

# **Have Patterns of Learning and Working Changed for Youth?**

**by  
Tomasz Gluszynski  
March 2002**



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**Final Report**

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## *Abstract*

In the last decade, there has been a greater demand for high skills to match jobs in the new economy. Are youth changing the time spent in schooling and work? Are youth studying longer? Are they working earlier? Are they combining work and studying? Are they training more? And finally, did the changes come at a price? Using the General Social Survey cycles 8 and 12 data on time use, this study attempted to investigate changes in patterns of time spent at school and work by Canadian youth (15-24- and 25-29-year-olds). In each age group, the data were analyzed separately for those who spent most of their time in school and those who spent most of their time working. The study found the following: Over time, more youth seemed to be studying longer, thereby gaining more skills. Many students also reported working while in school, which allowed them to gain work experience, and this figure also increased over time. There was also an increase in the participation in formal and informal training. Their income improved between 1992 and 1998. However, these positive changes came at a price, with an increasing majority that often felt rushed. Among those youth who were working, a high proportion worked in paid employment and only a small proportion were self employed. However, significant differences were observed between younger and older youth. There was an increase in formal and informal training among the younger youth between 1992 and 1998 but these figures decreased for the older youth. Working youth reported being very busy and often rushed during their regular day.



# 1. Introduction

The demand for a highly skilled labour force has become apparent in the Canadian economy. Jobs requiring high skills are growing at a much higher rate than jobs that require unskilled labour. According to Canadian labour statistics, employment in Canada between 1984 and 2000 rose on average by 1.8 percent per year. However, employment rates for jobs requiring higher skill levels rose on average by 4 percent per year, compared to 1 percent per year increases in the goods industries that typically require less skilled labour (*Human Resources Development Canada, 2001*). Canadian youth often find themselves in the front line of these changes, as they are in a transition period between education and work.

The objective of this study was to determine if the patterns of learning and working have changed for youth. Given the economic demand for high skills, it was hypothesized that youth would spend more years studying, delay their entry into full time work and work part time until their education was complete. Furthermore, they would undertake training to upgrade their skills.

Data from two cycles of the General Social Survey (GSS) on time use, permitted analyses to respond to the following questions to test the hypotheses.

- Were youth changing the time spent in school and work?
- Were youth studying longer?
- Were they working earlier?
- Were they combining work and studying?
- Were they training more?
- What kinds of training did they prefer?
- And finally, did the changes come at a price?

This paper is structured in the following way. First, an introduction to the GSS is provided. Second, a description of youth in the GSS and the choice of age categories are presented. Third, the time spent at school is investigated as well as employment while at school, training, income and costs. The fourth section of the paper is dedicated to the examination of time spent by youth at work, including participation in both formal and informal training, self- and paid-employment, income, and costs. Fifth, the limitations of the GSS, discovered while analyzing data, are discussed. Sixth, some policy implications are presented. And finally the report is concluded in the last section.



## ***2. General Social Survey***

Increased pressure over the last decade for more efficient government programs, has led to an increased demand for information needed for policy formulation, program development and evaluation. Many questions remained unanswered because a time series of necessary information in existing data sources was lacking.

The two primary objectives of the General Social Survey (GSS) were to gather data on social trends in order to monitor temporal changes in the living conditions and well-being of Canadians; and to provide immediate information on specific social policy issues of current and emerging interests. The GSS is a continuing program with a survey cycle each year focused on a specific issue. However, there was no GSS undertaken in 1997 due to budgetary priorities at that time. The GSS in 1992 and 1998 were on time use, thereby providing the means for comparing patterns of work and learning among youth at two points, six years apart.



### 3. Youth in the GSS

Two youth cohorts, 15-24 year-olds and 25-29 year-olds, were chosen for the analysis, and they are often referred to as the younger and older youth in this study. Further age division was not pursued due to the reasons stated in the *GSS Limitations* section of this paper.

For each youth cohort, three groups were analyzed separately. They were, those respondents that identified working as their main activity in the last week, respondents who reported schooling as their main activity in the same period, as well as those respondents who were not involved in neither activity of schooling nor working. The same three groups were identified in the 1992 and 1998 cycles of GSS and were compared to capture any changes in patterns of time use among these groups. The comparisons were between cohorts in each cycle as well as between the same age cohorts in the two cycles.

#### 3.1 School

“The educational establishment discovers and cultivates potential talent. The capabilities of children and mature students can never be known until found and cultivated” (*Schultz, 1964, p. 42*). An untrained worker may have valuable natural talents but “these talents must be certified by an educational establishment before a company can afford to use them. The certifying establishment, however, must be credible; the unreliability of slum schools decreases the economic possibilities of their students” (*Akerlof, 1984, pp. 14-15*).

The percentages given in the following tables were calculated from weighted levels. The weighted totals are reported as well.

<b>Table 1</b>						
<b>Distribution rates by main activity (school, work or other) for two youth cohorts</b>						
	<b>1992 (%)</b>		<b>1998 (%)</b>		<b>Total (Level)</b>	
	<b>15-24</b>	<b>25-29</b>	<b>15-24</b>	<b>25-29</b>	<b>1992</b>	<b>1998</b>
Work	38.46	67.54	35.17	69.58	2,984,552	2,932,883
School	42.51	3.48	47.92	6.83	1,690,615	2,092,713
Other	19.03	28.88	16.91	23.59	1,374,140	1,196,726
N	3,786,773	2,262,535	4,059,036	2,163,288	6,049,307	6,222,322
Source: General Social Survey 1992 and 1998.						

The respondents who reported schooling as their main activity represented 42.51 percent of respondents in the 15- to 24-years-of-age population group in 1992. This figure increased to 47.92 percent in 1998. The increase in the number of respondents in school could be in response to the shift in the skill requirements over the past several years. The increase in the rate of respondents in school occurred at a time of labour market

improvements (slow down in 1992 and the boom in 1998). In an economic slow down, youth tend to remain in school since that increases their probability of employment

## **3.2 Work**

As mentioned before, the two GSS cycles from which data were drawn for the analysis were collected in two different economic environments. The 1992 recession and 1998 expansionary period were not reflected in the numbers of 15 to 24-year-olds that were working. The percentage of respondents who reported work to be their main activity decreased from 38.46 percent to 35.17 percent between 1992 and 1998. This was surprising given the overall improvements in employment rates in the time between the two years, but the finding could be an indication that the completion of school was a priority for the younger age cohort. The opposite was true for the older youth cohort (25-29 years old). In this age group, 67.54 percent reported 'paid work' as their main activity in 1992 and this figure increased to 69.58 percent in 1998. The pattern for the older youth reflected the overall pattern for employment, where there was a drop in 1992 and then a steady increase throughout the latter years of the 1990s (Statistics Canada, 2000). The results showed that the younger youth reacted differently to economic conditions, with regard to the need for education and the availability of work. Their decisions might have been affected by the fact that they were in school during the economic upturn.

## **3.3 Neither in School or at Work**

The percentage of respondents who reported neither working nor studying as their main activity was 19.03 percent in 1992 for the 15-24-years age bracket. According to the survey, these respondents could have been doing a number of things, including looking for a job, taking care of the household or being retired. As these youth were unlikely to be retired, it was assumed that they were in the process of either looking for a job or taking care of the household. The number of those respondents who were neither working or studying decreased in 1998 to 16.91 percent. Since the percentage of respondents who reported going to school increased from 1992 to 1998, it could be due to youth in this group joining the ranks of those respondents in school. In 1992, 28.88 percent of respondents in the older cohort reported that they were neither in school or work. This figure decreased in 1998 to 23.59 percent. For the older respondents, the decrease was probably due to them joining those who were working rather than those who were in school, since they have likely completed their education. The cross-cohort differences could be due to the high probability of older respondents taking care of the household since this is the prime age for family formation. It was suspected that if the analysis controlled for gender, those differences would have diminished, since women were more likely to be staying at home to take care of the household in this age group.

## 4. Education

### 4.1 Full-time and Part-time Enrollment

Because of the possibilities of combining work and study, it was important to examine the pattern of full-time and part-time enrollment in school. Probably because their formal education was complete for the majority, the analysis of data for the remaining older youth, who reported going to school as their main activity, yielded insignificant results. Therefore, the analysis on schooling was performed only on the younger cohort of youth (15- 24-year-olds), and results are presented in Table 2.

<b>Table 2</b>						
<b>Students' participation rates in full- and part-time education by age</b>						
	<b>1992 (%)</b>		<b>1998 (%)</b>		<b>Total (Level)</b>	
	<b>15-24</b>	<b>25-29</b>	<b>15-24</b>	<b>25-29</b>	<b>1992</b>	<b>1998</b>
Full-time	94.26	88.69	94.8	89.93	1,589,071	1,976,736
Part-time	5.74	11.31	5.2	10.08	101,544	115,977
Total (Level)	1,609,715	80,900	1,944,975	147,738	1,690,615	2,092,713

Source: General Social Survey 1992 and 1998.

For the younger age cohort, the breakdown between full- and part-time school participation remained unchanged between 1992 and 1998. In 1992, 94.26 percent of the younger cohort respondents were full-time students, this percentage increased to 94.80 percent in 1998. The change was not statistically significant. The change in the percentage of part-time students was also minimal, however, these figures were obtained from sample sizes which were too small for a meaningful analysis.

### 4.2 Working Students

Working while in school is common among youth, both to learn in a real work context and to gain work experience in order to prepare for the highly competitive labour market. Furthermore, today's youth have more money than at any time in the past, becoming an important segment of the economy.

<b>Table 3</b>						
<b>Students' employment rates by age</b>						
	<b>1992 (%)</b>		<b>1998 (%)</b>		<b>Total (Level)</b>	
	<b>15-24</b>	<b>25-29</b>	<b>15-24</b>	<b>25-29</b>	<b>1992</b>	<b>1998</b>
Working	37.15	23.74	40.29	35.33	617,288	835,720
Not Working	62.85	76.26	59.71	64.67	1,073,328	1,256,793
Total (Level)	1,609,715	80,900	1,944,975	147,738	1,690,616	2,092,513

Source: General Social Survey 1992 and 1998.

In 1992, 37.15 percent of the students in the younger age cohort reported working, although education was still their main activity (Table 3). This figure increased to 40.29 percent in 1998. Perhaps better labour market conditions allowed students to find more flexible jobs, ones that would allow them to coordinate their schooling and work, so that the two activities did not interfere with each other. The higher sensitivity of youth to business cycles might be explained through the lack of desirable choices, which would allow them to successfully combine their work and schooling.

### 4.3 Informal Training While at School

Informal training is an important means to increase skills for competitive advantage. The access to continuous informal training has grown in importance with rapidly changing technology. For the purposes of the GSS, informal training is defined as training for which the respondent did not receive academic credit. Since information on informal training was not gathered in the 1992 GSS collection year, no cycle comparison was possible. The GSS respondents (15-24 years old), who reported school as their main activity, appeared to realize the importance of informal training and were benefiting from it. Notably, 55.69 percent of the younger cohort of students reported participation in informal training in 1998 (Table 4). Though there were fewer students (approximately 7 percent) in the older cohort, a larger share (76.95 percent) participated in informal training but this number should be used with caution.

<b>Table 4</b>			
<b>Students' participation rates in informal education by age</b>			
	<b>1998 (%)</b>		<b>Total (Level)</b>
	<b>15-24</b>	<b>25-29</b>	<b>1998</b>
Informal Training	55.69	76.95	1,196,840
No Informal Training	44.31	23.05	895,873
Total (Level)	1,944,975	147,738	2,092,713

Source: General Social Survey 1998.

Those students among the younger cohort who were involved in informal education devoted on average 19.74 hours per week in 1998 (Table 5). The corresponding figure for the older youth is not reliable due to small sample size.

<b>Table 5</b>			
<b>Average time spent by students on informal education by age (hours)</b>			
	<b>1998 (%)</b>		<b>Total (Level)</b>
	<b>15-24</b>	<b>25-29</b>	<b>1998</b>
Average Time	19.74	38.81	
N	796,647	51,486	848,133

Source: General Social Survey 1998.

## 4.4 Student Earnings

The increase in working while studying between 1992 and 1998 had a positive impact on the incomes of working students. In 1992, 84.83 percent of the younger working students were in the lowest \$0-\$9,999 income bracket. In 1998, this figure decreased to 78.59 percent. Moreover, the percentage in the higher income range of \$10,000-\$29,999 increased. Due to the small number of working students in the older cohort, the corresponding figures are unreliable.

<b>Table 6</b>						
<b>Students' income group rates by age</b>						
	<b>1992 (%)</b>		<b>1998 (%)</b>		<b>Total (Level)</b>	
	<b>15-24</b>	<b>25-29</b>	<b>15-24</b>	<b>25-29</b>	<b>1992</b>	<b>1998</b>
\$0-\$9,999	84.83	25.76	78.59	22.75	512,305	627,800
\$10,000-\$29,999	14.76	74.23	20.3	64.85	102,563	192,975
\$30,000-\$49,999	0.4	0	1.11	12.4	2,421	15,145
\$50,000+	0	0	0	0	0	0
Total (Level)	598,084	19,205	783,719	52,201	617,289	835,920

Source: General Social Survey 1992 and 1998.

The increase in the percentage of the younger students in higher income ranges could be due to the improved economy and the availability of better-paying part-time jobs. It is important to mention that due to the lack of necessary income information in the GSS, no inflation adjustment was performed (discussed further in the GSS Limitations section of this paper), so this result should be viewed with caution.

## 4.5 Costs of Change

According to the GSS results, more Canadian youth were working and studying, and participating in informal training. These activities consume more time in their daily lives. In 1992, when asked how often they feel rushed, 82.72 percent of the younger respondents stated that they were "often" rushed (Table 7). This figure increased to 89.12 percent in 1998. The changing patterns of time use among younger youth, even though positive, came at a price.

<b>Table 7</b>						
<b>Frequency rates of feeling rushed by students by age</b>						
	<b>1992 (%)</b>		<b>1998 (%)</b>		<b>Total (Level)</b>	
	<b>15-24</b>	<b>25-29</b>	<b>15-24</b>	<b>25-29</b>	<b>1992</b>	<b>1998</b>
Feeling Rushed Often	82.72	93.32	89.12	93.06	1,407,405	1,870,796
Feeling Rushed Rarely	17.28	6.68	10.88	6.94	283,610	221,912
Total (Level)	1,609,715	80,900	1,944,975	147,738	1,690,615	2,092,713

Source: General Social Survey 1992 and 1998.



## 5. Work

The time use patterns of youth who reported work as their main activity were studied to determine if they had changed between 1992 and 1998. There were sufficiently large sample sizes in both youth age cohorts in the 1992 and 1998 GSS for analyses.

As mentioned before, the number of respondents who were primarily working in the younger age cohort in 1992 and 1998 showed a decrease. In contrast, there was an increase in the proportion of older youth that were primarily working between those years.

### 5.1 Employment and Self-Employment

Were young Canadians entrepreneurial enough to be self employed if they did not find jobs or did not want to be employed in standard jobs? According to the 1992 GSS data, 12.15 percent of youth in the older group were self-employed (*Table 8*). This figure declined significantly to 9.25 percent in 1998. This was surprising since the economic conditions were more positive for self-employment in 1998. Since more jobs were probably available in 1998, the decline may indicate that youth only engaged in self-employment if jobs were not available. The results were unreliable for the younger cohort due to insufficient sample size. The rate of self-employment increased as the respondents got older. The likelihood of success was likely increased by completion of school and more work experience.

<b>Table 8</b>						
<b>Employment rates by type (self-employed and paid employment) and age</b>						
	<b>1992 (%)</b>		<b>1998 (%)</b>		<b>Total (Level)</b>	
	<b>15-24</b>	<b>25-29</b>	<b>15-24</b>	<b>25-29</b>	<b>1992</b>	<b>1998</b>
Employed	94.49	87.45	88.86	89.85	2,712,490	2,621,076
Self-employed	5.18	12.15	9.64	9.25	261,192	276,809
Other	0.33	0.4	1.51	0.9	10,870	34,998
Total (Level)	1,456,325	1,528,227	1,427,600	1,505,283	2,984,552	2,932,883

Source: General Social Survey 1992 and 1998.

Between 1992 and 1998, the proportion of younger youth, who worked primarily in paid employment, decreased from 94.49 percent to 88.86 percent while the proportion of youth in the older cohort increased from 87.45 percent to 89.85 percent. More youth in the older cohort with completed credentials were probably able to find jobs in the improved economy compared to the workers from the younger group.

## 5.2 Formal Training While at Work

Workers with higher levels of schooling have an initial advantage over those possessing lower levels of education (HRDC & OECD, 1997). But the need to continuously upgrade skills requires access to training while working. For instance, workers often need to be retrained to keep up with changing technology. However, the occurrence of formal training among working youth showed mixed results (Table 9). Formal training, as defined by the GSS, involves credit courses from educational institutions.

<b>Table 9</b>						
<b>Working youth's participation rates in formal training by age</b>						
	<b>1992 (%)</b>		<b>1998 (%)</b>		<b>Total (Level)</b>	
	<b>15-24</b>	<b>25-29</b>	<b>15-24</b>	<b>25-29</b>	<b>1992</b>	<b>1998</b>
Formal Training	26.62	30.13	50.33	26.38	848,221	1,115,573
No Formal Training	73.38	69.87	49.67	73.62	2,136,332	1,817,310
Total (Level)	1,456,325	1,528,227	1,427,600	1,505,283	2,984,553	2,932,883

Source: General Social Survey 1992 and 1998.

Among the respondents in the younger cohort who reported work as their main activity in 1992, 26.62 percent had undertaken formal training. This figure increased dramatically to 50.33 percent by 1998. These courses may have been taken to complete education or to complement it. The older cohort displayed an opposite pattern. In 1992, 30.13 percent took credit courses, but that figure declined to 26.38 percent by 1998. The differences in these patterns were likely due to age and career trajectories. The younger cohort might have taken formal courses to improve their job prospects as they launched their careers, while the older cohort had already started their work careers and could be learning on their jobs.

## 5.3 Informal Training While at Work

<b>Table 10</b>			
<b>Working youth's participation rates in informal training by age</b>			
	<b>1998 (%)</b>		<b>Total (Level)</b>
	<b>15-24</b>	<b>25-29</b>	<b>1998</b>
Informal Training	20.22	22.68	630,089
No Informal Training	79.78	77.32	2,302,794
Total (Level)	1,427,600	1,505,283	2,932,883

Source: General Social Survey 1992 and 1998.

Skills may be improved through formal or informal training while working. People with initially higher levels of education were unlikely to take credit courses to improve their skills early in their careers but they may engage in informal training. No questions about informal training were asked in the 1992 collection year, therefore a comparison of data from the two cycles was not possible. Data from the 1998 GSS indicated the importance

of informal training for youth that were primarily working (Table10). In 1998, 20.22 percent of the younger working respondents took some informal training while 22.68 percent of the older cohort did so. Those in the older group, whose job tenure was likely longer, were engaging in self-directed learning to maintain their skills at a competitive level. Younger youth entering the job market may not experience the same need for upgrading so early in their careers.

<b>Table 11</b>			
<b>Average time spent by working youth on informal training by age (hours)</b>			
	<b>1998</b>		<b>Total (level)</b>
	<b>15-24</b>	<b>25-29</b>	<b>1998</b>
Average Time	16.42	18.64	
N	559,186	724,646	1,283,832

Source: General Social Survey 1998.

According to the GSS, those working respondents who reported participation in informal training spent an average of 16.42 and 18.64 hours a week for the younger and older cohorts, respectively. This is a significant amount of time, considering that the regular work week averages between 38 and 42 hours (Statistics Canada, 1999).

## 5.4 Work and Incomes

The two cohorts of youth for whom work was their main activity showed improvements in incomes between the years 1992 and 1998. The GSS data on income did not have the necessary information to enable the calculation of average incomes for the two age cohorts of youth or to correct for inflation. The GSS, however, categorized respondents into different income groups. The proportion of youth who were primarily working in both the age cohorts increased in the higher income groups (Table 12).

<b>Table 12</b>						
<b>Working youth's income group rates by age</b>						
	<b>1992 (%)</b>		<b>1998 (%)</b>		<b>Total (Level)</b>	
	<b>15-24</b>	<b>25-29</b>	<b>15-24</b>	<b>25-29</b>	<b>1992</b>	<b>1998</b>
\$0-\$9,999	28.03	7.4	27.69	5.26	521,261	474,467
\$10,000-\$29,999	51.09	47.5	42.75	41.2	1,469,864	1,230,557
\$30,000-\$49,999	8.89	29.38	12.52	31.92	578,498	659,236
\$50,000+	0.08	5.24	1.85	9.58	81,255	170,482
Refused	11.91	10.48	15.19	12.04	333,675	398,140
Total (Level)	1,456,325	1,528,227	1,427,600	1,505,283	2,984,553	2,932,882

Source: General Social Survey 1992 and 1998.

In 1992, the majority of the younger respondents (51.09 percent) were in the \$10,000-\$29,999 income group. In 1998, a majority of the younger cohort was in this income group, though the percentage had declined (42.75 percent). The loss of younger

respondents from this income group, was balanced by a gain in the \$30,000-\$49,000 income range. Income improved for working youth in the older cohort as well. In 1992, 29.38 percent of older youth that were primarily working were in the \$30,000-\$49,999 income bracket, and this figure increased to 31.92 percent in 1998. It is not known how much of this increase is due to inflation, however.

## 5.5 Costs of Change

Increased levels of employment, higher participation rates in formal and informal training, and improved incomes, were observed between 1992 and 1998. The increases in such activities are likely to increase time pressures. Similar to their student counterparts, youth that were primarily working often felt rushed. The proportion of youth who felt rushed increased between the period of 1992 and 1998 for both age cohorts (*Table 13*). In 1998, 83.66 percent of the younger youth reported feeling rushed ‘often’ and this figure increased to 88.68 percent in 1992. Among the youth in the older cohort, 90.70 percent reported feeling rushed in 1992 and the number rose to 91.58 percent in 1998.

<b>Table 13</b>						
<b>Frequency rates of feeling rushed by working youth by age</b>						
	<b>1992 (%)</b>		<b>1998 (%)</b>		<b>Total (Level)</b>	
	<b>15-24</b>	<b>25-29</b>	<b>15-24</b>	<b>25-29</b>	<b>1992</b>	<b>1998</b>
Feeling Rushed Often	83.66	90.79	88.68	91.58	1,218,444	2,644,534
Feeling Rushed Rarely	16.34	9.21	11.32	8.42	1,766,108	288,349
Total (Level)	1,456,325	1,528,227	1,427,600	1,505,283	2,984,553	2,932,882

Source: General Social Survey 1992 and 1998.

## ***6. Limitations of the GSS for the Study of Changes in Time Use Among Youth***

During the course of this study to determine changes in time use among youth using the GSS cycles on “time use,” a number of limitations were discovered. The problems ranged in character, from sample size to data ordering.

### **6.1 Sample Size**

The sample size of the GSS cycles 8 and 12, although sufficient for an overall analysis, proved to be inadequate for detailed analysis by characteristics of youth. Many aspects of interest, like gender differences had to be abandoned due to the small sample size. A more in-depth analysis of age cohorts was also impossible. Data was collapsed into categories to achieve meaningful results, therefore limiting the outcomes. In one of the GSS cycles, the respondents were categorized into age groups, which were often too small to analyze separately.

Increasing the overall sample size has cost implications, however, the representation of younger respondents (15-29 years of age) could be increased, by decreasing the sample size of the respondents 65 years and over since they are over-represented compared to youth. The analytical capability would be improved by reporting the real age of respondents rather than by categorization into age groups. These changes would increase flexibility and possibilities of analyses.

### **6.2 Data on Income**

Additional problems arose when using data on income of respondents. As in the case of age, personal incomes were reported in income categories. This limited the time-trend analysis, since it was not possible to correct for inflation in order to make valid statements regarding changes in income. It is recognized that respondents are reluctant to report true income, but such data would facilitate comparisons of income data from the GSS over time. As the number of years between different cycles extends, the problem will become more severe, potentially yielding misleading results.

### **6.3 Missing Variables**

The initial grouping of youth into three categories of those primarily studying, those primarily working and those neither studying nor working was made unnecessarily complicated due to a missing variable from one of the surveys. Time-consuming manipulations had to be employed in order to construct comparable groups so that data from the two cycles could be compared. It is unlikely that this omitted variable could have compromised confidentiality, so it could not have been dropped for that reason.

There was a number of other missing variables in both cycles, which led to the use of less desirable variables for measuring subjects of interest.

## **6.4 Incompatibility between Cycles**

The questions used in the two cycles of GSS on time use were often found to be incompatible with one another, making comparisons difficult. The initial plan for this study was to use three GSS cycles dealing with “time use.” However, the 1986 cycle, also on “time use,” could not be used for comparisons because only a small percentage of questions were used again in the latter two surveys.

## ***7. Policy Implications***

The global economy is rapidly increasing the demand for a highly skilled labour force in Canada. This study suggests that Canadian youth are responding to the new market signals. Favourable changes in time use patterns were noted. Youth were expanding their schooling to gain better credentials to be competitive in the job market. They also combined education with work, which allowed them to gain education and work experience concurrently in order to succeed in today's economy. The culture of lifelong learning was spreading, as youth were engaging in both formal and informal training.

Labour market information is a key policy strategy to provide youth with information about marketable credentials as well as work opportunities that would enable them to make wise decisions regarding both school and work. Since higher education is essential in the current economy, students should not be obliged to work long hours that would jeopardize their learning. Nor should students be burdened early in their careers with heavy educational debts. Assistance should be provided for students who decide to mix work and education, to make this experience less stressful and more productive.

Youth is an important developmental period. Many necessary skills are acquired during this time that often define their future careers. It is also a period of many important life decisions and changes, such as family formation and leaving home. Policies should support youth so that these transitions can be accomplished without compromising their education or the early careers. As pointed out in this study, younger youth risk having financial problems due to low incomes.

Policies should also encourage continuous learning and skill improvement through both formal and informal learning. This study indicated that the lack of time is as important as the potential lack of financial resources. Incentives could be provided to employers to support training during work hours.



## 8. *Conclusion*

The majority of current job growth is within sectors requiring highly skilled workers. Therefore the bar is higher for youth entering the labour force. Have patterns of learning and working changed? Are youth studying longer? Are they training more? What kinds of training do they tend to prefer? Are working conditions improving for youth? And finally, did the changes come at a price?

Using the GSS cycles 8 and 12 on time use, this study attempted to answer these questions. Two age cohorts of youth were studied. In each cohort, youth were grouped into those that were primarily studying and those that were primarily working. This study showed that patterns of time used for study and work were changing for Canadian youth. Compared to 1992, in 1998 more youth seemed to be staying longer in school. Many students also reported working while in school to gain exposure to work experience, and this trend also increased over time. There was increased participation in formal and informal training. Their income also improved with time. However, these positive changes came at a price, with an increasing majority reporting that they often felt rushed.

Changes were also noted for those youth that were primarily working; however, significant differences were observed between younger and older youth. These differences may be dependent on whether youth were launching their careers or if they had already begun their career trajectories. Their incomes increased between 1992 and 1998. Skill improvement appeared to be a priority and an increasing proportion of youth was engaging in formal and informal training. Working youth also reported that they often felt rushed; therefore, these changes came at a price.

During the course of this analysis, a number of difficulties with the GSS data were encountered. The problems ranged from missing variables to data incompatibility between cycles. These problems necessitated the use of less favourable methods of analyses.



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