



MEASURING SUSTAINABLE DEVELOPMENT

APPLICATION OF THE GENUINE PROGRESS INDEX TO NOVA SCOTIA

THE VALUE OF FREE TIME IN NOVA SCOTIA

Prepared by:
Andrew S. Harvey, PhD, and Ronald Colman, PhD
September 2008

EXECUTIVE SUMMARY

Nova Scotians spend an average of five hours and 40 minutes a day on free time (leisure) activities—about half an hour less than in the 1990s. Since 1998, Nova Scotians have increased their paid work time by nearly four hours a week, or 204 hours a year, and cut their free time by 186 hours a year. In other words, Nova Scotians are putting in the equivalent of more than a month's extra paid work time a year at the expense of their free time—mostly because women are working much longer hours for pay. In 1992, Nova Scotians had nearly half an hour more daily leisure time than did other Canadians, but by 2005 this gap had narrowed to just 12 minutes a day.

In contrast to the rest of Canada, where men have about 27 minutes more daily leisure time than women, leisure time is virtually identical for men and women in Nova Scotia. But while Nova Scotian men and women both lost more than half an hour of daily leisure time between 1992 and 2005, the patterns differed—with men seeing declines in both passive and active leisure, while women traded passive activities for active ones. That difference is primarily attributable to major changes in the gender division of labour—both in the paid work force and in the household. Thus, the most marked difference in overall time use during this period was that women worked an average of an hour a day more for pay in 2005 than in 1992, while men's market work decreased slightly. At the same time, women did an average of 46 minutes less household work and child care a day in 2005 than in 1992, while men did 26 minutes more.

The sharp increase in women's paid work in Nova Scotia appears to have created some problems. In 1998, overall time stress levels were lower in Nova Scotia than in the rest of Canada (16.2% vs. 18.6%), but by 2005 they were higher in Nova Scotia than in the rest of Canada (18.3% vs. 16.4%). The overall increase in time stress in Nova Scotia was totally attributable to a dramatic 30% increase in the proportion of Nova Scotian women identified as highly time stressed, while male levels of time stress actually declined by 11% during this period.

Use of leisure time is closely tied to a number of demographic and social factors. It is highest for individuals over 65 years, and lowest for persons aged 25 to 44, during which time paid work and family obligations tend to crowd out leisure. Retirees in Nova Scotia have more than eight hours a day of free time, while parents with infants and toddlers under 5 years of age have only 3.4 hours a day of free time. In Nova Scotia, by far the sharpest loss in free time between 1992 and 2005 was for single mothers, who saw their free time shrink by 2.7 hours a day or nearly 19 hours a week. The sharpest decline in leisure type is for cognitive leisure—reading, essentially.

The decline in free time for single mothers is linked to cuts in social service payments in the 1990s following deep cuts in federal transfers to the provinces, which pushed many single mothers into the work force in an effort to make ends meet. Many single mothers have replaced income poverty with “time poverty.”

Free time has explicit value in the Genuine Progress Index, and losses in free time should be counted as real losses in value, and as a decline in one key dimension of human capital, since such loss reflects a direct decrease in quality of life and an indirect threat to health, economic productivity, and human wellbeing.

Based on evidence showing that many workers are willing to swap work hours for free time if their pay cut amounts to half their gain in leisure time, leisure time is valued at half the average wage of \$17.54 an hour—or \$8.77 an hour. On that basis, Nova Scotians are losing \$1.25 billion worth of free time each year compared to what they had ten years ago. That means each Nova Scotian aged 15 and older has \$1,630 less worth of free time now than in 1998.

This study also looks at how Nova Scotians spend their leisure time. Fully 40% of Nova Scotians' free time is spent watching television. Another 26% is spent socializing. And 20% is spent on sports and other active leisure pursuits. But the average Nova Scotian spends only 22 minutes a day reading—down from 26 minutes a day in 1998, and 31 minutes a day in 1992. And Nova Scotians are spending considerably less time socializing outside their homes than they used to—down from an average of 19 minutes a day in 1992 to just 12 minutes a day in 2005—a decline of more than a third.

Norwegians have in excess of half an hour more free time each day—or 200 additional hours of free time annually—than Nova Scotians. For the 764,200 Nova Scotians 15 and older, this means that Nova Scotia could have a total stock of free time worth \$1.35 billion more than at present if Nova Scotians had as much free time as Norwegians do.

This study recommends that Nova Scotia take a lesson from the Netherlands, which reduced its work hours and gave its citizens much more free time, mainly by encouraging them to work part-time. In Holland, part-time work fetches equal hourly pay, pro-rated benefits, and equal opportunity for career advancement, so the Dutch have incentive to work shorter hours, and they have far more free time than Nova Scotians.

Free time is one of 20 core components of the Nova Scotia Genuine Progress Index because it is one of the most basic conditions of wellbeing and quality of life. It is the only time citizens have to do what they want rather than what they have to do—they can pursue their interests and enjoy their lives. In that way it constitutes a key condition for freedom. Aristotle viewed leisure as a prerequisite for democracy and citizenship, as it allowed time for contemplation and debate of vital state issues.

Analysts have also identified free time as a buffer against stress, a prerequisite for physical exercise, and a key condition for both physical and mental health.

ACKNOWLEDGEMENTS

GPIAtlantic gratefully acknowledges funding for the completion of the Nova Scotia Genuine Progress Index, of which this is the final component to be published, provided by the Province of Nova Scotia, the Alerce Trust, Susan and Bill van Iterson, and GPI Atlantic members. Special thanks are due to Vanessa Hayward for her copyediting and formatting of this report.

Needless to say, any errors or misinterpretations, and all viewpoints expressed, are the sole responsibility of the authors and GPI Atlantic.

©GPIATLANTIC

Written permission from GPI Atlantic is required to reproduce this report in whole or in part. Copies of this report and of other GPI Atlantic publications may be ordered through the GPI web site at gpiatlantic.org. Membership information is also available at this web site.

TABLE OF CONTENTS

1. INTRODUCTION	1
2. TIME ALLOCATION AND LEISURE IN PERSPECTIVE.....	4
TIME STRESS IN NOVA SCOTIA	6
COMPOSITION OF FREE TIME	8
<i>Composition of Free Time by Sex</i>	8
<i>Demographic Context</i>	10
<i>Demographics and Free Time</i>	13
3. CHANGING LEISURE PATTERNS	27
4. CONCLUSIONS AND VALUATION	38
BIBLIOGRAPHY	51

LIST OF TABLES

Table 1. Time allocation by major types and sex, hours per day averaged over seven-day week, Nova Scotia and other Canada, 1992, 1998, and 2005.....	4
Table 2. Share of population indicating high time stress, percentage, Nova Scotia and other Canada, 1998 and 2005	7
Table 3. Free time activities, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005	9
Table 4. Free time activities, by sex, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005.....	10
Table 5. Distribution of background characteristics, percentage, Nova Scotia and other Canada, 1992, 1998, and 2005	12
Table 6. Time allocation to free time activities, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005.....	14
Table 7. Time allocation to watching TV, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005.....	16
Table 8. Time allocation to socializing at home, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005.....	17
Table 9. Time allocation to other active leisure, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005.....	19
Table 10. Time allocation to active sports, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005.....	20
Table 11. Time allocation to reading, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005.....	21
Table 12. Time allocation to other socializing activities, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005	22
Table 13. Time allocation to restaurant meals, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005.....	24
Table 14. Time allocation to sports events, movies, and other, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005.....	25
Table 15. Time allocation to other passive leisure, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005.....	26
Table 16. Free time in 2005 as percent of free time in 1992, Nova Scotia and other Canada	31
Table 17. Time allocation by leisure qualities, hours per day and 2005 hours as percentage of 1992 hours, Nova Scotia and other Canada, 1992, 1998, and 2005	37

APPENDIX TABLES

Appendix Table 1. Time allocation to necessary activities, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005	45
Appendix Table 2. Time allocation to committed activities, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005	46
Appendix Table 3. Time allocation to contracted activities, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005	47
Appendix Table 4. Time allocation to free activities, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005	48
Appendix Table 5. Unweighted sample base, Nova Scotia and other Canada, 1992, 1998, and 2005	49
Appendix Table 6. Weighted sample base, Nova Scotia and other Canada, 1992, 1998, and 2005	50

LIST OF FIGURES

Figure 1. Time allocation by major type, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005	5
Figure 2. Free time, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005	6
Figure 3. Composition of free time, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005	9
Figure 4. Free time in 2005 as percent of free time in 1992, Nova Scotia and other Canada	29
Figure 5. Free time in 2005 as percent of free time in 1992, by select demographics, Nova Scotia and other Canada	32
Figure 6. Free time in 2005 as percent of free time in 1992, by select demographics, Nova Scotia and other Canada	33
Figure 7. Free time, by age, Nova Scotia and other Canada, 1992, 1998, and 2005	34
Figure 8. Free time, by age of children, Nova Scotia and other Canada, 1992, 1998, and 2005	34
Figure 9. Free time, by main activity, Nova Scotia and other Canada, 1992, 1998, and 2005	35
Figure 10. Free time, by household structure, Nova Scotia and other Canada, 1992, 1998, and 2005	36
Figure 11. Average daily hours of free time, population aged 20–74, Nova Scotia and other Canada (2005), and select European countries 1998–2002	42

1. Introduction

Free time is a key condition of wellbeing. Without it, citizens have no time to relax with family and children, to enjoy nature, to pursue hobbies and interests, to reflect and read, and to engage in the physical activity that is so essential to good health. And yet free time counts for nothing in the Gross Domestic Product (GDP), which measures economic growth and which is conventionally used to assess progress and how “well off” society is. Indeed, because the GDP only counts market transactions undertaken for pay, longer work hours (and by implication less free time and more stress) make the economy grow and are therefore interpreted as a contribution to progress and wellbeing.

Yet social scientists and psychologists have recognized that leisure has significant value in buffering life’s stressful events and assisting individuals in coping with stress (Iso-Alsola & Park 1996; Iwasaki & Schneider, 2003). Taking care of basic needs (like washing, sleeping, cooking, eating, shopping, and cleaning), taking care of family and others, working for pay, and education all make demands on time and require attention and effort—frequently not at one’s time of choice. Many such tasks are relentlessly repetitive, frequently tax individuals’ mental and physical resources, and often generate stress in the struggle to juggle diverse tasks and demands. A study published by the American Journal of Health Promotion found stress to be the costliest of all avoidable health risk factors (Goetzel 2001), and Statistics Canada found long work hours to be correlated with higher rates of smoking, physical inactivity, unhealthy weight gain, and depression (Shields 1999).

Conversely, leisure has been found to have positive value and benefit for both physical and mental health (Coleman, 1993; Mannell, 1999). Aristotle, in the *Politics*, viewed leisure as a prerequisite for democracy and citizenship, as it allowed time for contemplation and debate of vital state issues. Because of its widely acknowledged value, benefits, and contribution to wellbeing, leisure and free time are explicitly valued in the Genuine Progress Index (GPI) as one of the key conditions of wellbeing and therefore constitute one of the 20 core components of the GPI. In the accounting language of the GPI, leisure time is regarded as a human capital stock that can potentially be valued in both its quantity and quality, and that is also subject to depreciation if it is squeezed out by excessive work and other required tasks. While conventional analyses describe human capital only in terms of skills that enhance workplace productivity, the GPI considers the full 24-hour use of time—including paid work, unpaid household work, voluntary work, personal tasks, study, and free time, and the balance between these activities—as a contribution to human wellbeing.

This study examines several aspects of the use of free time:

- How do Nova Scotians fare relative to the rest of Canada and to other countries in terms of the leisure time available to them?
- How do they spend their leisure time?
- How is the leisure time distributed among different activities and population groups?

- Since the GPI recognizes the value of all time (not only paid work time as in conventional accounting systems), what is the economic value of Nova Scotians' store of leisure time, and has it increased or declined?

Insight into leisure time and all other uses of time is provided by the recurring Statistics Canada General Social Survey (GSS) Time Use studies—conducted once every six or seven years—which make it possible to examine changes in time use in Canada and the provinces. This GPI study examines the amount and use of leisure as reported in Canadians' free time activities in the 1992, 1998, and 2005 General Social Surveys.

In sharp contrast to economic theories that see growth as limitless, a person's time—like the world's natural capital—is limited, and the quality of life both in this and future generations depends on *how* that limited time is spent and how skilfully those finite natural resources are used. Each person has a finite life-span and only 24 hours in a day to allocate to activities both required and chosen. At the simplest level, analysts have categorized all activities that command that limited time into four types: necessary, committed, contracted, and free time (leisure):

1. Necessary time includes activities needed for personal maintenance such as eating, sleep, and other personal care.
2. Committed time (or unpaid production) is motivated by moral obligation, and includes activities done for maintenance of the household and family, caring activities, and the provision of volunteer services.
3. Contracted time (paid production) is motivated by an explicit or implicit contractual obligation, and includes time allocated to paid work and related activity in the marketplace, plus time devoted to acquiring education.
4. Free time ostensibly encompasses socializing, sports, engagement with media (reading, TV, movies, computer games, etc.), and other active and passive leisure activities.

An activity is classified into one of these four activity types based both on the context in which it occurs and on assumptions about its motivation. From an economic perspective, contracted and committed time refer respectively to paid and unpaid production, as noted above, while the necessary time required for personal survival and maintenance is the condition on which all productive activity depends. From that perspective, free time has been defined very broadly as simply encompassing all those activities not assignable to the other three categories.

However, free time activities have also been more explicitly defined as typically providing the individual with direct personal benefit in the doing; and as activities that one cannot normally do for someone else nor have someone else do for one's self. In the literature on the subject, the factors that have been shown to best differentiate leisure from non-leisure activities are enjoyment, pleasure, freedom of choice, relaxation, intrinsic motivation, lack of evaluation, and the absence of obligations and pressures.

Unfortunately, information on such subjective criteria is not typically available in the time diary data produced by Statistics Canada's General Social Surveys and other time use survey data. In the absence of appropriate subjective data, free time is defined by and limited to activities carried

on outside normal personal, family, community, and paid work activities and serves as a surrogate for “leisure.” For that reason, “free time” and “leisure” are here used interchangeably, although both leisure and free time should more properly be characterized by the subjective factors listed above.

2. Time Allocation and Leisure in Perspective

Averaged out over a seven-day week, necessary activities accounted for nearly half a day in 2005—10.39 hours for Nova Scotians and 10.64 hours for other Canadians in 2005 (Table 1 below). This includes sleeping, eating, and other personal care activities such as washing and dressing. Free time is the second largest block of time—over five hours per day for both Nova Scotia and the rest of Canada, as noted above. These two major activities dominate the aggregate results, because they are daily activities undertaken by the whole population. By contrast, committed and contracted activities are not undertaken every day by every person. Hence, while everybody may be involved in each at some point in their lives, there are significant periods during which they are involved in neither.

What is most notable in Table 1 below is the decline in free time, both in Nova Scotia and in the rest of Canada. While these trends are certainly affected by the business cycle and the decline in unemployment in the last decade, there appears to be a concomitant nationwide trend to work more and to settle for less leisure.

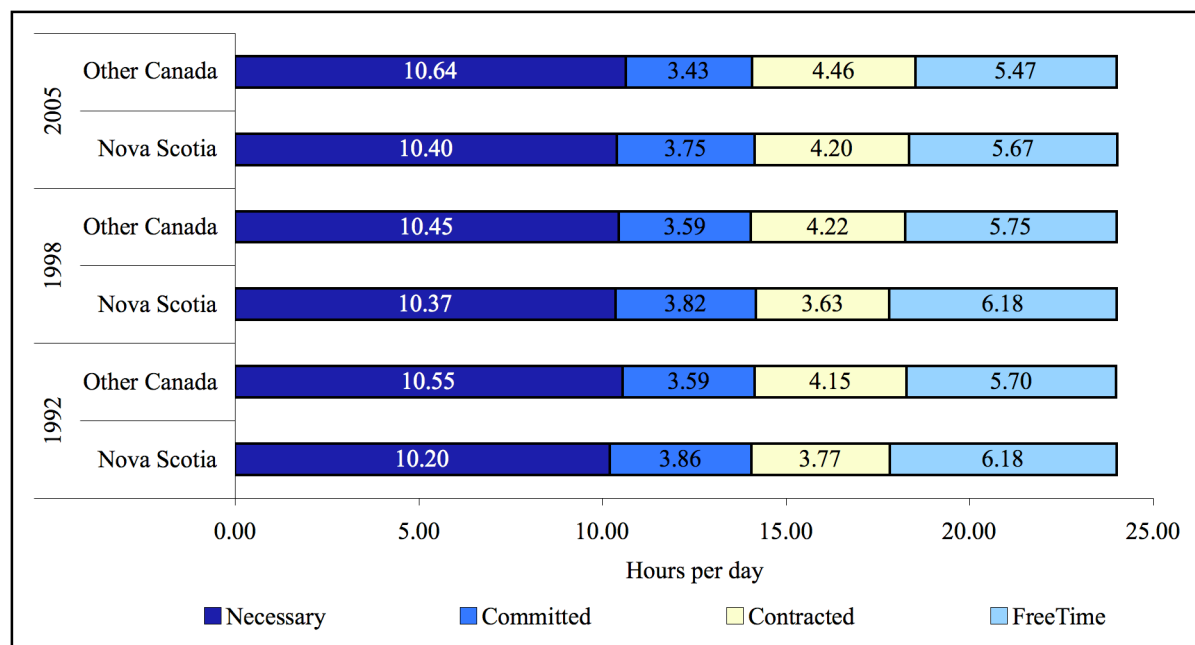
Table 1. Time allocation by major types and sex, hours per day averaged over seven-day week, Nova Scotia and other Canada, 1992, 1998, and 2005

	Male			Female			Total		
	1992	1998	2005	1992	1998	2005	1992	1998	2005
<i>Nova Scotia</i>									
Necessary	9.88	10.25	10.11	10.50	10.48	10.66	10.20	10.37	10.39
Committed	2.90	2.96	3.34	4.76	4.63	4.13	3.86	3.82	3.75
Contracted	5.01	4.23	4.88	2.57	3.07	3.57	3.76	3.64	4.20
Free time	6.20	6.55	5.68	6.17	5.83	5.66	6.18	6.18	5.67
<i>Other Canada</i>									
Necessary	10.31	10.25	10.47	10.78	10.65	10.81	10.55	10.45	10.64
Committed	2.61	2.73	2.63	4.52	4.41	4.21	3.59	3.59	3.43
Contracted	5.08	5.07	5.21	3.27	3.39	3.74	4.16	4.22	4.46
Free time	6.00	5.96	5.70	5.43	5.56	5.25	5.70	5.75	5.47

Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19. (0.10 = 6 minutes)

Over the period 1992 to 2005, the time allocation differences between Nova Scotia and Canada narrowed for all activity types except committed time, for which the gap increased slightly. In all years, relative to the rest of Canada, Nova Scotia has had higher committed and free time and relatively less necessary and contracted time (Figure 1).

Figure 1. Time allocation by major type, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005



Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

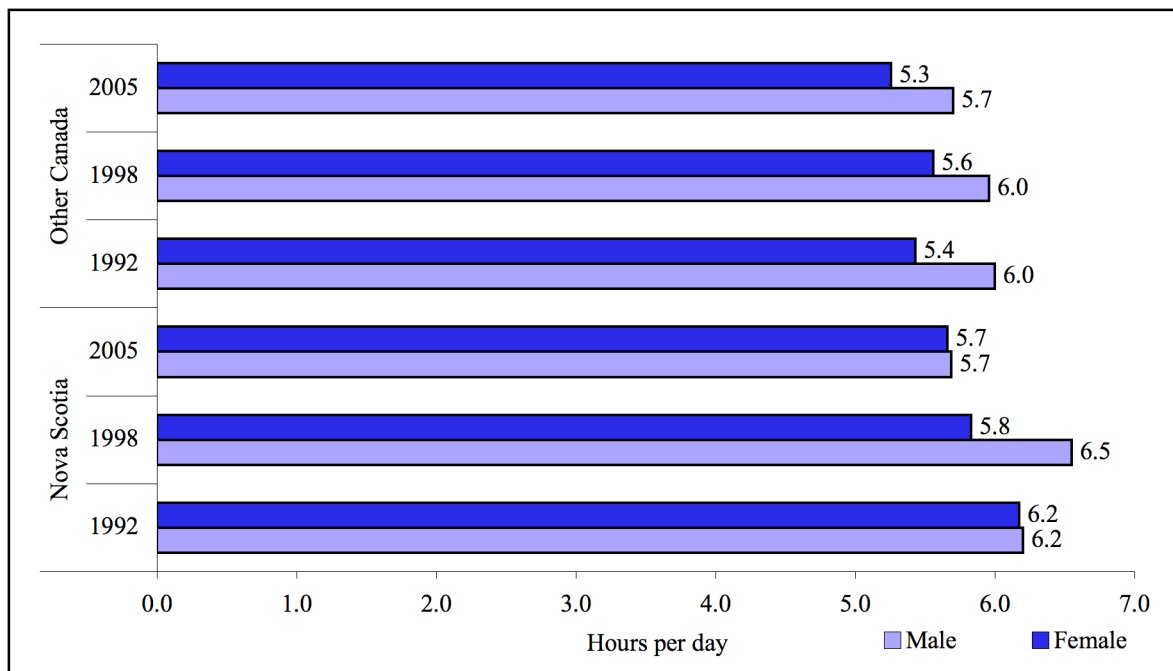
In 1992 and 1998, Nova Scotians spent an average of 6.18 hours per day on free time (leisure) activities (Table 1 and Figure 1 above). By 2005, average free time had declined to 5.67 hours per day. In the rest of Canada (Canada less Nova Scotia), free time averaged 5.7 hours a day in 1992, declining to 5.47 hours in 2005, narrowing the difference between Nova Scotia and the rest of Canada from 0.48 hour to 0.2 hour (Figure 1). In other words, Nova Scotians had nearly half an hour more free time per day (significant at .05 level) than other Canadians in 1992, but only 12 minutes more in 2005 (not significant).¹ Between 1992 and 2005, contracted and necessary time increased both nationwide and in Nova Scotia while committed and free time declined.

¹ Levels of statistical significance can enhance one's confidence in the existence of differences and in the magnitude of changes over time. The level is a function of the variability of the data and the size of the data sample. The lower the variability and the larger the sample size, the greater the significance. Traditionally, it has been found that there is much greater variability in time use among sub-populations (e.g., employed vs. unemployed) within an area than there is among different areas (regions, countries). Thus, at a national level, with a large sample size, most differences and change are significant. With smaller areas (and thus smaller sample sizes), statistical significance is less likely to be confirmed.

These realities impose themselves on the findings in this report, requiring a more exacting statistical analysis than was possible given the very limited resources available for the report (zero external funding for example). The reader can, however, be relatively confident that the directions of differences and changes reported in this study are generally indicative of a reality that would likely be confirmed with increased sample size. In this report significance will occasionally be indicated. However, lack of its mention should not be interpreted as lack of measurable significance or insignificance, and reflects only the inadequacy of time and resources required to undertake this additional level of statistical analysis.

However, changes differed for males and females, and regionally. In Nova Scotia, committed time increased for men and decreased for women, while contracted time increased for women and decreased for men (Table 1). Free time decreased by about half an hour a day between 1992 and 2005 for both men and women in Nova Scotia, with males and females having about equal amounts free time in both years. This was not the case in the rest of Canada where men had about half an hour more free time per day on average than women (Figure 2).

Figure 2. Free time, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005



Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12, and 19.

Time Stress in Nova Scotia

The degree to which individuals feel time-stressed provides a signal of their success or lack of success in coping with higher workloads and less leisure. Statistics Canada's 1998 and 2005 General Social Surveys collected data on the perception of time stress. For our purposes, respondents whose lives were "quite a bit stressful" or "extremely stressful" are considered here to experience high levels of time stress. Results indicate that this is an issue of particular concern to Nova Scotian women.

In 1998, 16.2% of Nova Scotians and 18.6% of other Canadians aged 15 and older responded yes to seven or more items and were thus deemed to be experiencing high time stress (Table 2)

below). But this disparity was reversed in 2005, with Nova Scotian levels of high time stress rising to 18.3% while they fell to 16.4% in the rest of Canada. The overall Nova Scotian increase was entirely generated by sharply increased levels of time stress among women, with the proportion highly stressed increasing from 17.4% to 22.7%. The male rate of high time stress in Nova Scotia actually fell, as did the rates for both males and females in the rest of Canada. Thus, Nova Scotian women are nearly 70% more likely to be highly time stressed than Nova Scotian men.

Table 2. Share of population indicating high time stress, percentage, Nova Scotia and other Canada, 1998 and 2005

	1998	2005
	%	%
<i>Male</i>		
Nova Scotia	14.7	13.4
Other Canada	15.3	13.9
<i>Female</i>		
Nova Scotia	17.4	22.7
Other Canada	19.4	18.6
<i>Total</i>		
Nova Scotia	16.2	18.3
Other Canada	18.6	16.4

The sharp increase in time stress among Nova Scotian women may be partly due to the fact that they are working considerably longer paid hours than ever before. As seen in Table 1 above, Nova Scotian women, on average, worked seven hours a week longer for pay in 2005 than they did in 1992. Another trend, noted in GPI Atlantic's reports on women's health, is the sharp increase in paid work among single mothers in response to cuts in social assistance payments in the mid-1990s. Since single mothers generally shoulder the entire burden of unpaid household work in their households without the help of a male partner, their levels of time stress are likely to be particularly high when they take on paid work and struggle to juggle the combined demands of paid and unpaid work responsibilities.

Hence, Harvey and Mukhopadhyay (2007) have estimated that more than half of all Canadian single parents, overwhelmingly women, suffer "time poverty," which may be defined as less than the minimum necessary to accomplish basic household tasks, and that 88% of employed single parents with one child, and 98% of those with two children, are time-poor.²

² According to Harvey and Mukhopadhyay, the concept of time poverty is based on the following logic: "Individuals can be money poor, time poor or both. While income is the most used indicator of poverty [. . .] our study focuses on the element of deprivation arising from the time deficit of many working people. The usual poverty threshold is

Examination of leisure activities (below) may provide further insight into the stress differentials indicated above.

Composition of Free Time

Television viewing and socializing in homes (2.25 and 1.28 hours/day, respectively, in Nova Scotia in 2005) dominated the use of free time both in Nova Scotia and in the rest of Canada in 1992, 1998, and 2005 (Figure 3 and Table 3 below). In Nova Scotia in 1992, these activities were followed by “other active leisure” (aside from sports), reading, and active sports—at an average of 38 minutes, 31 minutes, and 26 minutes per day respectively. However, by 2005 the ranking had changed with other active leisure and active sports increasing slightly between 1992 and 2005 while reading declined sharply by more than 30% from an average of 31 minutes to just 21 minutes a day. Reading also declined in the rest of Canada from 29 minutes to 23 minutes a day (Table 3 below). Socializing outside the home (denoted as “other socializing” in Table 3 below) declined by more than a third in Nova Scotia—from an average of 19 minutes a day in 1992 to just 12 minutes a day in 2005.

Composition of Free Time by Sex

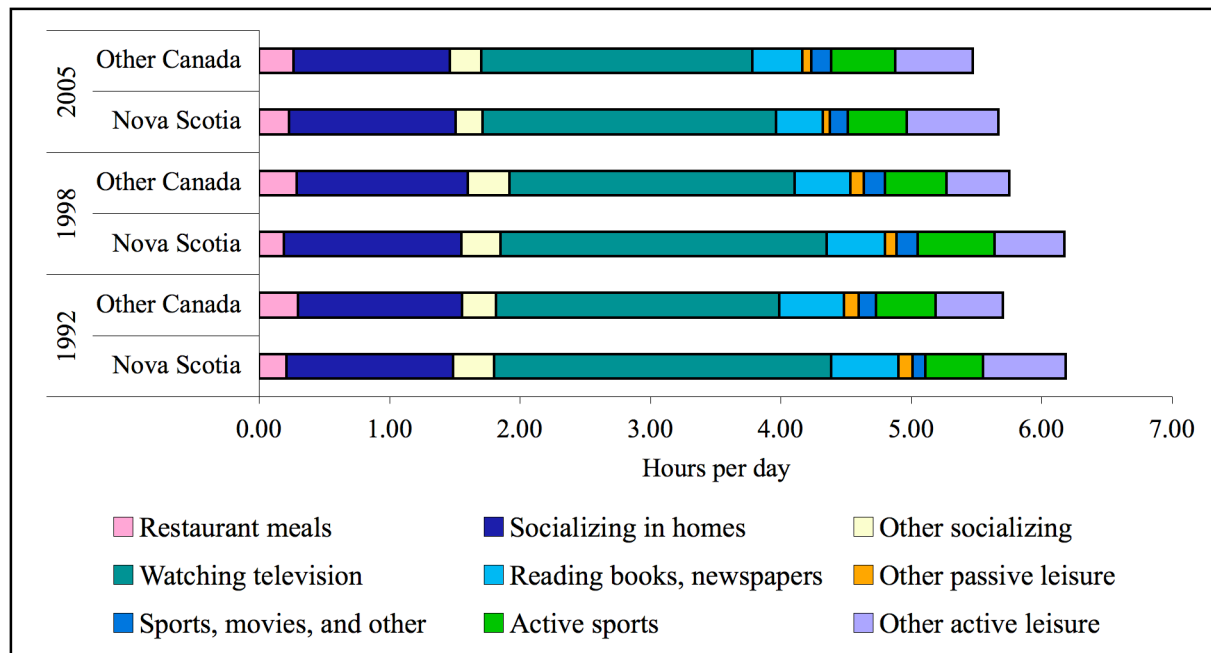
The rank order of free time activities was virtually identical for males and females in Nova Scotia in 2005 (Table 4). The only exception was the ranking of restaurant meals, on which women spent slightly more time than men, and “other socializing” outside the home, which men did slightly more than women (Table 4). But while Nova Scotian men still socialize more outside the home than women, they do so only half as much as they used to—an average of just 14 minutes a day in 2005, compared to 28 minutes a day in 2005. Nova Scotian women spent an average of only 11 minutes a day socializing outside the home in 2005. It must be emphasized again that these results are averaged over a seven-day week, so that if a person socialized once a week for an hour and a half, this would be reported here as 13 minutes a day.

Interestingly, Nova Scotian women saw a much more substantial decline between 1992 and 2005 in passive leisure activities (like reading and watching TV) that tends to take place at home than did men. They also saw a substantial increase in time spent on active sports and activities like going to movies, activities that tend to happen outside the home, while men saw a decline in both of these categories (Table 4 below). In sum, it appears that women traded passive leisure activities for more active activities during this period—a pattern that would be consistent with

calculated as the amount of income to buy the minimum required goods and services from the market. This minimum required purchase is greater for [many time-stressed working people] since they have less time than the average person to produce some goods and services for themselves at home. So, they need money to buy these in the market in order to maintain the same consumption. The income standard must be supplemented to adequately measure actual poverty. Time use data make it possible to establish time requirements and time availability and provide a measure of time poverty.”

the increase in contracted time (paid work) by women and hence their greater amount of time out of the house.

Figure 3. Composition of free time, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005



Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Table 3. Free time activities, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Type of Activity	Nova Scotia			Other Canada		
	1992	1998	2005	1992	1998	2005
	(Hours per day)					
Restaurant meals	0.21	0.19	0.23	0.30	0.29	0.26
Socializing in homes	1.28	1.36	1.28	1.26	1.31	1.20
Other socializing	0.31	0.30	0.20	0.26	0.32	0.24
Watching television	2.58	2.50	2.25	2.17	2.19	2.08
Reading books or newspapers	0.52	0.44	0.36	0.49	0.43	0.38
Other passive leisure	0.11	0.09	0.05	0.11	0.10	0.07
Sports, movies and other	0.10	0.16	0.14	0.13	0.16	0.15
Active sports	0.44	0.59	0.46	0.46	0.47	0.49
Other active leisure	0.63	0.54	0.70	0.52	0.48	0.59
Total	6.18	6.18	5.67	5.70	5.75	5.47

Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19. (0.10 = 6 minutes)

Patterns of leisure use by gender were similar in the rest of Canada, though other Canadian males spent more time in restaurants, socializing, and engaged in active sports than Nova Scotian males, while Nova Scotian men spent more time watching television. Nova Scotian women spent more time than other Canadian women socializing in their homes and engaged in “other active leisure” (Table 4).

Table 4. Free time activities, by sex, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Type of Activity	Male			Female		
	1992	1998	2005	1992	1998	2005
<i>Nova Scotia</i>	(Hours per Day)					
Restaurant meals	0.22	0.21	0.21	0.20	0.18	0.25
Socializing in homes	1.10	1.24	1.04	1.44	1.47	1.50
Other socializing	0.46	0.31	0.23	0.18	0.29	0.18
Watching television	2.65	2.71	2.52	2.51	2.29	2.00
Reading books or newspapers	0.44	0.42	0.31	0.59	0.46	0.40
Other passive leisure	0.11	0.11	0.07	0.10	0.07	0.04
Sports, movies and other	0.13	0.18	0.11	0.07	0.14	0.16
Active sports	0.58	0.81	0.49	0.31	0.38	0.42
Other active leisure	0.49	0.54	0.69	0.76	0.54	0.72
Total	6.20	6.55	5.68	6.17	5.83	5.66
<i>Other Canada</i>						
Restaurant meals	0.32	0.31	0.28	0.29	0.27	0.25
Socializing in homes	1.14	1.21	1.13	1.37	1.40	1.27
Other socializing	0.32	0.33	0.25	0.20	0.31	0.23
Watching television	2.42	2.36	2.22	1.93	2.02	1.94
Reading books or newspapers	0.48	0.39	0.33	0.51	0.46	0.44
Other passive leisure	0.14	0.11	0.07	0.09	0.10	0.06
Sports, movies and other	0.13	0.16	0.15	0.14	0.16	0.15
Active sports	0.58	0.57	0.59	0.34	0.37	0.40
Other active leisure	0.47	0.50	0.67	0.56	0.46	0.52
Total	6.00	5.96	5.70	5.43	5.56	5.25

Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Demographic Context

A number of factors influence how one spends their time. Chief among these are gender, age, and stage in the life cycle. Other factors, many subsumed under age and life cycle, can be identified independently. These include marital status, age of youngest child, work status, living

arrangement in the household, and education. The type of day (e.g., weekday or weekend) clearly also influences patterns of free time use.

Differences between Nova Scotia and the rest of Canada in free time use and in changes in time use patterns over time thus partly reflect demographic differences and changes. In 1992, for example, Nova Scotia had a higher proportion of its population in the 15 to 24 age group than did the rest of Canada (18.7% and 17.7% respectively), but by 2005 it had a smaller proportion in that age group (16.3% vs 16.7%). In 1992, 39.7% of Nova Scotia's population was 45 and older, compared to 39.6% in the rest of Canada—no real difference. But by 2005, 49.8% of Nova Scotians were 45 and older, compared to 47.1% in the rest of Canada. Other notable differences are that Nova Scotians are less likely to live alone (11.8% vs. 13.4%), are more likely to be a childless couple (29.2% vs 26.6%), are more likely to have at least a college degree (48.7% vs 47.4%), and are less likely to be living with their parents (13.5% vs 15.1%) (Table 5 below).

Table 5. Distribution of background characteristics, percentage, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	48.7	48.8	48.7	48.9	49.2	49.3
	Female	51.3	51.2	51.3	51.1	50.8	50.7
Age group	15–24 years	18.7	16.6	16.3	17.7	16.7	16.7
	25–44 years	41.6	39.6	33.9	42.7	40.7	36.2
	45–64 years	25.0	28.4	33.6	25.7	27.9	32.0
	65 + years	14.7	15.4	16.2	13.9	14.7	15.1
Marital status	Married	62.1	60.2	61.5	63.4	61.4	61.5
	Other	37.9	39.8	38.5	36.6	38.6	38.5
Age of youngest child	Under 5 years	12.3	8.8	8.6	13.8	11.8	10.0
	5 to 14 years	17.5	16.0	12.9	15.1	15.8	14.1
	15 to 25 years	11.0	11.2	13.5	9.8	11.8	12.5
	No child/other	59.2	64.0	65.0	61.2	60.6	63.4
Work status	Working at job	45.5	46.1	51.0	53.4	56.4	55.8
	Student	8.5	8.4	10.0	8.9	10.6	9.4
	Retired	10.4	17.1	15.3	13.0	15.5	15.9
	Other	35.6	28.4	23.7	24.7	17.5	18.8
Household	Alone	10.5	13.8	11.8	12.7	13.7	13.4
	Couple only	21.7	27.3	29.2	23.9	24.6	26.6
	Couple with Child <25	35.5	28.4	27.4	34.5	32.3	29.4
	With Parents	14.9	13.9	13.5	14.2	14.2	15.1
	Single Parent with Child <25	5.1	5.1	4.3	3.6	4.4	4.4
Education	Other	12.3	11.4	13.8	10.9	10.9	11.0
	Less than HS Diploma	34.9	29.2	23.7	30.0	27.7	20.0
	HS Diploma/ Other Certification	30.3	29.1	27.6	34.3	34.0	32.7
	College degree +	34.8	41.7	48.7	35.7	38.2	47.4
Type of day	Weekday	71.4	71.4	71.4	71.4	71.4	71.4
	Saturday	14.3	14.3	14.3	14.3	14.3	14.3
	Sunday	14.3	14.3	14.3	14.3	14.3	14.3

Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Between 1992 and 2005, the proportion of Nova Scotians whose main activity was working in a job increased sharply from 45.5% to 51%, while in the rest of Canada it increased much more modestly from 53.5% to 55.8%. This was paralleled by a 12-point decline (from 35.6% to 23.7%) in the proportion of Nova Scotians in the “other work status” category, which encompasses household and child care responsibilities, compared to just a 6-point decline in the rest of Canada (from 24.7% to 18.8%) (Table 5 above).

Demographics and Free Time

These demographic differences and changes influence differences and changes in time use patterns and in use of free time. For example, those 65 and older have considerably more free time than other age groups (more than seven and a half hours a day), while those 25–44 years old (the prime child-rearing years) have the least (4.2–4.5 hours a day). In the latter age group, it is noteworthy that free time dropped considerably from 5.45 hours a day in 1992 to just 4.21 hours a day in 2005 (Table 6 below), reflecting the sharp increase in the proportion of Nova Scotians with jobs noted above. This means that 25–44 year-old Nova Scotians have an average of 80 minutes less free time per day (amounting to nearly nine and a half hours less per week) than they did in the early 1990s.

While time and resources did not permit a correlation of time use patterns by demographic group with levels of time stress, it is likely that this sharp decline in free time for 25–44 year-old Nova Scotians may be reflected in higher stress levels and adverse impacts on quality of life for this age group. Given the dramatic increase in levels of high time stress observed in Table 2 above among Nova Scotian women (from 17.4% to 22.7% between 1998 and 2005), it is reasonable to surmise that the sharp increase in employment by women with children—and particularly among single mothers whose social assistance benefits were reduced in the mid-1990s—may account at least in part for both the decline in free time among 25–44 year-old Nova Scotians and for increases in levels of time stress among Nova Scotian women.

As noted in Table 3 above, Nova Scotians generally have about 12 minutes more free time per day (about an hour and 20 minutes more per week) than other Canadians. As indicated in Table 6 below, the somewhat greater degree of free time in Nova Scotia is also true in most (though not all) demographic categories.

However, in 1992, only females, Nova Scotians aged 25–44, and those (like homemakers) whose work status was other than employed, student, or retired, registered significantly higher free time allocations than their counterparts in the rest of Canada (at the .05 level of significance, denoted by * in Table 6 below). This level of significant difference was also true on weekdays in 1992. In 1998, only weekdays had significantly higher time allocations in Nova Scotia than in the rest of Canada. In 2005, persons aged 45–64 and those with a high school diploma or other certification had significantly more free time in 2005 than their counterparts in the rest of Canada (Table 6 below).

What is most noteworthy in the demographic breakdowns in Table 6 below is that free time declined between 1992 and 2005 for every single demographic group without exception in the rest of Canada. In Nova Scotia, the only group to experience an increase in free time during this period was retired individuals, who saw their free time increase from 7.7 hours per day in 1992 to 8.3 hours in 2005 (Table 6).

Table 6. Time allocation to free time activities, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	6.2	6.55	5.68	6	5.96	5.70
	Female	6.17*	5.83	5.66	5.43	5.56	5.25
Age group	15–24 years	6.76	6.97	6.22	6.06	6.37	5.97
	25–44 years	5.45*	5.17	4.21	4.77	4.78	4.51
	45–64 years	6.06	6.03	5.95*	5.91	5.67	5.28
	65 + years	7.74	8.17	7.59	7.75	7.92	7.64
Marital status	Married	5.66	5.55	5.33	5.31	5.27	5.05
	Other	7.04*	7.12	6.21	6.4	6.52	6.15
Age of youngest child	Under 5 years	4.34	4.75	3.39	4.36	4.07	3.74
	5 to 14 years	5.23	4.32	4.24	4.49	4.48	4.05
	15 to 25 years	6.47	6.34	5.3	5.34	5.29	4.96
	No child/other	6.8	6.81	6.33	6.37	6.5	6.16
Work status	Working at job	4.95	4.85	4.53	4.74	4.79	4.47
	Student	5.64	6.01	5.08	5.64	6.24	5.5
	Retired	7.7	8.35	8.28	8.06	8.21	7.95
	Other	7.47	6.91	6.7	6.66	6.48	6.32
Household	Alone	7.12	7.84	6.92	6.85	6.94	6.67
	Couple only	6.36	6.27	6.11	6.12	6.23	5.97
	Couple with Child <25	5.12	4.74	4.23	4.58	4.44	4.11
	With Parents	7.31	7.01	6.3	6.4	6.71	6.2
	Single Parent with Child <25	6.53	5.18	3.84	5.23	4.66	4.23
Education	Other	6.65	6.95	6.49	6.28	6.29	5.97
	Less than HS Diploma	6.52	6.88	6.23	6.51	6.56	6.44
	HS Diploma/ Other Certification	6.12	6.15	6.12*	5.51	5.67	5.44
	College degree +	5.87	5.58	5.15	5.23	5.27	5.06
Type of day	Weekday	5.49*	5.61*	5.15	5.02	5.13	4.88
	Saturday	7.98	7.9	6.99	7.15	7.31	7.07
	Sunday	7.86	7.27	6.94	7.66	7.32	6.86

Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19. *Significantly different (0.05 level) from the rest of Canada for corresponding years.

Different demographic groups have different needs and preferences for how they spend their free time. We therefore now turn to an analysis of each major free time category by demographic group.

Watching television

Table 7 below shows that the groups spending the most time watching television in Nova Scotia in 2005 were retired persons (3.3 hours a day), those 65 and older (3.43 hours), and people living alone (2.82 hours)—who are clearly often the same people since seniors are the most likely to be retired. Those watching the least TV were students (1.20 hours), individuals 15 to 24 years of age (1.58 hours), and those living with their parents (1.67 hours). Again, many of these are clearly the same people.

As seen in Table 3 above, television watching in Nova Scotia declined by an average of about 20 minutes a day (or two hours and 20 minutes a week) between 1992 and 2005. The declines were sharpest for Nova Scotians 15 to 24 years of age (1.33 hours less per day), those living with their parents (1.38 hours less), students (1.23 hours less), those who were unmarried (0.93 hours less), and women (0.52 hours less). Nova Scotian youth aged 15–24 were therefore watching a full nine hours and 20 minutes less television a week in 2005 than in 1992. By contrast to the overall decline in TV viewing during this period, Nova Scotian parents whose youngest children were between the ages of 15 and 25 years watched an average of 24 minutes a day (or two hours and 48 minutes a week) more television in 2005 than in 1992 (Table 7 below).

Socializing in home

As seen in Table 3 above, socializing at home was the second highest ranking leisure activity in Nova Scotia in 2005, with those aged 15 to 24 years (2.15 hours/day), living with parents (2.07 hours), or not married (1.67 hours) spending more time in this activity than others. Students, the retired, and others not working in a job as their main activity also spent much more time socializing at home (nearly 1.6 hours/day) than those with paid jobs (less than an hour a day). Nova Scotian couples with children (0.73 hours) and those with very young children (under five years of age) (0.77 hours) had the least time to socialize at home.

The greatest increases in socializing at home over the period 1992 to 2005 were registered by Nova Scotian youth 15 to 24 (0.87 hours), those living with their parents (0.67 hours), and students (0.57 hours), and the greatest declines in home socializing time were among couples with children (- 0.37 hours) and individuals over 65 (- 0.32 hours). Not surprisingly, socializing at home was highest on Sundays (2.05 hours) and lowest on weekdays (1.03 hours) (Table 8).

Table 7. Time allocation to watching TV, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	2.65	2.72	2.52	2.42	2.37	2.22
	Female	2.52	2.30	2.00	1.93	2.02	1.93
Age group	15–24 years	2.92	2.37	1.58	2.03	1.93	1.68
	25–44 years	2.17	2.00	1.77	1.82	1.73	1.67
	45–64 years	2.62	2.67	2.50	2.27	2.22	2.13
	65 + years	3.28	3.60	3.43	3.25	3.67	3.38
Marital status	Married	2.32	2.30	2.37	2.12	2.12	2.03
	Other	3.02	2.80	2.08	2.27	2.30	2.15
Age of youngest child	Under 5 years	1.87	1.85	1.77	1.80	1.53	1.37
	5 to 14 years	2.33	1.77	1.77	1.77	1.67	1.52
	15 to 25 years	1.90	2.85	2.30	2.08	2.08	2.08
	No child/other	2.93	2.70	2.40	2.37	2.47	2.32
Work status	Working at job	1.82	1.85	1.92	1.78	1.70	1.63
	Student	2.43	2.12	1.20	1.78	1.93	1.58
	Retired	3.62	3.60	3.30	3.17	3.48	3.38
	Other	3.30	2.88	2.77	2.63	2.57	2.55
Household	Alone	2.57	2.98	2.82	2.55	2.70	2.67
	Couple only	2.63	2.57	2.67	2.43	2.60	2.45
	Couple with Child <25	1.98	2.02	2.02	1.82	1.67	1.57
	With Parents	3.05	2.45	1.67	2.12	2.05	1.82
	Single Parent with Child <25	2.63	1.55	1.18	2.08	1.65	1.53
	Other	3.65	3.42	2.28	2.37	2.53	2.38
	Less than HS Diploma	3.03	3.33	2.72	2.73	2.80	2.77
Education	HS Diploma/ Other Certification	2.65	2.43	2.45	2.10	2.10	2.12
	College degree +	2.03	1.88	1.92	1.73	1.73	1.75
	College degree +	2.03	1.88	1.92	1.73	1.73	1.75
Type of day	Weekday	2.50	2.30	2.12	2.03	2.02	2.00
	Saturday	2.55	3.25	2.70	2.38	2.62	2.17
	Sunday	3.03	2.70	2.48	2.63	2.28	2.33

Source: Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Table 8. Time allocation to socializing at home, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	1.10	1.23	1.05	1.13	1.22	1.13
	Female	1.43	1.47	1.50	1.37	1.40	1.27
Age group	15–24 years	1.28	1.90	2.15	1.53	1.83	1.73
	25–44 years	1.15	1.32	0.95	1.10	1.15	1.05
	45–64	1.32	1.15	1.20	1.28	1.20	1.05
	65 + years	1.57	1.28	1.25	1.30	1.33	1.25
Marital status	Married	1.22	1.17	1.03	1.15	1.12	1.02
	Other	1.37	1.65	1.67	1.45	1.60	1.50
Age of youngest child	Under 5 years	0.92	1.35	0.77	1.10	1.08	0.98
	5 to 14 years	0.88	0.82	0.95	1.00	1.02	0.82
	15 to 25 years	1.82	1.30	0.83	1.17	1.15	1.03
	No child/other	1.37	1.50	1.50	1.37	1.47	1.35
Work status	Working at job	1.05	1.15	0.98	1.07	1.13	1.03
	Student	1.00	2.05	1.57	1.35	1.65	1.52
	Retired	1.47	1.22	1.57	1.40	1.45	1.30
	Other	1.58	1.65	1.58	1.57	1.63	1.45
Household	Alone	1.38	1.70	1.55	1.42	1.47	1.40
	Couple only	1.40	1.38	1.30	1.25	1.22	1.10
	Couple with Child <25	1.10	1.00	0.73	1.03	1.03	0.90
	With Parents	1.40	1.77	2.07	1.48	1.82	1.70
	Single Parent with Child <25	1.53	1.78	1.38	1.42	1.25	1.07
	Other	1.23	1.08	1.27	1.45	1.50	1.38
	Less than HS Diploma	1.33	1.20	1.33	1.33	1.48	1.40
	HS Diploma/Other						
Education	Certification	1.18	1.45	1.40	1.25	1.30	1.18
	College degree +	1.32	1.45	1.18	1.22	1.22	1.12
Type of day	Weekday	1.02	1.22	1.03	0.98	1.03	0.92
	Saturday	1.60	1.82	1.72	1.72	2.07	1.98
	Sunday	2.25	1.60	2.05	2.15	1.88	1.78

Source: Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Other active leisure

In Nova Scotia, the third ranking leisure activity is active leisure other than active sports. Time allocation to other active leisure is highest in Nova Scotia for retired persons and those in “other household” living arrangements (1.2 hours/day), seniors 65 and older (1.05 hours), those with less than a high school diploma (0.92 hours), those like home-makers who did not list work, retired, or student as their main activity (0.97 hours), youth aged 15 to 24 (0.85 hours), and those living with their parents (0.85 hours) (Table 9 below).

Nova Scotians allocating less time than most to other active leisure are those with children under five (0.28 hours), those with children aged 5 to 14 (0.38 hours), couples with children (0.35 hours), those aged 25 to 44 (0.43 hours), and individuals working in a paid job (0.45 hours). These are clearly often the same people—namely middle-aged working parents. Retired Nova Scotians and those listing “other” household living arrangements saw the greatest increases in “other active leisure” between 1992 and 2005 (0.57 and 0.5 hours respectively) (Table 9 below).

Active sports

The highest daily time allocation to active sports in Nova Scotia in 2005 was from students (0.68 hours), those living with their parents (0.57 hours), the retired, youth aged 15 to 24, and parents with a child aged 5 to 14 (0.55 hours), and those in other household arrangements (0.53 hours) (Table 10 below). The least time allocation to active sports came from those with children under five or with children aged 15 to 25 (0.27 hours), and from couples with children (0.37 hours). Between 1992 and 2005, the greatest decline in time allocated to active sports was registered by those living with their parents (- 0.53 hours), youth 15 to 24 years of age (- 0.35 hours), and students (- 0.32 hours)—who are again often the same people. These were sizeable declines of between one-third and one-half. Retired individuals registered a 0.27 hour increase—almost doubling the time they allocated to active sports (Table 10 below).

Reading books and newspapers

Nova Scotians allocating the most leisure time to reading in 2005 were retired individuals (0.98 hours/day), seniors 65 and older (0.97 hours), and those living alone (0.68 hours)—essentially the same individuals. The least time was allocated by youth aged 15 to 24 (0.07 hour), students (0.10 hour), those with children either under five years (0.13 hour) or aged 5 to 14 (0.15 hour), and persons aged 25 to 44 (0.17 hours). It is particularly noteworthy that time allocated to leisure reading increases monotonically with age from 0.07 hours at age 15 to 24 to 0.97 hours at age 65 and older—indicating that seniors spend nearly 14 times as much time as youth reading for pleasure (Table 11 below).

As noted in Table 3 above, leisure time reading declined by an average of about 10 minutes a day or 70 minutes a week in Nova Scotia between 1992 and 2005. The sharpest declines were registered by Nova Scotians with children aged 15 to 25 and students (0.37 hours less a day), those living alone (0.32 hours less), couples without children (- 0.27 hours), and those aged 25 to 44 (- 0.25 hours). The declines were primarily registered on Saturdays and weekdays with virtually no change in leisure time reading on Sundays (Table 11 below), indicating that increases in paid work likely contributed to squeezing out reading time.

Table 9. Time allocation to other active leisure, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	0.50	0.53	0.68	0.47	0.50	0.67
	Female	0.77	0.53	0.72	0.57	0.47	0.52
Age group	15–24 years	0.47	0.50	0.85	0.43	0.53	0.90
	25–44 years	0.48	0.42	0.43	0.33	0.37	0.43
	45–64 years	0.83	0.65	0.73	0.63	0.48	0.53
	65 + years	0.93	0.68	1.05	0.97	0.78	0.77
Marital status	Married	0.62	0.50	0.67	0.50	0.45	0.50
	Other	0.67	0.58	0.77	0.55	0.53	0.75
Age of youngest child	Under 5 years	0.23	0.40	0.28	0.28	0.27	0.28
	5 to 14 years	0.48	0.37	0.38	0.38	0.32	0.35
	15 to 25 years	0.98	0.63	0.77	0.47	0.50	0.50
	No child/other	0.70	0.58	0.80	0.62	0.57	0.72
Work status	Working at job	0.37	0.33	0.45	0.30	0.35	0.43
	Student	0.33	0.37	0.62	0.45	0.52	0.95
	Retired	0.63	0.88	1.20	0.95	0.90	0.83
	Other	1.05	0.67	0.97	0.80	0.57	0.68
Household	Alone	1.12	0.70	0.75	0.68	0.55	0.65
	Couple only	0.58	0.67	0.77	0.63	0.57	0.63
	Couple with Child <25	0.55	0.42	0.35	0.37	0.33	0.35
	With Parents	0.53	0.47	0.85	0.47	0.60	0.97
	Single Parent with Child <25	0.47	0.55	0.30	0.40	0.30	0.42
	Other	0.70	0.42	1.20	0.67	0.53	0.63
	Less than HS						
	Diploma	0.90	0.62	0.92	0.70	0.55	0.73
Education	HS Diploma/Other Certification	0.48	0.58	0.72	0.48	0.52	0.58
	College degree +	0.50	0.40	0.57	0.40	0.42	0.53
	Weekday	0.53	0.47	0.73	0.47	0.45	0.57
Type of day	Saturday	1.00	0.97	0.58	0.58	0.55	0.65
	Sunday	0.77	0.48	0.68	0.73	0.58	0.67

Source: Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Table 10. Time allocation to active sports, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	0.58	0.82	0.48	0.58	0.57	0.60
	Female	0.32	0.38	0.42	0.33	0.37	0.40
Age group	15–24 years	0.90	1.03	0.55	0.67	0.65	0.62
	25–44 years	0.47	0.48	0.48	0.42	0.47	0.48
	45–64 years	0.18	0.43	0.42	0.43	0.43	0.45
	65 + years	0.22	0.68	0.42	0.37	0.40	0.52
Marital Status	Married	0.30	0.52	0.42	0.40	0.43	0.47
	Other	0.68	0.72	0.53	0.57	0.53	0.53
Age of youngest child	Under 5 years	0.28	0.45	0.27	0.35	0.43	0.45
	5 to 14 years	0.47	0.48	0.55	0.37	0.40	0.47
	15 to 25 years	0.17	0.35	0.27	0.42	0.40	0.35
	No child/other	0.52	0.68	0.50	0.52	0.52	0.53
Work status	Working at job	0.37	0.50	0.37	0.42	0.43	0.45
	Student	1.00	0.55	0.68	0.73	0.75	0.53
	Retired	0.28	0.60	0.55	0.53	0.48	0.62
	Other	0.45	0.75	0.50	0.42	0.47	0.52
Household	Alone	0.30	0.65	0.50	0.43	0.47	0.47
	Couple only	0.27	0.50	0.43	0.43	0.47	0.53
	Couple with Child <25	0.32	0.43	0.37	0.38	0.43	0.43
	With Parents	1.10	1.13	0.57	0.78	0.72	0.65
	Single Parent with Child <25	0.48	0.33	0.42	0.28	0.38	0.38
	Other	0.43	0.58	0.53	0.42	0.35	0.43
	Less than HS						
	Diploma	0.37	0.80	0.45	0.52	0.53	0.52
Education	HS						
	Diploma/Other Certification	0.52	0.57	0.37	0.43	0.42	0.47
	College degree +	0.42	0.45	0.52	0.43	0.50	0.50
	Weekday	0.42	0.52	0.42	0.38	0.42	0.43
Type of day	Saturday	0.63	0.55	0.53	0.58	0.63	0.62
	Sunday	0.37	0.97	0.53	0.68	0.60	0.67

Source: Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Table 11. Time allocation to reading, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	0.43	0.42	0.32	0.48	0.40	0.33
	Female	0.58	0.47	0.40	0.52	0.45	0.43
Age group	15–24 years	0.23	0.08	0.07	0.28	0.17	0.15
	25–44 years	0.42	0.32	0.17	0.35	0.27	0.20
	45–64	0.53	0.47	0.40	0.58	0.53	0.43
	65 + years	1.15	1.15	0.97	1.00	0.97	0.97
Marital status	Married	0.50	0.47	0.32	0.48	0.43	0.38
	Other	0.53	0.40	0.42	0.52	0.42	0.37
Age of youngest child	Under 5 years	0.25	0.33	0.13	0.27	0.20	0.13
	5 to 14 years	0.35	0.30	0.15	0.33	0.30	0.25
	15 to 25 years	0.70	0.47	0.33	0.53	0.48	0.37
	No child/other	0.58	0.50	0.43	0.58	0.50	0.45
Work status	Working at job	0.38	0.32	0.22	0.38	0.32	0.23
	Student	0.47	0.12	0.10	0.25	0.20	0.18
	Retired	1.03	1.00	0.98	1.08	1.02	0.98
	Other	0.55	0.38	0.35	0.52	0.42	0.42
Household	Alone	1.00	0.75	0.68	0.73	0.65	0.63
	Couple only	0.70	0.55	0.43	0.65	0.60	0.55
	Couple with Child <25	0.40	0.33	0.20	0.35	0.32	0.23
	With Parents	0.33	0.10	0.22	0.33	0.22	0.18
	Single Parent with Child <25	0.50	0.18	0.15	0.40	0.27	0.22
	Other	0.33	0.62	0.43	0.55	0.45	0.40
	Less than HS Diploma	0.35	0.35	0.35	0.42	0.35	0.37
Education	HS Diploma/Other Certification	0.47	0.38	0.37	0.47	0.43	0.33
	College degree +	0.72	0.53	0.35	0.58	0.48	0.42
	Weekday	0.48	0.45	0.30	0.50	0.42	0.37
Type of day	Saturday	0.68	0.45	0.45	0.45	0.52	0.40
	Sunday	0.53	0.43	0.52	0.50	0.43	0.42

Source: Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Other socializing

“Other socializing” includes gatherings, parties, etc., at other than a restaurant or residential setting (which are classified separately). The Nova Scotians who allocated the most time to other socializing in Nova Scotia in 2005 were youth aged 15 to 24 (0.47 hours/day), those living with their parents (0.40 hours per day), students (0.33 hours), those with high school diplomas or other certification (0.32 hours), and unmarried individuals (0.28 hours)—who are often the same people—followed by retired persons and persons with other household living arrangements (0.27

hours/day). The lowest time allocations were recorded by parents with children either under the age of five or between the ages of 15 and 25 (0.08 hour), persons aged 25–44 (0.10 hour), seniors aged 65 and older and couples with children (0.13 hours) (Table 12 below).

The largest declines in other socializing between 1992 and 2005 were registered by Nova Scotians with children under five (- 0.35 hours), individuals with a paid job (- 0.27 hours), and males (-0.24 hours). Particularly noteworthy is a sharp decline of 0.62 hours in other socializing on Saturdays from a high of a 0.87 hours/day in 1992 to just 0.25 hours/day in 2005 (Table 12).

Table 12. Time allocation to other socializing activities, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	0.47	0.32	0.23	0.32	0.33	0.25
	Female	0.18	0.30	0.18	0.20	0.30	0.23
Age group	15–24 years	0.57	0.53	0.47	0.43	0.53	0.37
	25–44 years	0.28	0.22	0.10	0.23	0.30	0.22
	45–64 years	0.20	0.25	0.22	0.18	0.23	0.18
	65 + years	0.25	0.37	0.13	0.23	0.28	0.28
Marital status	Married	0.30	0.20	0.15	0.20	0.23	0.20
	Other	0.33	0.45	0.28	0.37	0.45	0.33
Age of youngest child	Under 5 years	0.43	0.02	0.08	0.22	0.20	0.13
	5 to 14 years	0.27	0.23	0.20	0.18	0.23	0.18
	15 to 25 years	0.25	0.30	0.08	0.17	0.17	0.18
	No child/other	0.32	0.35	0.25	0.30	0.38	0.28
Work status	Working at job	0.42	0.27	0.15	0.25	0.30	0.23
	Student	0.17	0.43	0.33	0.35	0.47	0.30
	Retired	0.38	0.40	0.27	0.28	0.30	0.27
	Other	0.20	0.25	0.23	0.25	0.30	0.23
Household	Alone	0.25	0.38	0.20	0.28	0.42	0.32
	Couple only	0.35	0.23	0.17	0.20	0.27	0.23
	Couple with Child <25	0.32	0.15	0.13	0.18	0.20	0.17
	With Parents	0.55	0.62	0.40	0.52	0.52	0.35
	Single Parent with Child <25	0.22	0.58	0.15	0.20	0.32	0.17
	Other	0.05	0.22	0.27	0.28	0.42	0.30
	Less than HS Diploma	0.15	0.33	0.15	0.28	0.32	0.23
Education	HS Diploma/Other						
	Certification	0.40	0.28	0.32	0.25	0.35	0.30
	College degree +	0.40	0.28	0.17	0.27	0.30	0.22
Type of day	Weekday	0.22	0.27	0.18	0.20	0.27	0.18
	Saturday	0.87	0.30	0.25	0.57	0.25	0.48
	Sunday	0.23	0.47	0.27	0.22	0.70	0.28

Source: Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Restaurant meals

In 2005, Nova Scotians with a youngest child aged 15 to 25 years allocated the greatest amount of time to restaurant meals (0.42 hours), followed by those in “other household” living arrangements (0.33 hours), youth aged 15 to 24 years (0.32 hours), students, and individuals living with their parents (0.28 hours), and retired individuals (0.27 hours). About twice as much time is allocated to restaurant meals on Saturdays (0.40 hours) as on weekdays (0.20 hours) or Sundays (0.23 hours). The least time spent on restaurant meals is registered by those with children either under the age of five (0.07 hour) or aged 5 to 14 (0.08 hour), seniors aged 65 and over (0.15 hours), and those in households with couples only (0.18 hours) (Table 13).

Time spent on restaurant meals by retired individuals increased monotonically from 1992 (0.07 hours) through 1998 (0.20 hours) to 2005 (0.27 hours). Students and those living with their parents also spent more time on restaurant meals in 2005 than in 1992 (up by 0.15 hours and 0.17 hours respectively). Over the period 1992 to 2005, time allocated to restaurant meals increased by 0.17 hours on Saturday and declined by 0.12 hours per day on Sundays (Table 13 below).

Sports, movies, and other

The Nova Scotians who spent the most time attending sports events, going to movies, and related activities were those with children aged 15 to 25 (0.30 hours/day), students (0.23 hours), those living with their parents (0.22 hours), youth aged 15 to 24 and couples with children (each 0.20 hours). Those allocating the least time to sports events, movies, and related activities were those with children under five years old (0.02 hour), seniors 65 and older, the retired, and those whose main activity was paid work (each 0.05 hour), and couples without children (0.07 hour).

As seen in Table 3 above, Nova Scotians generally spent more time on sports events, movies and related activities in 2005 than in 1992. The largest increases were recorded by students (up 0.23 hours/day), individuals aged 45 to 64, and individuals living with their parents (each up 0.13 hours). During the 1992–2005 period, the time allocated to sports events, movies, and other such activities increased on weekdays and Saturdays and declined on Sundays (Table 14).

Table 13. Time allocation to restaurant meals, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

		Nova Scotia			Other Canada		
Characteristic		1992	1998	2005	1992	1998	2005
Sex	Male	0.22	0.22	0.22	0.32	0.32	0.28
	Female	0.20	0.18	0.25	0.28	0.27	0.25
Age group	15–24 years	0.17	0.32	0.32	0.28	0.30	0.25
	25–44 years	0.25	0.17	0.20	0.30	0.28	0.25
	45–64 years	0.22	0.20	0.27	0.30	0.32	0.28
	65 + years	0.13	0.10	0.15	0.32	0.27	0.25
Marital Status	Married	0.20	0.15	0.22	0.28	0.27	0.27
	Other	0.22	0.27	0.27	0.33	0.33	0.27
Age of youngest child	Under 5 years	0.20	0.05	0.07	0.23	0.18	0.23
	5 to 14 years	0.20	0.15	0.08	0.25	0.25	0.22
	15 to 25 years	0.38	0.28	0.42	0.33	0.30	0.27
	No child/other	0.18	0.20	0.25	0.32	0.32	0.28
Work status	Working at job	0.35	0.20	0.23	0.32	0.32	0.28
	Student	0.13	0.32	0.28	0.30	0.30	0.20
	Retired	0.07	0.20	0.27	0.32	0.30	0.30
	Other	0.10	0.13	0.20	0.25	0.23	0.23
Household	Alone	0.25	0.20	0.22	0.40	0.37	0.32
	Couple only	0.23	0.13	0.18	0.32	0.30	0.30
	Couple with Child <25	0.22	0.18	0.23	0.27	0.23	0.23
	With Parents	0.12	0.33	0.28	0.28	0.33	0.25
	Single Parent with Child <25	0.53	0.17	0.15	0.30	0.25	0.25
	Other	0.13	0.20	0.33	0.32	0.28	0.23
	Less than HS						
	Diploma	0.12	0.10	0.17	0.28	0.23	0.22
Education	HS						
	Diploma/Other Certification	0.23	0.22	0.20	0.28	0.28	0.25
	College degree						
	+	0.30	0.25	0.28	0.35	0.35	0.30
Type of day	Weekday	0.18	0.18	0.20	0.25	0.25	0.22
	Saturday	0.23	0.25	0.40	0.47	0.33	0.38
	Sunday	0.35	0.17	0.23	0.37	0.43	0.35

Source: Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Table 14. Time allocation to sports events, movies, and other, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	0.13	0.18	0.12	0.13	0.17	0.15
	Female	0.07	0.13	0.15	0.13	0.17	0.15
Age group	15–24 years	0.08	0.17	0.20	0.25	0.27	0.22
	25–44 years	0.15	0.18	0.08	0.13	0.15	0.15
	45–64 years	0.07	0.17	0.20	0.10	0.17	0.15
	65 + years	0.02	0.07	0.05	0.05	0.07	0.08
Marital status	Married	0.13	0.20	0.12	0.12	0.15	0.15
	Other	0.05	0.10	0.17	0.17	0.18	0.17
Age of youngest child	Under 5 years	0.08	0.25	0.02	0.08	0.12	0.13
	5 to 14 years	0.17	0.17	0.13	0.15	0.23	0.22
	15 to 25 years	0.22	0.12	0.30	0.12	0.15	0.13
	No child/other	0.07	0.15	0.12	0.13	0.15	0.13
Work status	Working at job	0.13	0.20	0.18	0.13	0.17	0.17
	Student	0.00	0.03	0.23	0.27	0.27	0.17
	Retired	0.03	0.22	0.05	0.07	0.10	0.10
	Other	0.10	0.12	0.05	0.12	0.15	0.15
Household	Alone	0.03	0.17	0.13	0.12	0.13	0.10
	Couple only	0.08	0.17	0.07	0.10	0.10	0.12
	Couple with Child <25	0.17	0.17	0.20	0.13	0.17	0.18
	With Parents	0.08	0.00	0.22	0.27	0.27	0.22
	Single Parent with Child <25	0.03	0.02	0.10	0.07	0.15	0.15
	Other	0.02	0.38	0.12	0.10	0.13	0.13
	Less than HS Diploma	0.12	0.02	0.10	0.10	0.13	0.15
Education	HS Diploma/Other Certification	0.10	0.13	0.20	0.15	0.17	0.15
	College degree +	0.08	0.28	0.12	0.13	0.18	0.17
Type of day	Weekday	0.05	0.10	0.10	0.08	0.12	0.10
	Saturday	0.22	0.23	0.30	0.28	0.23	0.28
	Sunday	0.27	0.42	0.15	0.23	0.32	0.27

Source: Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Other passive leisure

The top time allocations in 2005 to passive leisure activities other than television and reading were from retired Nova Scotians and seniors aged 65 and over (0.15 hours/day)—who are clearly often the same individuals, from those living alone (0.13 hours) and from those with less than a high school education (0.10 hours). The lowest time allocations were from those with children and those aged 25 to 44 (each 0.02 hours). Other passive leisure activities receive the most time on Saturdays and the least time on Sundays.

As seen in Table 3 above, time spent on other passive leisure dropped by more than half between 1992 and 2005, and this is reflected in declines for virtually every demographic group. For example, there was a clear monotonic decline in other passive leisure by Nova Scotians living with their parents (from 0.15 hours in 1992 to 0.12 hours in 1998 to just 0.05 hours in 2005). The largest absolute declines were for those living alone (- 0.13 hours/day), and for those aged 15 to 24, not married, living with parents, and single parents (each 0.1 hour less/day) (Table 15). In 2005 single parents had no “other passive leisure.”

Table 15. Time allocation to other passive leisure, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	0.12	0.12	0.07	0.13	0.10	0.07
	Female	0.10	0.07	0.03	0.08	0.10	0.07
Age group	15–24 years	0.15	0.08	0.05	0.13	0.15	0.05
	25–44 years	0.07	0.07	0.02	0.07	0.07	0.03
	45–64 years	0.08	0.05	0.05	0.10	0.08	0.07
	65 + years	0.20	0.23	0.15	0.25	0.18	0.15
Marital status	Married	0.07	0.05	0.05	0.08	0.07	0.05
	Other	0.17	0.17	0.07	0.18	0.15	0.08
Age of youngest child	Under 5 years	0.07	0.07	0.00	0.03	0.05	0.02
	5 to 14 years	0.08	0.03	0.03	0.05	0.07	0.03
	15 to 25 years	0.05	0.03	0.02	0.07	0.05	0.05
	No child/other	0.13	0.12	0.08	0.15	0.13	0.08
Work status	Working at job	0.08	0.05	0.03	0.08	0.07	0.03
	Student	0.12	0.03	0.07	0.15	0.15	0.05
	Retired	0.17	0.22	0.13	0.27	0.18	0.15
	Other	0.13	0.10	0.05	0.10	0.15	0.08
Household	Alone	0.22	0.30	0.08	0.23	0.17	0.13
	Couple only	0.12	0.05	0.08	0.12	0.10	0.08
	Couple with Child <25	0.07	0.05	0.02	0.05	0.05	0.03
	With Parents	0.15	0.12	0.05	0.15	0.17	0.05
	Single Parent with Child <25	0.10	0.03	0.00	0.08	0.08	0.03
	Other	0.12	0.03	0.07	0.13	0.10	0.07
	Less HS Diploma	0.13	0.13	0.05	0.15	0.15	0.10
Education	HS Diploma/Other Certification	0.10	0.12	0.07	0.10	0.08	0.05
	College degree +	0.10	0.05	0.05	0.10	0.10	0.07
	Weekday	0.10	0.12	0.05	0.12	0.10	0.07
Type of day	Saturday	0.18	0.07	0.07	0.10	0.13	0.07
	Sunday	0.07	0.03	0.02	0.15	0.10	0.08

Source: Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

3. Changing Leisure Patterns

During the 1992–2005 period, leisure activities underwent significant changes in Nova Scotia and in the rest of Canada, both in terms of the mix of activities in which individuals engaged and in the demographics of participants. Priorities and preferences changed for different groups in response to demographic and technological shifts, changes in the labour market, and cultural factors. During this period, for example, the population aged; home computers and Internet access became the norm; women strengthened their labour market position, worked longer hours, and overtook men in many spheres of educational attainment; single mothers entered the labour force in unprecedented numbers as social security payments were reduced in response to cuts in federal transfer payments to the provinces; and unemployment rates dropped drastically as Canada shifted from recession in the early 1990s to a sustained boom period.

All these and other factors had a marked impact on leisure activities and on the use and allocation of free time between 1992 and 2005. This preliminary report on Nova Scotians' use of free time, however, is primarily descriptive—and confines itself simply to detailing how much time was spent by which groups on which activities, and how those patterns changed over time. This is a necessary first step. But as the first of its kind in the GPI series, this initial report on free time use does not attempt any explanatory analysis, with the exception of a few occasional passing remarks that may constitute hypotheses for future investigation. We have not here attempted any systematic correlation between changes in free time patterns on the one hand and the kind of economic, social, and cultural changes outlined above. However, it is hoped that this initial report will trigger precisely that kind of future research which—since it goes far beyond market economic analysis—has hitherto been sadly neglected and yet goes to the heart of the kind of linkages and connections that the GPI is intended to elucidate.

In this descriptive analysis, we begin simply by noting some of the major differences between changes that occurred in various types of leisure and free time activities among Nova Scotians and Canadians from 1992 to 2005. However, even in a purely descriptive analysis, there are dangers of misinterpretation, and results may be quite differently understood depending on whether changes in time use are viewed relatively (in percentage changes over time) or from a more absolute perspective that considers actual hours spent on different activities.

For example, from a purely relative point of view, the 1992, 1998, and 2005 General Social Survey Time Use results seem to point to a shift in both Nova Scotia and the rest of Canada from at least some kinds of passive leisure activities to more active pursuits, though we will see that this conclusion must be modified in important ways. Thus, among the different standard categories of free time use employed by Statistics Canada, the greatest relative drop in leisure time use is seen to be in the “other passive leisure” category, where time spent in 2005 was only 45% of its 1992 level in Nova Scotia and 64% in the rest of Canada (Figure 4 below). Time spent on the specific passive leisure activities examined in the Time Use Surveys—notably watching television and reading—also declined between 1992 and 2005, the former by 13% and the latter by more than 30%.

By contrast, more active pursuits like going out to sports events, movies and other such activities showed the greatest overall relative gains among all categories of free time—with time spent on these pursuits in 2005 at 140% of 1992 levels in Nova Scotia and 115% in the rest of Canada. Time spent in 2005 on active sports, restaurant meals, and “other active leisure” activities was above 1992 levels in Nova Scotia in all these more “active” categories of free time use (Figure 4 below). With the exception of time spent on restaurant meals, which dipped nationwide, the rest of Canada generally mirrored the Nova Scotia experience in this apparent shift from more passive to more active leisure time pursuits.

Based on the relative rates of increase for different activities in Figure 4 below, therefore, it might be justifiably concluded that—overall—both Nova Scotia and Canada ended up with a somewhat more active population in 2005 than in 1992, since all categories of passive leisure showed a decline in time use while more active pursuits generally showed an increase. From an “active living” perspective, these trends might reasonably be interpreted as “good news.”

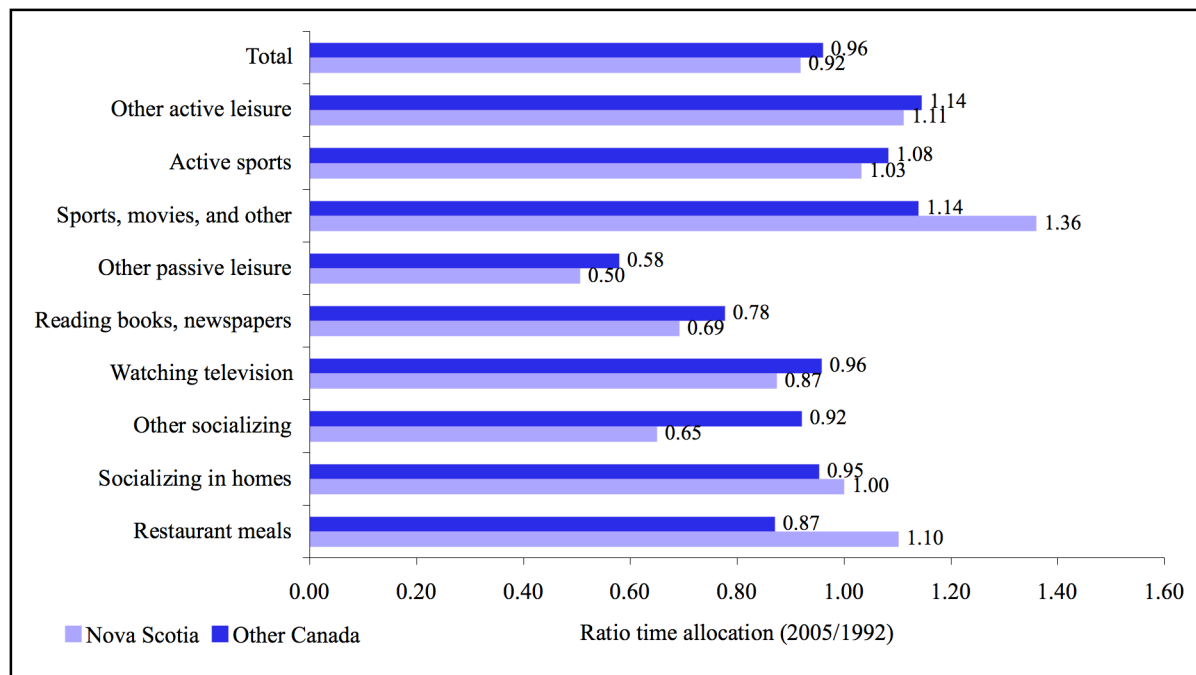
However, there is reason to be cautious in this conclusion, as a comparison of actual hours of time use by category indicates. Thus the “other passive leisure” category that shows the largest relative decline over time constituted only 1.8% of total free time use in 1992, 1.5% in 1998, and 0.9% in 2005. The active leisure category with the fastest relative rate of increase—going out to sports events, movies, etc.—constituted just 1.6% of leisure time use in 1992, 2.6% in 1998, and 2.5% in 2005. By contrast, television viewing (a passive activity) remains by far the largest single component of leisure time use—constituting fully 41.7% of all leisure time in 1992, 40.5% in 1998, and 39.7% in 2005 (all percentages derived from Table 3 above).

It is encouraging that more time was spent on active sports in 2005 than in 1992. But, as a proportion of total leisure time, active sports increased from 7.1% of total free time in 1992 to 9.5% in 1998, before falling back to 8.1% in 2005—still somewhat higher than 1992 levels as Figure 4 demonstrates, but down more sharply since 1998 than the residual increase since 1992.

As well, it must be recalled that total leisure time declined by more than half an hour a day or 3.6 hours a week in Nova Scotia between 1992 and 2005, and by 14 minutes a day or more than 1.5 hours a week in the rest of Canada. When actual time spent on active sports is considered, it is seen that Nova Scotians, on average, engage in active sports only a miniscule 1.2 minutes a day more than they did in 1992 (equivalent to an increase of just 8.4 minutes a week). But they participate in active sports 7.8 minutes a day *less* than they did in 1998, equivalent to a drop of nearly an hour a week (Table 3 above). The overall gain is similarly tiny in the rest of Canada, where engagement in active sports is only 1.8 minutes a day longer in 2005 than it was in 1992.

In sum, it is important to look at relative rates of increase and decrease over time in different categories in the context of the actual time spent on different activities and of the overall decline in free time, and also as a proportion of total time use. From that perspective, it may be premature to conclude that Nova Scotians and Canadians are becoming more active.

Figure 4. Free time in 2005 as percent of free time in 1992, Nova Scotia and other Canada



Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

When changes over time are considered by demographic category, which has been a key focus of the analysis in this report, it is seen that—among all demographic groups—only retired Nova Scotians had more total free time (leisure) in 2005 than they had in 1992—up by a modest 7.6%. In the rest of Canada, not a single group had more free time in 2005 than in 1992 (Figure 6 and Table 16 below). In other words, for all subpopulations represented in Figures 5 and 6 and in Table 16, with the exception of retired Nova Scotians, free time in 2005 stood below 1992 levels.

Most notably, Nova Scotian single parents saw their free time drop by more than 40% between 1992 and 2005—from 6.53 hours per day in 1992 to just 3.8 hours a day in 2005. This is likely related to the dramatic increase in labour force participation by Nova Scotian single mothers in response to major reductions in social service payments in the mid-1990s following the massive cuts in federal transfers to the provinces that began in 1993. The time use evidence examined here indicates that the improved employment prospects and consequent decline in income poverty among Nova Scotian single mothers may have been replaced by sharp increases in “time poverty”—an issue examined in greater depth in GPI Atlantic’s household work and women’s health reports.³ Single parents in the rest of Canada suffered a more modest loss, and in 2005 had about 91% of the free time they had in 1992 (Table 16 and Figure 6 below).

³ Available respectively at http://www.gpiatlantic.org/releases/pr_landcapacity.htm and <http://www.gpiatlantic.org/pdf/health/womens/womensvol1.pdf>.

Two other large losers of free time in Nova Scotia in the 1992–2005 period were individuals aged 25 to 44, whose daily free time fell from 5.5 hours in 1992 to 4.2 hours in 2005, and parents whose youngest child was under five years of age, whose daily free time fell from 4.3 hours in 1992 to just 3.4 hours in 2005. Clearly, there is considerable overlap between these groups, which—to some extent—represent the same people. For example, a working single mother aged 25–44 with an infant or toddler would be represented in each of these three categories.

As seen in Table 6 above, Nova Scotian single parents and parents of children under 5 have less free time (3.8 hours/day and 3.4 hours/day respectively) than any other demographic group in the province. It must also be noted that these recorded losses are not insignificant, with single parents losing nearly 19 hours a week of free time, middle aged Nova Scotians aged 25–44 losing nine hours of free time each week, and parents of infants and toddlers losing about six and a half hours a week. Parents of very young children in Nova Scotia now have less than 24 hours a week of free time for all leisure activities combined, including television, socializing, reading, going to a movie, eating out, sports, and more.

While the free time losses for Nova Scotian single parents, those 25–44, and parents of very young children were extreme, Table 3 above and Table 16 and Figures 5 and 6 below indicate that free time levels in Nova Scotia fell by an average of 8.3% between 1992 and 2005 across the various demographic groups, though more for some groups than for others. Thus, parents with children living at home lost more free time than those without children, middle-aged and younger Nova Scotians lost more free time than older Nova Scotians, and the highly educated lost more free time than those with less education. It is also noteworthy that considerably more free time was lost on weekends than on weekdays—indicating that weekends are no longer the preserve of free time that they once were when the Sabbath was “holy.”

When absolute hours of free time are considered, as in Figures 7 to 10 below, what stands out is the substantial amount of free time still available to seniors 65 years and older, those with no children at home, and retired persons. The absolute hours also indicate that there were some very significant changes over time for some demographic groups while there was virtually no change for others. Four demographic groups in Nova Scotia experienced an hour or more decline in daily free time between 1992 and 2005—a drop of 1.24 hours/day for those aged 25 to 44 (Figure 7), of 1.17 hours for those with children aged 15 to 25 (Figure 8), of just over an hour for Nova Scotians living with their parents (Figure 10), and—most drastically—of 2.69 hours daily for single parents (Figure 10). By any standard, these are significant declines in free time. As noted, there is considerable overlap among some groups—for example, between individuals aged 25 to 44 and those with children, and between retirees and those aged 65 and older. As noted, only one group of Nova Scotians—retirees—increased their free time between 1992 and 2005—by 35 minutes a day or four hours/week, from 54 hours a week to 58 hours a week (8 hours and 17 minutes a day) (Figure 9).

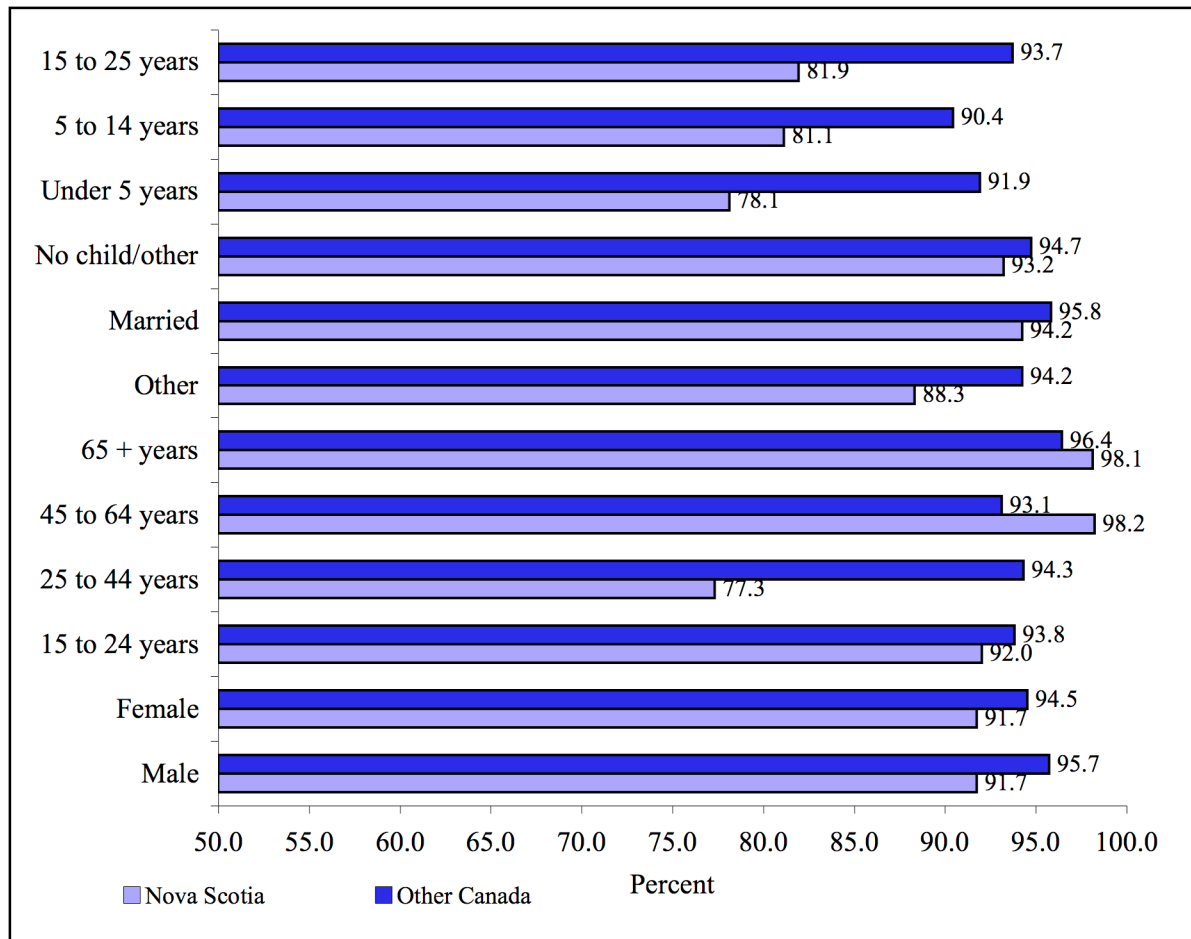
If free time does indeed have *value*—a basic premise in the Genuine Progress Index—then these measured losses in free time should be counted as real losses in value, and as declines in one key dimension of human capital. While such values and losses are currently invisible and uncounted in conventional accounting systems and GDP-based measures of progress, a substantial loss in

free time reflects not only a direct loss in quality of life and a cause of time stress, but also an indirect threat to health, economic productivity, and human wellbeing. This is especially true when absolute levels of free time sink as low as they now are for single parents and parents of very young children—where they are actually characterized as reflecting “time poverty.” Conversely, the increased free time available to retired Nova Scotians may be regarded as an appreciation of a valuable human capital asset, providing the opportunity for greater freedom, options, and choice of leisure activities.

Table 16. Free time in 2005 as percent of free time in 1992, Nova Scotia and other Canada

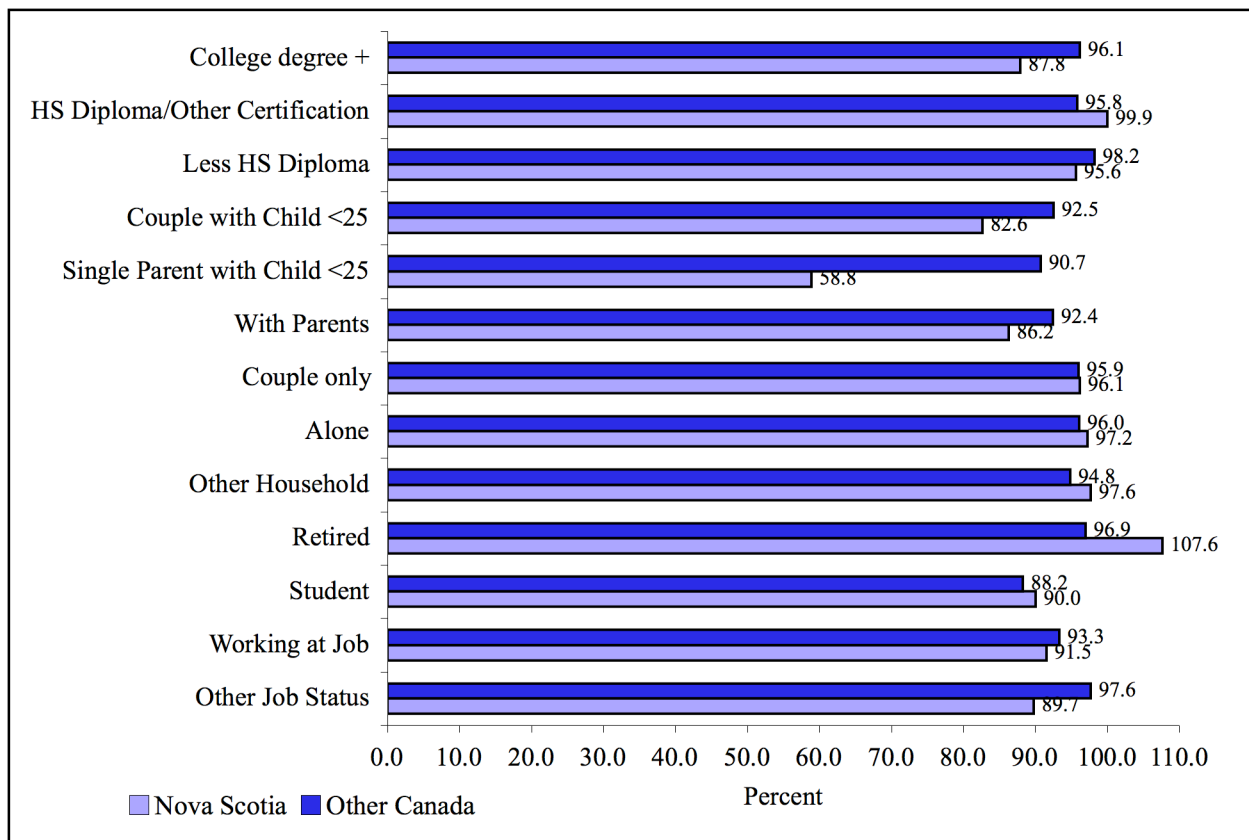
Characteristic	Nova Scotia	Other Canada
	%	%
Male	91.7	95.7
Female	91.7	94.5
15–24 years	92.0	93.8
25–44 years	77.3	94.3
45–64 years	98.2	93.1
65 + years	98.1	96.4
Married	94.2	95.8
Other	88.3	94.2
Under 5 years	78.1	91.9
5 to 14 years	81.1	90.4
15 to 25 years	81.9	93.7
No child/other	93.2	94.7
Working at job	91.5	93.3
Student	90.0	88.2
Retired	107.6	96.9
Other	89.7	97.6
Alone	97.2	96.0
Couple only	96.1	95.9
Couple with Child <25	82.6	92.5
With Parents	86.2	92.4
Single Parent with Child <25	58.8	90.7
Other	97.6	94.8
Less HS Diploma	95.6	98.2
HS Diploma/Other Certification	99.9	95.8
College degree +	87.8	96.1
Weekday	93.9	95.1
Saturday	87.6	96.6
Sunday	88.3	93.6

Figure 5. Free time in 2005 as percent of free time in 1992, by select demographics, Nova Scotia and other Canada



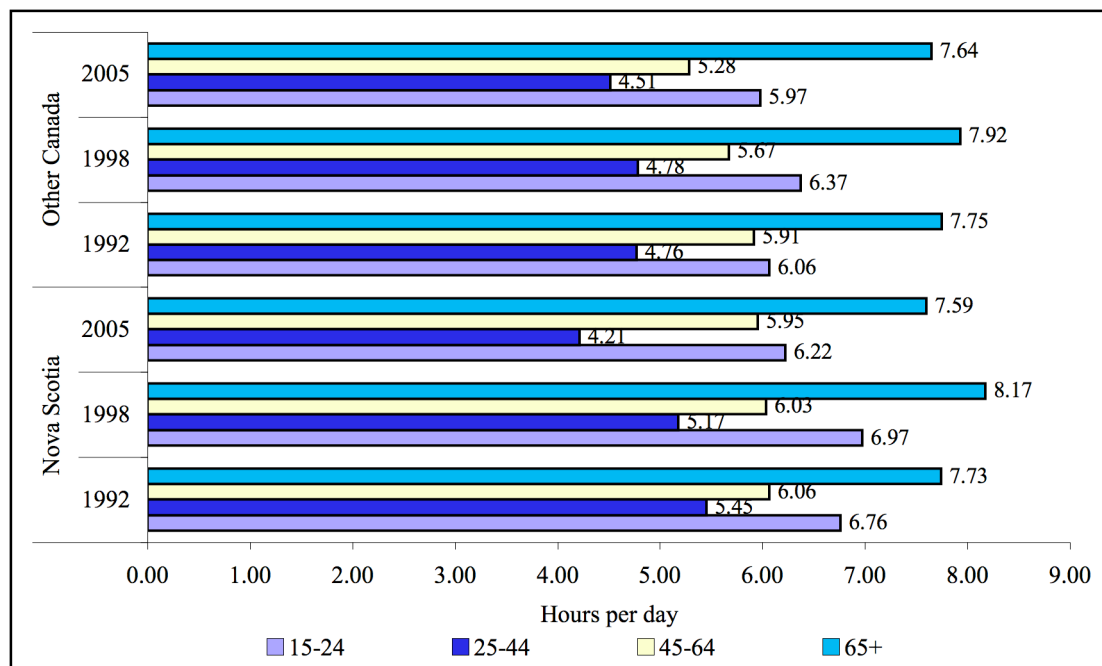
Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Figure 6. Free time in 2005 as percent of free time in 1992, by select demographics, Nova Scotia and other Canada



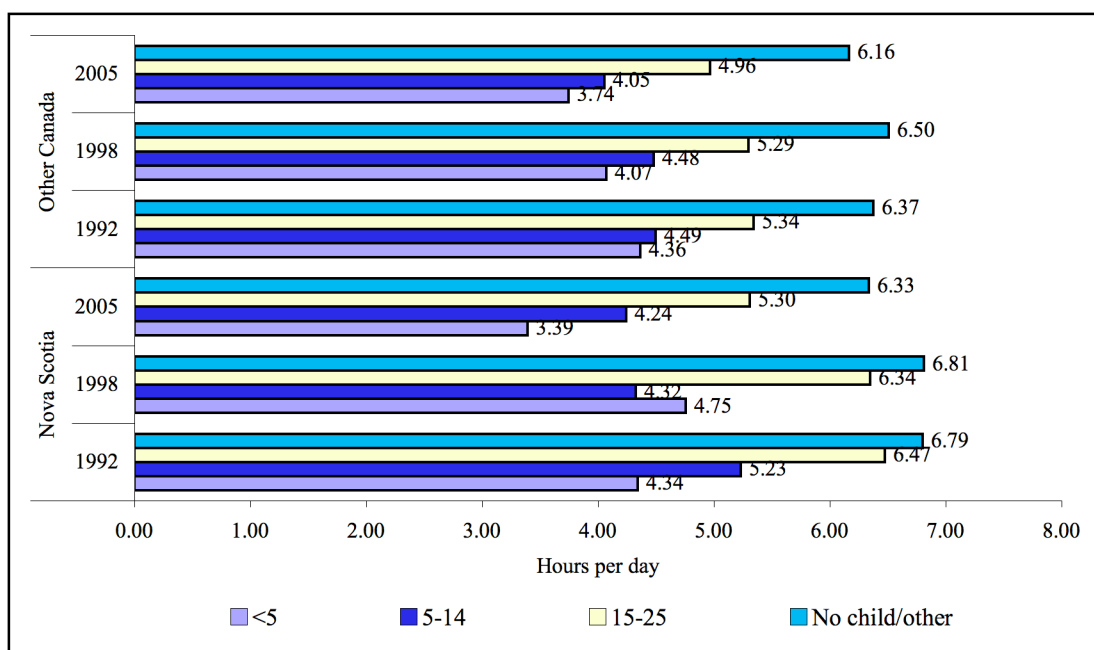
Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Figure 7. Free time, by age, Nova Scotia and other Canada, 1992, 1998, and 2005



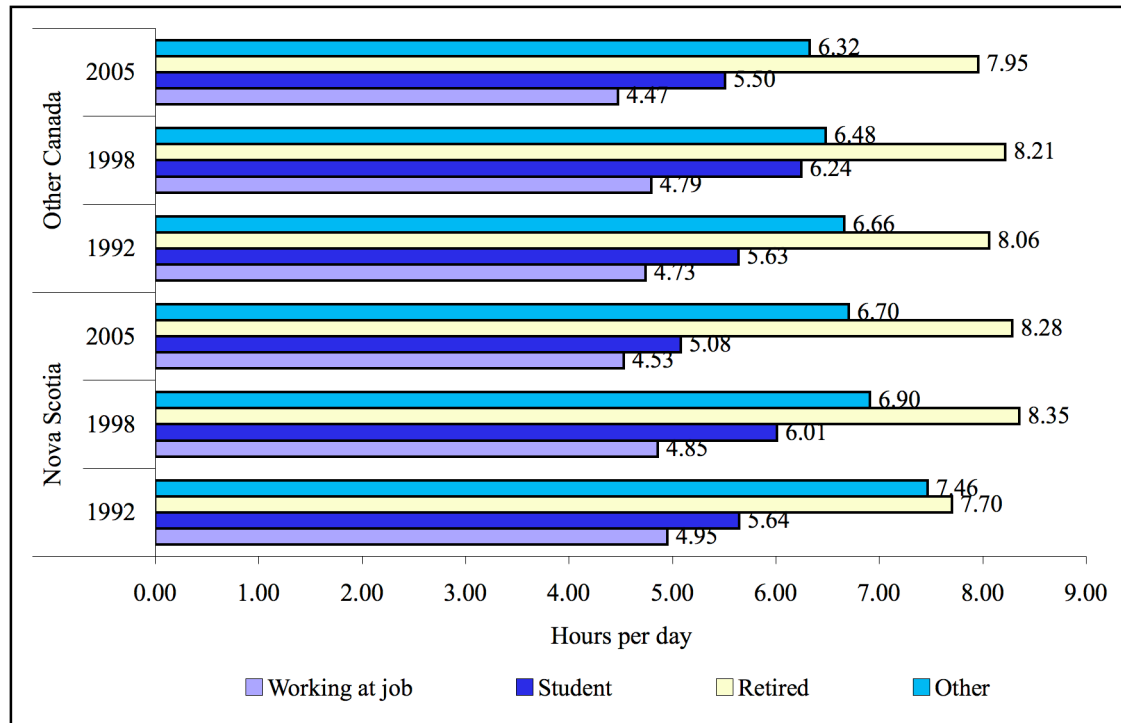
Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Figure 8. Free time, by age of children, Nova Scotia and other Canada, 1992, 1998, and 2005



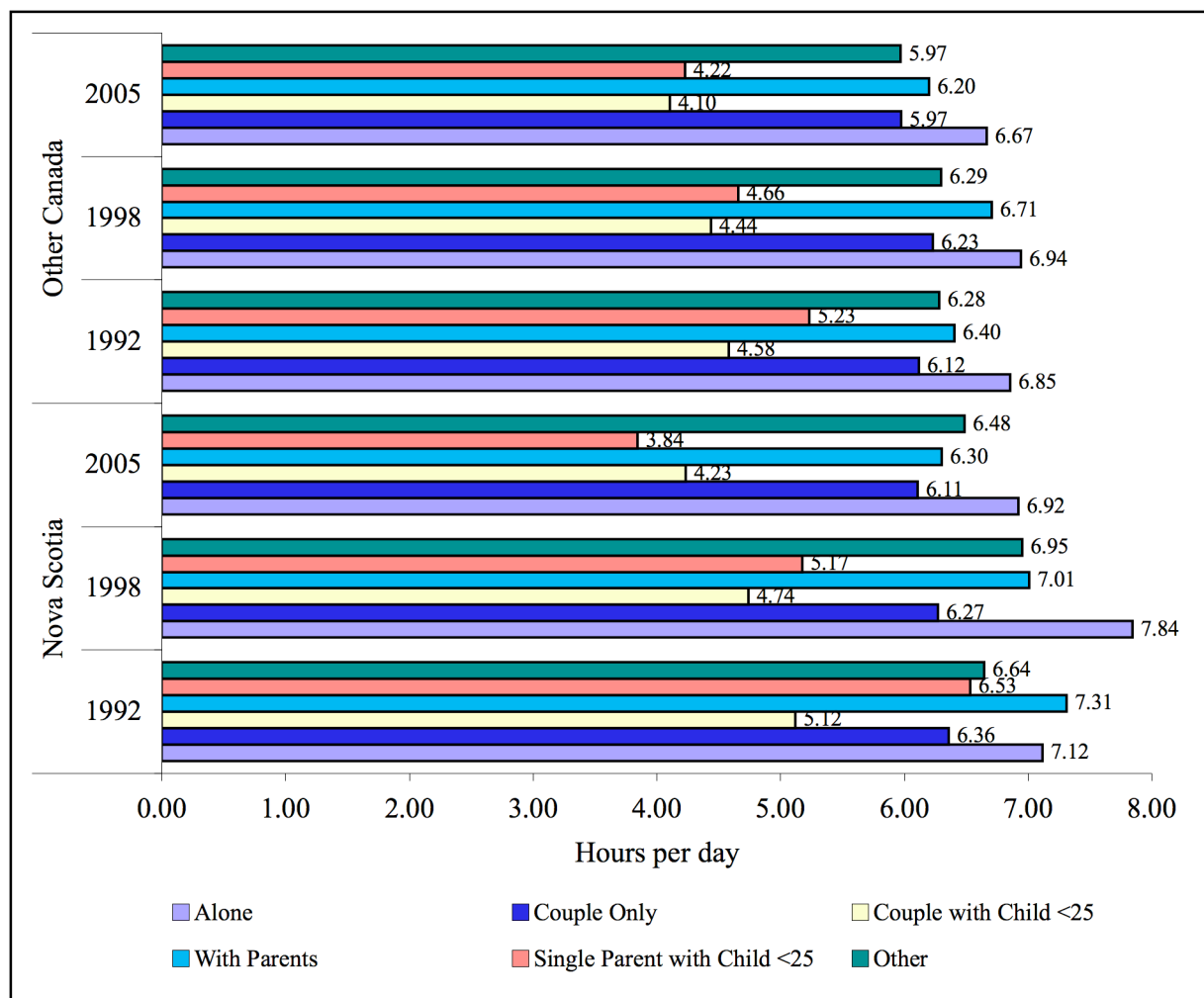
Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Figure 9. Free time, by main activity, Nova Scotia and other Canada, 1992, 1998, and 2005



Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Figure 10. Free time, by household structure, Nova Scotia and other Canada, 1992, 1998, and 2005



Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

One useful way of looking at leisure activities is to characterize them in terms of qualities they represent. One such classification identifies four types among the major activities—social, passive, cognitive, and physical. Each type addresses particular needs and/or uses particular skills.

In both Nova Scotia and the rest of Canada, more free time is allocated to passive leisure activities than to any other type, followed by activities that are primarily social, physical, and cognitive—in that order. Thus, Nova Scotians in 2005 spent an average of two hours and 18 minutes a day engaged in passive leisure activities (like television watching), an hour and 43 minutes a day in social activities, an hour and 10 minutes in physical activities, and half an hour a day in cognitive activities like reading (Table 17 below).

Nova Scotians spend about the same amount of time each day as other Canadians on social and cognitive activities, but they allocate somewhat more time than other Canadians to passive and physical leisure—a pattern that holds true in each of the three time use surveys. The decline in total leisure time between 1992 and 2005 is reflected in all leisure types except physical activities where both Nova Scotians (+8%) and other Canadians (+10%) enjoy more physical leisure time than they did in 1992. Social leisure time in both Nova Scotia and the rest of Canada was 5–7 percent lower in 2005 than in 1992. However, Nova Scotia registered substantially greater declines in passive and cognitive leisure activities than the rest of Canada. Thus, Nova Scotians spent nearly 15% less time on passive leisure activities in 2005 than in 1992 (compared to 5% less time in the rest of Canada), and they spent nearly 20% less time on cognitive activities (compared to about 15% less in the rest of Canada) (Table 17).

Table 17. Time allocation by leisure qualities, hours per day and 2005 hours as percentage of 1992 hours, Nova Scotia and other Canada, 1992, 1998, and 2005

	Nova Scotia				Other Canada			
	1992	1998	2005	2005/1992	1992	1998	2005	2005/1992
Social	1.80	1.85	1.71	95.00%	1.82	1.92	1.70	93.41%
Passive	2.69	2.60	2.30	85.50%	2.28	2.29	2.16	94.74%
Cognitive	0.62	0.60	0.50	80.65%	0.62	0.59	0.53	85.48%
Physical	1.07	1.13	1.16	108.41%	0.98	0.95	1.08	110.20%

Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

4. Conclusions and Valuation

Nova Scotians spend an average of five hours and 40 minutes a day on free time (leisure) activities—about half an hour less than in 1992 and 1998. Since 1998, Nova Scotians have increased their paid work time by nearly four hours a week, or 204 hours a year, and cut their free time by 186 hours a year. In other words, Nova Scotians are putting in the equivalent of more than a month's extra paid work time a year at the expense of their free time—mostly because women are working much longer hours for pay. In 1992 Nova Scotians had nearly half an hour more daily leisure time than did other Canadians, but by 2005 this gap had narrowed to just 12 minutes a day.

In contrast to the rest of Canada, where men have about 27 minutes more daily leisure time than women, leisure time is virtually identical for men and women in Nova Scotia. But while Nova Scotian men and women both lost more than half an hour of daily leisure time between 1992 and 2005, the patterns differed—with men seeing declines in both passive and active leisure, while women traded passive activities for active ones. That difference is primarily attributable to major changes in the gender division of labour—both in the paid work force and in the household. Thus, the most marked difference in overall time use during this period was that women worked an average of an hour a day more for pay in 2005 than in 1992, while men's market work decreased slightly. At the same time, women did an average of 38 minutes less household work and child care a day in 2005 than in 1992, while men did 26 minutes more.

The sharp increase in women's paid work in Nova Scotia appears to have created some problems. In 1998, overall time stress levels were lower in Nova Scotia than in the rest of Canada (16.2% vs 18.6%), but by 2005 they were higher in Nova Scotia than in the rest of Canada (18.3% vs 16.4%). The overall increase in time stress in Nova Scotia was totally attributable to a dramatic 30% increase in the proportion of Nova Scotian women identified as highly time stressed, while male levels of time stress actually declined by 9% during this period.

Use of leisure time is closely tied to a number of demographic and social factors. It is highest for individuals over 65 years, and lowest for persons aged 25 to 44, during which time paid work and family obligations tend to crowd out leisure. Retirees in Nova Scotia have more than eight hours a day of free time, while parents with infants and toddlers under 5 years of age have only 3.4 hours a day of free time. In Nova Scotia, by far the sharpest loss in free time between 1992 and 2005 was for single mothers, who saw their free time shrink by 2.7 hours a day or nearly 19 hours a week. The sharpest decline in leisure type is for cognitive leisure—reading, essentially.

As noted above, free time has explicit value in the Genuine Progress Index, and losses in free time should be counted as real losses in value, and as a decline in one key dimension of human capital, since that loss reflects a direct loss in quality of life and an indirect threat to health, economic productivity, and human wellbeing.

As described by Redefining Progress, which produced the first Genuine Progress Indicator in California in 1995:

As a nation becomes wealthier, people should have more latitude to choose between work and free time for family or other activities. In recent years, however, the opposite has occurred. The GDP ignores this loss of free time, but the GPI treats leisure as most Americans do—as something of value. When leisure time increases, the GPI goes up; when Americans have less of it, the GPI goes down.⁴

Redefining Progress' most recent 2006 GPI update remarked:

The GDP creates the illusion that the nation is getting richer, when in fact people are working harder to produce and buy more and to pay interest on mounting personal indebtedness A more accurate measure of genuine progress and wellbeing would consider the loss of leisure that went along with increased output. Accounting for the nation's wellbeing ought to include the value of leisure time lost or gained. (Talbert et al. 2006)

Since it has been noted in this study that the loss in free time in Nova Scotia is directly related to increases in women's paid market work, Redefining Progress' description of a trade-off between paid work and leisure time seems also to apply to Nova Scotia.

Redefining Progress estimates the value of lost leisure time in relation to a baseline year in which leisure hours were high—1969 in the case of the United States, on the assumption that this level of leisure time reflects what is possible. On the theory, outlined above, that there is a real choice and trade-off between paid work and leisure, Redefining Progress also puts an economic value on leisure time equivalent to the average real wage rate for the 1950–2004 period—\$13.36 in year 2000 constant dollars. It then multiplies that dollar figure by the gap between the 1969 and 2004 leisure hours in the U.S. to conclude that lost leisure time cost Americans the equivalent of \$401.02 billion in value.

Here we modify the Redefining Progress methodology in a number of ways to estimate the value of free time and the cost of its loss for Nova Scotians:

1. Based on evidence primarily from Europe, we value leisure time at half the rate of the average hourly wage rather than at the full wage rate. Experiments and studies have found that workers are more willing to swap work hours for free time if their pay cut amounts to half their gain in leisure time than if each additional hour of free time cost an hour of pay. For example, in a 1985 Belgian government initiative, a considerable portion of Belgian civil servants traded a 20% reduction in work hours for a 10% cut in pay (Pannozzo and Colman, 2008). Similarly, GPI Atlantic's own random sample survey of 1900 residents of Kings County, Nova Scotia, found that 26% of Kings County workers were willing to take a 5% reduction in pay in exchange for a 10% decrease in working hours, with male and female rates almost identical (Pennock 2008).

⁴ Redefining Progress, Genuine Progress Indicator. Available at: http://www.rprogress.org/sustainability_indicators/genuine_progress_indicator.htm. Accessed 24 August, 2008.

2. We use the most recently available average hourly wage rate in Nova Scotia—\$17.54 in July, 2008⁵—as the basis for our economic valuation calculation, and divide that by half, to give a value of \$8.77 for each hour of leisure time lost or gained.
3. We calculate the value of lost leisure time in relation first to 1992 and 1998 levels, when Nova Scotians had 6.18 hours of free time per day, compared to 5.67 hours in 2005 (averaged over a 7-day week). This means that the average Nova Scotian 15 and older had 186.15 hours less free time in 2005 than in either 1992 or 1998. At \$8.77 an hour, it can be estimated that the average Nova Scotian lost the equivalent in value of \$1,632.53 a year in free time. As there were 764,200 Nova Scotians aged 15 and older in 2007⁶, it can be estimated that Nova Scotia as a whole had lost the equivalent of \$1.25 billion a year worth of free time in 2005 compared to its value in 1992 or 1998.
4. While it makes less conceptual sense to place a wage-based economic value on every hour of free time (since there is no logical trade-off between total free time and paid work), we can do so here just to make the point that every hour of time does in fact have value, even if it cannot be easily traded for a market equivalent. Thus, Nova Scotians had an average of 5.67 hours of free time per day or 2,069.55 hours a year. At half the average hourly wage, this would be worth \$18,150 a year.
5. Since Nova Scotians have 12 minutes more free time daily than other Canadians, this means they have 73 hours more free time per year than they would have if they had the same amount of free time as other Canadians. At a value of \$8.77 an hour, this means that the average Nova Scotian currently has \$640.20 worth of free time annually more than if he or she had the same amount of free time as other Canadians. Another way of putting this, based on a population 15 and older of 764,200, is that Nova Scotians currently have \$489 million worth of free time annually more than if they worked the same hours and had the same amount of free time as other Canadians. Recognizing this free time as a valuable asset is helpful in instituting policies designed to enhance work-life balance and to prevent a further erosion of free time in Nova Scotia to Canadian levels.
6. Another form of comparison and estimation is to assess the value and gain/loss of free time not only temporally as in #3 above, but in relation to best practices elsewhere, since such examples and models illustrate that better work-life balance is practical and possible. In other words, they might be taken as representing a kind of “gold standard” that shows the potential to reduce time stress and, correspondingly, to improve health, wellbeing, and quality of life. It is assumed here that an expansion of free time expands options to engage in activities that are chosen rather than mandated and thus to enhance individual potential and development. If

⁵ Statistics Canada, Average hourly wages of employees by selected characteristics and profession, unadjusted data, by province (monthly) (Nova Scotia). Available at: <http://www40.statcan.ca/101/cst01/labr69d.htm>. Accessed 24 August, 2008.

⁶ Statistics Canada. Labour force characteristics, population 15 years and older, by economic region, by province (Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick). Available at: <http://www40.statcan.ca/101/cst01/labor36a.htm>. Accessed 24 August, 2008.

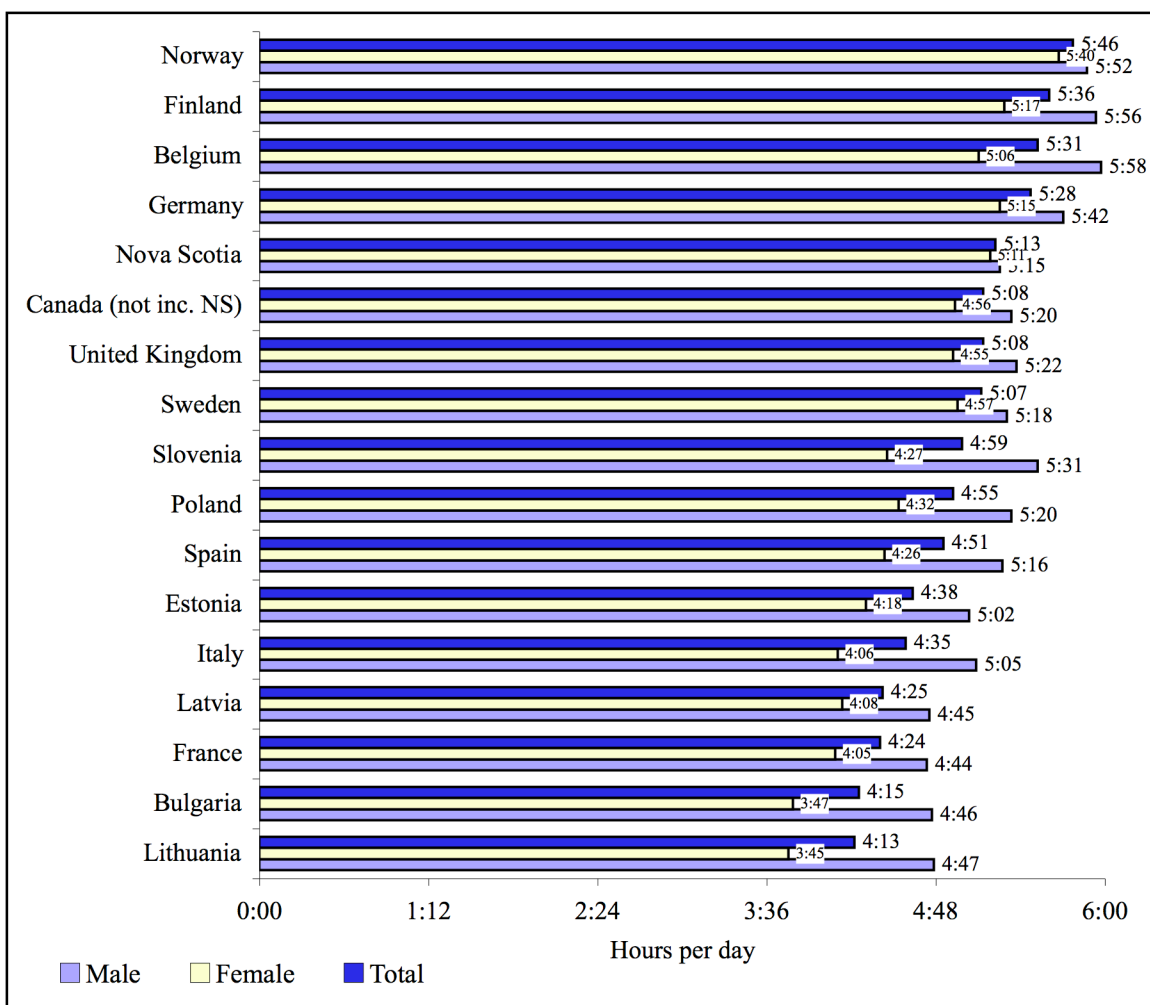
we were to confine our analysis of the value of free time to Nova Scotian and Canadian trends over time, we would likely restrict an examination of policy options to a much narrower range than if we also valued free time in relation to other industrial societies with comparable living standards. The remainder of this concluding section is therefore devoted to this kind of comparative analysis.

Under the auspices of EUROSTAT, a series of time-use studies was conducted throughout Europe using a harmonized collection format. The results of these studies make it possible to compare free time use (excluding travel) in Nova Scotia and the rest of Canada with several European countries. It should be noted that the Nova Scotia and Canadian data have been adjusted for comparison purposes to exclude the leisure travel time component and also to adjust for age (since the European surveys sampled the population aged 20–74 while the Canadian time use survey sampled the population 15 and older). Therefore, the free time allocation for Nova Scotia and the rest of Canada in the comparison below do not match the numbers used elsewhere in this report. It should also be noted that, while the Nova Scotian and Canadian data are for 2005, the European time use studies referenced in Figure 11 below were conducted between 1998 and 2002. However, adjustments for business cycle impacts like employment rates, which strongly affect free time, have not been undertaken here.

As seen in Figure 11 below, the total quantity of free time available to Nova Scotians and other Canadians aged 20–74 compares favourably with free time in European countries for which comparable data are available. Of 15 countries, only Norway (5 hours and 46 mins / day), Finland (5 hours and 36 mins), Belgium (5 and 31 mins), and Germany (5 hours and 28 mins) average more overall free time than Nova Scotia (5 and 18 mins) and the rest of Canada (5 and 10 mins). The U.K. and Sweden rank next with 5 hours and 8 minutes and 5 hours and 7 minutes respectively. Of the selected countries, the eastern European countries generally have less free time, as do France (4 hours and 24 minutes / day), Italy (4 hours and 35 minutes), and Spain (4 hours and 51 minutes).

Particularly noteworthy is the virtual equality of free time between men and women in Nova Scotia, both absolutely and in comparison with the surveyed European countries. Men in Nova Scotia had an average of only four minutes more free time each day than women had. Norway was the next most equitable jurisdiction, with men averaging 12 minutes more free time per day than women. But in every other country, men had considerably more free time than women. Italian men, for example, had a full hour more free time each day than women, Belgian men had 52 minutes more, Spanish men 50 minutes more, French and Finnish men 39 minutes more, German and British men 27 minutes more, and Swedish men 21 minutes more (Figure 11).

Figure 11. Average daily hours of free time, population aged 20–74, Nova Scotia and other Canada (2005), and select European countries 1998–2002



Sources: Canada and Nova Scotia: Statistics Canada, GSS Cycle 19; European data are available at: <https://www.testh2.scb.se/tus/tus/StatMeanMact1.html>. Accessed 10 September, 2008.

Figure 11 above shows that, among the 15 European countries for which comparable data are available, Norway has the most daily free time (5 hours and 46 minutes a day compared to 5 hours and 13 minutes in Nova Scotia) and might therefore be taken as a model or “best practice” for comparative valuation purposes. Thus, if Nova Scotians had as much free time as Norwegians, they would each have more than 200 additional hours of free time each year, which, at half the Nova Scotia hourly wage, would be worth about \$1,760 a year. Applying this estimate to the 764,200 Nova Scotians 15 and older, this means that Nova Scotia could have a total stock of free time worth \$1.35 billion more than at present if Nova Scotians had as much free time as Norwegians do.

It must be emphasized that this example is presented for illustrative purposes only. The data in Figure 11 require further analysis to improve the accuracy of the comparison, including potential adjustment for changes in employment rates based on the different years in which the different surveys were conducted. But the comparison is presented just to point to the utility of economic valuations in highlighting the value of an asset that is generally unvalued and that is invisible in the conventional GDP-based measures of progress. So long as free time is not properly valued, insufficient policy attention will be directed to important models and initiatives that have the potential to improve work-life balance.

Thus, some European countries have consciously sought to increase free time and quality of life by reducing work hours. The Netherlands, for example, effectively reduced its high unemployment rate of the early 1980s (more than 12%) in large part through efforts in the late 1980s and early 1990s to reduce and redistribute working hours. This was achieved voluntarily, in large part through labour agreements that made part-time work more attractive—carrying equal hourly pay, pro-rated benefits, and equal opportunities for career advancement. By 2001, the Netherlands had the shortest average work hours and the highest rate of part-time work of any industrialized country, and had reduced its unemployment rate to less than 3% of the work force. The shorter work hours not only expanded free time but also improved labour productivity, reduced absenteeism, and expanded opportunities for community and voluntary work.

The Netherlands experience, and a wide range of other examples of shorter work time initiatives and efforts to redistribute work hours and expand free time, are detailed in Chapter 13 of GPI Atlantic's report on *Working Time and the Future of Work in Canada* (April 2004), which can be accessed at <http://www.gpiatlantic.org/pdf/workhours/workhours.pdf>. As well, section 7.6 of that report on "Work and Leisure" and other sections of that study provide further analysis of issues involved in work-life balance. Other GPI Atlantic reports of direct relevance to this free time study are *The Economic Value of Unpaid Household Work*, which is available at <http://www.gpiatlantic.org/pdf/housework/housework.pdf>; *A Practical Model for Voluntary Work-time Reduction*, available at <http://www.gpiatlantic.org/pdf/misc/worktime.pdf>; and Chapter 4 ("Balancing Paid and Unpaid Work") of GPI Atlantic's 2003 study of Women's Health in Atlantic Canada, volume 1, especially Section 4.1, titled "Impacts on Free Time and Personal Time," available at <http://www.gpiatlantic.org/pdf/health/womens/womensvol1.pdf>.

We conclude with a quote on the distribution of work and leisure from Bertrand Russell:

Suppose that, at a given moment, a certain number of people are engaged in the manufacture of pins. They make as many pins as the world needs, working (say) eight hours a day. Someone makes an invention by which the same number of men can make twice as many pins as before. But the world does not need twice as many pins: pins are already so cheap that hardly any more will be bought at a lower price. In a sensible world, everybody concerned in the manufacture of pins would take to working four hours instead of eight, and everything else would go on as before.

But in the actual world this would be thought demoralizing. The men still work eight hours, there are too many pins, some employers go bankrupt, and half the men previously concerned in making pins are thrown out of work. There is, in the end, just as much leisure as on the other plan, but half the men are totally idle while half are still overworked. In this way, it is insured that the unavoidable leisure shall cause misery all round instead of being a universal source of happiness. Can anything more insane be imagined?

APPENDIX TABLES

Appendix Table 1. Time allocation to necessary activities, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	9.88	10.25	10.12	10.31	10.25	9.88
	Female	10.5	10.48	10.66	10.78	10.65	10.5
Age group	15–24 years	10.14	10.99	10.73	10.52	10.42	10.14
	25–44 years	9.67	9.84	9.82	10.21	9.98	9.67
	45–64 years	10.46	10.22	10.02	10.48	10.45	10.46
	65 + years	11.35	11.36	12.03	11.77	11.81	11.35
Marital Status	Married	10.15	10.4	10.15	10.48	10.41	10.15
	Other	10.28	10.33	10.78	10.67	10.52	10.28
Age of youngest child	Under 5 years	9.26	10.02	9.72	10.1	10	9.26
	5 to 14 years	9.93	9.88	9.75	10.27	9.97	9.93
	15 to 25 years	10.15	9.8	9.96	10.36	10.51	10.15
	No child/other	10.49	10.64	10.7	10.75	10.66	10.49
Work status	Working at job	9.55	9.79	9.6	10.07	9.93	9.55
	Student	10.11	10.24	10.81	10.48	10.36	10.11
	Retired	11.23	11.01	11.33	11.54	11.42	11.23
	Other	10.72	11	11.32	11.08	10.86	10.72
Household	Alone	10.52	10.39	10.94	10.85	10.65	10.52
	Couple only	10.6	10.85	10.73	10.82	10.81	10.6
	Couple with Child <25	9.77	9.99	9.69	10.21	10.05	9.77
	With Parents	10.23	10.6	10.87	10.56	10.47	10.23
	Single Parent with Child <25	9.79	9.43	10.16	10.33	10.25	9.79
	Other	10.59	10.28	10.23	10.75	10.68	10.59
Education	Less HS Diploma	10.81	10.93	10.98	11.01	10.95	10.81
	HS Diploma/Other Certification	9.96	10.3	10.32	10.41	10.23	9.96
	College degree +	9.83	10.06	10.14	10.27	10.07	9.83
Type of day	Weekday	9.95	9.98	10.06	10.26	10.23	9.95
	Saturday	10.24	12.06	10.82	10.73	11.56	10.24
	Sunday	11.43	10.65	11.63	11.84	10.49	11.43

Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Appendix Table 2. Time allocation to committed activities, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	2.9	2.96	3.34	2.62	2.73	2.63
	Female	4.76	4.64	4.13	4.52	4.41	4.21
Age group	15–24 years	2.52	1.38	1.7	1.88	1.89	1.59
	25–44 years	4.31	4.27	4.28	3.99	3.98	3.78
	45–64 years	3.69	4.37	4	3.83	3.85	3.73
	65 + years	4.59	4.27	4.17	4.08	3.93	4.01
Marital status	Married	4.34	4.51	4.43	4.2	4.16	4.02
	Other	3.06	2.78	2.66	2.54	2.67	2.49
Age of youngest child	Under 5 years	5.94	6.34	6.15	5.45	5.59	5.26
	5 to 14 years	4.25	4.61	4.97	4.45	4.48	4.27
	15 to 25 years	3.54	4.95	3.88	3.87	3.82	3.82
	No child/other	3.37	3.08	3.16	2.91	2.92	2.88
Work status	Working at job	3.12	2.9	3.43	2.82	3.09	2.86
	Student	1.58	1.76	1.29	1.42	1.51	1.42
	Retired	4.61	4.39	4.19	4.23	4.25	4.20
	Other	5.15	5.54	5.19	5.63	5.91	5.48
Household	Alone	3.4	3.38	3.18	3.01	3.11	3.12
	Couple only	4.5	3.9	3.93	3.66	3.65	3.64
	Couple with Child <25	4.47	5.09	4.95	4.66	4.61	4.40
	With Parents	1.98	1.21	1.4	1.51	1.68	1.44
Education	Single Parent with Child <25	5.16	5.53	4.96	4.97	4.95	4.43
	Other	3.09	3.41	3.36	2.96	2.95	3.06
	Less HS	3.67	3.73	3.22	3.37	3.32	3.09
	Diploma	3.64	3.57	3.62	3.64	3.51	3.33
Type of day	HS	4.22	4.02	4.13	3.7	3.87	3.65
	Diploma/Other Certification	3.77	3.8	3.68	3.46	3.47	3.23
	College degree	4.49	3.23	4.39	4.55	3.63	4.17
	+	3.64	4.54	3.44	3.25	4.14	3.69

Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Appendix Table 3. Time allocation to contracted activities, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	5.02	2.96	3.34	2.62	2.73	5.21
	Female	4.76	4.64	4.13	4.52	4.41	3.74
Age group	15–24 years	2.52	1.38	1.7	1.88	1.89	5.74
	25–44 years	4.31	4.27	4.28	3.99	3.98	5.52
	45–64 years	3.69	4.37	4.00	3.83	3.85	4.49
	65 + years	4.59	4.27	4.17	4.08	3.93	0.47
Marital status	Married	4.34	4.51	4.43	4.2.0	4.16	4.33
	Other	3.06	2.78	2.66	2.54	2.67	4.67
Age of youngest child	Under 5 years	5.94	6.34	6.15	5.45	5.59	4.86
	5 to 14 years	4.25	4.61	4.97	4.45	4.48	5.53
	15 to 25 years	3.54	4.95	3.88	3.87	3.82	4.70
	No child/other	3.37	3.08	3.16	2.91	2.92	4.12
Work status	Working at job	3.12	2.9	3.43	2.82	3.09	6.51
	Student	1.58	1.76	1.29	1.42	1.51	6.32
	Retired	4.61	4.39	4.19	4.23	4.25	0.21
	Other	5.15	5.54	5.19	5.63	5.91	1.07
Household	Alone	3.4	3.38	3.18	3.01	3.11	3.29
	Couple only	4.5	3.9	3.93	3.66	3.65	3.40
	Couple with Child <25	4.47	5.09	4.95	4.66	4.61	5.29
	With Parents	1.98	1.21	1.40	1.51	1.68	5.68
	Single Parent with Child <25	5.16	5.53	4.96	4.97	4.95	5.15
	other	3.09	3.41	3.36	2.96	2.95	4.30
	Education						
Education	Less HS						
	Diploma	3.67	3.73	3.22	3.37	3.32	3.24
	HS						
	Diploma/Other Certification	3.64	3.57	3.62	3.64	3.51	4.61
	College degree +	4.22	4.02	4.13	3.7	3.87	4.91
Type of day	Weekday	3.77	3.8	3.68	3.46	3.47	5.51
	Saturday	4.49	3.23	4.39	4.55	3.63	1.98
	Sunday	3.64	4.54	3.44	3.25	4.14	1.72

Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Appendix Table 4. Time allocation to free activities, by background characteristics, hours per day, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992	1998	2005	1992	1998	2005
Sex	Male	6.20	6.55	5.68	6.00	5.96	5.70
	Female	6.17	5.83	5.66	5.43	5.56	5.25
Age group	15–24 years	6.76	6.97	6.22	6.06	6.37	5.97
	25–44 years	5.45	5.17	4.21	4.77	4.78	4.51
	45–64 years	6.06	6.03	5.95	5.91	5.67	5.28
	65 + years	7.74	8.17	7.59	7.75	7.92	7.64
Marital status	Married	5.66	5.55	5.33	5.31	5.27	5.05
	Other	7.04	7.12	6.21	6.40	6.52	6.15
Age of youngest child	Under 5 years	4.34	4.75	3.39	4.36	4.07	3.74
	5 to 14 years	5.23	4.32	4.24	4.49	4.48	4.05
	15 to 25 years	6.47	6.34	5.30	5.34	5.29	4.96
	No child/other	6.80	6.81	6.33	6.37	6.50	6.16
Work status	Working at job	4.95	4.85	4.53	4.74	4.79	4.47
	Student	5.64	6.01	5.08	5.64	6.24	5.50
	Retired	7.70	8.35	8.28	8.06	8.21	7.95
	Other	7.47	6.91	6.70	6.66	6.48	6.32
Household	Alone	7.12	7.84	6.92	6.85	6.94	6.67
	Couple only	6.36	6.27	6.11	6.12	6.23	5.97
	Couple with Child <25	5.12	4.74	4.23	4.58	4.44	4.11
	With Parents	7.31	7.01	6.30	6.40	6.71	6.20
	Single Parent with Child <25	6.53	5.18	3.84	5.23	4.66	4.23
	other	6.65	6.95	6.49	6.28	6.29	5.97
Education	Less HS Diploma	6.52	6.88	6.23	6.51	6.56	6.44
	HS Diploma/Other Certification	6.12	6.15	6.12	5.51	5.67	5.44
	College degree +	5.87	5.58	5.15	5.23	5.27	5.06
Type of day	Weekday	5.49	5.61	5.15	5.02	5.13	4.88
	Saturday	7.98	7.90	6.99	7.15	7.31	7.07
	Sunday	7.86	7.27	6.94	7.66	7.32	6.86

Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Appendix Table 5. Unweighted sample base, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992 Count	1998 Count	2005 Count	1992 Count	1998 Count	2005 Count
Sex of the Respondent	Male	261	313	439	3741	4543	8182
	Female	337	386	625	4657	5507	10351
Age group	15–24 years	99	95	138	1385	1320	2351
	25–44 years	272	286	350	3887	4158	6563
	45–64 years	130	180	374	1841	2821	6232
	65 + years	97	138	202	1285	1751	3387
Marital status	Married	336	370	571	4752	5531	10095
	Other	262	329	493	3646	4519	8438
Age of youngest child	Under 5 years	81	66	85	1251	1172	1724
	5 to 14 years	113	104	129	1319	1551	2520
	15 to 25 years	43	56	94	537	838	1473
	No child/other	361	473	756	5291	6489	12816
Work status	Working at job	276	312	530	4294	5178	9900
	Student	45	50	87	692	764	1316
	Retired	61	131	183	1107	1661	3520
	Other	214	194	264	2185	1780	3772
Household	Alone	114	182	259	1830	2494	5045
	Couple only	120	179	306	1866	2407	4856
	Couple with Child						
	<25	195	167	227	2604	2752	4269
	With Parents	71	62	106	934	936	1782
	Single Parent with						
	Child <25	41	45	56	474	601	1080
Education	other	57	64	110	690	860	1501
	Less HS Diploma	198	194	247	2508	2719	3859
	HS						
	Diploma/Other						
Type of day of the designated day of interview.	Certification	182	202	276	2822	3168	5818
	College degree +	214	290	526	2897	3622	8615
	Weekday	424	505	752	5979	7204	13130
	Saturday	82	94	146	1184	1458	2589
	Sunday	92	100	166	1235	1388	2814

Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Appendix Table 6. Weighted sample base, Nova Scotia and other Canada, 1992, 1998, and 2005

Characteristic		Nova Scotia			Other Canada		
		1992 Count	1998 Count	2005 Count	1992 Count	1998 Count	2005 Count
Sex	Male	346364	370963	376806	10074790	11566399	12483303
	Female	364581	389933	397682	10508578	11932841	12838028
Age group	15–24 years	132889	126268	125924	3646936	3932768	4220507
	25–44 years	295551	301478	262448	8783295	9564923	9165696
	45–64 years	177827	215793	260349	5285140	6545658	8113119
	65 + years	104678	117357	125767	2867998	3455892	3822008
Marital status	Married	441816	457734	476030	13039816	14421004	15574174
	Other	269128	303162	298458	7543553	9078236	9747156
Age of youngest child	Under 5 years	87274	66610	66558	2849113	2772591	2539601
	5 to 14 years	124756	121614	100044	3111488	3718299	3571638
	15 to 25 years	77979	85477	104485	2017225	2763978	3165697
	No child/other	420936	487195	503400	12605542	14244372	16044395
Work status	Working at job	322623	345162	395028	10831649	12271098	14105957
	Student	59933	62867	77668	1800193	2304714	2388965
	Retired	73893	127652	118381	2625410	3380698	4030786
	Other	252627	212881	183410	5013599	3815519	4755014
Household	Alone	74515	104993	91775	2609927	3214737	3397164
	Couple only	154346	207977	225940	4929001	5774237	6748105
	Couple with Child <25	252450	216027	212409	7110749	7594399	7455700
	With Parents	105748	106014	104226	2931708	3331782	3817333
	Single Parent with Child <25	36295	38976	32931	750025	1025454	1121961
	other	87590	86909	107206	2251958	2558631	2781069
	Less HS						
	Diploma	246315	218349	181513	6036926	6067575	4985900
Education	HS						
	Diploma/Other Certification	213603	217388	210925	6901886	7452418	8159737
	College degree +	245938	311254	371969	7181555	8371611	11833733
Type of day	Weekday	507818	543497	553105	14702406	16785172	18088403
	Saturday	101563	108699	110691	2940480	3357035	3616573
	Sunday	101564	108700	110691	2940483	3357033	3616354

Source: Derived from Statistics Canada GSS Time Use Studies Cycles 7, 12 and 19.

Bibliography

- Aristotle. 1958. *Politics*. Ernest Barker (trans). Oxford University Press, New York.
- Coleman, D. (1993). "Leisure Based Social Support, Leisure Dispositions and Health," *Journal of Leisure Research*, 25, 350–61.
- Goetzal, Ron (ed.). "The Financial Impact of Health Promotion," *American Journal of Health Promotion* 15 (5). May/June, 2001.
- Harvey Andrew, and Arun K. Mukhopadhyay, "When Twenty-Four Hours is not Enough: Time Poverty of Working Parents," *Social Indicators Research*, 82 (1). May, 2007.
- Iso-Alsola, S. E., and Park, C. J. (1996). "Leisure-Related Social Support and Self-Determination as Buffers of Stress-Illness Relationship." *Journal of Leisure Research*, 28, 169–87.
- Iwasaki, Y., and Schneider, I. E. (2003). "Leisure, Stress, and Coping: An Evolving Area of Inquiry" *Leisure Sciences*, 25, 107–113.
- Mannell, R.C. (1999). "Older Adults, Leisure, and Wellness," *Journal of Leisurability*, 26 (2).
- Pannozzo, Linda, and Ronald Colman, *Working Time and the Future of Work in Canada*. GPI Atlantic. 2004.
- Pennock, Michael, et al. *Kings County GPI Community Profile*. GPI Atlantic. May, 2008.
- Russell, Bertrand. 1935. *In Praise of Idleness*. George Allen and Unwin Ltd. London.
- Shields, Margot. "Long Working Hours and Health," Statistics Canada, *Health Reports*, 11 (2), Autumn, 1999. Catalogue no. 82-003, pages 33–48.
- Talbert, John, Clifford Cobb, and Noah Slattery. *The Genuine Progress Indicator 2006: A Tool for Sustainable Development*. Redefining Progress. 2007. Available at: <http://www.rprogress.org/publications/2007/GPI%202006.pdf>. Accessed 24 August, 2008