Labour Market Matters

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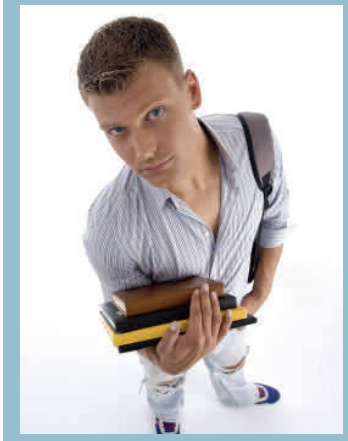
Special points of interest:

- Earnings expectations found to be important factors in choice of field of study for most students.
- High school performance found to be strongest predictor of success and academic persistence in university.

"[S]tudents do respond to market signals in terms of their educational choices and therefore, demand shifts from factors such as technological change and increased demand in certain fields is likely to be met by prospective students responding to the market signals"



Earnings expectations formed closer to time of application found to be more influential than those formed in years further away from that time.
Image: FreeDigitalPhotos.net

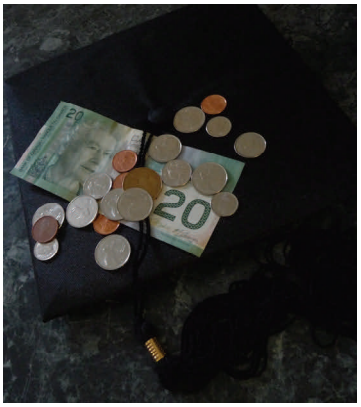
To what degree does money influence choice of field of study?

While graduates of degree programs in the Social Sciences and Humanities are relatively poorly compensated in the workforce compared to graduates of programs in Science and Engineering; in Canada, these disciplines of study are typically among the top fields of choice in terms of student enrollment despite their poor compensation. How important is post-graduation compensation in student choice of educational field? A study by CLSRN affiliates Morley Gunderson (University of Toronto) and Harry Krashinsky (University of Toronto) entitled ***"Do Educational Decisions Respond to Returns by Field of Study?"*** (CLSRN Working Paper no. 47) finds that prospective students do choose fields of study in part on the basis of earnings they can expect to receive in those fields, and while students who enter fields such as the Humanities, choose such fields in spite of their relative lower monetary return, the study finds that even these students would be less likely to choose such fields if monetary return were expected to become even lower.

Using data on the 2000 cohort of university graduates from the National Graduate Survey (NGS) the researchers try to determine the extent to which the choice of field of study is influenced by expected returns to those fields of study. The researchers find that prospective earnings not only have an effect on a student's choice of educational field, but that students become more likely to enter a given field if potential earnings are expected to increase. Earnings expectations formed around the time students are applying were found to be more influential than earnings expectations based on years further away from that time.

One significant exception to the effect of higher expected earnings increasing the probability of prospective students entering a field of study was in the Social Sciences. The study found that increases in the earnings that prospective students could expect by entering the Social Sciences (based on what earlier graduates from that field were earning around the time they were applying in 1995) actually *decreased* the probability of students choosing Social Science as a field of study. The researchers caution that this result may be an anomaly, and could be due to the fact that earnings in the Social Sciences were unusually low relative to other fields in 1995, and as such, the unusually low earnings may have deterred people from applying during the subsequent years examined in the study.

In recent years, there has been concern over the large numbers of students in Canada choosing fields such as social sciences and humanities over more lucrative fields in science, health and technology and what this could mean for the technological innovation, and meeting demand in fields such as healthcare. As



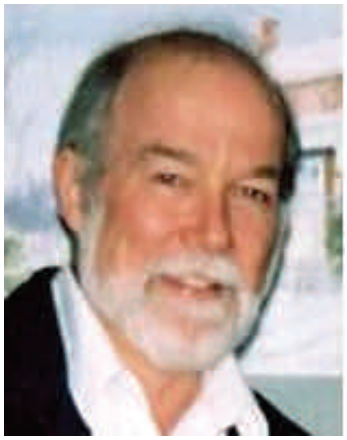
Even students in fields such as Humanities are found to be unlikely to choose such fields should earnings expectations be even lower than they already are
Image: Vivian Tran

the results of this study suggest that prospective students do choose fields of study at least in part on the basis of expected earnings, this means that students do respond to market signals in terms of their educational choices and therefore, demand shifts from factors such as technological change and increased demand in certain fields is likely to be met by prospective students responding to the market signals generated by such demand shifts or by other factors that can change the earnings expectations of various fields of study. Whether the response would be adequate to meet demand is a question that depends heavily on whether universities respond by creating more spaces in fields where demand is growing or whether they simply ration scare spaces by increasing entry requirements.

High school grade performance found to be strongest predictor of Academic Persistence and Success in University

High school may appear for many to be merely a prelude to the start of their "real" academic career; but a study by CLSRN affiliates Martin Dooley, Abigail Payne, and Leslie Robb (all of McMaster University) entitled ***"Persistence and Academic Success in University"*** (CLSRN Working Paper no. 94) finds that academic performance in secondary school is very strongly correlated not just with access to university but also with academic persistence and success once in university – more so than socio-economic status, and even the caliber of high school attended.

Using administrative data collected on students in four Ontario universities in addition to information on the students' individual characteristics (including grade performance), neighborhood, and high school; the study finds that explanatory power of an individual's high school grade point average greatly dominates that of other variables such as university program, gender, neighbourhood average income and average high school performance on standardized provincial exams, in explaining university performance.



Martin Dooley (McMaster University)

"[S]tudents from disadvantaged neighbourhoods and high schools with weaker performance on standardized tests were found to be as well-prepared for university as students with the same individual high school grades but from advantaged neighbourhoods and higher performing high schools."

The researchers find that students in the lowest high school grade category have an early departure rate that is almost 21 percentage points higher than those in the highest high school grade category. As well, students with the lowest high school grade category have a degree completion rate that is 36 percentage points lower than those in the highest high school grade category. Female completion is found to be 5 percentage points higher than that of males, and Canadian citizenship is associated with a 4 percentage point increase in the likelihood of degree completion. Interestingly, the difference in departure rates between students from high schools with low-standardized math scores and high schools with high-standardized math scores, as well as the departure rate for students from low-income and high-income neighbourhoods, is only 1 percentage point. Students from private high schools actually had a 5 percentage point lower completion rate than students from public high schools. In an earlier study, these authors found that students from low income neighbourhoods are 14 percentage points less likely to apply or to register in university than those in high income neighbourhoods. So socioeconomic background correlates strongly with who goes to university but not with who succeeds in university once there.

Abigail Payne (McMaster University)

A positive message reinforced by the results of this study is that students from disadvantaged neighbourhoods and high schools with weaker performance on standardized tests were found to be as well-prepared for university as students with the same individual high school grades but from advantaged neighbourhoods and higher performing high schools. From an institutional perspective, it appears that the universities examined were successful in providing an environment in which students from all backgrounds have a similar chance at success.

Leslie Robb (McMaster University)

As students with the lowest high school grades were found to have a very low probability of completing a degree, and are much less likely to do so than students with better high school grades, the researchers suggest that policies aimed at improving access to the university system by reducing the minimum grade point average required for admission should be approached with caution. A key question for future research is what lies behind the variation in high school grades and what mix of individual, home, and school inputs ultimately account for university outcomes.

Endnotes

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