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POST-SECONDARY EDUCATION IS THE BEST INVESTMENT YOU CAN MAKE

HIGHLIGHTS

- **Investment in post-secondary education remains the single best investment that one can make. Higher education raises the prospects for employment, is more likely to result in full-time employment, reduces the odds of unemployment, lowers the duration of unemployment, and helps to facilitate retraining and/or skills development – all of which raises annual income, that is compounded over your entire lifetime. Education is also often inherited by one's children, as people who invest in post secondary schooling are more likely to have children that follow suit. College and university graduates are also more like to volunteer and be involved in their community.**
- **The sad reality is that most Canadians, and particularly those from low–income households, overestimate the cost and underestimate the benefit from post–secondary education.**
- **The criticism that youths are taking on debt but gainful employment is not available is based on perceptions of the current state of the labour market. However, the perceived weakness in youth employment is often overstated and the criticism misses the fact that investment in education pays off over one's lifetime.**

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The sizeable debt that students often have to bear on graduation from post-secondary education, combined with the recent weakness in the youth labour market, have led some to speculate whether a diploma or degree is worth the cost. This perspective is fallacious. Investment in post-secondary education remains the single best investment that one can make. Higher education raises the prospects for employment, is more likely to result in full-time employment, reduces the odds of unemployment, lowers the duration of unemployment if a job is lost, and helps to facilitate retraining and/or skills development – all of which raises annual income, which is compounded over your entire lifetime. The end result is a higher standard of living, not just for the individual but also for their family. It also brings gains to society.

Make no mistake, the immediate cost can be daunting and the resulting debt can be a major burden. The main problem is that the benefits accrue over your lifetime, while the cost is upfront – implying that the investment likely requires financing through family, government support or private borrowing. However, there is no evidence that those that take on student debt are disadvantaged over the long run. Quite the opposite, investment in education is better than any other financial investment. The average annual return is above 10% for a university undergraduate degree and even higher for college diplomas. Moreover, education is often inherited by one's children, as people who invest in post-secondary schooling are more likely to have children that follow suit. College and university graduates are also more likely to volunteer and to be involved in their community.

The sad reality is that most Canadians, and particularly those from low–income households, overestimate the cost and underestimate the benefit from post-secondary education. The criticism that youths are taking on debt but gainful employment is not available is based on perceptions of the current state of the labour market. And, the perceived weakness in youth employment is often overstated. The bottom line is that the secret to success is investing in oneself, and the best investment is in education.

Learn more, earn more

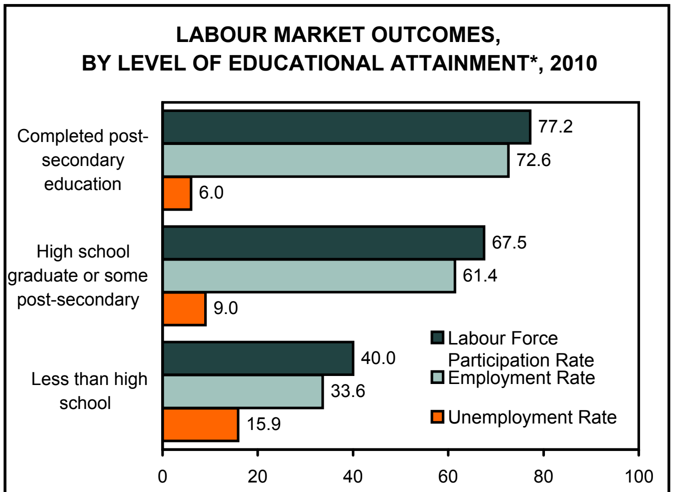
There is overwhelming evidence that individuals reap considerable direct and indirect benefits through higher education. Statistics Canada's 2010 Labour Force Survey (LFS) shows that individuals with a post-secondary education were far more likely to have participated in the labour market and were generally more successful in finding gainful employment. Individuals 15 years of age and over with a post-secondary education had an employment rate of 72.6%, well above that for those with only high school at 61.4% and more than double the 33.6% for those without even a high school diploma. Even better, 88% of post-secondary graduates had full-time employment.

As one might expect, greater education also co-relates with lower unemployment. In 2010, the unemployment rate of individuals with post-secondary credentials was 6.0%, compared to 9.0% for those that only completed high school and 15.9% for those without a high school diploma.

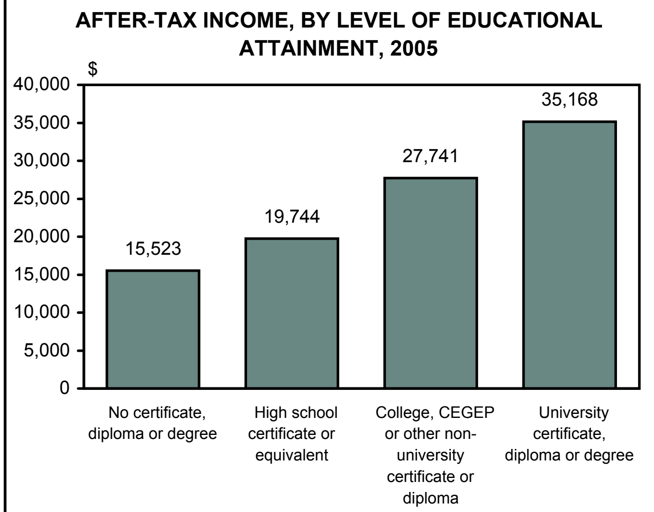
The better labour market outcomes translate into higher earnings. The 2006 Census showed that median after-tax income for university graduates was $35,168, compared to $27,741 for college graduates, $19,744 for high school only graduates and $15,523 for those that didn't complete high school. Keep in mind that the earnings differential is compounded over one's lifetime and the greater savings by higher earners can produce investment income, which provides compounding returns as well.

Looking ahead, the disparate employment outcomes by education levels are likely to widen. The demand for higher-skilled workers will only increase as the Canadian economy evolves, while an aging population will likely lead to shortages in many trade occupations and high-skilled occupations. A report entitled *Looking–Ahead: A 10-Year Outlook for the Canadian Labour Market (2006-2015)* by Human Resources and Skills Development Canada (HRSDC) indicates that the educational requirements of jobs are rising and future employment growth will be most significant in occupations requiring university education and least significant in occupations that usually require on-the-job training. Moreover, it suggests that unlike occupations usually requiring high school, employment growth within occupations generally requiring a university degree or college diploma will outpace growth in the overall labour force.

Greater employment opportunities and higher salaries are not the only benefits post-secondary education graduates enjoy. There are indirect advantages as well. Individuals with higher education have a greater tendency to behave in ways that promote a better standard of living. An example is that they tend to manage their health better. They also generally have stronger literacy and financial management skills.



* Individuals 15 years of age and over.
Source: Statistics Canada, Labour Force Survey.



Source: Statistics Canada's 2006 Census.

Post-secondary graduates are more likely to be involved in their community. And, all of this leads to greater happiness or satisfaction on surveys. As well, individuals with higher education are more inclined to pursue continued learning and training throughout their lifetime, making them more adaptable to the evolving nature of work in today's highly knowledge-based economy.

The impact of higher education reaches well beyond the current generation. The better today's Canadians are educated, the better the educational – and employment and income – prospects of the next generation. This is because participation rates in post-secondary education strongly correlate to parents' level of educational attainment. According to Statistics Canada's Youth in Transition Survey (YITS) conducted in December 2005, 80% of Canadians within the 24 to 26 age group with parents that graduated from post-secondary education were likely to go to college or university, compared to only 70% for those with parents that did not complete post-secondary education.

Costs to higher education

So the benefits are undisputable, but the cost of obtaining a diploma or degree can be high. In 2009, TD Economics conducted a study on the future cost of pursuing higher education. Updating the analysis, the total average cost of pursuing a 4-year undergraduate degree in Canada today is roughly $55,000 for students living at home and $84,000 for students living away from home. If parents were to have a child today, we project a child going to university in 18 years time will face a total outlay for a 4-year degree of $102,286 for students living at home and $139,380 for students living away from home. Adjusting for inflation (i.e. expressed in 2011 dollars), the projected future cost is $68,950 for students living at home and $93,963 for students living away from home.

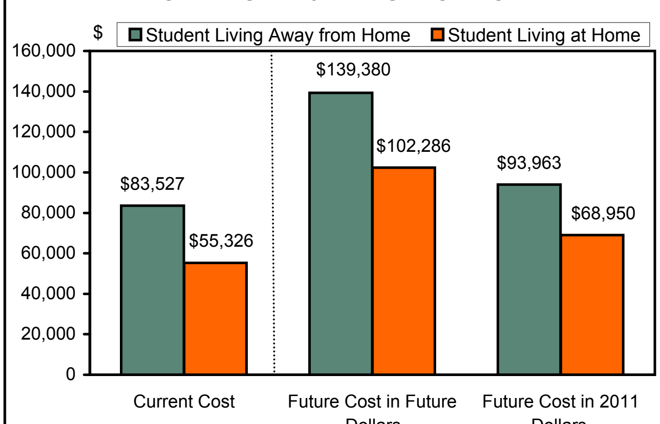
There was a time that students could fund their tuition, other school fees and living expenses from savings accumulated through summer and part-time jobs. Those days are past. Today, there is often an enormous intergenerational transfer from parents to their children through financial support for post-secondary education. This not only creates retirement saving challenges for the parents, but it is often inadequate to meet the financial needs of the child. The result is that 26% of students take on government-provided debt. Regrettably, there is no statistic for the share of students that assume private sector debt to fund education.

Student debt does not hinder economic well-being or progress

Despite the fact that a number of graduating students report that their economic well-being is being hindered by heavy student loan debts, there is no evidence that the debt puts them at a long-term disadvantage. What students often fail to realize is that borrowing for the purposes of pursuing education is a lifetime financial investment and their economic conditions will improve as the debt is being paid off and as their earnings rise in tandem with their experience. Inevitably, some will find it harder to meet their student debt obligations if they face difficulty landing a job, experience lower-than-average benefits and/or experience higher-than-average costs.

The extent of the financial burden posed by student loan debts may be measured through debt service ratios (i.e., the ratio of debt payments to earned income). Statistics Canada compiles data on the debt service ratios on government student loans soon after graduation, by level of study and size of debt. In 2005, the median debt service ratio of students graduating with an undergraduate degree was 3% for those with small debts (i.e., less than $10,000), 6% for those with medium debts (i.e., $10,000 to $24,999) and 10% for those with large debts (i.e., $25,000 and over). Similarly, the median debt service ratio of students graduating with a college degree was 3% for those with small debts, 6% for those with medium debts and 6% for those with large debts. It is important to caution, however, that these figures underestimate the debt service ratio as they do not include the debt owed to private sources of funding. Nevertheless, the debt service ratios, on average, are manageable. Consider that financial institutions generally become worried when total debt service costs exceed 40% of pre-tax income. The implication is that student debt can be a considerable burden and can limit how much more credit a recent graduate can and should take on, but the vast majority of students can cope with their financial obligations.

AVERAGE COST OF UNDERGRADUATE DEGREE TODAY VS. IN 18 YEARS FROM NOW



Source: HRSDC, Statistics Canada and TD Economics.

MEDIAN DEBT SERVICE RATIOS OF STUDENTS GRADUATING IN 2005 (%), BY EXTENT OF DEBT

Degree	Small debts (less than $10,000)	Medium debts (between $10,000 to $24,999)	Large debts ($25,000 and over)
College	3	6	6[E]
Undergraduate	3	6	10
Master	3	5	9
Doctorate	2	4	7

[E] Use with caution.

Source: Statistics Canada, *Graduating in Canada: Profile, Labour Market Outcomes and Student Debt of the Class of 2005,* Catalogue no. 81-595-M-No. 074.

Of course, what you worry about are the individuals that are having a different experience than the average. One aspect that should be stressed is that students need to fully understand the financial obligations that they are taking on. One could also argue that the government financial support for students should be altered to provide greater support to those from low-income families.

Greater rates of home ownership seen among PSE graduates despite student debt

Some students report that their student debt prevents them from taking ownership of a home. Relative to other post-secondary graduates, there is limited support for this claim, as home ownership for those with degrees and diplomas that don't take on student debt is 74% vis-à-vis 71% for those that did take on debt – a very meagre difference.

And, home ownership rates for both are much higher than the 66% for those that do not go beyond high school.

Higher education provides double digit annual rate of return

The central issue is whether post-secondary education is worth the cost. By considering the benefits and costs to higher education (which include the foregone revenues while studying), it is possible to measure the profitability and, hence, the desirability of an investment in post-secondary schooling. One of the measures used to calculate this is the internal rate of return[1]. According to Stark (2007), the rate of return to an undergraduate degree, excluding medical degrees, in 1995 was 9.9% for men and 12.1% for women. Another study by Moussaly–Sergieh and Vaillancourt (2005) find that the rate of return of an undergraduate degree relative to a high school diploma acquired in 2000 was 11.5% for men and 14.1% for women.

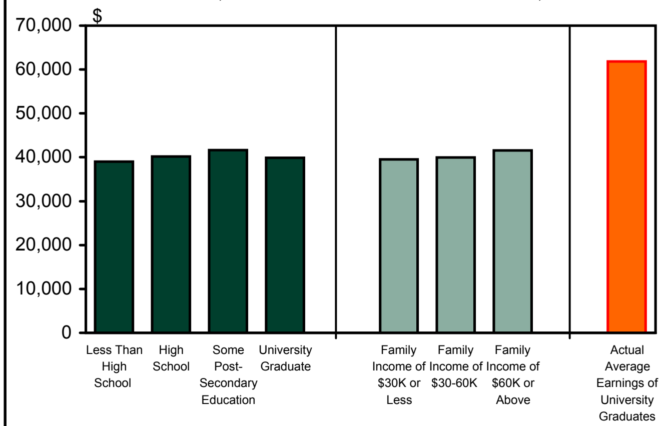
An equivalent rate of return to a college degree is harder to pinpoint as there are no comparable studies. However, a 2006 study found that the percentage difference in weekly earnings in 2000 between college and high school completers was 19.3% for men and 20.2% for women. Intuitively, the rate of return on college is likely higher than university because the higher annual earnings is obtained at a lower initial outlay.

Canadians over estimate cost, underestimate benefit

Nevertheless, some individuals perceive that the expected benefits to higher education do not warrant the expected costs. In an attempt to gauge Canadians' knowledge of the expected costs and benefits, the Canadian Millennium Scholarship Foundation (CMSF) commissioned Ipsos–Reid to conduct a survey in August 2003. Survey respondents were asked the following question with regards to expected tuition fee costs: "What would you guess it costs for one year of undergraduate university tuition last year in your province, not counting books, fees, or living expenses?" The responses given demonstrated that Canadians generally overestimated the actual average cost of tuition fees. But these responses more importantly revealed that individuals with only a high school diploma overestimated expected costs by a significantly greater amount relative to those who had post-secondary education. Survey responses organized by level of income reveal a similar pattern: individuals with a family income of $30,000 or less tend to overestimate expected costs by a greater amount relative to those with a family income of more than $30,000. Since parents heavily influence the decisions of their children, the implication is that lower income families are the most at risk of overestimating the cost of future education.

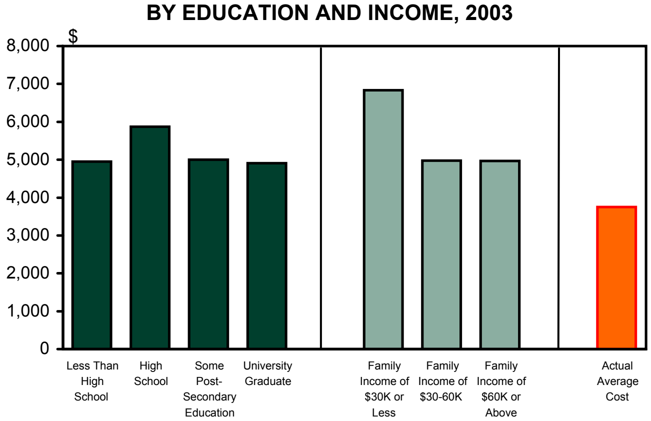
Survey respondents were then asked the following question with regards to expected benefits: "According to the 2001 Census, the average income for a high school graduate is $34,632. What would you guess the average university graduate makes?" The results revealed that Canadians significantly underestimated the expected benefits to post-secondary education. While the results did not reveal any obvious relationship between educational attainment and estimates of financial benefits, they did, however, reveal a relationship between family income and estimates of expected financial benefits. Individuals within lower–income family groups had a slightly greater tendency of underestimating the expected financial benefits to higher education.

PERCEPTIONS OF MEDIAN ANNUAL SALARY OF GRADUATES, BY EDUCATION AND INCOME, 2003



Source: Canada Millennium Scholarship Foundation.

PERCEPTIONS OF MEDIAN AVERAGE COST OF UNDERGRADUATE TUITION FEES, BY EDUCATION AND INCOME, 2003



Source: Canada Millennium Scholarship Foundation.

Exceptions do occur

We have argued that post-secondary education pays off handsomely, but it should be noted that not all graduates have a positive experience. There can be mismatches between the level of education and the future job obtained, as well as mismatches between the field of study and the employment entered into. These education-job mismatches, in turn, often account for employee turnover and they adversely affect an individual's earnings and job status. Labour market outcomes are also affected by the programs studied, as some curriculums have more direct application outside of academia.

The results of Statistics Canada's 2006 Survey of Labour Income Dynamics (SLID) indicate that roughly 58% of workers between the ages of 25 to 54 with a post-secondary certificate, diploma or degree reported that their job and education were closely related, 19% found that job was somewhat related to their education, while 23% said that their job and education were not related at all. Individuals who reported that their job and education were closely related and somewhat related earned mean hourly wages that were close to 25% higher than individuals who found that their job and education were not at all related.

Youth labour market better than you think

Many of the perceptions that investment in education might not be worth the cost relate the student debt burden to current labour market conditions, which are deemed to be poor. There are two problems with this. First, education pays dividends over one's lifetime; and, labour market conditions for youths will improve with time. Second, the overall job market for young people is not terrible at the moment.

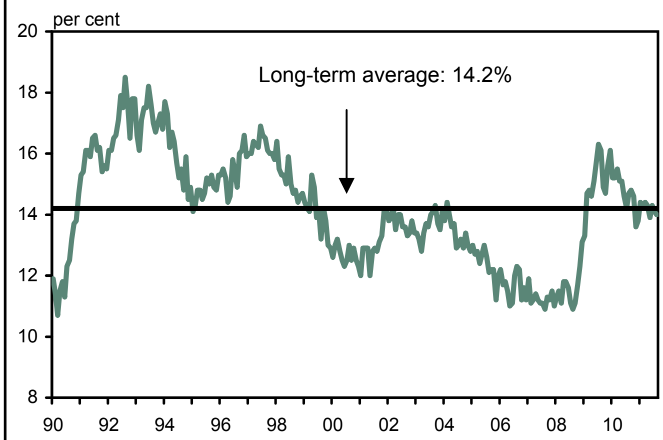
Youths were hit harder than average during the 2008/2009 recession. This always happens during economic contractions. As employment declines, the most recent hires are often the most vulnerable to being laid off. And, new entrants to the labour market face fewer opportunities. Rising unemployment for all workers also means that the young face more competition for the fewer job opportunities from displaced workers that have more job experience.

EXTENT OF EDUCATION AND LABOUR MARKET MISMATCHES WITH CORRESPONDING WAGES, 2006

	Share (%)	Wage ($)
Job and education were closely related	58	27
Job was somewhat related to education	19	26
Job and education were not at all related	23	20

Source: Statistics Canada, 2006 Survey of Labour Income Dynamics (SLID).

YOUTH UNEMPLOYMENT RATE*



* Individuals 15 to 24 years of age; Source: Statistics Canada.

Close to 255,000 individuals between the ages of 15 to 24 lost jobs during the downturn and the unemployment rate for this age group rose sharply by more than 5 percentage points to a peak of 16.3% in July 2009. Since the trough, only 48,800 net new positions for ages 15 to 24 have been created. This meagre job growth still helped to bring down the unemployment rate by 2.3 percentage points to 14.0%. However, it is important to highlight that the national unemployment rate hit the lowest levels in more than three decades before the financial crisis and recession. In fact, the current 14% unemployment rate is not as bad as it seems, since it virtually matches the average level over the past two decades. And, the youth labour participation rate is only 0.6 percentage points below its two–decade average. The simple truth is that Canada's youth are not facing the "lost generation" prospects that confront younger workers in the United States and Europe. It is tough for new graduates, but not impossible. And, the weakness that does exist today will fade with time.

Bottom Line

The purpose of this paper has not been to diminish the challenges facing today's youth. There is no disputing that the labour market isn't as good as it was in 2007 or even early 2008. And, there is no question that the rising cost of a post-secondary education over the past two decades is putting considerable financial strain on students and their families. However, there is every reason to believe that investment in education remains the single best investment that a person can make. It raises your marketability in the current labour market; and, for the vast majority of individuals, it opens the door to a higher standard of living over their lifetime.

Endnotes

1 This calculation estimates the discount rate that makes the net present value (NPV) of all cash flows – both positive and negative – from a particular investment equal to zero. An alternative interpretation for education is the annual rate of return on future earnings after removing the initial cost of the education.

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