sport participation are extensive. In some instances they may be exaggerated, due to the enthusiasm of analysts

and advocates in interpreting the results of qualitative research, and as a result of a lack of quantitative measurements of skills gains from sport. On the other hand, many qualitative studies support our findings that sport provides experiences and contexts in which individuals often acquire skills, many of which have a broader value beyond sport participation. This fact lends credence to respondents' strong perception of the value of sport in building skills. The following sections summarize findings from a number of these studies.

SKILLS, ATTITUDES AND BEHAVIOURS THAT SPORT BUILDS

By participating in sport, both young people and adults have the potential to develop a number of important skills, attitudes and behaviours. A review of current literature notes that the top skills developed by participating in sport include respect, commitment to a goal or purpose, a sense of fair play, a focus on excellence, and character-building, teamwork, leadership, communication, problem-solving, decision-making, personal management and administrative skills.

RESPECT AND HONESTY

- In a recent Canadian study, participants in regional consultations were surveyed on the benefits they expect from sport participation. Fair play (89 per cent), respect (85 per cent) and honesty (75 per cent) were the top three benefits identified.¹⁰
- A 2002 poll conducted by the Canadian Centre for Ethics in Sport and Decima Research asked respondents what values community sports were capable of promoting. Commitment to purpose (63 per cent) and honesty (41 per cent) were prominent on the list.¹¹
- Sport participation develops fair play skills—which include respecting opponents, teammates, referees, umpires and judges, and accepting officials' decisions with dignity and grace.¹²

COURAGE

- Participation in sport involves doing what athletes know to be right, which brings out their character and virtues, including the virtue of courage. As one paper put it, "The virtue of courage requires the ability to reason out the risks and the strength of character to take them, or not take them."¹³

FAIR PLAY

- Sport participation builds moral and social character in athletes. Social character includes such attributes as teamwork, loyalty, self-sacrifice, a strong work ethic and perseverance. Moral character comprises qualities such as honesty, fairness and responsibility.¹⁴
- Sport Nova Scotia recommends that the concept, attitude and practice of “Fair and Safe Play” be incorporated into all children’s sport programs. The organization believes that sport gives coaches a great chance to teach Fair and Safe Play by way of example. “If children see all the members of the team being given a turn, they will learn to treat people equally and fairly. If children learn the importance of the rules in a game, they will learn to respect and value the rules in society. If children are rewarded for playing fairly, they will learn the value of honesty.”¹⁵
- Values such as fair play and honesty are developed in athletes only when coaches—and the institutions that accredit them—model them in competition. Winning is seen to trump fair play when a coach cheats or encourages his or her athletes to cheat.¹⁶

CHARACTER

- Sport helps participants develop such positive character traits as a competitive spirit and a sense of self-worth.¹⁷
- Sport participants learn appropriate ways to show emotions—whether they have just scored a goal, won a game or made a terrible mistake.¹⁸
- Sport Nova Scotia credits sport participation with helping young people handle recognition and work toward a goal.¹⁹
- Sport participation can improve social skills and reduce loneliness by fostering family and community networks.²⁰
- Sport helps people learn how to deal with success and failure—a vital aspect of social development—and helps them see the value of teamwork, fair play and goals.²¹

TEAMWORK SKILLS

- A 2002 poll conducted by the Canadian Centre for Ethics in Sport and Decima Research asked respondents what values community sports were capable of promoting. Teamwork (72 per cent) was prominent on the list.²²
- In a recent U.K. survey, 57 per cent of respondents said sport is a good way to teach children teamwork skills.²³

- As one author put it: “Taking part in sports requires a work ethic similar to that needed in the adult workplace: practices and competitions are scheduled regularly, attendance is required to remain on the team, and teammates and coaches expect maximum effort from each player, leading to a sense of loyalty and responsibility. Interpersonal conflict and rivalries inevitably arise, and the child eventually becomes a “team player” . . . Similar events occur in the adult workplace; early lessons in dealing with them can only help.”²⁴
- Affiliation, which Sport Nova Scotia defines as “being a part of a group or team,” is one of the four most common motivators for sport participation. Young people’s growth and development occurs in three broad categories: physical, emotional and social, and intellectual. The capacity for being part of a group or team is described as largely emotional and social in nature. For example, during middle childhood (ages 5 to 9), children learn to “cooperate with others for longer periods of time” and begin to “develop the ability to share possessions and take turns.” During late childhood (ages 9 to 12), children continue to develop their ability to “work and play with others, but need assurances of social acceptance.” This fact has implications for coaches, who frequently need to develop teamwork skills within the context of winning competitions.²⁵
- Athletes tend to develop high self-esteem and commitment to excellence through experience. Sport complements education in a wide range of ways, by improving socialization, citizenship skills, leadership skills and teamwork. It also fosters students’ sense of belonging.²⁶
- The National Longitudinal Survey on Children and Youth showed a strong relationship between the ability to interact effectively with others and sport participation.²⁷

“If children see all the members of the team being given a turn, they will learn to treat people equally and fairly.”

LEADERSHIP SKILLS

- Research has shown that athletes have stronger leadership skills than non-athletes do.²⁸
- Participation in sport provides young people with leadership opportunities, fosters a sense of community and encourages self-discipline.²⁹

- Community-based sport clubs develop people's ability to cooperate for a common purpose. They also help members enhance their leadership skills.³⁰
- Competitive athletic participation develops leadership skills and other favourable attributes of strong employees and managers, including interpersonal and communication skills. When athletes are called upon to show leadership in workplace situations, they can draw on their sport experience by demonstrating respect for others.³¹
- Participating in sport develops athletes' and coaches' leadership skills, defined as the "skills and strategies that athletes may use in leadership situations, such as solving performance-related problems or resolving interpersonal conflicts among teammates." Significant leadership skills and attitudes gained through sport that are often transferable to the workplace and to home or community life include the following:
 - Confidence;
 - Grace under pressure;
 - Self-awareness and awareness of others;
 - Quick comprehension of shared visions and objectives;
 - Sense of responsibility for others;
 - Congeniality;
 - Collaborative skills;
 - Respect for coaches, teammates, opponents and officials;
 - Communication skills;
 - Dedication; and
 - Sense of accountability.³²

PROBLEM-SOLVING AND DECISION-MAKING SKILLS

- Sport participation teaches such values as hard work and cooperation.³³
- Sport participation develops problem-solving and decision-making skills and teaches teamwork and leadership.³⁴
- When athletes are called upon to show leadership in the workplace, they can draw on the problem-solving skills they have gained through sport participation.³⁵

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- 1 *Expectations for Fairness in Sport: A Declaration, Enacted by the Federal-Provincial/Territorial Sport Ministers*, 2001 Conference [online]. (London, Ontario: August 10, 2001). <www.tourism.gov.on.ca/english/sportdiv/sport/expect.htm>.
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- 3 European Commission, *The Citizens of the European Union and Sport* (Brussels, Belgium: European Commission, November 2004, Special Eurobarometer 213/Wave 62.0—TNS Opinion & Social), p. 19.
- 4 For a comprehensive list of generic transferable skills that employers seek in recruits and current employees, see The Conference Board of Canada, *Employability Skills 2000+* (Ottawa: The Conference Board of Canada, 2000).
- 5 Kel Sanderson, Frances Harris, Sarah Russell and Sheryl Chase, *The Economic Benefits of Sport—A Review* (Wellington, New Zealand: Business and Economic Research Limited, August 2000), p. 23.
- 6 F. Coalter, M. Allison and J. Taylor, *The Role of Sport in Regenerating Deprived Urban Areas* (Edinburgh: The Scottish Executive Central Research Unit, 2000).
- 7 Alison Coleman, Philip Hunter and Jane Simms, *A Director's Guide—Skills: Transforming Business—Towards a Better and More Competitive Workforce* (London, England: Director Publications Ltd., 2004), p. 5.
- 8 Economic growth in Canada and other Organisation for Economic Co-operation and Development (OECD) countries has occurred for four major reasons: (1) increased or improved use of labour—more people working more productively; (2) the general rise in educational attainment among workers; (3) investment in physical capital—including technology, which requires that employees have more and better skills; and (4) a rise in multi-factor productivity (MFP), where a combination of better skills and better technology permits innovation and efficiencies in operations that make it possible to produce more valuable output. See Dirk Plat, "Innovation in the New Economy," *ISUMA: Canadian Journal of Policy Research* 3, 2 (Spring 2002), pp. 54–61.
- 9 Labour shortages particularly affect small and medium-sized enterprises (SMEs), the main source of job creation in Canada for the past decade. Lacking human capital, many businesses choose to pass on growth opportunities—a high price to pay for a business and for the economy in general. In 2002, it is estimated that 265,000 full-time jobs across Canada remained vacant within SMEs due to a lack of suitable candidates, illustrating the labour market's failure to match the supply and demand of labour. Andreea Dulipovici, *Labour Pains: Results of CFIB Surveys on Labour Availability* (Ottawa: Canadian Federation of Independent Business, April 2003), pp. 1–2.
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- 20 Tim Olds et al., *Children and Sport* (Bruce, Australia: Australian Sports Commission, 2004), p. 40; see also p. 137.
- 21 National Alliance for Youth Sports, *Sports Participation Key to Character Building, Study Finds* [online]. (West Palm Beach, Florida: National Alliance for Youth Sports). <www.nays.org/IntMain_News.cfm?Cat=6&Story=221>.
- 22 Peter Donnelly and Bruce Kidd, "Realizing the Expectations: Youth, Character, and Community in Canadian Sport." In *The Sport We Want: Essays on Current Issues in Community Sport in Canada*.
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Social Impacts

Sport improves social cohesion. Sport participants experience a high degree of interaction with other individuals, on their own, in association with family members and as members of teams. These interactions improve interpersonal relationships, establish the basis for trust and build teamwork skills that foster social cohesion. Social cohesion, in turn, is fundamental to building social capital.¹ According to the World Bank, a society’s social capital “includes the institutions, relationships, attitudes and values that govern interactions among people and contribute to economic and social development.”² Sport works by constructing associations of people that constitute social networks with a defined purpose. These networks generate trust and create an attitude of willingness to interact with others *outside of sport*. This willingness can be harnessed to social and economic advantage.

Sport also has negative social features that reduce the social benefits of sport. One problem is inappropriate behaviour by parents, who sometimes encourage acts of violence among young players or act aggressively towards officials and others. Other problems include the use of steroids and other illegal performance-enhancing drugs; inconsistent and unfair judging in sports where the evaluation is not based on straightforward, objective metrics of performance; and poor conduct by celebrity professional

athletes who are role models to young people. Problems such as these, which are associated with a number of sports, undermine the good intentions of sport organizers and the majority of parents, volunteers and adult participants.

However, our respondents’ answers confirm findings from international studies indicating that the positive impacts of sport far outweigh the negative ones. There is a strong *net* positive social impact from sport participation. When it comes to social benefits, all participants feel that sport is generally good for the community.

Sport works by constructing associations of people that constitute social networks, generating trust and creating a willingness to interact with others outside of sport.

What are these positive social impacts? The 2004 *Investing in Canada* report argues that sport is an outstanding developer of citizen and community participation. The report identifies a central role for sport as a component of physical activity, which is one of the seven individual behaviours that make up civic participation. Along with sport/physical activity (e.g., being physically active or participating in sport), these behaviours include public involvement (e.g., voting or advocacy); volunteering and giving (e.g., donating goods, money, time or in-kind services); care giving; environmental stewardship (e.g., recycling or protecting resources); belonging (e.g., being a member of a place of worship, union or association); and cultural activity (e.g., participating in cultural or arts events). Since sport touches virtually every community in Canada, its impact on social cohesion cannot be overestimated.

The importance of social capital has been emphasized by the World Bank, which holds that a society’s social capital “includes the shared values and rules for social conduct expressed in personal relationships, trust and a common sense of ‘civic’ responsibility, that makes a society more than a collection of individuals.”³ The relationships are crucial. *Networks of relationships* among persons,

Links between Sport, Civic Engagement, Social Cohesion and Social Capital

Typically, community-based sport programs support civic engagement and social cohesion, thus building social capital, by:

- Providing opportunities for volunteerism;
- Reinforcing relationships between children and parents, within families, within neighbourhoods and across communities;
- Establishing partnerships between community-based sport organizations and similar organizations in their area (such as local community service centres, school boards and schools); and
- Strengthening relationships between various levels of government, out of which new programs that build civic engagement and social cohesion can develop.

Source: The Conference Board of Canada.

companies, organizations and institutions—along with the cooperation and trust such networks engender—make a society run smoothly. They are its social capital.⁴

These networks of relationships, or *social networks*, have many points of origin, including sport. Sport networks generate trust and create an attitude of willingness to interact with others. This preparedness to be part of new and broader networks constitutes an increase in social cohesion within Canadian society that can be harnessed *outside of sport* as social capital to achieve social and economic advantage.

Most sport involves a strong element of social activity for active participants, volunteers and attendees alike that tends to support social cohesion. Active participants in team sport typically train with others and develop strategies for play that involve sophisticated forms of collaboration with teammates, which builds social skills and connections. Even sports that are more individualistic, such as the triathlon, have a social aspect that is the result of cooperative training activities and organized competitions with other athletes.

Sport significantly enhances the quality of urban life. Numerous studies of social cohesion have found that sport and community recreation play a key role in the life in a city, and that recreation and sport facilities contribute to a city's social fabric.⁵ Sport provides pleasure for individuals and families, and gives them the chance to meet new people and make new friendships. It offers opportunities for self-expression and fosters camaraderie. It challenges people to excel physically and mentally, and to work as a team.⁶

For youth, city recreation and sport facilities can be places to learn about being active participants in the life of the community. Parents who volunteer demonstrate to their children the value and importance of getting involved in the community, whether through sport, recreation or other avenues.⁷ More generally, a Canadian Council for Social Development study shows that participating in structured recreation influenced young people's physical and social development, as well as their civic behaviour and skills.⁸

In addition, studies of marginalized young people indicate that sport and recreation services may help them to reintegrate, provided that these services are not isolated measures and that young people have input into the nature and provision of these services. France's experiences in

the 1990s with integrating urban young people from cultural minorities also shows how sport and recreation can be part of a social integration policy. The sociability networks that develop in and around community sport and recreation organizations strengthen social bonds—they are the building blocks of social cohesion and a source of social capital.

For youth, city recreation and sport facilities can be places to learn about being active participants in the life of the community.

A 2003 Ipsos-Reid survey of 1,005 Canadians aged 12 to 21 on their participation in sport and views of organized sport (part of the Reconnecting Government with Youth 2003 study) found that most respondents felt that playing sports:⁹

- Improved their health (99 per cent);
- Helped them make friends (87 per cent);
- Improved their feelings about themselves (85 per cent);¹⁰
- Helped them succeed at school (58 per cent);
- Helped them become more active with their family (54 per cent).

Public investment in sport can bring many social advantages to a community or region.¹¹ Among other things, sport tends to stimulate understanding of the principles of equity and social cohesion. Sport also brings local authorities into contact with their communities—and as a consequence, sport is often at the forefront of initiatives to empower and consult local people. Similarly, sport is in touch with youth culture and provides the opportunity to make the important link between school and community life. Finally, because volunteer work and active citizenship are central to sport, sport provides people with the opportunity to enhance their skills and put something back into their communities.

ROLE OF VOLUNTEERS

Non-profit and voluntary organizations are vehicles through which millions of Canadians become involved in their communities. Most organizations serve their own neighbourhood, city, town or rural municipality. In 2003, about 161,000 non-profit and voluntary organizations were operating across the country in a wide variety of areas. The largest group of organizations operates in the

area of sport and recreation (21 per cent)—serving the general public and numerous sub-groups, including children, the elderly, people with disabilities, Aboriginal people, immigrant populations and religious communities.¹² The 2003 National Survey of Giving, Volunteering and Participating notes that sport and recreation are the most common fields for volunteering in Canada, accounting for 2.2 million volunteers—almost 40 per cent of all volunteers in Canada.¹³

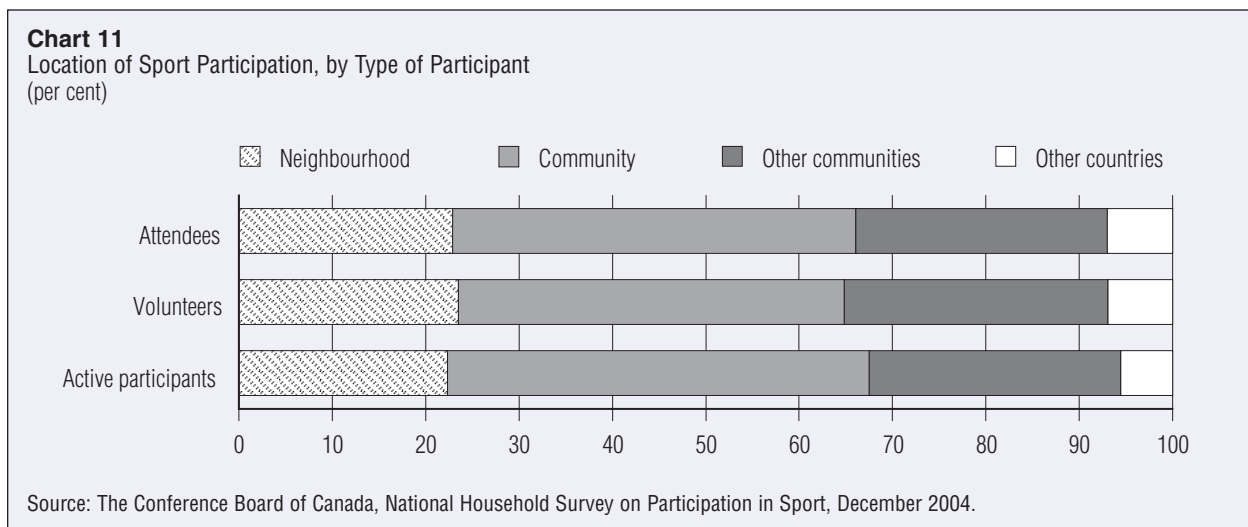
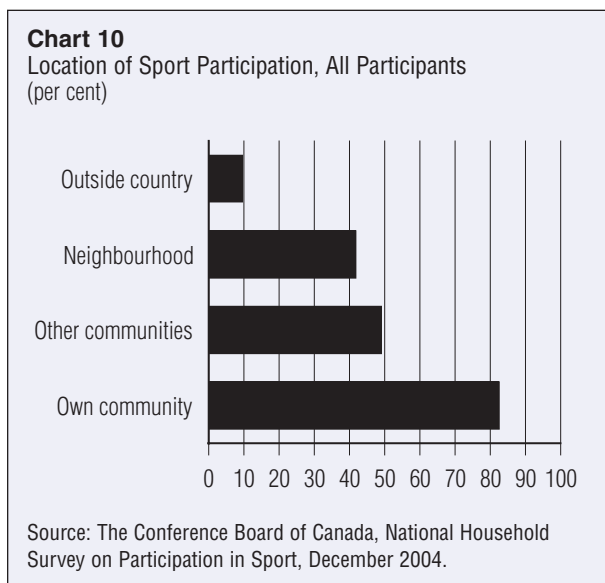
These vast numbers of volunteers experience widely varied social interactions that build skills and a sense of connection on two levels. First, volunteers interact with active participants in their roles as coaches, mentors, officials and organizers of sporting events. Second, they develop connections with their fellow volunteers while planning and preparing for events and competitions.

In addition, many volunteers also attend sport events. Attendees experience significant social interaction through the shared experience of observing sport and supporting their favourite teams or individual active participants.

SPORT AND FAMILY AND COMMUNITY COHESION

Sport often brings families closer together. In fact, the presence of children in the household tends to stimulate adults to engage in more active participation, volunteering and attending. Sport also plays a significant role in bringing people from different neighbourhoods within a single community together, thereby helping to build a wider, stronger feeling of community. In fact, three times as many people participate in sport outside their own neighbourhood than take part within it. Of these, two-thirds participate within their own community and one-third participate in other communities. (See Chart 10.) By taking people away from their immediate neighbourhood, sport broadens their horizons to encompass their whole community and beyond. This pattern of interaction is fairly consistent across all three types of sport participation. (See Chart 11.)

There is also an appreciable international dimension to sport participation. Overall, between 5 and 6 per cent of participants travel to other countries to actively participate. Sports such as golfing, skiing and hockey see the most participation outside Canada. Golfing and skiing are probably associated with vacations, whereas people are more likely to participate in hockey through international tournaments. Some sports, such as squash and cycling, have a relatively high degree of international



participation, which may reflect their position as niche sports where active participants are keen to travel abroad to find good competition. Surprisingly, equally or slightly larger proportions of volunteers and attendee-spectators travel internationally. (See Chart 11.)

Sport participation teaches people positive lessons about responsibility and respect.

Other countries are aware of the important social impacts of sport participation. For example, the Australian government recognizes the social benefits of sport participation, which it links more broadly with recreation, and has developed policies to encourage it. In Australia there is a sense that sport and recreation play an important part in people’s lives and helps shape community identity. The state government of Victoria, for example, has declared that sport and recreation provide opportunities for social interaction and sharing of common interests, thus fostering community spirit and even industrial development.¹⁴

The Victoria state government has also argued that if sport and recreation are to flourish, the not-for-profit, private and government sectors must collaborate at all levels and involve both volunteers and professionals. Sport and Recreation Victoria (SRV) tries to maximize sport benefits by fostering access to sport, improving facilities, strengthening sport organizations and reinforcing the positive role of sport.¹⁵

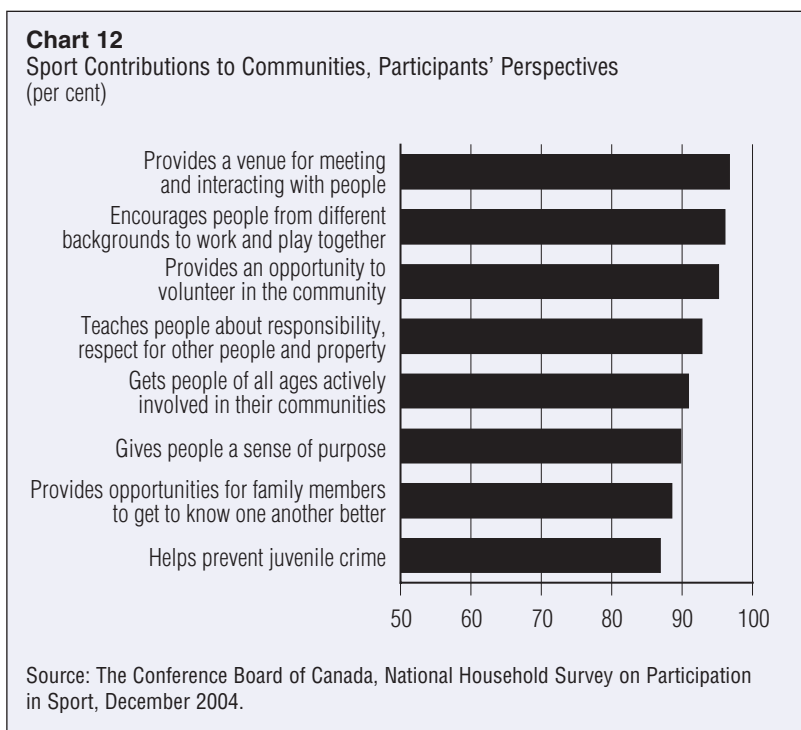
SPORT, INTERPERSONAL CONNECTIONS AND COMMUNITY SAFETY

Many survey respondents felt sport contributes to their communities by providing venues in which people can meet and interact while pursuing structured, purposeful activities. Most felt that this fact strongly encourages people from different backgrounds to work and play together in a positive way, and gives people of all ages opportunities to be actively involved in their communities. As a result, a substantial majority felt that sport participation teaches people positive lessons about responsibility and respect for other people and their property. Many felt sport provides a sense of purpose, both for themselves and for others. They also believed sport provides family members with significant opportunities to get to know one another better while actively participating in, volunteering at and attending sport events together. (See charts 12 and 13.)

People are less inclined to believe that sport can be used effectively to address intractable social problems such as juvenile delinquency. (See charts 12 and 13.) Here, however, accounts from the United Kingdom suggest that sport may play a role, in association with other types of recreation and leisure activities, in dealing with community safety issues.

In the United Kingdom, levels of anti-social behaviour and criminal activity among young people are a major problem in many communities and societies, particularly in poorer neighbourhoods. The causes of crime and disaffection among young people are complex and multi-dimensional, and it would be incorrect and unrealistic to claim that sport alone can reduce the levels of youth crime in society. However, over the last 15 years or so in England, “sports, outdoor pursuits and constructive leisure activities have become a well-established feature of initiatives whose aim is to divert offenders and young people at risk away from crime.”¹⁶

Empirical evidence is limited, but there are indications that sport does help. In the English city of Bristol, the city council recently included sport in programs to overcome exclusion and regenerate poor neighbourhoods. One of these initiatives, the Voice of Southmead, appears to be showing some beneficial impacts. According to city officials, the local sport development action plan—jointly developed by local health, police and social services;

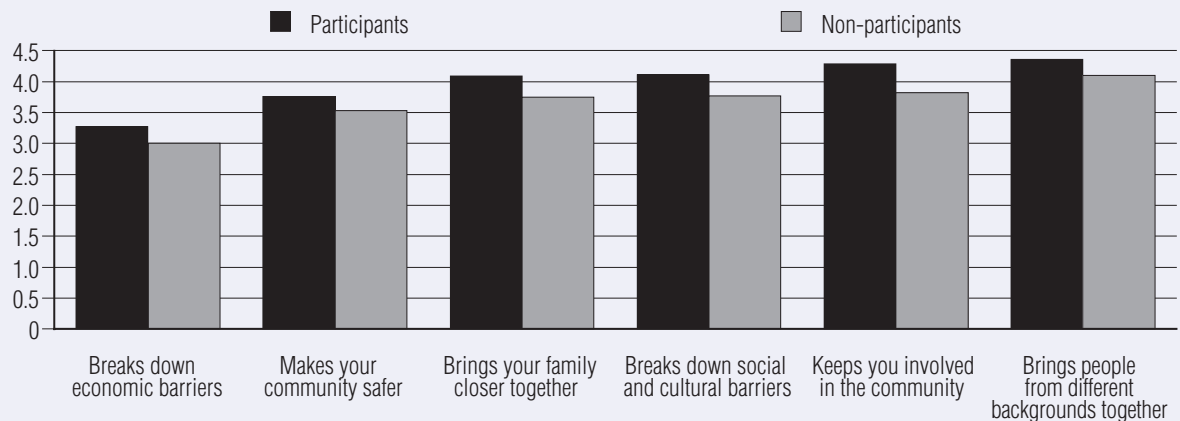


housing, sport and youth departments; and residents—has had some early successes. In the plan’s first four months of operation, local crime dropped 15 per cent, compared with the same period a year earlier, and juvenile crime fell by 43 per cent in the same time frame. Officials believe that sport reduces juvenile crime by providing young people with challenge, adventure and a sense of purpose. In their view, sport can foster confidence, leadership skills and self-respect, as long as the sport activity has strong ethical underpinnings.¹⁷ The period covered by outcomes data is too short to demonstrate the causal impact of sport programs in Bristol, but it does suggest that sport may be one component of solutions to community safety issues. More

research would be needed to confirm this finding.

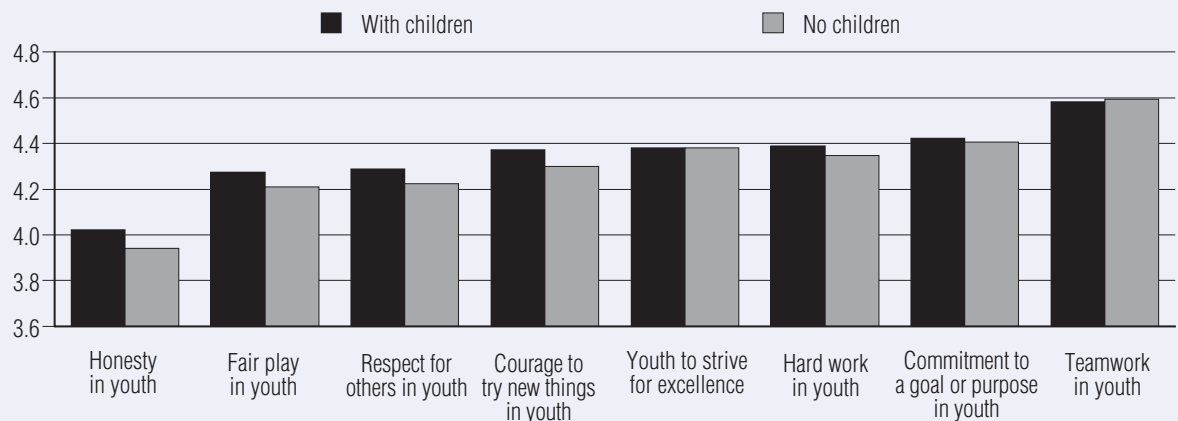
Overall, the general perception of our survey respondents is that sport is more effective in breaking down social barriers than in overcoming economic barriers. (See Chart 13.) When it comes to social benefits, all participants feel that sport is generally good for the community, but they don’t distinguish particular ways in which it is good. Not surprisingly, non-participants ranked the benefits of sport lower than did participants across all categories, although they ranked the individual benefits in roughly the same order. A similar trend is evident between participants with children and participants without children. (See Chart 14.)

Chart 13
Social and Economic Benefits of Sport, Participants’ and Non-participants’ Perspectives
(mean scores, on a scale of 1 to 5)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

Chart 14
Impact of Community Sports on Youth, Perspectives of Participants With and Without Children
(mean scores, on a scale of 1 to 5)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

- 1 Paddy Bowen, *Investing in Canada: Fostering an Agenda for Citizen and Community Participation* (Ottawa: Public Policy Forum, 2004), p. 13. <www.pforum.ca/ow/bowen_layout_e.pdf>.
- 2 The World Bank, "Glossary of Key Terms in Social Analysis" [online]. (Washington, D.C.: The World Bank, n.d.). <web18.worldbank.org/ESSD/sdvext.nsf/61ByDocName/ResourcesOnSocialAnalysisGlossaryofKeyTerms>.
- 3 <web18.worldbank.org/ESSD/sdvext.nsf/61ByDocName/ResourcesOnSocialAnalysisGlossaryofKeyTerms>.
- 4 Deardorff's *Glossary of International Economics* [online]. <www-personal.umich.edu/~alandear/glossary/s.html>.
- 5 Jean Harvey, "Sports and Recreation: Entertainment or Social Right?" *Horizons* 5,1 (July 2002), pp. 26–28. <www.policyresearch.gc.ca/page.asp?pagenm=v5n1_art_07>; Peter Donnelly and Jay Coakley, *Working Paper Series: Perspectives on Social Inclusion: The Role of Recreation in Promoting Social Inclusion* (Toronto: The Laidlaw Foundation, December 2002); and Canadian Policy Research Networks Inc. and the Canadian Council on Social Development, *Four Hypotheses about the Policy Significance of Youth Recreation: Lessons from a Literature Review and Data Analysis on "Learning through Recreation"* (Ottawa: Canadian Policy Research Networks Inc. and the Canadian Council on Social Development, May 2001).
- 6 Sport England, *The Value of Sport to Local Authorities* (London, England: Sport England, June 1999), Ref. No. 901.
- 7 Jean Harvey, "Sports and Recreation: Entertainment or Social Right?" *Horizons* 5,1 (July 2002), pp. 26–28.
- 8 Canadian Policy Research Networks Inc. and the Canadian Council on Social Development, *Four Hypotheses about the Policy Significance of Youth Recreation*.
- 9 Sport Canada, *Reconnecting Government with Youth Survey* (2003) [online]. (Ottawa: Sport Canada, 2003). <www.pch.gc.ca/progs/sc/info-fact/youth_e.cfm>.
- 10 Although sport is often proclaimed to be a "character-building" activity, organized children's sport programs may develop a negative character (involving such problems as cheating, bullying and intimidation) if not properly coached, or if adult leaders do not place a high priority on developing pro-social and ethical behaviour. See The President's Council on Physical Fitness and Sports, *Physical Activity and Sport in the Lives of Girls: Physical and Mental Health Dimensions from an Interdisciplinary Approach* (Washington, D.C.: The President's Council on Physical Fitness and Sports, Spring 1997). <www.fitness.gov/activity/activity2/girlssports.html>.
- 11 Sport England, *The Value of Sport to Local Authorities*, p. 4.
- 12 Statistics Canada, *Cornerstones of Community: Highlights of the National Survey of Non-profit and Voluntary Organizations 2003* (Ottawa: Statistics Canada, 2005), Cat. No. 61-533-SIE.
- 13 Paddy Bowen, *Investing in Canada: Fostering an Agenda for Citizen and Community Participation*, p. 35.
- 14 Department for Victorian Communities, *Sport and Recreation Victoria* [online]. (Melbourne, Australia: Department for Victorian Communities). <www.dvc.vic.gov.au/srv.htm>.
- 15 Ibid.
- 16 Sport England, *The Value of Sport to Local Authorities*, p. 7. Cited in D. Utting, *Reducing Criminality Among Young People: A Sample of Relevant Programmes in the United Kingdom* (London, England: Home Office, Research Study 161, 1996).
- 17 Sport England, *The Value of Sport to Local Authorities*, p. 8.

Economic Impacts

Spending on sport has a significant impact on the Canadian economy. One good way to gauge the impact of sport on the economy is to assess household spending. This study's methodology, which captures the spending by Canadian households on sport in *Canada*, provides a good approximation of the total spending and the associated national economic effects. At a micro-economic level, it captures evidence of spending as an expression of household preferences to allocate household budgets on sport. At a macroeconomic level, the aggregated spending of all these households largely determines the level of employment in, and the overall health of, the Canadian sport industry.

Every Canadian adult and child spent on average \$495 on sport in 2004, representing a noticeable rise from 1996 figures.

HOUSEHOLD SPENDING ON SPORT

IN RELATION TO TOTAL HOUSEHOLD SPENDING AND CONSUMER SPENDING

In 2004, the total amount of household spending on sport in Canada was estimated to be \$15.8 billion in current dollars.¹ This compares with total consumer spending in 2004 of \$722.6 billion in current dollars. So, total household spending on sport represents 2.18 per cent of total household spending in Canada. On average, each Canadian household that participated in sport spent \$1,963 per annum on sporting activities in 2004. This represents \$748 of spending on sport per year for each adult sport participant, including active participants, volunteers and attendees. Put another way, every Canadian adult and child spent on average \$495 on sport in 2004.

Spending on this scale is consistent with spending in other developed countries, where consumer sport spending today typically accounts for 1.5 to 3.0 per cent of consumer spending. For example, in England, in 2000, household spending on sport-related goods and services

was £11.5 billion, representing about 2.8 per cent of total household spending of £408 billion. This includes 2.3 billion of sport-related gambling, equivalent to 0.6 per cent of total household spending, which if removed from the total would bring the level to 2.2 per cent.² In 2001, consumer spending on sport-related goods and services in England constituted 2.3 per cent of total consumer spending. For the United Kingdom as a whole, in 2001, consumer spending on sport of £14.98 billion represented 2.4 per cent of total consumer spending.³ Similarly, a 2000 macro-economic study of sport in Flanders, Belgium, which looked at family sports participation and sports-related expenditure by families and individuals, as well as public expenditure, found that sport expenditure was more than 3 per cent of all consumption and investment in Flanders. This represented an increase of household expenditure on sport in the previous 15 years, during a period in which government spending on sport declined slightly.⁴

IN RELATION TO GDP

Total household spending on sport of \$15.8 billion constitutes 1.22 per cent of Canada's 2004 gross domestic product (GDP) of \$1.3 trillion (equivalent to \$40,161 of GDP per capita for the population of approximately 31.9 million in December 2004). Spending at this level matches sport spending in many other developed countries, where it has typically accounted for 1 to 2 per cent of GDP, at least since the 1990s.⁵ It represents a noticeable rise for Canada, which in 1996 was in the mid-range for per capita spending in comparator countries but at the bottom of the comparator group in terms of spending as a percentage of GDP, with sport-related spending equal to 0.9 per cent of the GDP.⁶ (See Table 12.)

Since 1995–96, other countries have also found that sport-related spending as a proportion of GDP is on the rise. For example, in England in 2000, £11.5 billion of household spending on sport-related goods and services represented about 1.8 per cent of the £660-billion GDP for 1999.⁷ In Hong Kong, the figure for 2000 is very similar: sport-related spending represented about 1.7 per cent of GDP.⁸

The 2004 figures for Canada indicate a slightly higher level of spending on sport in Canada than has been indicated by previous studies. They are consistent with evidence that spending on sport has been growing a little faster than the overall economy since 1990. In 1994–95, sport and recreation had an \$8.9-billion impact on GDP, equivalent to 1.1 per cent of GDP, and supported 262,000 or 2.0 per cent of the jobs in Canada.⁹ In 1995–96, Canadian families spent \$7.8 billion on sporting goods and services, representing \$718 per family and 1.5 per cent of total family expenditures. The proportion of family expenditures devoted to sport-related goods and services had increased since 1992, when the figure was 1.4 per cent. Family spending on sport was equally divided between sport clothing and equipment, and sport services (such as live sports spectacles and the use of recreational facilities). By comparison, in 1995–96 Canadian families spent 16.3 per cent of their budget on shelter; 9.0 per cent on food purchased from stores; 2.6 per cent on automobiles; 2.1 per cent on health care; and 1.1 per cent on education.¹⁰

Part of the reason for the increase in sport spending by households may be that municipalities and schools used to spend more on sporting activities in communities and schools, and some of that spending was hidden in undifferentiated budget items. A second contributing factor may be that the number of coaches has grown to replace the declining number of teachers who are available to oversee high school sport after school as a result of changes in labour agreements. Thus, actual spending increases may be *somewhat* less at the national level than the record of household spending seems to indicate. However, it is unlikely that these factors account for the entire spending increase.

The intensity of the effect of household spending on this scale varies from region to region across Canada and is correlated to sport participation rates. Regions and communities with the most participants—active participants, volunteers and attendees—tend to have the largest local aggregate economic activity related to the development, manufacture, sale and delivery of products and services that sport participants consume. Regions and communities that support local participation in sport, through social and economic policies and other means, are likely to experience additional positive effects.

Table 12
International Comparison of Consumption Expenditure on Sport, 1995–96

Country	Annual, per capita, total population, US\$	Percentage of GDP
United States	551	1.9
United Kingdom	285	1.5
New Zealand	173	1.0
Canada	192	0.9
Australia	138	n.a.

Source: Kel Sanderson et al., *The Economic Benefits of Sport: A Review*, Research Report No. 3 (Hong Kong: Hong Kong Sports Development Board, August 2000), pp. 13–15.

SPORT INDUSTRY

Although it is widely recognized that the sport “industry” in Canada contributes to the economy, interpretations differ on what should be counted as part of the sport industry economy, given the complex range of products and services that can be associated with sport. Compared with more traditional industries, such as construction, banking, insurance, forestry or mining—which are easier to define, and whose cranes, scaffolds, bulldozers, offices and advertising are easily recognizable—the sport industry is harder to delineate. It includes revenues from a wide range of businesses, such as the manufacturers and retailers of sport clothing, and operators of sport facilities and venues.

Sport participants spend their money on a multitude of goods and services, including sporting apparel (clothing and footwear), sporting equipment, memberships, subscriptions, fees, food, transportation, accommodation and health services. Spending, in turn, helps to generate and maintain employment in many services and industries, such as retail, hospitality, travel, transportation, tourism, manufacturing, wholesaling, operation and maintenance of sporting facilities and venues, and media (sport magazines, books and electronic media). Given the plethora of these component parts, it is challenging to put a dollar figure on the full extent of the economic activity. The scale and range of sport-related economic activity appears in Table 13, which shows sport-related jobs in Canada in 1994–95.

ANALYSIS OF CANADIAN HOUSEHOLD SPENDING ON SPORT

The figures for household spending would be slightly higher if sport “exports” and “imports” were included. This study excludes sport expenditures outside of Canada by Canadian households. These expenditures are the economic equivalent of sport “imports” in that they lead to

an outflow of spending from Canada to other countries. Since only about 5 per cent of sport participation by Canadian households takes place outside of Canada, excluding these expenditures this does not significantly alter the findings on spending. Also excluded are the effects of sport “exports,” in the form of foreigners coming to Canada to participate in sport. The net effect of subtracting total “exports” from “imports” is much smaller than the gross spending on either; overall it has only a small net economic impact.

Table 13
Employment, by Sport Sector, 1994–95

Type of employment	Employment	Percentage of sport employment
Coaches, referees and athletes	58,919	22.5
Sporting goods industries: retail, wholesale and manufacturing	59,122	22.5
Professional sport clubs	19,071	7.3
Sport and recreation clubs	67,033	25.6
Live sport clubs	4,644	1.8
Use of recreation facilities	28,897	11.0
Other sport-related services	20,416	7.8
National sport organizations	331	0.1
Federal government	1,634	0.6
Provincial government	950	0.4
Municipal government	1,307	0.5
Total sport	262,324	100.0
Total economy	13,399,000	2.0

Source: *Sport in Canada: Everybody's Business—Leadership, Partnership and Accountability* (Ottawa: House of Commons Standing Committee on Canadian Heritage, December 1998).

WHAT DETERMINES HOUSEHOLD SPENDING ON SPORT?

Household spending on sport is determined by a combination of a household’s preference for being involved with sport; the number of people in the household who are involved in sport; the size of the household; and total household income, which determines the availability and scale of *discretionary* household income for spending on sport activities. These three key influences on sport spending sometimes counteract one another.

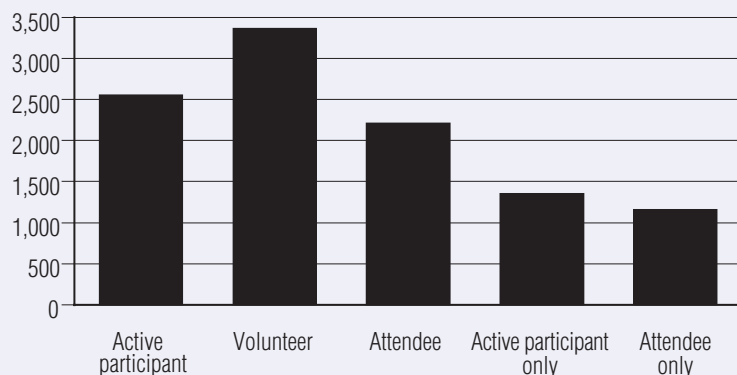
Income is a particularly important determinant of the level of spending on sport, since sport is a non-essential discretionary “service” spending item (compared to clothing, shelter and food, for example). Thus, demand is generally satisfied only after other essentials are covered. Low-income households or households experiencing reduced income tend to cut their sport spending to balance their finances. On the other hand, high-income households look to sport as a significant outlet for spending for pleasure and personal or family development. In practice, most households operate under a budget constraint that places an upper limit on the amount they are able to spend on sport. When household income drops due to job loss or some other cause, the level of sport spending in a household often drops too—and quickly.

WHAT AFFECTS HOUSEHOLD SPENDING?

The highest spenders are those who participate in sport in more than one way. Volunteers spend the most (an average of \$3,367) because, as a group, they are the most likely to be involved in at least one other form of participation (as active participants, attendees or both). (See Chart 15.)

Single-category participants, both active participants and attendees, spend considerably less than multiple category participants. Those who take part in sport only as

Chart 15
Average Spending, by Type of Participation
(Canadian dollars)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

active participants spent an average of \$1,357 in 2004; those who participate only as spectators spent even less (\$1,162).

Income plays a significant role in sport spending by households. Income elasticity is estimated at about 3 per cent, meaning that participants will tend to spend about 3 cents of every additional dollar earned on sport. In other words, participating households with an income of only \$20,000 per annum spent about \$800 on sport in 2004; thereafter, each additional \$10,000 of income was matched by a spending increase of about \$300 on average. (See Chart 16.)

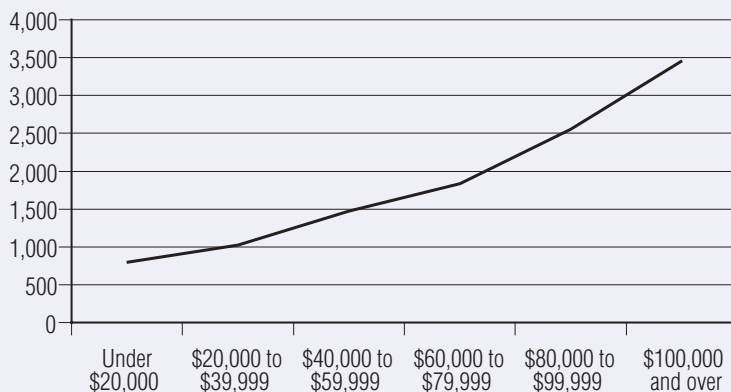
The presence of children within households is a major determinant of household participation in sport: there is about an 80-per-cent chance of other people in the household participating in sport when an adult participant has children. However, the number of children can have both a positive and a dampening effect on sport spending. Spending is optimized at about two children in the household, after which household spending starts to decline slightly, possibly because there are relatively larger demands for expenditure on necessities as the number of children rises, which tends to constrain spending on sport. (See Chart 17.)

Income and the presence of children in a household are both major determinants of household participation in sport.

WHAT IS THE ALLOCATION OF HOUSEHOLD SPENDING?

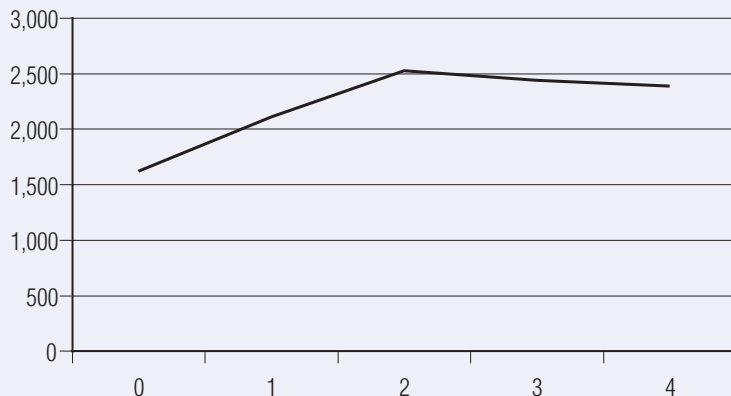
Sport spending is characterized by large numbers of relatively small purchases of a variety of goods and services. Some patterns are apparent. Active participants are more likely to spend their money on clothing, equipment and memberships. More than 20 per cent of them spend at least \$500 annually on clothing, almost 30 per cent spend that much on equipment, and 35 per cent spend that much on team fees and memberships. About half of these spend at least \$1,000 annually in each category. Volunteers and attendees spend more on food and beverages than anything else: it is the only category where their average spending exceeds \$100 per year. The next largest category is transportation. (See Chart 18 on next page.)

Chart 16
Income Elasticity of Sport Spending
(Canadian dollars)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

Chart 17
Impact of Children in the Household on Sport Spending
(number of children; Canadian dollars spent)

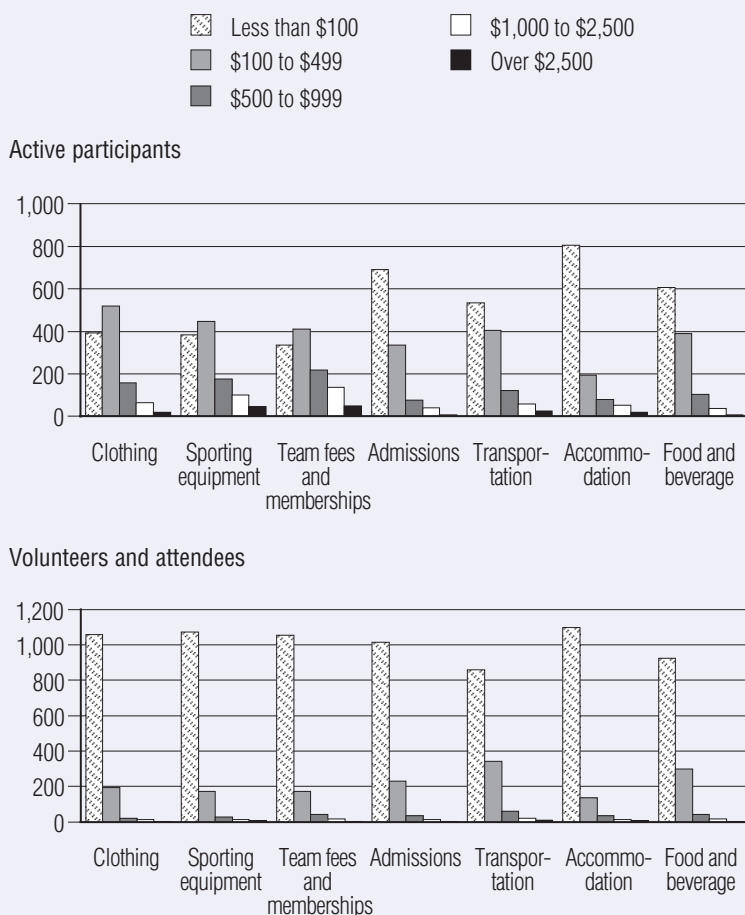


Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

HOW IS HOUSEHOLD SPENDING LIKELY TO CHANGE?

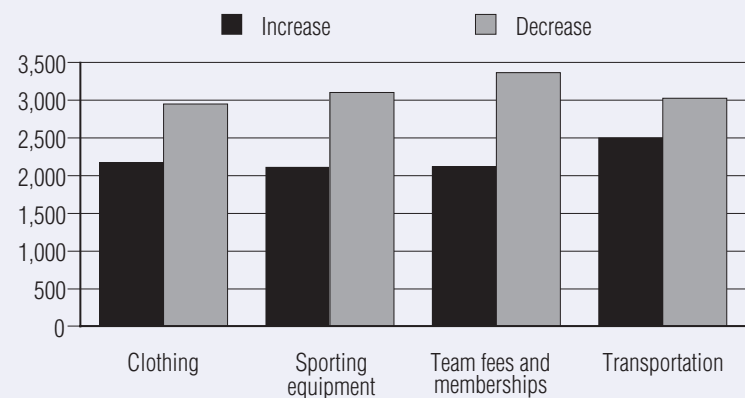
Most spending is likely to remain stable, according to participants. Among active participants, families with children are much more likely to say they will increase spending than are those without children in the household, reflecting perhaps the significance of sport to family life. Here, the most likely types of additional expenditure are sporting equipment (30 per cent think they will spend more; 12 per cent think they will spend less) and team fees and memberships (30 per cent and 6 per cent). Even for these categories, most respondents are inclined to hold the line on spending.

Chart 18
Allocation of Spending, by Type of Participant
(number responding)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

Chart 19
Average Current Expenditure of Active Participants, by Indication to Increase or Decrease Expenditures on Selected Items
(dollars)



Source: The Conference Board of Canada, National Household Survey on Participation in Sport, December 2004.

Interestingly, spending is most likely to decline among people who are already spending a large sum on sport. For instance, the average current expenditure of active participants who indicated that they would spend less on clothing was \$2,949, compared with \$2,167 for those who said they would increase their spending on clothing. This relationship holds true across the major spending categories. (See Chart 19.)

- 1 Current 2004 dollars.
- 2 Cambridge Econometrics, *The Value of the Sports Economy in England* (London, England: Sport England, June 2003), p. 4.
- 3 Sport Industry Research Centre, *The Impact of Achieving Sport England's Target for Making England an Active Nation by 2020* (Sheffield, England: Sport Industry Research Centre, May 2004), pp. 2–3.
- 4 M. Taks and S. Kesenne, "The Economic Significance of Sport in Flanders," *Journal of Sport Management*, 14, 4 (October 2000), pp. 342–365. Summarized in Sport England, *The Value of Sport to Local Authorities* (London, England: Sport England, June 1999), Ref. No. 901.
- 5 J. Harvey and M. Saint-Germain, "Sporting Goods Trade, International Division of Labor and the Unequal Hierarchy of Nations," *Sociology of Sport Journal* 18, 2 (June 2001), pp. 231–246. Other countries are closing in on this level. See, for example, Finland, where annual sport expenditure in 1999 accounted for 0.9 per cent of GDP. Ministry of Education Finland, *Sports Financing* [online]. <www.minedu.fi/minedu/sports/financing.html>.
- 6 Kel Sanderson et al., *The Economic Benefits of Sport: A Review*, Research Report No. 3 (Hong Kong: Hong Kong Sports Development Board, August 2000), pp. 13–15.
- 7 Cambridge Econometrics, *The Value of the Sports Economy in England* (London, England: Sport England, June 2003), p. 4. Sheffield City Council and the Core Cities Group, *Memorandum by the Core Cities Group (RRD 10)* (London, England: The United Kingdom Parliament, Select Committee on Office of the Deputy Prime Minister, Housing, Planning, Local Government and the Regions, January 31, 2003). <www.publications.parliament.uk/pa/cm200203/cmselect/cmmodpm/492/492m11.htm>.
- 8 Ganesh Nana, Kel Sanderson and Mark Goodchild, *Economic Impact of Sport: Report to Hong Kong Sports Development Board* (Wellington, New Zealand: Business and Economic Research Limited, August 2002), p. 20. <www.hksi.org.hk/hksdb/html/pdf/research/economicimpactofsportinhk.pdf>.
- 9 House of Commons Standing Committee on Canadian Heritage, *Sport in Canada: Everybody's Business—Leadership, Partnership and Accountability* (Ottawa: House of Commons Standing Committee on Canadian Heritage, December 1998). <www.parl.gc.ca/InfoComDoc/36/1/CHER/Studies/Reports/sinsrp05/04-rep-e.htm#0.2.5FPCNZ.5VKZ96.CAGK3F.72>.
- 10 Ibid.

Conclusions

1. Canada's strong sporting culture is a significant part of the fabric of Canada. Governments, communities, families and individuals alike have good reason to value and support participation in sport, based on the findings of this report.
2. Sport plays an important part in the life of millions of Canadians who find their involvement highly rewarding on a personal level. Sport *significantly strengthens* Canada's economy and society in real ways. It develops skills that individuals can use to become more productive at work; and it builds social cohesion and social capital, keys to development and prosperity. In adequate amounts, active sport participation improves health by building personal fitness.
3. People participate in sport in large numbers—as active participants, volunteers and attendees—because they enjoy it and feel strongly that it enriches their life, even though they lack quantified evidence of impacts on individuals. Qualitative evidence suggests that they are right.
4. Sport spending by Canadians totals almost \$16 billion per annum—about 2.2 per cent of consumer spending and 1.2 per cent of GDP in 2004. Sport supports about 2 per cent of the jobs of Canada. Sport-related spending constitutes an increasing proportion of consumer spending, which translates into a slightly higher proportion of GDP today than in 1990.
5. Sport participation does not necessarily create economic growth; it reflects people's preferences for spending their money. Specific impacts from sport, such as jobs in businesses that derive revenue from sport, would likely be transferred elsewhere in the economy if sport declined, because people will spend their money elsewhere if not on sport. In this sense, it is unclear how much promoting more participation in sport would yield strong net economic growth.
6. Sport is only one route to health. The main avenues to health include a *combination* of physical activity (both sport and non-sport activity), a sensible diet and avoidance of harmful behaviours such as smoking. People can pursue healthy lifestyles without actively participating in sport, as long as they find alternative forms of moderate or vigorous physical exercise, such as recreation or active work.
7. The sense of healthiness that survey respondents attribute to sport is not yet matched by clear, quantified evidence of major health gains. Quantified measures would use standard metrics and processes to gather and evaluate evidence of impacts, such as a change in the number of days lost to illness annually, or resulting benefits, such as savings in health-care delivery costs. The exception is quantitative analyses of the costs of above-average weight and obesity. Such analyses have identified significant cost savings to be generated by improving fitness through sport and non-sport physical activity.
8. Sport is a valuable and important means of gaining and enhancing a wide set of transferable skills that are important in work and life, according to survey respondents. Thus, sport is an important element in Canada's learning culture and would benefit if this fact was recognized.
9. Sport has negative social features that reduce the social benefits of sport, including drug use, unfair judging, inappropriate behaviour by participants and parents who act aggressively and sometimes encourage violence among players, and celebrity athlete "role models" with poor social behaviour.
10. Most participants report that sport gives them a combination of pleasure, satisfaction, self-confidence and a sense of good health that they value highly. This perceived positive impact is an important psychological

benefit of sport. Most people report that sport participation improves their skills, sense of achievement, self-esteem, and sense of belonging and self-worth. Active participants especially see sport as having spill-over benefits to the broader society, such as health and skills gains, and improvements in social cohesion.

11. Overall, survey respondents see a strong *net* positive social impact of sport participation. They feel strongly that sport brings families together and encourages people to interact in the broader community and beyond, often with people of different social backgrounds, even though they do not see it as breaking down economic barriers.
12. The skills and health and psychological benefits sport participants gain may make them, on average, more skilful, focused and motivated workers. If true, this fact would increase labour productivity and performance in the workplace. If that happened on a large enough scale, it would measurably increase GDP and raise our standard of living. However, our survey did not clearly establish these benefits for participants in comparison to non-participants.
13. Despite economic growth and the important positive health, skills and social impacts of sport on individuals and the country, adult participation in sport has been declining gradually since at least 1992. The decline is occurring in the face of strong belief *by those who participate* that sport provides important benefits to them. Given the demographic shift to an older population, participation rates are likely to continue to decline unless action is taken.
14. Given the value of sport to our economy and society and the gradual weakening of involvement, government has a strong motive to promote sport. The challenge is twofold: to broaden the number of active participants, and to stimulate them to take part in sport or other physical activity frequently enough to attain CPAG-recommended levels of energy expenditure that will give them significant health gains and other benefits.

Implications for Future Action

For most Canadians, the greatest value that sport can bring them lies beyond high performance in competition. For them, a more comprehensive definition of sport would explicitly link sport to the wider arena of physical activity, and include both casual and organized participation with a broader set of objectives, including “expressing or improving physical fitness and mental well-being, forming social relationships or obtaining results in competition at all levels.”¹ This approach, which was recommended in the Council of Europe’s European Sports Charter and is the basis for Sport England’s vision for 2020, would serve most Canadians better than a more restrictive definition and approach that seek to keep sport well separated from other forms of physical activity.

In light of the wide range of beneficial impacts beyond fitness and health and the trend toward lower participation rates in sport, governments should consider doing the following.

1. Develop sport policy within the context of larger productivity, health, culture, education, skills, immigration, Aboriginal and labour market development policy frameworks. A broader, more holistic approach is needed to ensure that future investments in sport can reinforce and increase the skills, health, social and economic benefits identified through this study.
2. Explicitly develop sport strategy in conjunction with physical activity and recreation strategies, and set performance targets that recognize sport as part of a larger strategy to improve fitness and health.
3. Create closer links between sports and health departments and agencies of government to support integrated planning that will lead to achieving common goals.
4. Build financial targets for health-care savings into medium- and long-term performance measurement of sport policy and program performance.
5. Identify the most potent messages, including benefits findings, to encourage more people to take up sport, and communicate them widely to target audiences. The issues related to increasing sport participation are complex and may well require governments to take a comprehensive approach to social marketing.
6. Offer incentives to stimulate individual and community investment and engagement in sport, and find the most effective policy and program tools to ensure that new engagement yields beneficial results for all participants and helps broaden participation.
7. Fund more research that can provide a strong empirical basis for setting policy directions and identifying program priorities. The following two major categories of research will help:
 - *Longitudinal research on the nature and extent of sport impacts on health, skills, social cohesion and the economy.* These longitudinal studies would follow individuals and groups as they participate in sport and relate this activity to experiences in education, labour market, family life and health over an extended period to refine our understanding of the impact of sport participation on individuals, communities and the country.
 - *Research to refine our understanding of how sport participation changes health, social cohesion, skills and economic performance.* Further study could detail sport impacts to provide the basis for targeted policies and programs. This research could lead to savings in areas as diverse as health, labour market supports, justice and Aboriginal affairs.²

Success is possible only through large-scale collaboration. To restore sport participation to 1990 levels or better will require engagement of federal, provincial and territorial governments, municipalities, communities, educators, health-care professionals and groups representing

the under-represented in sport, as well as the organizations that organize, oversee and support sport throughout Canada. The engagement process itself will require investment, as will building our capacity to deliver sport opportunities to all Canadians, but the potential rewards are great.

1 The Council of Europe, *The European Sports Charter (revised)* (Brussels, Belgium: The Council of Europe, 2001). As quoted in Sport England, *The Framework for Sport in England—Making England an Active and Successful Sporting Nation: A Vision for 2020* (London, England: Sport England, 2004), p. 2.

2 For example, research that uncovers more about how sport programs can improve the academic performance and social adjustment of individuals after

high school, enhance physiological and psychological health, support family and community development, and reduce crime and improve the economies of Canadian towns and cities would provide an empirical basis for targeted policy and program investments. See Susan E. Vail, *Promoting the Benefits of Sport: A Collection of Peer-Reviewed Journal Articles and Reports*. Prepared for the Federal-Provincial-Territorial Sport Committee Work Group #6 (n.p.: Vail and Associates, January 25, 2005), p. 3.

Survey Methodology

A key part of the methodology for this study was the Sport Participation Impact Analysis Household Survey, a questionnaire-based representative national telephone survey of Canadian adults (aged 16 years or older) about their own and their household's participation in sport, and its impact on them and their household. R.A. Malatest & Associates Ltd. conducted this survey for The Conference Board of Canada in November and December 2004, following field testing to refine the survey instrument. Results from the survey respondents were used to extrapolate to the entire adult population of Canada, employing widely accepted statistical techniques. This appendix describes the rationale for using this methodology and the technical details of the survey findings.

RATIONALE

Our review of the literature showed a paucity of recent original data on sport participation in Canada. There is a relatively large body of academic literature on the health benefits of physical activity, the social cohesion aspects of sport participation, and the relationship between sport and the economy. Much of this literature is speculative or theoretical in nature because of the lack of direct data on sport participation. For this reason, it was felt that the current study could make an important contribution by providing recent and unique micro data on the nature and characteristics of sport participation and the attitudes of people who participate in sport.

The best way to generate these types of original micro data is through a household survey. Through the use of probability theory, a random household survey allows sound inferences to be made about the general population based on a relatively small sample of the population. It also allows us to specify the accuracy of the findings through statistical tolerances.

SOURCES OF ERROR

Household surveys of this type are subject to two main potential types of error: sampling error and bias.

Sampling error results from the fact that we randomly select a relatively small number of people to make inferences about the entire population. The sampling error is inversely related to the size of the sample. As such, inferences are the strongest when they are based on the entire sample. To limit sampling error, we used a large sample. We surveyed 2,408 households nationally on the top-line question regarding sport participation and found 1,322 who participated in sport, either actively on their own account or through volunteering and attending. This top-line incidence of sport participation, 54.9 per cent, is accurate within ± 2 per cent, 19 times out of 20. At several points in the findings, we detail the findings for subgroups of the sample and the margin of error is somewhat higher for these subgroups.

A second potential source of error is bias. Bias takes three forms: there may be bias in the sampling methodology, the choice of respondents or the responses. We employed a methodology specifically designed to minimize these forms of bias; as a result, we believe that these types of bias have had an insignificant impact on our findings.

The sampling methodology we used was based on random digit dialling administered through the DASH (data and survey handling) software program. Telephone coverage in Canada reaches virtually 100 per cent of households. The DASH program is widely used across Canada by more than 30 market research companies with more than 800 users. This program helps companies develop randomization processes to minimize sampling bias. To minimize non-response bias, the DASH system was programmed for multiple callbacks. The survey company employed multilingual staff to ensure that language bias did not enter into the survey. Our top-line data on respondents accord well with the overall demographics of Canada, suggesting minimal non-response bias.¹

A survey of the type used in this study is not subject to a high degree of response bias, in our view. Response bias is most likely to be present in surveys on confidential issues, such as drug use or sexual behaviour, or where

individuals are asked to reply to questions regarding issues about which they have no direct or immediate source of knowledge, such as the motives or purposes of leaders of other nations in making foreign policy. When individuals are asked questions about issues of which they have direct and immediate knowledge (“justified true belief”), such as their own state of being, qualities of person, skills and attitudes, they are much better placed to provide reliable answers. In our view, individuals are well placed to answer questions about their participation in sport, their health, their spending and how they feel sport contributes to the community. Of course, the answers to the subset of attitudinal questions within the survey do not necessarily reflect facts, but they do accurately reflect what people believe to be the truth, *in their own judgment*. In addition,

the extent to which sport participants have different attitudes than non-participants genuinely reflects different attitudes among these subgroups, as opposed to survey bias.

SAMPLE FRAME

The sample frame consisted of all households across Canada. The initial sample was obtained from commercial directory sources using a random digit dialling methodology. The sample frame was adjusted to ensure adequate regional representation across Canada.

CALL RECORD

See Table 14 for the final call record for the survey.

Table 14			
Final Call Record for the Survey			
TOTAL RESPONSES		2,408	
A. Total numbers attempted		Number	
Total call records	13,026		
Total unallocated	0		
Quota full—no dial	0		
Total numbers attempted (net potential sample)	13,026		
B. Total eligible numbers		Number	
Number changes/not in service	2,187		
Business/fax/cell phone/computer	736		
Phone number problem	0		
Call blocked	12		
Quota full	401		
Duplicate numbers/ineligible household	56		
<i>Total invalid numbers</i>	<i>3,392</i>		
Total eligible numbers (net potential sample minus total invalid numbers)	9,634		
C. Total asked		Number	
Call back:			
Hard appointments	50		
Soft appointments	198		
Partial complete	0		
No answer	479		
Answering machine	1,380		
Busy	32		
Language problem (to be called back by someone speaking the language)	271		
Other problem	58		
<i>Total unreachable</i>	<i>2,468</i>		
Total asked (total eligible numbers minus total unreachable)	7,166		
D. Refusals		Number	
Upfront refusal	4,709		
Middle refusal	49		
Total refusals	4,758		
E. Cooperative contacts (total asked minus refusals)		Number	
Participant completed interviews	1,502		
Non-participant completed interviews	504		
Non-participant, did not complete interview	402		
Total cooperative contacts (sample)	2,408		
F. Completed interviews (participant and non-participant)		Number	
Category			
Individuals who are personally sport participants, who completed the household survey on their own behalf, and sometimes on behalf of other people residing in their household who are sport participants.	1,322		
Individuals who are <i>not</i> personally sport participants, who completed the household survey on behalf of other people residing in their household who are sport participants.	180		
Total completed <i>participant</i> interviews	1,502		
Individuals who are not sport participants, who completed a special non-participant survey. This survey allowed the characteristics of participants and non-participants to be compared. Because the number of non-participant respondents was capped at 504, the incidence rate for non-participants in sport cannot be calculated to a meaningful level of accuracy.	504		
Total completed <i>non-participant</i> interviews	504		
TOTAL COMPLETED INTERVIEWS	2,006		

1 This response rate is comparable to the Canadian Fitness and Lifestyle Research Institute's (CFLRI's) Physical Activity Benchmarks Program, and in particular the 2002 Physical Activity Monitor, in which the computer-assisted telephone interview (CATI) system was used to select random numbers to dial from household-based telephone exchanges proportional to the population in the provinces and territories. The CFLRI study also adjusted the sample weights using a post-stratification adjustment to reflect the latest census distributions for age and sex. This study did not include the adjustment to reflect for age and sex.

The CFLRI 2002 Physical Activity Monitor researchers sampled 5,303 Canadian adults, aged 15 and over, and had an overall response rate of 51 per cent. The Conference Board researchers contacted 7,166 households, from which they obtained 2,408 completed interviews from sport participants and non-participants (a response rate of 33.6 per cent). Adjusting for non-participant interviews, of this sample population of 2,408 respondents, 1,322 individuals personally participated in sport and completed the household survey on their own behalf, representing a response rate of 54.9 per cent.

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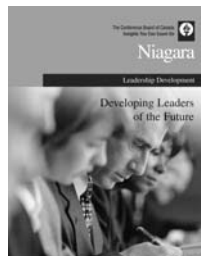
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