Higher Education Quality Council of Ontario | Conseil ontarien de la qualité de l'enseignement supérieur
An Agency of the Government of Ontario

Learning to Earning | Higher Education and the Changing Job Market
Session Summary

Civic Ballroom
Sheraton Centre Toronto
123 Queen Street West, Toronto, M5H 2M9

Thanks to Ian Hartlen and Adrian Philp, recent graduates from the Master of Public Policy Program at the University of Toronto, for their work in summarizing the conference.

Day One | Thursday, November 1, 2012

Session 2B | Field of choice in the labour market

Facilitator: Christine Arnold, Ontario Institute for Studies in Education

Brent Herbert-Copley, Social Sciences and Humanities Research Council of Canada
Does Field of Study Really Matter?

There are two myths related to this question.

First, there is the notion that student choices do not reflect labour market realities. But is this really true? There has been a higher growth in art, culture, sports and recreation than in most other sectors of the economy, and this is what the majority of our students are studying.

Second, there is a firm opinion that field of study has a profound impact on labour market success. However, there is not a huge amount of difference for (un)employment rates between disciplines. Moreover, if we conceive of the return on investment (ROI) of education as divided into both personal and social returns, the differences in social returns by field of study are not particularly huge.

Recognizing these myths leads to two hypotheses:

- What students are studying is less important than how. We should be focussing on how students are being prepared. There is a strong correlation between how well people fare in school and how well they fare in the labour market, and so academic success in general seems to have more impact on ROI than which area one chooses to study.
- Research is part of the solution, not the problem. There is a tendency to think of research and teaching as at odds with each other, but student involvement in research builds desirable skills. In fact, thinking about the learning environment, including engagement in research, might be more productive than talking about what people are choosing as their major.

Torben Drewes, Trent University
Fields of Choice, Fields of Green

Is the current pattern of university enrolments across fields of study incorrect or misguided?

The popular belief seems to be that it is. Many believe that enrolment patterns do not match distribution of skill needs in the labour market, and that the solution will be found when we increase the amount of science, technology, engineering and math (STEM) graduates being produced.

But how much credence do these calls for more STEM grads really have? Indeed, there has been a long history of STEM shortage warnings, and throughout every so called "crisis," young Canadians have not responded. While there are differences in median incomes across all fields of study, the differences have been and continue to be quite stable. This clearly forces us to reconsider whether there is an ongoing shortage of STEM grads at all.

We should not take the observed difference across fields of study as evidence of possible efficiency gains. In other words, there is a missing or unspoken counterfactual at work in our understanding of labour market returns by field of study. Though median income for STEM grads may be higher than arts grads, this is not to say what the arts grad "would have earned" if they chose to study math.

Rather, we need to begin challenging this underlying premise that young Canadians are particularly ignorant and do not pursue the field which is best suited for their goals.

However, to fully address these questions we need the 2011 Census data.

Ross Finnie, University of Ottawa
Early Labour Market Outcomes of STEM Students

The study draws on the Youth in Transition Survey (YITS), Cohort A and charts earning premia for only university STEM graduates. YITS gathers data in six month periods after graduation up to 2.5 years total (1.5 years for Ontario students).

The study charted hourly and monthly wages for surveyed students by gender and against a number of background variables: high school grades, PISA reading score, parental income and parental education.

The findings were generally positive, with the highest earning premia amongst Engineering and Science/Technology graduates. There were however, large differences between genders with earnings premia decreasing over time for all disciplines, but more rapidly among females.

This data points to a particular need to better involve females in STEM disciplines within our institutions and STEM careers after graduation. However, all conclusions could be greatly refined by tracking students for longer than just a few years after graduation and by making use of other data sets to improve results: YITS B, tax data, and administration data from universities, to name a few.