

Quebec High School Graduates Earn \$500,000 More Than Non-Graduates

KEYWORDS

Quebec, Ontario, high school, educational attainment, early school leavers, income

RESEARCH SUMMARY

DESCRIPTION

In this article, economist Pierre Fortin (Université du Québec à Montréal) looks at the earning differential for high school graduates and non-graduates in Quebec. Fortin expands on these results by showing readers what the financial and social gains for Quebec would be if its dropout rate was reduced to that of Ontario (from 8.6% to 5.6%).

METHODOLOGY

To calculate the earning differential between graduates and non-graduates, Fortin makes two important calculations: the average earnings by age group between early leavers and those with their diploma (Table 1) and estimations of life-long earnings across selected age groups at selected rates of inflation (Table 2). His formula is simple: choose the average salary based on the age and educational level of the person in question, omit the ages of 15 and 16 (because the majority of this age-group does not work) from either earning pool, as well as the year of graduation, and multiply accordingly.

Table 1: Average earnings by age groups and educational attainment

Age group	Average Salary: No High School Diploma	Average Salary: High School Diploma
15-24 years of age	\$11,250	\$12,647
25-34 years of age	\$26,099	\$32,934
35-44 years of age	\$30,138	\$40,965
45-54 years of age	\$31,241	\$44,205
55-64 years of age	\$27,756	\$37,944

Table 2: Life-long earning differential of high school diploma holders across selected age groups

Age of graduation	.75% inflation per year	1.0% inflation per year
17 years of age	\$519,000	\$563,000
19 years of age	\$516,000	\$560,000
24 years of age	\$508,000	\$552,000
29 years of age	\$453,000	\$495,000

KEY FINDINGS

To illustrate Fortin's method, consider a 25-year-old high school graduate. In order to calculate the graduate's average life-long earnings, Fortin would take the average salary of someone with no diploma, aged 15-24, and multiply it by 8 – he would multiply by 8 because ages 15 and 16 are omitted, leaving 8 to take into account. Next, he would take the average salary of a graduate and multiply by 9, this time omitting the graduation age of 25. Finally, Fortin would take the last three age groups (with a diploma) and multiply their average salary by 10, not omitting a single year. In total, the lifetime salary of a 25-year-old graduate is \$1,633,721, as opposed to \$1,242,340 for someone with no diploma, a difference of \$375,206 (for brevity, this does not include inflation).

Yet Fortin takes this method further by considering its usage in analysing the educational attainment gap that exists between Quebec and Ontario. Currently, the percentage of people aged 25-44 with no diploma in Quebec is 8.6%, while Ontario's is 5.6%. How would the province of Quebec benefit, if that gap disappeared? Fortin estimates that each age cohort between 25 and 44 would add 2,700 more graduates. The resulting financial gains would be approximately 1.75 to 2 billion dollars (from 2017-2066), substantially benefiting some of the poorest people in Quebec who previously did not have a high school diploma.

WHY THIS MATTERS

Fortin's article gives a compelling "call to action" to researchers, program developers, fundraisers and policy makers alike. In a concise and accessible way, his work lays out the economic benefits that are gained by eliminating the dropout gap. While his results show that a person who obtains their diploma later in life will always incur economic benefits, Fortin's method shows the substantial and long-lasting economic advantages that the individual and society gain from encouraging youth to obtain their diplomas "on-time". Indeed, the earnings gap between diploma and non-diploma holders only increases with age. One of the best ways to eliminate this socioeconomic gap is to ensure that youth have the resources and support they need to graduate on time.

RECAP

1. Throughout their lifetime, Quebec high school graduates earn, on average, up to half of a million dollars more than non-graduates.
2. The percentage of Quebec citizens with no diploma, aged 25-44, is 8.6%. In Ontario, that number is 5.6%.

ABOUT THIS SUMMARY

Quebec high school graduates earn \$500,000 more than non-graduates

3. Eliminating the gap between the two provinces would result in societal financial gains of over 1.75 billion dollars for Quebec.

To summarize, mobilizing around providing youth with access and opportunity to education pays for itself.

“Graduating from high school results not only in higher individual incomes and overall economic productivity, but is also beneficial to public services, social and psychological well-being, and makes for a more equal society.”

Fortin, 2016

APA CITATION

Fortin, P. (2016). *L'obtention d'un diplôme d'études secondaires rapporte un demi-million de dollars au diplômé*. Université du Québec à Montréal (UQAM). Retrieved from http://www.reseaux-ur-sitemontreal.ca/wp-content/uploads/2016/04/PFortin_Decrochage_Texte_0316_demimillion.pdf

FURTHER READING

Frenette, Marc. (2014). *L'investissement d'une vie? Les avantages à long terme sur le marché du travail associés aux études postsecondaires*. Direction des études analytiques : documents de recherche, Statistique Canada, 1-27.

Oreopolous, Philip. & Salvanes, Kjell, G. (2011). *Priceless: The nonpecuniary benefits of schooling*. *Journal of Economic Perspectives*, 25(1), 159-184.

Statistique Canada. (2016). *Indicateurs de l'éducation au Canada : Une perspective internationale 2015*. Accédé en ligne sur <http://www.statcan.gc.ca/pub/81-604-x/81-604-x2015001-fra.htm>.