

College and university graduates with low earnings in Canada – Demographic and labour market characteristics

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- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- ^P preliminary
- ^r revised
- X suppressed to meet the confidentiality requirements of the *Statistics Act*
- ^E use with caution
- F too unreliable to be published
- * significantly different from reference category ($p < 0.05$)

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International comparisons show that, compared to other major OECD countries, Canada had the highest percentage of college- and university-educated workers who earned less than half of the national median employment income in 2006. International indicators showed that 18% of university-educated adults and 23% of college-educated adults aged 25 to 64 in Canada earned less than half the national median employment income in 2006. This meant that these workers' annual earnings were less than \$16,917 before taxes and transfers.

Given the importance of postsecondary education in Canada, findings such as those reported by the OECD could give cause for concern. Does this ranking suggest, for example, that structural factors in Canada could lead to such a result? Is Canada producing too many college and university graduates for the labour market to absorb? Or, is Canada not producing the right mix of postsecondary graduates? Furthermore, economic conditions have changed since 2006. It would be useful to know what impacts current economic conditions are having on the earnings of college- and university-educated workers and how they compare both to their counterparts in other countries and to workers with less than a college or university education in Canada.

In order to answer these questions, it is important to know who these college- and university-educated workers in low-earnings situations are. This article examines the characteristics of these workers in order to identify demographic and employment characteristics that could suggest reasons for their low employment-earnings situation.

**Box 1:
Definitions**

The OECD definition on which this comparison is based includes all individuals between the ages of 25 and 64 who had non-zero employment earnings² in 2006 (the latest year of data available at the time of the OECD analysis). The data upon which this indicator is based is provided by Statistics Canada's [Survey of Labour and Income Dynamics \(SLID\)](#), 2006.

For the analysis, earners were divided into five earnings categories in 2006:

- Workers earning at or below half of the median earnings (less than or equal to \$16,917);
- Workers earning more than half the median but at or below the median earnings (\$16,918 to \$33,834);
- Workers earning more than the median but at or below 1.5 times the median earnings (\$33,835 to \$50,751);
- Workers earning more than 1.5 times the median but at or below 2 times the median earnings (\$50,752 to \$67,668); and
- Workers earning more than two times the median earnings (more than \$67,669).

An international comparison

Table 1 reminds us that, on average, it pays to get a postsecondary education in Canada. By far, the group that is most represented in the highest earnings category (more than two times the median) in 2006 are those with a university education, 31.7% of whom were in the highest earnings category, compared to 17.9% in the lowest earnings category. In contrast, workers who had less than high school were much more likely to be in the lowest earnings category (39.1%) in 2006 than in the highest earnings group (5.6%).

Table 1
Distribution of the 25 to 64 year old population by level of earnings and educational attainment, Canada, 2006

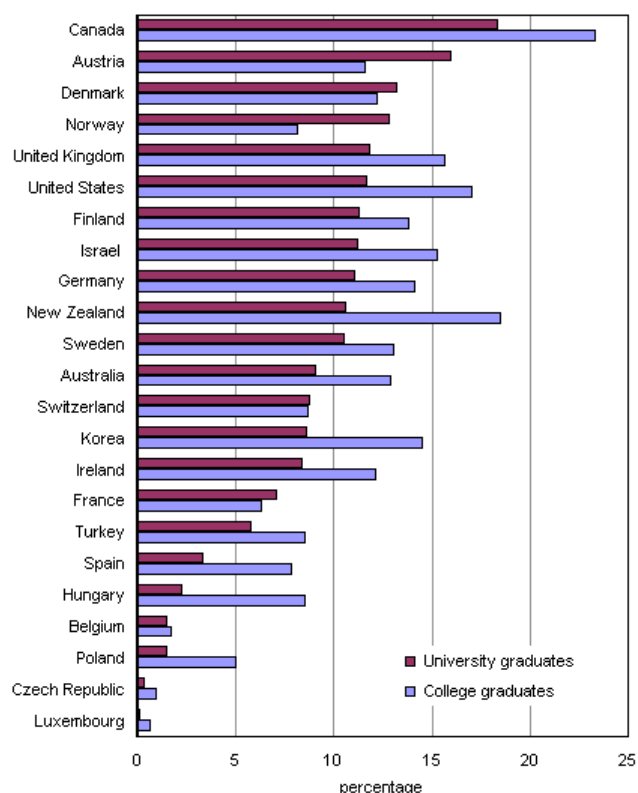
	Level of earnings					Total
	At or below half of the median	More than half the median but at or below the median	More than the median but at or below 1.5 times the median	More than 1.5 times the median but at or below 2 times the median	More than two times the median	
Less than high school	39.1	31.0	16.8	7.6	5.6	100.0
High school graduate and trades	28.2	27.0	22.4	10.8	11.6	100.0
College	23.1	25.3	23.4	14.1	14.1	100.0

educated					
University educated	17.9	16.0	17.5	16.8	31.7
100.0					
Total	25.6	24.3	20.8	12.8	16.5
100.0					

Source: Statistics Canada. **Survey of Labour and Income Dynamics**, 2006.

However, compared to other countries, the percentage of 25 to 64 year-old college and university graduates with non-zero employment earnings who earned less than half the median employment earnings in 2006 was highest in Canada for both college (23%) and university graduates (18%) in 2006 (Chart 1).

Chart 1
Percentage of university and college aged graduates aged 25 to 64 who earned half of the median income or less, OECD countries



Source: Statistics Canada. Education at a Glance, OECD 2008.

Characteristics of college and university graduates with low employment earnings

The OECD definition on which the indicator of low earnings was based includes all workers who reported non-zero earnings from employment in 2006. But working may not have been their main activity for the year. Work schedule played an important role as well. Just 11% of both college and university graduates who were working full-time, full-year fell into the lowest earnings category compared to 49% of college graduates and 42% of university graduates who worked part time.

For all earners, the two most important predictors of earning less than half the median national employment earnings were: working was not their main activity for the year and self-employment status. Overall, for the university-educated population, 43% of low earners reported an activity other than working as their main activity for the year, though they did report having some employment earnings during the year. Another 24% were self-employed and 5% were both self-employed and reported an activity other than working as their main activity. When only university graduates who reported working for an employer are considered, only 5% of university graduates were in the lowest earnings category in 2006.

Among college graduates, one-third of low earners reported an activity other than working as their main activity for the year; 27% were self-employed; and 4% were both self-employed and reported an activity other than working as their main activity. Again, when only those who reported working for an employer are considered, just 8% of college graduates were in the lowest earnings category in 2006.

The fact that Canada ranks high compared to other OECD countries in terms of the proportion of college and university graduates earning less than half the median earnings therefore raises a number of questions. Are these individuals more likely than workers in other countries to report an activity other than working as their main activity for the year? A useful avenue for future research would be to undertake an international comparison of the characteristics of highly-educated low earners in order to determine the extent to which differences in labour market attachment behaviours contribute to this finding.

After taking employment characteristics into account, the analysis finds that certain other characteristics were associated with higher probabilities of falling into the lowest earnings category. One of these characteristics was gender, with college- and university-educated women being more likely than

their male counterparts to be in the lowest earnings category. Age was another factor, with older workers (age 55 to 64) being more likely to fall into low earnings. Province of residence had an effect as well, with workers in Newfoundland and Labrador, Prince Edward Island and New Brunswick being more likely to fall into low earnings compared to workers in other provinces.

Differences were also found by field of study - workers who had studied arts and communications technologies or parks, recreation and fitness were more likely than individuals in other fields of study to be in a low-earnings situation. Conversely, workers in certain occupations such as those in management, business administration, science and technical professions, health and occupations in social science were less likely than those in other occupations to have low earnings; this was also the case for those employed in primary industries and public administration.

Finally, immigrant status also had a strong effect, once controlling for other factors. Notably, it became particularly strong after education was controlled for, suggesting that recent immigrants aged 25 to 64 (less than ten years in Canada) with the same education as a Canadian-born worker were almost twice as likely to fall into the lowest earnings category. Immigrants who had been in Canada between 10 and 29 years were also more likely than native-born workers to fall into low earnings, and this effect was particularly strong after controlling for their main activity. This meant that once we controlled for whether or not a person was working as their main activity for the year, immigrant workers aged 25 to 64 were more likely to fall into low earnings.

Conclusion

The main conclusion of this analysis is that, in fact, being in a situation of low earnings is largely a function of the nature of an individual's participation in the labour market. While it is the case that university graduates were significantly less likely to be in a low-earnings situation than college graduates, the two other key factors were working on less than a full-time full-year basis and being self-employed.

The situation of self-employed workers presents a special case, one that is in need of further research in order to better understand their earnings situation. Some individuals may be self-employed and in a low employment-earnings situation if, for example, they are continuing to work while receiving retirement benefits. More research is needed to determine whether these individuals are working because they want to or whether they had to find paid employment in order to supplement an insufficient retirement income.

A further question remains, as to whether highly-educated workers stay in low earnings for any length of time. Is weak labour market attachment a temporary event or does it extend over a period of time? What are the characteristics of those who remain in low earnings compared to those who move to higher earning levels? What is the case for recent graduates - does completing a college or university education result in earnings gains such that students are no longer in a low-earnings situation in the years following graduation? Questions such as these can only be addressed using longitudinal analysis, which data from Survey of Labour and Income Dynamics allow. Further research of this nature would be helpful in addressing these questions and in providing further insight into the earnings situations of college and university graduates in Canada.

The focus of the analysis reported here has been on college- and university-educated workers in low earnings situations in Canada, with a view to understanding key characteristics which may account for their low-earnings situations. However, questions remain concerning Canada's ranking on this indicator internationally. What is the situation in other countries? Do college- and university-educated workers tend to be more closely attached to the labour market than their Canadian counterparts or is there less self-employment? Questions also arise concerning methods and definitions used by different countries when reporting to international organizations. Future work could usefully focus on international comparisons of reporting methodologies, identifying the extent to which differences in international rankings reflect real differences in how labour markets work in different countries as opposed to differences in reporting methods.

Notes

1. Organisation for Economic Co-operation and Development. 2008. Education at a Glance 2008. Paris: [OECD](#).
2. Note that these findings refer to 2006, well before the current economic downturn. It is likely, therefore, that the situation has changed, in Canada as well as in other countries.
3. This includes workers who reported negative earnings.
4. We note that the earnings distribution of self-employed workers differs from that of employees who work for wages and salaries. As income data reported by the Survey of Labour and Income Dynamics is derived from tax files, this most likely is related to the way in which self-employed workers report their income. Since self-employed workers are able to claim expenses for their businesses, they frequently report low or even negative self-employment earnings.