



Labour Market Matters

Special points of interest:

- Study finds earnings having been increasing for those with university educations since the 1980s.
- The impact of natural resource booms on human capital formation and educational attainment examined in new study.

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Craig Riddell
(University of British Columbia)

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Is University Education Still a Valuable Investment?

The acquisition of knowledge and skills has many consequences for individuals and society. Benefits of formal education to individuals can go beyond learning to include higher lifetime earnings, reduced unemployment, greater employment opportunities, improved health and longevity, and inter-generational benefits that accrue to one's children in the form of higher education and improved health. The impact of education on lifetime earnings is among the most important consequences of human capital investments and with the cost of education having increased substantially in recent years, it is important to understand the consequences of educational investments.

In a study entitled “[The Evolution of the Returns to Human Capital in Canada, 1980-2005](#)”¹ CLSRN affiliates Brahim Boudarbat (University of Montreal), Thomas Lemieux (University of British Columbia) and W. Craig Riddell (University of British Columbia) examine the evolution of the returns to human capital in Canada over the period 1980-2005.

Using Census data from 1981 – 2006, the researchers found that, for men, the return to a university BA education relative to high school completion has gone up over the past 25 years from a wage differential of 32 percent in 1980 to 40 percent in 2005. This increase took place gradually over the period, with the largest

increases occurring in 1980-85 and 1995 – 2005. These earnings differentials control for work experience, an important consideration given the ageing of the workforce. The earnings gap between high school graduates and those with post-graduate and professional degrees was found to be larger – over 40 percentage points – but was more stable over the 25 year period examined in the study, increasing from 42 percent to 48 percent. The return to a college or trades school program also rose – from a differential of 8 percent to 14 percent. Thus the financial benefits of all forms of post-secondary education increased over the 25-year period. The earnings gap between high school dropouts and graduates was relatively stable at around 15 percent.

Previous studies have shown that returns to education are systematically larger for women than for men. The wage premium associated with a university BA education was 45 percent for women in 1980 versus 32 percent for men. Compared to men, the educational wage differentials for women were more stable over the period 1980 – 2000, though the differentials did grow between 2000 and 2005. The study found that the largest increase for women was the BA-high school wage differential, which grew by 6 percentage points from 45 percent to 51 percent. The college-high school earnings gap rose by 3 percentage points, from 12 percent to 15 percent, as did the premium associated with a postgraduate or professional educational program. The gap

between earnings of female high school dropouts and high school graduates was stable at 20 percent over the period of 1980 – 2000, but widened to 25 percent by 2005.

Reliable estimates of the returns to human capital in general and in terms of the returns to education in particular are essential for assessing the benefits of the large investments in human capital made by local, provincial and federal governments in Canada as well as by individuals. In an era of rising tuition fees, we cannot expect as many young people to continue attending colleges and universities in the face of rising costs unless they are aware of large primary and secondary benefits associated with these costly investments. Furthermore, in order for the market for education to function well, it is essential for individuals contemplating investments in education to know the kinds of returns they should expect on these investments. The results of this study indicate that not only are educational investments still a valuable investment, the returns to education have been trending upwards in recent decades.

¹Brahim Boudarbat, Thomas Lemieux, & W. Craig Riddell, “The Evolution of the Returns to Human Capital in Canada, 1980-2005” *Canadian Public Policy*. Vol. XXXVI, No. 1, 2010.

Do Natural Resource Booms Mean Human Capital Bust?

Canada has benefited richly from natural resource booms due to its endowments of valuable commodities such as oil and gas. But does the blessing of natural resources also come with a curse? There is evidence that resource booms tend to reduce school enrolment, as high wages arising from resource booms may crowd out human capital formation by pulling young individuals out of school. A study entitled, **“Long Term Consequences of Natural Resource Booms for Human Capital Accumulation”** (CLSRN Working Paper no. 74) by CLSRN affiliates Herb Emery (University of Calgary) Ana Ferrer (University of Calgary) and David Green (University of British Columbia) examine the long term effects on human capital formation of natural resource booms.

Using Census data as well as the 2003 International Adult Literacy Survey (IALS), the



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researchers analyse the education enrolment during the Alberta 1973 – 1981 oil-boom to determine the long term effect of natural resource booms on human capital formation. The 1973 to 1981 OPEC oil crises generated high oil prices in Alberta which created a period of rapid growth both in wages and employment relative to the rest of Canada. The researchers looked into the schooling attainment and literacy achievement of cohorts attending school in Alberta during the resource boom periods, and compared them to their peer cohorts from the rest of Canada.

“[A] temporary resource boom could help students facing financial constraints for education, to finance more education than otherwise would have been possible”

The researchers find that it is the case that post-secondary education enrolment was lower in Alberta compared to the rest of Canada. However, this was ultimately more of a delay-of-schooling effect, rather than a permanent curtailment of educational training during boom periods for the cohorts examined. Furthermore, researchers note that short-term reductions in schooling enrolment during a resource

boom period actually resulted in higher levels of educational attainment in the future – which suggests that resource booms actually **benefitted** the formation of human capital in the long run. Indeed, the researchers note that rather than being detrimental to human capital formation, a temporary resource boom could help students facing financial constraints for education, to finance more education than otherwise would have been possible. This result runs contrary to the resource booms being a source of harm to human capital formation as alleged in the ‘resource curse’ literature.



Ana Ferrer
(University of Calgary)

Taking into consideration the historically lower levels of educational attainment of Albertans compared to the rest of Canada, it appears that higher oil prices during resource boom periods actually resulted in greater overall investment in human capital amongst school aged Albertans. Overall, the researchers suggest that natural resource booms have had the effect of enhancing human capital



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formation during the Alberta resource boom period rather than crowding it out.

The results fit with the idea that educational choices are not permanent and individuals may come back to school at a later date if they decide to leave at the time of the resource boom. Assuming that schooling decisions are not permanent also explains the result that while the boom seems not to have long lasting effects on educational attainment, the subsequent bust does. Individuals who leave school in order to work during a resource boom may have the chance to use the accumulated earnings to go back to school later on, but those who leave school because of a recession may not have the same resources to do so. Policies offering easy access to post-secondary education or high school completion programs for individuals affected by a resource bust may be helpful to help displaced workers following a resource bust.

Endnotes

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