

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

**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

Breakfast Keynote

Kevin Lynch, BMO Financial Group

The conference kicked off with a dynamic keynote from Kevin Lynch of BMO Financial group. Not afraid to stir up controversy, Kevin immediately declared a need for widespread change within the higher education sector. The bottom line is this: the world is changing and the status quo is no longer good enough.

The world is experiencing profound changes. Structural changes are reshaping everything, and are changing the drivers of success. The message Canada has to take from this is that we have to diversify.

Demographics are shifting: the proportion of working Canadians is lower this year than last (the first time since WWII). We have to realize that unless this smaller proportion becomes more productive to compensate for a shrinking workforce, then Canada may risk its quality of life.

However, there has been an overall trend of declining trust. Standard measures of trust have been steadily trending down for the last 15 years. As a policy maker in the past, you could start with an assumption of trust, but now, you can't. It is much more complicated to start new things despite an increasing need to do so.

Also, the information revolution has dramatically changed politics and social movements. The question we need to ask is: how much of a revolution does it imply for higher education?

We cannot forget to recognize the effects of pervasive globalization and the growing presence of Asia. Are we ready for this change?

But, not everything is driven by economics. We need to ask whether this change is more pressing for economic or social issues. We are a middle class society and if such pressures continue to erode the middle class, how will it affect society in general? Once we lose the middle class, we risk losing our institutions, and we need these main intermediaries: governments, banks, the education system, etc.

So, all this change is adjusting what it means to be competitive. It is now increasingly a choice between creativity and flexibility or low cost and scale. Especially within Canada, how do we remain competitive on a global scale but deal with rising wages? In short, it is about productivity and innovation.

But, innovation is not the same thing as invention. Productivity is not the same thing as working harder. Competitiveness can only be achieved by consistently raising our productivity growth, but this is slowing in Canada. The message is not that we are less capable than we used to be, but that we are profoundly less productive.

In a demographically challenged world, the focus must therefore be talent. Canada has to import talent through immigration while also educating our own to be global leaders. We have great building blocks in Canada but they're not aligned.

So, Canada should aim to:

- lead, not follow
- win Nobel prizes
- become first class innovators
- build a world class talent pool
- rebrand ourselves

Canada has fared well in the recession and we are constantly reminded that we lead the G7 in growth. But, this is the wrong measure. We need to be comparing ourselves to a larger pool and to the countries that are truly on the global forefront.

This goes hand in hand with developing a stronger Canada brand. The only current recognition we have is: "nice." Which of course is a good thing, but how do we make it more than that?

Canada has enormous potential, but we need to be clear about our strengths and weaknesses. We need to dream. We need to disrupt the status quo. How do we do this? Strategy matters. Innovation matters.

Session 1A | Forecasting tomorrow's skill needs and labour market returns

Facilitator: Mary Catharine Lennon, Higher Education Quality Council of Ontario

Duncan Cass-Beggs and Andrew Bell, Human Resources and Skills Development Canada

Which skills will best equip for success in the future? This is the question we need to answer, but doing so requires us to define what exactly we mean by it. By success we not only refer to the labour market but also to society and personal life in general.

What are the skills that we actually need? Thinking about this will allow us to measure the effectiveness of our education and training choices. It will also assist in a number of other policy areas, such as immigration.

The task therefore, will be of thinking through which skills we need and aligning the various policy areas in Canada to reflect this.

The emphasis needs to be on skills for future prosperity. It is no longer as simple as saying “we need more skills,” but is rather a question of which skills.

So how do we identify which skills? The best way is to analyze trends in labour market outcomes. We can clearly see that there exists a long-term trend of rising earning advantages for university graduates as well as greater job opportunities in general.

The way forward is therefore to gather a stronger evidence base for skills. We need to move beyond credentials and experience as proxies for skills. We can do this in higher education by attempting to identify the intended skill sets of various degree programs, measuring the proficiency that students acquire in these areas and tracking which skills sets link to the best results.

Ultimately, we must collaborate across institutions to find what skills are most needed and discuss how to accurately measure them.

Joniada Milla, University of Guelph
University Quality and Labour Market Outcomes of Canadian Youth

Why are labour market returns on higher education important? There are three main reasons:

- Measuring returns by degree program can be an important screening instrument for employers
- Returns can provide insight on the proper career choices for prospective students, aiding both universities and students in the “matching” process
- Measuring returns is vital for university resource allocation

Paul Jarvey, Higher Education Strategy Associates
Education vs. the Labour Market Futurism in Higher Education

There are a set of competing visions when it comes to higher education:

First, there is the outcome-oriented model. Emphasizing labour market supply and demand and technical appropriateness, this vision sees higher education as serving a distinct economic purpose and focusses on how adequately prepared students are for the labour market.

In contrast, there is the experience-oriented model. Here, the focus is on the long-term adaptability that education will provide, favouring the production of a generalist skill set over specific technical aptitudes.

These two visions tend to be advanced by people in two different sectors of society. Moreover, these paradigms are also tied to how a nation as a whole is faring economically. No surprise that the first outlook is most common in times of economic bust, while during booms, attitudes become much more sympathetic to the second model of education.

However, how can we attempt to resolve this paradigm conflict? The student perspective can provide fruitful insights.

Drawing data from the monthly MyCanEd panel, a mixed qualitative and quantitative instrument, we found some interesting results. Most students think they are already in the right place academically, and polled high when asked whether they thought their program was the “best” possible choice for them.

The findings suggest that students do have a sense of their vocational calling and personal goals. In sum, the student perspective interestingly integrates elements from both higher education rhetorics.

Session 1B | Returns across postsecondary pathways

Facilitator: Hillary Arnold, Higher Education Quality Council of Ontario

Craig Riddell, University of British Columbia

The role of education in producing cognitive skills, especially literacy skills

Has the quality of PSE fallen? There are several ways the quality of PSE can be measured. One is to measure output through tracking earnings. However, this depends on many factors. Ideally, a purer output measure would be used.

A better measure of PSE quality is skills, especially literacy skills, of adult populations. By studying surveys that provide a measure of skills of people who are outside of school, it is possible to compare the literacy skills of successive generations and thus gain a measure of quality.

The use of synthetic cohorts allows for the separation of both age and cohort effects. This separation is impossible with only one survey and necessitates the use of multiple samples.

Estimates indicate that more recent cohorts have significantly lower literacy skills. This decline in skills is most evident at the top of the skill distribution. The 10th percentile shows no significant effects, while the median and 90th show significant differences.

This demonstrates that, at least in terms of literacy skills, we are doing a poorer job of educating successive generations. This is most prominent at the top. These findings are consistent with a decline in university quality, though this is not conclusive. Further data are expected which will enable much richer analyses.

Phillip Oreopoulos and Uros Petronijevic, University of Toronto

Research on the returns to higher education

Presents two opposing views on higher education. The first is popular among voters and thus, governments. More education is always better and as many people as possible should be encouraged into higher education. The second, less popular opinion is that the investment in higher education is no longer worth it for marginal students. Increasing costs, falling completion rates and study times raise serious questions.

Education remains valuable. Although the value may differ depending on occupation even within specific occupations college graduates fare better than people in the same field with less educational credentials. However, causal evidence is questionable and mostly outdated.

PSE valued added is under question. However, tech-specific fields provide some evidence against this - the issue seems more related to arts and humanities. PSE appears to be of decreasing importance as a pre-requisite among employers. Signalling is difficult.

There is no evidence to suggest that not going on to PSE is a better option.

Suggested ways to maximize ROI in PSE include:

- Completing the program.
- Considering ability and interest, choose a program that does not foster routine tasks. This will make it harder to outsource your job.
- Stay informed about costs and aid.
- Maximize involvement and get high grades.

Harry Krashinsky, University of Toronto
Returns to apprenticeship

Apprenticeship is becoming a more popular topic. However, little is known about the effect of apprenticeships on success in the labour market.

Studies have been impacted by data limitations. The 2006 Census was the first to give useful information for a large-scale study on apprenticeships. Before 2006 there were some data sets available but most were not ideal.

Using the much better and larger data set, it is found that apprenticeships lead to significantly higher earnings than high school or trade certifications. They are comparable in this regard to college education. The study shows correlation, but not necessarily causality.

The results are gendered. Female apprentices have lower wages than people with less certification.

Next steps include seeking verification of causal returns, possibly through use of Red Seal exam scores.

Session 2A | Labour market outcomes for college and university students

Facilitator: Ray Gormley, Ministry of Training, Colleges & Universities

Shuping Liu, Higher Education Quality Council of Ontario
Early labour market outcomes of Ontario college and university graduates

From 1982 through 2005 Ontario PSE attainment increased dramatically. Can the labour market absorb these new graduates?

Unemployment. 2005 Ontario graduate unemployment surpassed the rest of Canada.

Overqualification. The rate of overqualification remains high, especially for graduates with advanced degrees. This is found even five years after graduation. However, compared to the rest of Canada, Ontario graduates are less likely to be overqualified.

Annual earnings. Advanced degree graduates' real earnings have increased, while the curve remains relatively flat for other PSE. Ontario graduates tend to earn more than the rest of Canada, but the expenditure is higher.

The Ontario trend has not greatly improved over time, but Ontario grads are not at a disadvantage. Results generally improve across the board between two and five years after graduation. Ontario results are mixed in comparison with the rest of Canada. The results are similar by credential, but costs should be taken into consideration.

Suggested areas for further study include socio-demographics, program characteristics, and personal experience.

Daniel Edwards, Australian Council for Educational Research
Insights from Australian graduates in the first five years after completion

Based on a single 2002 Australian government survey of over 9,000 graduates in the 1st, 3rd, and 5th years after graduation. The questions focused on work and study.

Outcomes are examined generally, in addition to special attention paid to specific disadvantaged groups. Generally, results are as expected:

- Students find value in their degrees.
- Most were working full time by the 5th year, with the number working full time increasing over time.
- Satisfaction was high and increased over time.
- Salary is higher than average.

Results for disadvantaged students are of special importance and answer important questions about the utility of the educational system in a successful equity agenda. Students who have unemployed parents, and/or grew up in low socioeconomic areas are more likely to attend part time or by distance, more likely to be non-native English speakers, and often indigenous or from remote areas. Their results are about equal to other students in satisfaction, relevance and earnings. They are slightly less likely to be employed full time at any time, and are slightly less likely to be managerial after the 5th year.

Results were gendered. Women were more highly represented in education and health related fields, less in IT or engineering. Both education and health jobs have lower median salaries. There were notable differences in labour force participation and salaries between men and women. This could be influenced both by field and by hours worked. Further study is necessary. A regression model controlling for part time, industry, age, etc. will bring finer results.

Patrick Bussière, Human Resources and Skills Development Canada
Earnings of postsecondary grads in Canada

There is a significant gender wage gap among recent postsecondary graduates. Although female postsecondary graduates have made great progress in narrowing the gender wage gap at the bottom of the distribution, there is still a ceiling which affects the high end of distribution, even with regression. It is unclear if this is a result of personal choice, or if there is something more to it.

There is also an earnings premium for science and tech graduates compared to those who studied the humanities. This science premium prevailed for both two and five years after graduation for all the cohorts in the study, especially for women. The science premium is slowly decreasing; it is unclear why.

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.

Lunch Keynote
Mark D. Milliron, Western Governors University

Upward mobility is “under siege.” Intergenerational transmission of poverty is higher than ever. Education is a powerful way to stop this. For many, especially lower income people, education is a game changer in the quest to “reclaim the American dream.”

Milliron wants to put learning in the centre of the dialogue. The deep structural changes required of education mean that the dynamic between novelty and entrenched interests must involve catalytic conversation that centres on learning. The core question should be “are people learning?” When the focus is on learning, it is possible to get better results in less time. Different groups have different needs. For example, some groups might benefit more from learning online, or in person, or a blend of both.

Milliron addressed frustration and scepticism surrounding online learning, asserting that online learning is a basic skill. In his view the most challenging part is finding the best way to test if students have mastered specific competencies. Online learning makes it easier to work with two important assumptions that traditional educational institutions do not emphasize: students come to institutions knowing different things and they learn at different rates.

The dominant policy conversation around education is “hijacked” by the traditional student model of a young person advancing straight from high school to an on-campus environment. However, this model is now a minority in the student population.

Milliron advises that we stop pushing for “one best way” and embrace the fact that there is no one best way. He spoke positively about the “E-Harmony effect”- the right student, at the right school, on the right pathway.

The most common reason non-traditional students drop out is “life happens.” The complex lives most learners have means that the flexibility and freedom of online learning serves them better than a more rigid, four year, residential model.

Despite the positive appraisal of online learning, Milliron recommends that we get over the question of whether online or in-class learning is better. Blended models work. The focus should be on how to use all the tools available to focus on learning.

The key is to get good data to the right people in real time. This allows for informed and timely decisions. When people are informed they can rise to the challenge. Innovation is useless if the students themselves don't show up with a sense of tenacity and engagement. Assume that students are willing to do the work. The result will be deeper learning.

Session 3A | Work-integrated learning across colleges and universities

Facilitator: Richard Wiggers, Higher Education Quality Council of Ontario

Lesley Cooper, Wilfrid Laurier University

What are the challenges in work-integrated learning

Work-integrated learning (WIL) is an intersection of theory and practice. It is value added learning. Examples include practicums, internships, cooperative education, and service learning both international and domestic.

There are many challenges in work-integrated learning. Some of these stem from the fact that WIL is seen as a quick and cheap fix to student problems in the workplace. However, WIL is not cheap if it is not done properly. The goal is the integration of work and academic learning. This involves a mixture of specific and general skills learned both in the classroom and in the workplace. In this model, student learning is the responsibility of both the university and the employer.

How do we assess WIL in the face of enormous diversity of experience? Discussion and pertinent information should be public and involve all stakeholders. Regular feedback to students is important and, though present in the classroom, is often overlooked in the workplace. There are multiple purposes for assessment and it makes a difference what evidence is used. The dangers of oversimplification are many. WIL is a complex issue and the skill needs of staff, faculty and students must be addressed.

WIL is in a period of transition from being a cottage industry (individualistic, voluntary, multiple standards) to being enterprise based. Partnerships with employers are important and must be sustained

and supported to ensure secure placements that meet the needs of both the industry and the students. Difficulties such as safety and discrimination must be managed.

Julie Peters and Peggy Sattler, Academica Group
WIL in Ontario postsecondary education

In 2009 HEQCO launched a major project on work-integrated learning.

Three sets of surveys were taken of students, faculty and employers. The findings reveal WIL motivations and benefits.

First, it is important to define WIL, both generally and as various different types. WIL is an intersection of theory and practice and there are many different types, from internships to service learning and more.

Findings:

- Students chose WIL for practical purposes such as experience and enhancing CVs.
- High student satisfaction. Drawbacks include lack of pay and prep time, time demands and unexpected costs.
- WIL students showed greater overall satisfaction with PSE.

- Faculty showed concerns about finding enough quality placements.
- Faculty also expressed concern that WIL perpetuates a business-oriented model for PSE and may divert funding from more purely academic endeavours.
- Most faculty do not feel supported by institutions to engage in WIL activities.

- Employers had varied motivations for and benefits from WIL. Examples include the development of work force skills, pre-screening of potential new hires and a sense of giving back to the community.
- Challenges for employers include lack of work and staff time, as well as a lack of skills on the part of students.
- Employers perceived the skills of new hires as similar whether or not they had WIL experience, but tend to give higher salaries to those with WIL credentials.

Institutional recommendations include:

- That greater recognition be given for WIL activities.
- Better communication between stakeholders.
- More administrative and financial support.

A planned follow-up will assess labour market outcomes.

Anne MacLennan, York University

Dreams to reality

Study focused on student experience in the communications studies field at York University. The presentation employed footage of students answering questions about their expectations and experience.

The students who are least focused are those who have no work experience. Those with the least work experience are also more likely to believe in the “fantasy” of a liberal arts degree which leads automatically to a great career. More experienced students have a somewhat more realistic (perhaps bleak) set of expectations and have the most specific goals and steps in mind to achieve them.

Over all, the perception among students is that WIL is helpful.

Session 3B | The college and university undergraduate student experience

Facilitator: Pamela Gravestock, University of Toronto

Megan O’Neill, University of Toronto

The Value of Extra-Curricular Involvement

Should we assign grades to extra-curricular involvement?

Drawing on social capital theories, extra-curriculars have the potential to build crucial networks of trust and engagement. Growing class sizes mean that students have an increasingly difficult time developing such networks in the classroom. Extra-curriculars provide the opportunity to acquire essential but otherwise unattained skills.

Also, increased social capital is correlated with greater labour market opportunity. Employers tend to agree with this assessment. The soft skills acquired through extra-curricular activity show strong influence on success in interviews and can also be viewed as an important element of education ROI. Students involved in the university community report greater satisfaction with the friendships and overall educational experience.

In sum, extra-curricular activities are no longer extra. Rather, we should see them as an underused vehicle for imparting skills and preparing students for the labour market.

Shaun McCracken, Georgian College

Students expect that when they leave their programs there will be a job for them. So what are policy makers and institutions doing to provide an adequate ROI for students?

An update to the credit transfer system would have a much needed impact for students in this area. If we could establish a more universal credit transfer system in Ontario, we could effectively reduce the financial burden on transfer students. What now might take five years across two institutions could be reduced to three. With Canadian student debt at 14 billion dollars, reducing this burden is directly correlated to the ability of new graduates to seize labour market opportunities.

Diversifying learning strategies can complement this process. An increased online presence will allow more flexible access for part-time and mature students.

Ultimately, students expect to receive value for their investment in education and institutions need to respond accordingly.

Jennifer Gerard, Mohawk College

The presentation took the form of a personal anecdote on the speaker's own path through higher education. With various twists and turns in her academic career, she emphasized how the peer helper program at the University of Guelph was vital in her decision to stick it out and finish her bachelor's degree. The program coupled her with a senior student, creating a point of contact for academic and social mentorship. We need to realize that higher education can be a daunting and potentially isolating experience for students, and that fostering success needs to extend outside of the classroom. With rising numbers of mental health cases on our campuses, she drew particular attention to programs like this as way to reach out to students in need.

In addition, she suggests more flexible pathways to degree completion, including a greater online presence and an emphasis on instilling priorities in our students. We need to be open to and trust student's goals, while also providing a variety of paths to success. Collaboration between institutions will be the most crucial factor in establishing such a system.

Session 4A | Employer and student expectations/experiences

Facilitator: Ellen Passmore, Ministry of Training, Colleges and Universities

Graham Donald, Brainstorm Strategy Group

Why do students choose to attend PSE? The top reason is to get a job, next is the desire for knowledge of an academic field. This focus on the job market necessitates a cultural shift in educational institutions.

Student expectations and goals can be contradictory. For instance, the number of students who say they want to have one employer for their career is increasing, but they think they will leave their first employer quickly. Students express great concerns about the economy, yet salary expectations increase regardless. The top career goal for students is not monetary however. Rather, it is a good balance between work and life.

The most influential people in students' choices in careers and schooling are parents. However, the extent to which parents are equipped to be of help in decision making is questionable.

Students increasingly say that they want to work for government or non-profit. How does this bode for the private sector?

Paul D. Smith, Canadian Association of Career Educators and Employers
Campus recruitment and benchmark survey report

The survey showed that the new grad market continues to struggle. There were less jobs per respondent. Arts, entertainment and recreation increased the number of job offers. Meanwhile, the service sector showed the greatest decline in job offers. Hiring was more active in Quebec.

Survey asked for the five skills most valued and five skills least valued by employers. The most valued skills included teamwork, problem solving and a strong work ethic. The least valued included tactfulness and strategic planning.

Employer pre-screening criteria included:

- Degree
- Program of study
- WIL
- Co-curricular involvement
- Academic performance

The top piece of advice employers gave to potential new hires was to do research and know the employer well.

The most unfilled positions were in engineering and banking.

Leyden M. Fonte, Toronto Region Research Alliance
Research & Innovation Jobs

Focus on research and innovation jobs, both in terms of the Toronto region labour market and the international scientific production. Government, private and academic cooperation resulted in a study of more than 60 occupations in six occupational groups. The data set used accounted for about 12% of the employed population. Using the number of graduates per program, the hiring demand per occupation and the interest on the part of youth in working in each occupation, it is possible to predict long term supply and demand for specific occupations and occupational fields.

The findings are that most fields of study, such as sciences and health, have an oversupply of graduates. At the same time, some fields, such as IT, engineering and technical sales are largely undersupplied.

Suggested next steps include a national database for high school and PSE students, as well as finding and using alternative data sources for workforce analytics, among others.

Alysha Li, Ontario Undergraduate Student Alliance
Employer and student expectations/experiences

Ontario students accumulate more debt and pay higher tuition than students in other provinces. Furthermore, there are greater tuition increases each year in Ontario.

Students were asked if postsecondary education was living up to their expectations. Preliminary themes included the following. Students “hired” their education for several related reasons, first of which is to

get a job. Another popular response was that students felt that they were “expected” to go to college or university. PSE is widely seen as a “pre-requisite for life.” Many students don’t seriously consider whether or not they want to go to PSE because they don’t see it as a choice.

Li recommends encouraging students to think critically about what they want to achieve.

Session 4B | The graduate student experience

Facilitator: Miriam Kramer, OCAD University

Marilyn Rose, Brock University

What are universities and colleges doing to provide professional development for graduate students? Results indicate that there is a great deal being done, and there are programs in place across the country, but in varying degrees and intensity.

Employers consistently report that students will not be prepared for their professional life unless they graduate from a professional program, but most students do have labour market skills. The problem is simply that they too often do not know how to present them. The soft skills acquired in most programs (critical thinking, literacy, professional presentation, etc.) are reported as some of the most frequently requested credentials, but students struggle to present themselves as market ready.

Students therefore, need the opportunity to have access to professional development.

But, it takes a village to do this kind of programming. We need partnerships with other institutions and opportunities to work one-on-one with mentors.

Looking to programs that are currently in place, there are four different models identified:

- Programs with few graduate programs/students. Little is being offered, but the general programs try to accommodate graduates.
- Programs where work is being done, but it is disparate; no coordination of information.
- Institutions with professional development committees who come together to inform one another, to partner, and work toward ensuring their bases are covered. Dean of graduate studies is usually involved.
- Coordinated and branded professional development programs run out of or through the faculty of graduate studies. Dean is a prime organizer.

We need real change on campuses across the province. The overall message is not that it is the skills per se that matter, but the attitude that graduate studies can move you along as a professional.

Melonie Fullick, York University

There is a lack of research on the PhD in Canada. There is an opinion that we have “too many,” but really it is a matter of mismatches.

What are the differences between government goals for education and PhD realities? There is a lot of focus on one particular outcome for PhD students, but what happens to the people who don't become professors?

We need to confront the socialization processes that are at work in our PhD programs. We need to be more explicit about what one has to do in order to be a tenure track professor, and reassess what academic culture is teaching graduate students about what success is. There seems to be a deeply ingrained notion that anyone in a PhD who decides to pursue a non-academic career has somehow fallen short of what they were capable of.

Ultimately, there is a huge lack of clarity in the relationships between students and universities in this area. More research is therefore required, particularly qualitative. We need to analyze how our academic culture perpetuates itself and how these socialization processes play out in our universities.

Andrew Potter, Ottawa Citizen

Andrew began as a doctoral student in philosophy but instead of pursuing an academic career, he found work in journalism and is now editor of the Ottawa Citizen. However, how he ended up in his career had nothing to do with any advice he received in graduate school. In fact, while still studying, he had taken a volunteer position writing for the university paper, but received a formal warning from his supervisor that he was "losing focus" in his studies.

Moreover, despite being, by all accounts, a success, Andrew has not been contacted by the department to share his story with current doctoral students. Instead, it seems many departments are intent on perpetuating the traditional model of graduate education, wishing only to prepare students for a career in academia.

This vision of a PhD education is however increasingly unrealistic for our students and our institutions. While graduate student enrolment is increasing, faculty hires of those capable of supervising dissertations has declined. It is therefore imperative that we rethink the culture of our graduate programs and provide more transparency about their labour market outcomes.

We need to address this widening gap between the culture and expectations of doctoral committees and the changing realities of a PhD education.

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Day Two | Friday, November 2, 2012

Breakfast Keynote

Rob MacIsaac, Mohawk College

It is time to rethink and reboot higher education. We can choose to lead from within our sector and need to get past relying on governments to do the innovating for us. We can do this within institutions and across institutions.

Each institution cannot excel at everything it does, and coupled with growing demographic and economic pressures, we need to recognize that it is time for a new paradigm.

Higher education needs to move away from a delivery method that relies on mass downloading of information to learners, to a student-centred model.

This can be daunting, but it contains the potential to move towards a system that accommodates people who cannot fit into today's model. To put it another way, we need every hand on deck in this economy and so we need to open the door to PSE for those who have only seen the door locked. Today's model shuts people out even when they make heroic efforts to succeed.

We should focus our efforts on creating "centres of excellence," that will allow us to each concentrate on our strengths. For instance, Mohawk College should not spend time and money working in areas already done well by neighbouring institutions.

Ultimately, innovation will be brought by those who pursue a path of cooperation between colleges, universities and of course, students.

Session 5A | Institutional supports for learning and labour market outcomes

Facilitator: Liwana Bringelson, Ministry of Training, Colleges and Universities

Steve Joordens, University of Toronto

Joordens began by explaining that his favourite learning outcome is critical thinking and that critical thinking often requires provocation, which he promises to deliver in his presentation. He does so by questioning the entire focus of the conference, letting his opinion be known; these conferences are a bad idea, according to him. He is bothered by the word "jobs."

The focus on jobs is the result of several factors. First, it is the desire on the part of students and their parents for independence and therefore employment following PSE, and PSE does indeed tend to enhance job opportunities. The problem is compounded by the fact that governments and political parties, naturally seeking election, will tend to want to do whatever is popular. This can conflict with their desire to make positive, though not necessarily popular, changes. The easiest thing to do in seeking election regarding educational policy is to agree with parents and students and focus education on jobs. “Learning to earning” is what results.

Universities are not, and should not be, merely job-training institutes. They exist to promote intellectual growth. Joordens reminds us that there are many decisions we make through life that have little or nothing to do with jobs. University education prepares an individual not just for a job, but for life.

Joordens recommends avoiding the marginalization of the goals of universities, especially as academic freedom, tenure, and the longevity of universities relative to governments means that universities can simply refuse to cooperate with jobs-focused initiatives. Instead of focusing so much on market outcomes, skills for life should be the focus. Rather than just being employable, graduates should also be better thinkers and better people.

Ruth MacKay, Humber College

Employer satisfaction with essential employability skills

Students say the reason they are attending PSE is to get a job. Mackay makes the distinction between universities and colleges, the latter historically being more focused on preparing students for the job market.

Students need a mix of job-specific skills and essential employability skills. Vocational learning outcomes and basic skills are specified in educational program standards.

Two provincial KPI surveys provide data. It is possible to map essential employability skill categories against employers’ perceptions of graduates’ skills and abilities. Areas of highest and lowest employer satisfaction are highlighted.

It is admitted that there are many different ways to analyze this data. Better use of the data would entail both institution-level and system-level analyses. Lack of consistent terms and definitions is an obstacle.

Wendy Cukier, Ryerson University

Entrepreneurship education and the culture of innovation

What is innovation? What are strategies for innovation? Innovation is usually associated with gadgets and start-ups. However, the most opportunities are in process innovation. Cross-sectoral processes are what’s really interesting!

Encouraging innovation of all kinds means encouraging entrepreneurship. The problem is that most research on educating for entrepreneurship focuses on description rather than on measurement or impact assessment.

Currently, there is not enough of a reward system in place for innovation. We need to encourage collaboration between communities, markets, industry, government and education to remedy this. Examples of this kind of collaboration include the Digital Media Zone (DMZ) established by Ryerson University in 2010. The DMZ has already shown preliminary positive results including global recognition, incubation of start-ups and the creation and fostering of hundreds of jobs.

Further analysis of long-term impacts is needed. Suggestions for the future include greater focus on building a “culture of innovation,” fostering entrepreneurship and working further upstream to engage young people.

Keith Hampson, Alston Road Group

Online learning is increasingly popular, as is online registration. The question is, how well can colleges and universities do online education?

There are very real limits to how well online education can be done given the way educational institutions currently operate. Any improvements to instructional value will be incremental. These limits don't necessarily stand in the way of other kinds of educational organizations and these outsiders will play an increasingly larger role.

There is a wide gap between what we had imagined would be possible, and what we have by way of online education. Expectations were high early on. One of these expectations was reduced cost. However, what is common is little more than online versions of old correspondence courses. The technology is not being utilized to its full potential.

The obstacle is not a lack of knowledge about how people learn, neither is it a lack of sufficient technology. Rather, the business model of educational institutions is blamed. The overarching framework of what can and cannot be done in delivering value to stakeholders is not designed to fully leverage technology. For example, educational institutions have an interest in making it appear that the courses they offer are unique. In reality, it is likely that large class sizes and standardized curriculums mean that student experiences in many courses will be uniform regardless of which institution offers them.

Also, the exclusive and closed nature of education in the face of social media and a lack of private sector cooperation are serious challenges to be overcome.

The odds are stacked against established organizations making changes to their business models but incremental changes are possible. Some are already happening.

The educational establishment must recognize and respond to the limits of its own business model. Other private sector learning organizations are unconstrained by the higher business model and will only continue to fill the gap.

Session 5B | Under-represented cohorts and pathways to the labour market

Facilitator: Tony Chambers, Ontario Institute for Studies in Education

Lillie Lum, York University

Role of English Proficiency

Across the board, international students target English proficiency as the main area they needed to improve on in order to be successful, but we need to think about what exactly “proficient” means.

In other words, what is Canadian English? It is hard to pin this down, and even native speakers have a hard time agreeing what is Canadian English and what is not. There is a depth of complexity to “proficient” communication that is often overlooked in our teaching of international students.

The academic model focusses on writing, reading and speaking, but if you cannot listen, all of these areas will be hobbled. Consider the frequently used ability to skim a text. This only comes after one has a proficient understanding of the language as a whole. ESL courses, on the other hand, only tend to focus on grammar and accent reduction.

We need to consider to what extent English proficiency will impact the economic integration of new immigrants, but there are variety of challenges that we face in this regard:

System challenges:

- Discrepancy between perceived and actual language proficiency among students.
- Lack of recognition of relationship between English language, academic success and employment.
- Social isolation among international students.

Institutional challenges:

- Lack of comprehensive language services for all students.
- Lack of systematic process for the identification of students with comprehensive language needs.
- Poor utilization of existing student services.

Methods and research challenges:

- Lack of reliable and valid measures of groups of professions’ specific language tests.
- Inappropriate usage of language test results.
- Minimal research about language and employment in Canada.

Joe Henry, Humber College

Students with Disabilities, Options to Consider

Students with disabilities are accessing PSE at increasingly high rates. As of 2010-11, 14% of college-enrolled students are registered as disabled and we need to consider those who choose not to register. This number has been rising at exponential rates and even more drastically in the college system than in universities.

We are also seeing a staggering emergence of mental health conditions in our institutions. Since 2008, Humber College has seen a 124.5% and 123.1% increase in Psychiatric and ADHD disabilities, respectively.

So how do we intervene appropriately? After graduation students are still experiencing barriers but graduation data are elusive. We need to plan services to effectively assist this growing population, but more data are desperately needed.

Nevertheless, investment in support will pay significant returns to both students and society. Even if we help only one student succeed, the ripple effects of this “good news story” will spread inspiration to other disabled students who might see the current system as unresponsive to their needs. Coupled with changes in attitude and government practices, we can reduce societal barriers and increase access for students of all types.

Lastly, employment and educational transitions are vital going forward. We should be focussing on skills and abilities and how we can link students to careers they are prepared for. Self-employment and entrepreneurial development may be fruitful paths to consider in this effort.

Session 6A | Innovative practices and alternative pathways

Facilitator: Dana Skalin, Ministry of Education

Rob Annan, Mitacs

Internships can be a way to combat brain drain. Mitacs is an initiative originally developed for mathematics students to gain industry experience, but has since grown to a large national program.

Mitacs provides internships to graduate students, focussing on industrial research and development. It provides an opportunity for academic students to apply their skills to work related projects. While students are regularly producing this work for an employer or partner, they retain all of their intellectual property and 50% of all research results in a publication or conference presentation for the student.

This is an excellent example of a program designed for research-oriented graduate students that allows them to translate their strengths to market-ready skills.

Jay Peterson, Hammer Heads

The “Hammer Heads” program is a partnership between the city and industry and is way for young people from marginalized communities throughout Toronto to see and experience the skilled trades. What began as a 1-day program where an employer would be sent a young person, has since grown into a 12-week program of 15 teenagers run three times each year. By the end of the 12 weeks, the kids have bonded, moved past their cultural differences and are often interested in continuing a career in the skilled trades.

The program provides a way to empower students whose personal life or learning style has hindered their success in traditional education models. It should serve as source of inspiration to our educators and is evidence of an alternative approach that has widely succeeded.

Session 6B | The perils of a professional degree

Facilitator: Charles Ungerleider, Directions Evidence and Policy Research Group

Michael Salvatori, Ontario Colleges of Teachers
Professional regulation in the public interest

A discussion of the importance of regulation beginning with an overview of the Ontario College of Teachers as a regulatory body. The primary aim of the college, and of regulation in general, is the protection of the public interest. When it comes to teaching, public interest is in the competency of the teachers and the welfare of students.

Regulatory practices, such as certifications, accreditations and transparency are vital in inspiring confidence and protecting the public interest.

There are many challenges, especially due to jurisdictional differences.

Alice Pitt, York University
Faculty autonomy and professional preparation

Explores the relationship between faculty autonomy and responsibility. Autonomy of the university translates into faculty autonomy, academic freedom and peer review.

There are differences between North America and Europe in that European education is a discipline and is being driven by professional education. The implications of this difference are notable.

There is tension between treating teacher education as vocational, technical training and as a form of preparation for professional life. What is the role of research in managing this tension?

Examples are given of ways in which university research can affect policy and practice.

Ruth Baumann, Directions Evidence and Policy Research Group
How labour unions view professional preparation

Unions tend to see professional preparation as confined mostly to pre-service rather than as a career-long process. They are leery of accountability at the individual professional level because of the diversity of effective styles. This can cause tension. Unions want to see teaching given the respect of a profession, but they often struggle to adequately reconcile professionalism with protection of their members.

Currently, Ontario has a structural problem at the point of entry into the profession. The result is an oversupply of teachers in Ontario. Due to this oversupply, many teachers end up doing occasional teaching on a long term basis.

Collective bargaining is historically bad at addressing these problems. Instead of being seen as a way to enable experimentation, collective agreements are too often treated as merely an obstacle that must be overcome.

Baumann concludes that there is a serious need of review and discussion between all parties.

Brian Abner, Directions Evidence and Policy Research Group
The political economy of university based professional preparation

Abner defines professional preparation as prerequisites to regulated professions. That is, professions which require licensing such as teaching. Regulation has a couple of effects. First, it protects practitioners from the full force of market competition. A wage premium is built upon core qualifications. Second, it limits entry to the qualified, specifically, university graduates. The degree is core, though it is often supplemented with exams or apprenticeships. The result is a quasi-monopoly with exclusive rights and higher income.

Despite this, we see oversupply. It is important to note that the oversupply is at the existing wage. Unions set a floor on wages. As a result, the market can't clear as wages can't respond to supply. Demand for teachers cannot increase to compensate because K-12 education is funded by the province. A scenario in which demand for teachers is increased by mandating smaller class sizes is desirable but unlikely.

So is there any reason to think we can/should fix the problem of endemic oversupply? Yes. It is a matter of public policy interest due to the element of public funding. Alternative allocation and distribution methods must be considered. The challenge is that the state would have to predict market needs and control enrolment, which would be difficult. Abner suggests that the professional certification process be used to control supply.

Lunch Keynote
Ian Shugart, Human Resources and Skills Development Canada

Investment in education continues to increase both publicly and privately. Canada is doing well in measures of educational attainment. This is paying off in the labour market, though we are still feeling the effects of the recent recession. Of course, PSE is increasingly important for employment.

Shugart asserts that valid questions remain. Are we making good decisions? What standards and criteria are we using to judge these decisions? Are these decisions optimal for students? Will they get the payoff they expect? Do they have the necessary information? How do we get the best return on public and individual investment?

The central challenge is in reconciling global economic uncertainty with employment skills and education. There are demographic challenges as well. Labour market productivity has primarily been the result of labour market growth which can no longer be taken for granted. Seismic shifts in the global economy and an increasing pace of technological advancement as well as the fiscal realities of current economic challenges lead to the strange combination of high unemployment and a large number of unfilled jobs.

Education is still valuable on the job market, even during times of recession. New jobs require higher education while most jobs that are shed required less education. These trends are likely to be sustained.

Colleges and universities need to work more than they already are with employers to help solve these issues. Short-term needs should not dictate everything, but too often graduates don't feel prepared for the labour market and employers complain of not seeing the right skills. More collaboration is necessary, as is better information for students so they can make better choices.

The challenge is not just to collect and publish information. It's publishing the right things to make a difference. Looking further upstream in the decision making process will be helpful.

Session 7A | Skill development and succeeding in the labour market

Facilitator: Joe McDonald, Ministry of Training, Colleges and Universities

Jon Bellum, Colorado State University

Introduced the Colorado State University Global Campus. The problem: many people have had some PSE but did not complete and earn a degree. This issue is of special concern to Colorado, which is a net importer of PSE students and has one of the lowest domestic participation rates in the US. Colorado does very well in recruiting educated workers, but does poorly when it comes to educating its own citizens. Thus, the Global Campus focuses on completion.

Underlined the continuing value of a PSE degree. It must be kept in mind, however, that degrees are not enough. Both skills and credentials are important. Therefore, certification is built into the degree program.

Higher education can meet the changing needs of students by linking learning with theory and industry needs, continuously assessing skills and knowledge to determine efficacy, developing student retention systems, and developing career transition centers for working adults.

The average debt of a university student in the United States is around USD \$26,000. In Canada the number is around CDN \$25,000. This is a serious issue. Too much debt can counteract the positive impacts of degree attainment and lessen return on investment. This issue will be of increasing importance as graduates compete in an increasingly global marketplace. Online education can help because it maximizes educational potential while at the same time, minimizing debt.

Celia Popovic, York University and Ruth Lawton, Birmingham City University
Higher ed and the changing job market

Introduces the "Creating future-proof graduates" project at Birmingham City University.

There is a gap between what employers want and what graduates have. There is a disconnect between the results and expectations for employers, students and faculty. All three sides must be analyzed. The solution is to identify the areas where new and recent graduates lack skills or confidence and then create new resources within the curriculum to address these deficiencies.

Once the skills gaps were identified and the resources created, students were surveyed before and after they used the resources to find out whether the desired learning outcome had been achieved.

Findings include that students who engage with technology perform better.

Norman Rowen, Essential Skills Ontario

Puts forward 10 propositions for people most in need of education.

There is a pending skills shortage. It will be necessary to either import or train more skilled labourers. As a result, skills training becomes more important, especially to those lacking a high school diploma. This skills shortage is partly due to technological advances, partly to processes. High level skills are increasingly required at all levels of employment. Entry level jobs are “menial no more.”

Literacy in essential skills must be redefined more broadly. Examples of this include complex communication and problem solving in technology-rich environments. Enhanced literacy in essential skills must be part of integrated skills training. It must be sector specific and developed through an “industry shared” approach.

Integrated programs need to be attached to more traditional college programs with industry-recognized credentials. “Assured quality” is needed.

These efforts need to be community-based and local, as well as part of a broader system. Programs must also be sector specific.

Recommends that we go ahead and start! Rather than waiting for new government policy to catch up with changing needs, we should learn by doing.

Session 7B | The importance of the Arts and Humanities

Facilitator: Emily Greenleaf, University of Toronto

Laura Wood, OCAD University

Employment Outcomes of Art and Design Grads

SNAAP is an annual online survey of arts alumni from participating institutions. The survey asks alumni about their experience during their time at the institution as well as post-graduation, with a focus on employment outcomes. In 2011, over 36,000 alumni participated.

OCAD University invited 3,000 of their alumni to participate in the survey; about 950 responded. The focus of this study is on 342 (of that 950) who graduated with a bachelor’s degree between 2005-2010.

The researchers found that 95% of those surveyed expressed the desire to find employment as an artist, and that 72% are either currently or recently employed as one.

About 86% are employed, the top three career sectors being: “graphic designer,” “other designer” and “other art occupation.”

However, a huge number of these graduates are creating their own jobs, as 84% said that they have been self-employed at some point in their career history.

Perhaps most importantly, 83% said that their arts training at OCAD University was relevant to their current work.

When looking at earnings, average income increased with every year out of school, and of all career satisfaction variables used in the study, current income was the lowest, although 74% of graduates expressed overall satisfaction with where they find themselves currently.

Kristin Lucas, Nipissing University
Shakespeare After School

Presentation of a project run in cooperation with the North Bay public library for children ages 7-13. It is a 6-week drama program run after school, where kids read and perform truncated (but not simplified) Shakespeare plays.

It is run by student volunteers from Nipissing University who begin with the script and work to make it accessible for children. Feedback received from those involved has been very positive. Students see the program as a venue in which they can apply what they have learned, while at the same time renewing their passion for the discipline itself.

Arts and Humanities build capacities for many careers, but students only tend to discover this after they have left their programs, if at all. Initiatives like Shakespeare After School allow students to (re)discover what they know and translate humanities skills into marketable skills.

Wayne Lewrey, Algonquin College
The Value of Arts and Humanities in Colleges of Applied Arts and Tech

In colleges, there are very few majors in the humanities, but there are still ways to connect applied arts to the humanities.

The presentation followed a personal anecdote of the speaker in which he detailed his experience as a trained respiratory technician. He emphasized how the analytical and professional skills he learned in this training were essential for his job, but did not offer any insight on how to deal with people who are often close to death (an area he feels might be informed through the humanities).

He closed by drawing a distinction between having a market economy and a market society. We need to be careful that we do not slip too drastically into the latter, wherein we commoditize all things and effectively undervalue skills that are perhaps less tangible but equally vital.

Closing Plenary | What does the future hold?

Facilitator: James Bradshaw, Globe and Mail

Watson Scott Swail, Educational Policy Institute

Swail frames the problem as “a higher ed arms race” – the chief question being, how much is enough? We mean this not just in terms of the needs of the individual but also for society, and ultimately, globally.

The conversation needs to be between labour, business, industry and education, but this is not happening. The result is lots of degrees for not enough jobs. Higher education, whether we like it or not, is vocational, so we need to start having this conversation.

Janet Ecker, Toronto Financial Services Alliance

The provincial government needs to get education right – not only for vocational reasons but for democracy as well. We need both jobs skills and citizenship to thrive.

We can do this with more collaboration across our institutions, and by partnering with those abroad. We need to get more foreign students here, and more Canadian students there. Canada is having its time under the sun, especially in the financial services, so the jobs in other countries that used to attract top talent are no longer there, and we need to get those folks here to challenge us.

We continue to have a great debate over how much this is all going to cost, but we should be asking: are we getting what we need? Looking at available data is important moving forward, but once we get the data, are we willing to respond to it?