



Briefing August 2005

Strengthening Canada

The Socio-economic Benefits of Sport Participation in Canada

This briefing summarizes findings from The Conference Board of Canada's *Strengthening Canada* report on the impacts and benefits of sport participation for individuals and communities, and for the Canadian economy and society. 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.

INTRODUCTION

Canadians love sport. It gives them pleasure and helps them to define themselves and their communities.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.

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 of Canadians in manufacturing, retail and service industries; and
- It helps to shape our national and cultural identity.

This lack of awareness may be why we are experiencing a national decline in active sport participation. Between 1992 and 2004, the proportion of adults aged 16 or older who actively participate in sport dropped from 45 per cent to 31 per cent. Moreover, Canadians are not finding adequate alternatives to sport to keep them fit. In 2001, 56 per cent of Canadians did not achieve

nationally recommended levels of physical activity for personal fitness and good health. 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.³ By 2004, 23 per cent of adults were obese and 36 per cent were overweight.⁴

To help correct these trends, 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.”⁵ The policy’s four overarching goals relate to enhancing participation, excellence, capacity and interaction.

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Achieving this vision will require more public resources, which are most likely to come when sport better demonstrates tangible benefits to individuals, communities and nations.⁶ In Canada and internationally, there is a dearth of original data about sport impacts. To address this, the *Canadian Sport Policy* made it a priority to present compelling evidence of the benefits of regular participation in sport to health, justice, education and social services departments, in order to increase collaboration and program partnerships.⁷

This study, by the Conference Board, which incorporates new original data based on a national household survey, is intended to help fill the knowledge gap by providing a comprehensive perspective on a wide range of sport impacts and benefits.

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, further research will be required to fully explore and validate the nature and magnitude of these beneficial impacts.

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.

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.

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.

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.⁸

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

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. 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. Nearly half of active participants (47.1 per cent) take part in only one sport. A mere 8.7 per cent compete in four or more.

KEY DRIVERS OF PARTICIPATION

The key drivers of participation in sport are inter-related. 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

Active participation strongly correlates to age, falling steadily through to the senior years. Rates are the highest for young adults, who often participate through school sports. Yet the decline is slow. The 40–49 cohort rate is still half the teenage cohort rate. Remarkably, active sport participation continues to engage more than a quarter of all Canadians over the age of 60, testimony to an enduring passion for sport and for physical activity in general among those who have chosen physical pastimes earlier in life.

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.⁹ This significant difference is similar to earlier findings and the gap does not appear to be closing.

Table 1
Participation in Sport, 2004, Adult Population

Active participant	Volunteer	Attendee
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

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

Table 2
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.

Table 3
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.

Household Composition

The presence of children in the household has a significant impact on the *pattern* of adult participation in sport, especially adult volunteerism: with children present in the household, the rate is 32 per cent; without children, it is only 16 per cent.

Educational Attainment

The greater the educational attainment of a person, the more likely he or she is to participate. The key dividing point is secondary school graduation: over one third of graduates actively participate, compared with only 16 per cent of high school non-completers.¹⁰

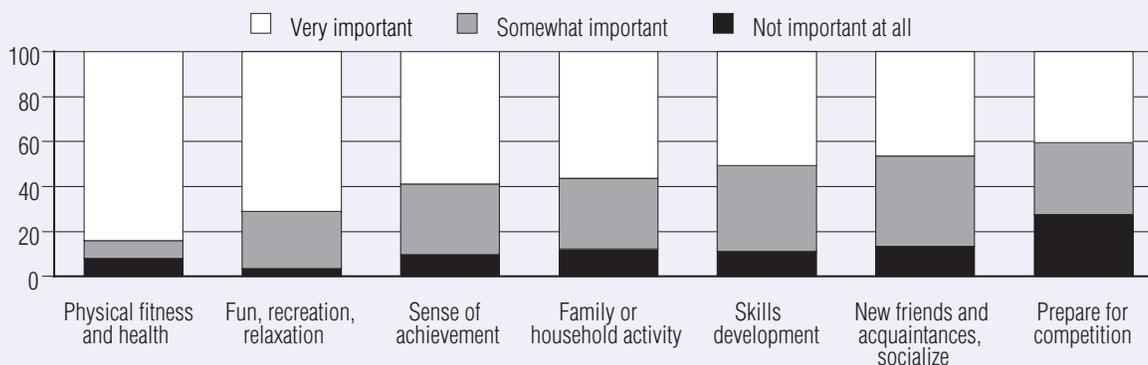
Income

People with higher incomes are much more likely to participate in sport than people who earn less.

SUMMARY OF BENEFITS TO INDIVIDUALS AND HOUSEHOLDS

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; family or household activity; skills development; new friends and acquaintances; and preparation for competition.

Chart 1
Benefits of Participation in Sport
(per cent, n=1,322)



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

DETAILED ANALYSIS OF MAJOR BENEFITS

Four important categories of benefits from sport participation were studied: health, skills, social cohesion and economic impact.

HEALTH BENEFITS

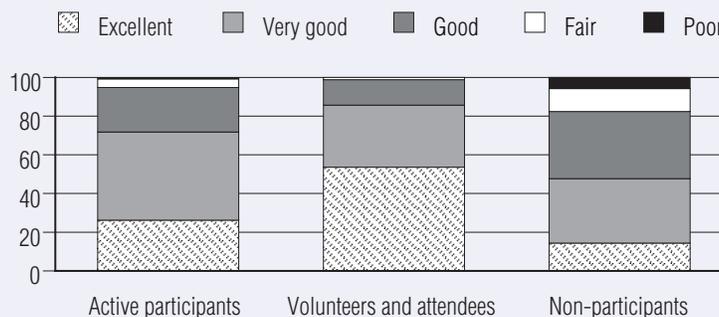
Participation in sport and *excellent health* are closely linked in the minds of Canadians. Over 70 per cent of participants describe their overall state of health as either excellent or very good, compared with less than 50 per cent of non-participants. (See Chart 2.) Active participants are most likely 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.

Individuals can obtain significant health benefits from physical activity by combining appropriate levels of frequency, duration and intensity of activity.

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, which have found a close relationship between health and physical activity.

Individuals can obtain significant health benefits from physical activity by combining appropriate levels of frequency, duration and intensity of activity.¹¹ The Public Health Agency of Canada follows *Canada's Physical Activity Guide to Healthy Active Living* (CPAG) in recommending that people should engage in 60 minutes of low-intensity activity daily,¹² 30 minutes of moderate-intensity activity five days per week,¹³ or 20 to 30 minutes of vigorous-intensity activity¹⁴ four days per week. CPAG also suggests that personal exercise should involve three kinds of activities to achieve maximum health benefit: endurance, flexibility and strength activities. Sport is one means to achieve these physical activity targets. Expending energy actively can have a profound effect on personal health. As a recent published report observed, "physical activity expending 1000 kcal/wk

Chart 2
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.

(4200 kJ/wk) is associated with as much as a 30 per cent reduction in all causes of mortality rates.”¹⁵ Meanwhile, results from the Canadian Community Health Survey (2000–01) reveal that 56 per cent of Canadians are inactive.¹⁶

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. This amounts to an average of almost three hours of physical activity per week, much of which is of moderate or vigorous intensity. Does this mean that most adult active participants are reaching CPAG-recommended activity levels?

How We Score

To evaluate whether adult active participants are reaching CPAG targets, we looked at energy expenditure, duration and frequency data. We examined the data from our Household Survey that was related to participation in 55 sports.

Energy Expenditure

Using the data for the 55 sports, we estimated the median weekly energy expenditure for females and males. The median expenditure for adult females and males is 586 kcal/week and 1190 kcal/week, respectively.¹⁷ CPAG guidelines for moderate and vigorous activity¹⁸ show that females should expend between 488 and 1042 kcal/week and males should expend

between 600 and 1280 kcal/week. Our calculations provide evidence that the average energy expenditure of active participants meets the CPAG targets for weekly energy expenditure.

Duration and Frequency

Average Canadian female and male active participants spend 162 minutes per week and 177 minutes per week on sport, respectively. 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 have metabolic equivalent (MET) levels in the moderate to vigorous range. Accordingly, participation in these sports for these average weekly durations exceeds CPAG minimum targets.

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 falling substantially short of the CPAG recommended minimums. There is a structural explanation: the complications of organizing groups of participants and the nature of

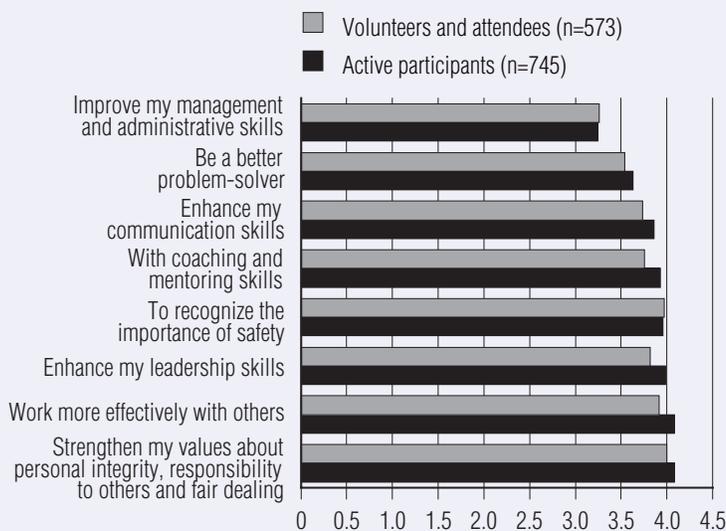
team sports mean that sport is usually undertaken for longer periods at a time, but less frequently than the targets recommend.

Implications

On average, adult active participants are meeting CPAG's duration and energy expenditure targets for maintaining good health, but not the frequency targets. To achieve these targets, the optimal solution may be for individuals to combine a regime of sport with other forms of fitness and physical activity. More research is needed to confirm the proportion of adults who reach frequency targets through sport alone or in combination with other physical activity, and to identify patterns of activity that most frequently enable them to reach the targets.

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, representing as much as 4.8 per cent of total health care costs.¹⁹ On this basis, increasing sport participation as a strategy for improving Canadians' health could significantly reduce national health care costs.

Chart 3
Skills Gains: Active Participants', Volunteers' and Attendees' Self-assessments (my participation in sport has helped me . . . , mean scores, on a scale of 1 to 5)



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

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The significance of sport to improving health levels has implications for government policies and programs. The cost to government of supporting sport is small in comparison to health spending due 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. If so, governments will face two challenges: broadening the proportion of the population that actively participates in sport and stimulating active participants to take part in a broader physical fitness regime of which sport is a part.

SKILLS BENEFITS

Everyone needs a combination of skills and attitudes to meet the basic personal challenges of life and work. 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. (See Chart 3.) Young people find that sport enables them to channel their energy, competitiveness and aggression in socially beneficial ways.²⁰

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 all rate sport as an important source of skills gains that they can apply *away* from sport. The most important skills gains are transferable skills, which can be put to good use in every kind of workplace and at every level of responsibility within an organization.²¹ They are prized highly by employers. They are also skills that help people to play a more positive role in their communities and family life.

Skills are vital to the nation’s economic performance.²² If investment in skills development is not maintained, the skills that underpin our economy will decline, leading to skills gaps and shortages that decrease productivity and performance.²³ 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.

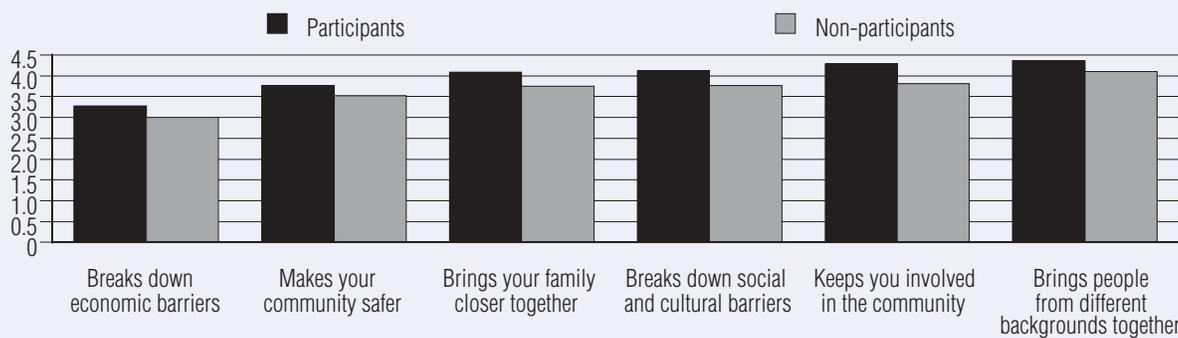
SOCIAL COHESION BENEFITS

Sport improves social cohesion. Sport participants experience a high degree of interaction with other individuals, which improves interpersonal relationships, establishes the basis for relationships of trust and builds teamwork skills that generate gains in social cohesion. Social cohesion, in turn, is fundamental to building social capital.²⁴ 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.”²⁵ 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.

There is a strong *net* positive social impact from sport participation.

Public investment in sport brings many advantages to communities.²⁶ Most respondents feel that sport participation strongly encourages individuals from different backgrounds to work and play together in a positive way. They also think that it gives individuals *of all ages* good opportunities to be actively involved in their communities. As a result, people learn positive lessons about responsibility and respect for others. For many, sport also provides a sense of purpose. Sport is in touch with

Chart 4
Social and Economic Benefits of Sport: Participants’ and Non-participants’ Perspectives
(mean scores, on a scale of 1 to 5; participants n=1,486, non-participants n=478)



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

youth culture and provides links to school and community life. Finally, because voluntary work is central to sport, people gain opportunities to give back to their communities.

Sport also has negative social features that reduce the social benefits of sport, such as the following: inappropriate behaviour by parents, who sometimes encourage acts of violence by children or act aggressively toward officials and others; the use of steroids and other illegal performance-enhancing drugs; inconsistent and unfair judging; and poor conduct by celebrity professional athletes, who are role models to young people.

\$15.78 billion of household spending was on sport. This constitutes 1.22 per cent of Canada's 2004 gross domestic product (GDP) of \$1.29 trillion.

However, the answers of our respondents 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.

ECONOMIC BENEFITS

Household spending on sport has a significant impact on the Canadian economy. Our survey, which captures the spending by Canadian households on sport, provides a good approximation of total spending and the associated national economic effects. At a microeconomic 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 and the overall health of the Canadian sport industry.

Household Spending on Sport, 2004

- \$15.78 billion of household spending was on sport. This constitutes 1.22 per cent of Canada's 2004 gross domestic product (GDP) of \$1.29 trillion.²⁷
- \$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.²⁸ This figure is consistent with evidence that spending on sport has been growing slightly faster than the overall economy since 1990.

Determinants and Patterns of Household Spending

Household spending on sport is determined by a combination of factors: a household's preference for being involved with sport; the size of the household and the number of people involved in sport; and total household income, which determines the availability and scale of *discretionary* household income for sport. These 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). Households with higher income levels look to sport as a significant outlet for spending. In practice, most households operate under a budget constraint that places an upper limit on the amount they are able to spend on sport.

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);
- Active participants (who were not also volunteers or attendees) spent \$1,357, on average; and
- Attendees (who were not also volunteers or active participants) spent \$1,162, on average.

Income plays a significant role in sport spending by households. Income elasticity is 3.0 per cent, meaning that participants will tend to spend about 3 cents of every additional dollar earned on sport. For example, participating households with an income of \$20,000 per annum spent \$800 on sport; each additional \$10,000 of income was matched by a spending increase of \$300.

The number of children in a household can have both a positive and a dampening effect on sport spending. Spending is optimized at three children in the household, after which household spending starts to decline slightly, possibly because demands for expenditure on necessities rise with more children, tending to constrain spending on sport.

Sport spending is characterized by large numbers of relatively small purchases and expenditures on a variety of different goods and services. Some patterns are apparent:

- Active participants tend to spend their money on clothing, equipment and memberships (half of these participants spend at least \$1,000 annually in each category); and
- Volunteers and attendees spend more on food and beverages, at more than \$100 per year.

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. It also builds social cohesion and social capital—keys to development and prosperity. In adequate amounts, active sport participation improves health by building personal fitness.
 3. 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. 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.
 4. 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 would 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.
 5. The sense of healthiness that survey respondents attribute to sport is not yet matched by clear, quantified evidence of major health gains,²⁹ such as a change in the number of days lost to illness annually, or resulting benefits such as savings in health care delivery costs.
 6. 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. People can pursue healthy lifestyles without actively participating in sport, as long as they find alternative forms of moderate and vigorous physical exercise such as recreation or active work.
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- Sport develops skills that individuals can use to become more productive at work. It also builds social cohesion and social capital—keys to development and prosperity.**
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7. 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.
 8. Sport has negative social features that reduce the social benefits of sport, including inappropriate behaviour by parents and participants, drug use, unfair judging and celebrity athlete "role models" with poor social behaviour.
 9. 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.
 10. 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.

11. 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.

To restore sport participation to 1990 levels or better will require large-scale collaboration.

IMPLICATIONS FOR FUTURE ACTION

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

1. Develop sport policy within the context of larger productivity, health, education, skills 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 departmental linkages 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 the 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 could lead to savings in areas as diverse as health, labour market supports, justice and Aboriginal affairs.³⁰

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 underrepresented 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.
- 2 Unless otherwise stated, all figures for participation and impacts are from The Conference Board of Canada's Sport Participation Impact Analysis Household Survey, a representative national survey of Canadian adults (aged 16 or older), conducted during November and December 2004. See the "Research Methodology" box on page 2 for more information.
- 3 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 25.0 to 29.9.
- 4 "Canadian Community Health Survey 2004," analyzed in Michael Tjepkema, *Adult obesity in Canada: Measured height and weight* [online]. (Ottawa: Statistics Canada, July 2005), [cited July 12, 2005]. <www.statcan.ca/english/research/82-620-MIE/2005001/articles/adults/aobesity.htm>.
- 5 Sport Canada, *The Canadian Sport Policy* (Ottawa: Department of Canadian Heritage, 2002).
- 6 Sport England, *The Value of Sport to Local Authorities* (London, England: Sport England, June 1999, ref. no. 901).
- 7 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*.
- 8 These percentages are based on an adult population of almost 25 million (24,943,000) in December 2004. One per cent of the adult population is approximately 250,000.
- 9 This compares with slightly higher rates for 1998 found by Statistics Canada's General Social Survey 1998, which found an adult male (aged 15 or older) participation rate of 43 per cent and an adult female (aged 15 or older) participation rate of 26 per cent.
- 10 Almost all adult high school non-completers, aged 18 or older, are dropouts; a small number are 18- to 21-year-olds who are still in high school.
- 11 *Canada's Physical Activity Guide to Healthy Active Living* (Ottawa: Public Health Agency of Canada, 1998).
- 12 Examples include light walking, easy gardening and stretching. The CPAG notes that during the activity, the person would start to feel warm and their breathing rate would rise slightly.
- 13 Examples include brisk walking, biking, raking leaves, recreational swimming, dancing and water aerobics. The CPAG notes that during the activity, the person would feel warmer and experience a great increase in breathing rate.
- 14 Examples include aerobics, jogging, hockey, basketball, fast swimming and fast dancing. The CPAG notes that during the activity, the person would feel quite warm and more out of breath.
- 15 Y.K. Kesaniemi, et al., "Dose-response Issues Concerning Physical Activity and Health: An Evidence-based Symposium," *Medicine & Science in Sports and Exercise* 33, 6 Suppl. (June 2001), pp. S351–8.
- 16 Craig and Cameron, *Increasing Physical Activity*, as summarized at <www.cflri.ca/cflri/pa/surveys/2002survey/2002survey.html>.
- 17 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 participated in; a more accurate calculation would require duration based on each sport that each individual participated in. Secondly, the MET values used in the estimate 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. These figures reflect the fact that about a quarter of the active participants expended very large amounts of energy in sporting activity weekly.
- 18 MET values used in the calculation for CPAG targets are as follows: moderate activity (3.0 MET) and vigorous activity (6.0 MET).
- 19 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. Canadian Sport Centre, *Benefits of Health and Physical Activity for Canada and Its Citizens* (Calgary: Canadian Sport Centre). Available at <www.calgarysportcouncil.com/pdf%20folder/benefits-federal.pdf>. Peter T. Katzmarzyk and Ian Janssen, "The Economic Costs Associated with Physical Inactivity and Obesity in Canada: An Update," *Canadian Journal of Applied Physiology* 29, 2 (April 2004), pp. 90–115. Abstracted at <www.phe.queensu.ca/epi/ABSTRACTS/abst81.htm>.
- 20 Sport England, *The Value of Sport: Executive Summary* (London, England: Sport England, June 1999, ref. no. 918).
- 21 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).
- 22 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.
- 23 Skilled labour shortages particularly affect small and medium-sized enterprises (SMEs), where most jobs are created. Shortages cause businesses to miss growth opportunities—at a high price to themselves and the economy. In 2002, an estimated 265,000 full-time jobs across Canada remained vacant within SMEs due to a lack of suitable candidates, showing the gap between the supply of and demand for labour. Andreea Dulipovici, *Labour Pains: Results of CFIB Surveys on Labour Availability* (Ottawa: Canadian Federation of Independent Business, April 2003), pp. 1–2.
- 24 Paddy Bowen, *Investing in Canada: Fostering an Agenda for Citizen and Community Participation* (Ottawa: Public Policy Forum, 2004), p. 13. Available at <www.ppforum.ca/ow/bowen_layout_e.pdf>.
- 25 The World Bank, "Glossary of Key Terms in Social Analysis" (Washington, D.C.: The World Bank, n.d.). Available at <lnweb18.worldbank.org/ESSD/sdvext.nsf/61ByDocName/Resources/SocialAnalysisGlossaryofKeyTerms>.
- 26 Sport England, *The Value of Sport to Local Authorities* (London, England: Sport England, June 1999, ref. no. 901), p. 4.
- 27 These figures are expressed in 2004 dollars.
- 28 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.
- 29 Using standard metrics and processes for gathering and evaluating evidence of impacts.
- 30 Susan E. Vail, *Promoting the Benefits of Sport: A Collection of Peer-Reviewed Journal Articles and Reports* (n.p.: Vail and Associates, January 25, 2005, prepared for the Federal-Provincial-Territorial Sport Committee, Work Group #6), p. 3.

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by *Michael Bloom, Michael Grant and Douglas Watt*

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