



Labour Market Matters

Special points of interest:

- Men apprenticing in the trades found to earn 2% more than men with college educations.
- Apprenticeships are found to be potentially as financially attractive option as college education after training wages vs. tuition fees as well as future earnings are factored.

“[T]he return to an apprenticeship accreditation for males is basically equivalent to community college graduation”



New study finds that male apprentices earned 24% more than those with only high school graduation; 15% more than individuals with non-apprenticeship trades; and 2% more than college graduates.
Image: FreeDigitalPhotos.net

Volume 4, Issue 5

May 2012

Certified apprentices found to exhibit earnings similar to men with a community college education

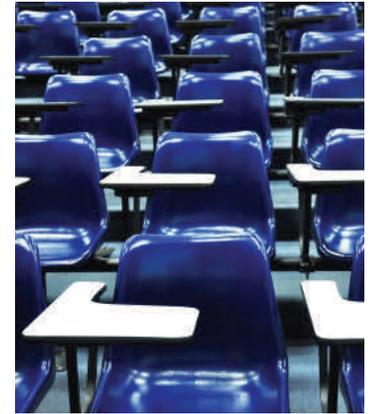
Discourse regarding post-secondary educational pathways is often dominated by the idea that the pursuit of college or university education will result in the best financial future. While research overwhelming indicates that having college or university education can vastly improve an individual's future economic prospects, the strong focus on college or university education can often cast other post-secondary educational pathways into undeserved obscurity. Indeed a CLSRN study entitled **“Returns to Apprenticeship: Analysis Based on the 2006 Census”** ([CLSRN Working Paper no. 99](#)) by Morley Gunderson (University of Toronto) and Harry Krashinsky (University of Toronto) finds that men apprenticing in the trades actually earn 2% more than community college graduates before adjusting for other factors that affect earnings, and almost the same as college graduates after adjusting for such factors.

Using data from the 2006 Census, the researchers found that simple differences in means indicated that male apprentices earned 24% more than those whose highest level of education is high school graduation; 15% more than individuals with non-apprenticeship trades; and 2% more than college graduates. An interesting point to note is that since returns to an apprenticed trade compared to a non-apprenticed trade are considerably higher; datasets prior to the 2006 Census (which was the first to separate the two categories) will have underestimated the returns from apprenticeships as previous datasets had combined the apprenticed trades with non-apprenticed trades.

Apprenticeship can raise economic prospects especially for those who would otherwise have been at the lower end of the wage distribution. Indeed, the researchers note that the pay premium (or economic benefit) of an apprenticeship was higher for those who had less education (and therefore lower economic prospects) to start with. For example: the pay premium for apprenticeship compared to high school graduates is 30.7% at the bottom 10th percentile of the pay distribution, but only 16.5% at the top 90th percentile of the pay distribution. On the other hand, when comparisons are made with college graduates who pursue apprenticeships, the pay premium is only 4% at the bottom 10th percentile, and slightly less than 1% at the top 90th percentile of the pay distribution.

For women, the simple mean earnings of apprentices are much different than they are for men. The study found that for women, acquiring an apprenticeship not only yields lower economic returns than completing community college, it also yields lower returns than simply completing high school. Female apprentices were found to exhibit lower average earnings than all other comparison groups: 6.6% less than female high school graduates; 1% less than females in other non-apprenticeship trades; and 25% less than female graduates from community colleges. The researchers suggest these results reflect the fact that female apprenticeships tend to be in low-wage industries such as the culinary arts and personal service (ie: hairdressing).

Unlike for males, where the apprenticeship pay premium was generally higher at lower end of the pay distributions, for females, the



Are the thousands of hours and dollars invested into college educations the best post-secondary option?
Image: FreeDigitalPhotos.net

overall pay deficit for apprentices relative to other alternative educational pathways generally did not change over the pay distribution.

Overall, the researchers find that the return to an apprenticeship accreditation for males is basically equivalent to community college graduation, and significantly higher than returns estimated for males in other trades and high school graduates. In contrast, female apprentices earn significantly less than college graduates and also experience lower economic returns than high school graduates and those with other trades certificates.

The researchers caution, however, that these returns are not necessarily causal and that selection effects may be present in that the various groups may differ in terms of unobserved characteristics that can affect earnings. Establishing causality, albeit difficult, is a promising line of future research.

Why apprenticeships can be just as lucrative as a college education

There are many benefits to completing an apprenticeship accreditation over other more popular educational pathways. Indeed, while a large number of individuals who choose to pursue college educations will struggle to pay off the debt associated with this post-secondary decision well into their 30s; those who choose to pursue an apprenticeship accreditation, will be paid while they learn their trade. In a CLSRN study entitled, **“Returns to Apprenticeship in Canada”** ([CLSRN Working Paper no. 70](#)), Daniel Boothby (Industry Canada) and Torben Drewes (Trent University) suggest that although the earnings gap between tradespeople and college graduates remains large, it would not be surprising to see the gap in rates of return close or even reverse once the earnings made by apprenticeships during their training is taken to account compared to the debt taken

on by those who choose to pursue a college degree. It may well be that once all costs and benefits – training costs/wages and future earnings – are taken into consideration, that an apprenticeship accreditation is as financially attractive an option as the pursuit of a college degree.

“It may well be that once all costs and benefits – training costs/ wages and future earnings – are taken into consideration, that an apprenticeship accreditation is as financially attractive an option as the pursuit of a college degree.”

Using data from the 2006 Census and the 2007 National Apprenticeship Survey (NAS) the researchers find that despite a weekly earnings premium for male apprentices in trades (concentrating in the construction, production and mechanical trades) of 9 to 14 percent over individuals with only a high school education, enrollment into apprenticeship programs is a path taken only by a small minority of



Female workers who apprentice in male-dominated trades were found to actually earn more than men in such trades. Image: [FreeDigitalPhotos.net](#)

individuals compared to other post-secondary pathways – despite potentially lucrative benefits of completing an apprenticeship accreditation. The researchers note that a well-defined market for higher education exists for college and university education, and that students who meet requisite academic requirements can quickly exercise their choice to pursue college education. The same is not necessarily true for those wishing to pursue an apprenticeship who may have considerable difficulty finding an employer willing to supply training opportunities.

The researchers note that there appears to be a fundamental difference between post-secondary education in the college and university sectors and apprenticeship training. The 2007 National Apprenticeship Survey (NAS) indicates that the mean length of time elapsing between high school graduation and the beginning of an apprenticeship is 6.5 years for men and 7.5 years for women. This finding

suggests that apprenticeship training is more a form of adult learning rather than a post-secondary educational choice for high school graduates.

Boothby and Drewes find that while female apprentices taken as a whole tend to experience negative returns to undertaking an apprenticeship – they find that these negative returns are due primarily to their choice of apprenticeship streams – which is overwhelmingly concentrated in the culinary arts and personal services such as hairdressing. Interestingly, females in male-dominated trades (such as those related to construction, production and mechanical trades) actually exhibit even higher earnings premia than males. This begs the question of why females overwhelmingly choose other trades in which earnings are actually lower than what high school graduates would earn.

Overall, there is evidence that suggests that apprenticeship training, if it can be completed, should be as financially attractive a post-secondary education destination as the pursuit of a college education. This raises the question of why the age of entry into apprenticeships is so delayed compared to college and university entry, and why so few view apprenticeship as a post-secondary option.



Mean length of time elapsing between high school graduation and the beginning of an apprenticeship is 6.5 years for men and 7.5 years for women. Indicating that apprenticeship training is viewed as more a form of adult learning than post-secondary education. Image: [FreeDigitalPhotos.net](#)

Endnotes

[Labour Market Matters](#) is a publication of the Canadian Labour Market and Skills Researcher Network (CLSRN). The CLSRN is supported by the Social Science and Humanities Research Council of Canada (SSHRC) under its Strategic Research Clusters program. Opinions expressed in this publication do not necessarily reflect the views of the SSHRC.

Articles in *Labour Market Matters* are written by Vivian Tran - Knowledge Transfer Officer, CLSRN, in collaboration with the researchers whose works are represented. For further inquiries about *Labour Market Matters* or the CLSRN, please visit the CLSRN Website at: <http://www.clsrn.econ.ubc.ca> or contact Vivian Tran at: Vivian.Tran@ubc.ca