

The university degrees with the greatest payoff on the Canadian job market

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It's the time of year when thousands of young Canadians are compiling transcripts and applying to colleges and universities. Most will spend tens of thousands of dollars and years of their young lives earning degrees and certificates in institutions across the country. Is it worth it? Does the investment of time and money pay off?

Education can be expensive. Statistics Canada estimates the average cost of an undergraduate degree in Canada to be \$23,000. And this is just the price of tuition. It does not include other fees, books and supplies, or the cost of the years spent not working.

At an overall level, university graduates earn salaries that are well above those of their peers in the 15-24 years-old range. Six months after finishing school, grads earn an average of \$43,000 a year while their cohorts who did not attend university earn an average of just \$26,000.

In a paper published in February 2014 (although largely based on historical data), Statistics Canada estimated that the earnings premium associated with a bachelor's degree over the 20-year period from their mid-thirties to mid-fifties ranges, on average, from \$728,000 for men to \$442,000 for women.

That study also found that, for both men and women, a bachelor's degree and a college certificate are associated with more years of coverage in an employer-sponsored pension plan and fewer layoffs than a high school diploma.

Tuition fees are increasing very quickly. In Ontario for example, at an average of \$7,539 per term – plus increases in additional compulsory fees – adjusted for inflation, means that tuition is up 33% since 2006. Meanwhile salaries six months to two years after graduation has been flat since 2006. However, when you adjust for inflation, wages are actually down in real dollars by 11.6%.

Employment rates six months after graduation are also down considerably from 94.1% in 2006 to 87.6% in 2012. Students are paying more to get an education but getting less benefit on the job market when they graduate. Regardless, post-secondary enrollment continues to climb.

We recently surveyed Canadians about their thoughts on university education as an investment for future employment. Most people, 60 per cent, told us that they believe education should be tied to the job market. (And only 23 percent of people say that what they studied in school is relevant to their current job.)

So, with nearly 75 per cent of people telling us that their education is not related to their current jobs, we took a look at those fields of study most likely to land you a job in your field. Here are the findings based on the education and work histories listed in the millions of Canadian resumes in the Workopolis database.

The degrees most likely to pay off with a job in your field

If you are obtaining education specifically as an investment for the job market, here are the five degrees most likely to land you a job in your field:

- Human Resources (88 per cent)
- Engineering (90 per cent)
- Computer Science (91 per cent)
- Pharmacy (94 per cent)
- Nursing (97 per cent)

Percentage indicates number of people whose first job on their resume after graduation is in a related field.

The degrees that earn the highest starting salaries

So in what fields does that investment pay off the greatest dividends? We also analyzed the job histories on our database to determine which *first jobs* after graduation allow people to bring home the biggest paycheques. From a financial point-of-view, the most lucrative fields of study for first jobs right now are *Computer Science, Engineering, Law, Math, and Healthcare*.

The average starting salaries for graduates from **Computer Science** programs is \$ 68,000.

The most popular first jobs for Computer Science graduates include:

- Software Developer \$68,000
- Web Developer – \$52,000
- Business Analyst – \$74,000
- Consultant – \$74,000
- Project Manager – \$75,000

The average starting salaries for graduates from **Engineering** is \$76,000

The most common jobs for Engineering graduates include:

- Mechanical Engineer – \$73,000
- Design Engineer – \$73,000
- Project Engineer – \$75,000
- Electrical Engineer – \$79,000
- Software Engineer – \$80,000

The average starting salaries for the jobs most often held by graduates from **Law** is \$67,600

The most common first jobs for Law graduates include:

- Law Clerk – \$50,000
- Legal Assistant – \$50,000
- Research Assistant \$62,000
- Associate – \$75,000
- Lawyer – \$96,500

The average starting salaries for the most common jobs held by **Math** graduates is \$67,600

The most common first jobs for Math graduates include:

- Market researcher – \$60,000
- Actuarial Analyst \$67,000
- Software Developer \$68,000
- Banking consultant – \$68,000
- Business Analyst – \$75,000

The other top category of education that pays off is in **Healthcare**. The range of courses of study and career-paths in healthcare and medicine is very wide, running the gamut from dentistry to nursing, from medical technicians to pharmacists to doctors. For this study we focussed our attention on the most in-demand roles that actively post jobs to hire graduates as soon as they receive their credentials.

The top Healthcare jobs that hire new graduates are:

- Kinesiologist – \$47,000
- Physiotherapist – \$71,000
- Registered Nurse – \$72,000
- Occupational therapist – \$73,000
- Pharmacist – \$85,000

The average wage for these positions is \$69,600.

Education as an investment for the job market

Of course, there are other reasons to pursue your education besides simply ROI on the job market. Studying at university degree can be a fulfilling, once in a lifetime experience offering graduates a broader depth of knowledge and perspective to call upon for the rest of their lives.

However, if you are among the 60 per cent of Canadians who believe that education should be tied specifically to job prospects, there are key areas of study that stand out as particularly valuable on the job market.

Several disciplines fall into both the education that is most likely to lead to a related job, as well as to the most lucrative career paths. This indicates that if you are choosing your education based on job market demand, the best return-on-investments currently are in *Computer Science* and *Engineering* along with certain *healthcare* fields such as *Pharmacy* and *Nursing*.

Bottom line: the ROI on the investment in a university education is decreasing as the costs go up and the job market payoff goes down. However, grads still fare better than their lesser educated cohorts.