

THE GLOBE AND MAIL, OCTOBER 2017

CANADIAN UNIVERSITY REPORT

The expectation gap: Students' and universities' roles in preparing for life after grad

[Open this photo in gallery:](#)



[src="https://beta.theglobeandmail.com/resizer/kdC_tosXMeN8v38HcDZzYlwemIU=/1200x0/arc-anglerfish-tgam-prod-tgam.s3.amazonaws.com/public/DTBQHDWDAVFNXCXLIMOADFXJ2A"](https://beta.theglobeandmail.com/resizer/kdC_tosXMeN8v38HcDZzYlwemIU=/1200x0/arc-anglerfish-tgam-prod-tgam.s3.amazonaws.com/public/DTBQHDWDAVFNXCXLIMOADFXJ2A) alt="for The Globe and Mail">

Clair Parker works as a waitress at a local restaurant in Ottawa. She is a graduate of the political science program at Carleton University in Ottawa.

DAVE CHAN/THE GLOBE AND MAIL

ERIN MILLAR

SPECIAL TO THE GLOBE AND MAIL

MARCH 25, 2017/OCTOBER 21, 2014

When Clair Parker graduated from high school, her parents urged her to go to college and learn a trade. However, being a strong student and ambitious, college seemed like selling herself short. "Going to university was the automatic thing to do," she says. "Prestige is the appropriate word to describe how university was presented to me in high school."

Fascinated by economics and international relations, Ms. Parker signed up for political science at Carleton University in Ottawa. Although she wasn't sure where she'd end up, she believed that getting a university education would lead her to a fulfilling career.

But when she graduated in January, 2014, she felt completely unprepared for a job related to her field. "When I came out of university, I wondered, 'Why did I just do that?'" she laments. Ms. Parker is now patching together a living working at a restaurant and an artisan deli. She plans to enroll in a public relations program at Humber College in January, 2015, in the hope of landing a communications role in the food industry. "I just hope I come out actually employable," she says.

STORY CONTINUES BELOW ADVERTISEMENT

Ms. Parker's story is all too familiar. Too many young people flounder around the margins of their chosen field, bouncing from unpaid internship to short term contract to coffee shop job. Youth unemployment continues to hover stubbornly around 13 per cent, only 2 per cent lower than its peak during the recession and double the national average. And the unemployment rate doesn't tell the whole story. According to a recent report published by the Canadian Labour Congress (CLC), the rate of those underemployed – people stuck in part-time or low income jobs, unable to secure full-time work related to their field – is double the unemployment rate.

It seems like a bleak picture. And yet, if some politicians and employers are to be believed, Canada is facing a severe shortage of skilled labour. Last year, a Canadian Chamber of Commerce report estimated that skilled job vacancies would hit 1.5 million by 2016. Those most in demand are said to be in the STEM fields: scientists, technologists, engineers and mathematicians. In multiple surveys, employers complain that not only are applicants graduating from university without the needed technical knowledge, but also with a lack of soft skills such as communication, analysis and collaboration.

Stephen Harper has blamed the situation partly on "people's choices," meaning that students are at fault for choosing to study subjects that are not in demand. Gwyn Morgan, the long-time executive and board director of some of Canada's largest corporations, points the finger at universities. "Many high-school graduates who manage to gain the qualifications needed to enter STEM programs are turned away when they apply to university, even with good marks, because universities won't reallocate money to open more slots for students in those programs," he wrote in *The Globe and Mail*. He cites a 2013 CIBC World Markets report that argued that universities wasted funds on producing graduates in out-of-demand fields, such as arts and humanities, while turning away thousands of qualified STEM applicants.

Regardless of who's to blame, a gap has emerged between young people's expectations for their future (as cultivated by social norms, parents and even some guidance counsellors) and the realities of the labour market.

"We've directed kids to university who would normally not have gone to university because we've said that it's the path to success," says Janet Lane, director of the Centre for Human Capital Policy at the Canada West Foundation. "It's an expensive way to learn what you're best at."

So wherein lies the truth? Is a university education still the leg up that it once was? A close look at the numbers reveals a more nuanced story, in which the right sort of education is still the best route to a good job, decent income and, even better, health and happiness. But what makes an education relevant to this brave new world doesn't fit neatly into the "skills shortage" narrative, and not all universities are delivering.

Ms. Parker wishes her high school and university had done a better job of providing accurate information about viable career paths. "The Carleton website lists jobs you can get with specific degrees and under political science, it lists 'diplomat.' How many people get a poli sci degree and go on to become a diplomat?"

STORY CONTINUES BELOW ADVERTISEMENT

STORY CONTINUES BELOW ADVERTISEMENT

So if young people need to readjust their expectations for their future, what should they expect? How can they reconcile the story told by those decrying Canada's shortage of skilled workers with the grim job market their generation is experiencing? And what kind of education will equip them to succeed?

ARE SCIENCE AND TECHNOLOGY DEGREES THE ANSWER?

"Our national welfare, our defense, our standard of living could all be jeopardized by the mismanagement of this supply and demand problem in the field of trained creative intelligence," said James Killian, former president of the Massachusetts Institute of Technology. If Mr. Killian had used today's preferred phrase of "STEM worker" instead of "trained creative intelligence" you could easily imagine his comment fitting into the debate over a skills gap today. But, in fact, he said this in 1934.

The point is that we've heard this refrain for decades: Too few young people are studying technical fields like science and engineering, companies can't find qualified employees and it threatens our countries' competitive advantage. So, get a degree in STEM and you're practically guaranteed a job – right?

This is where the mystery begins. Why do so many people with STEM degrees end up in non-STEM jobs? According to a study conducted by the U.S. Commerce Department, only 25 per cent of the 15 million Americans who have a STEM degree work in a STEM job. And of all the people working in STEM fields, less than half hold a STEM degree. So, at least in the United States, you don't necessarily need a STEM degree for a STEM job and if you do get one, it won't guarantee a job in the field anyway.

Although we in Canada don't track the STEM graduates like our American neighbours, these statistics offer one possible explanation for the experience of recent graduate Heidi Manicke. After earning a bachelor's and master's degree in German language and literature at Queen's University, Ms. Manicke found part-time work as a translator and filled in the gaps with piece-work contracts translating documents for PhD students. "But it was too hard to scratch out a life," she says, "especially here in Vancouver." While researching her master's thesis on the Berlin transit system, Ms. Manicke discovered a love of engineering. And so she decided to take what she thought would be an easier path to gainful employment and go back to school to earn a bachelor's degree in engineering specializing in geology and hydrology at the University of British Columbia. She earned strong marks, volunteered for Engineers Without Borders and the UBC Engineering Undergraduate Society and completed three work terms at companies including SNC-Lavalin and Norwest Corp.

STORY CONTINUES BELOW ADVERTISEMENT

With all this experience, she was confident when she started applying for jobs last October, a few months before her January, 2014, graduation. But nearly a year and 130 applications later, she has only landed two interviews and no permanent job offers. "My mind is blown," she says, adding that she has had her résumé edited by a recruiter and two executives of resource extraction companies. "I just don't know what I'm doing wrong."

Ms. Manicke is now working at a bike shop earning about \$400 a week to "pay the bills" and is becoming increasingly worried about having to make student loan payments soon. She feels like she was sold a false dream. "Twice now I've been told that there is going to be a great career for me at the end a lot of hard work and then there is nothing," she says. "I don't have a sense of entitlement. I'm not looking for anything fancy. I'm happy going up north and earning my way. Just let me engineer something already." (Shortly before this article went to press, Ms. Manicke received an offer for a job she interviewed for in February. The position is a three-month temporary contract for less pay than her co-op positions, but she is delighted. "It's a fantastic opportunity to get started.")

Of course, the numbers above are American and Ms. Manicke's experience is only one story. However, over the past year, evidence has piled up suggesting that the statistics supporting the argument that Canada is facing a skills shortage may be flawed. Economist Don Drummond first sounded the alarm a year ago when he tried and failed to obtain or replicate the federal government's data at the centre of the Canada Job Grant. Then TD Bank did its own analysis and found no serious mismatch between workers' skills and the needs of employers, except in isolated job markets in Saskatchewan and Alberta. Then there were the revelations that the government depended on unsound data based on the online classified ad service Kijiji. And yet, the idea that a STEM degree leads to a guaranteed job lingers, influencing the decisions of young people like Ms. Manicke.

So is a university education still the excellent route to the good life that it once was?

HOW DOES A DEGREE RELATE TO A GOOD LIFE?

In April of this year, Statistics Canada released a new report that tracked people who graduated from university in 2010. It found that two years after graduation, the unemployment rate among graduates who entered the work force (didn't go back to school for more training) was 5 per cent, two points lower than the national average. More interestingly, this number is unchanged from five years earlier when the economy was at the height of the boom. Average salaries for bachelor's degree holders actually saw a 7-per-cent increase over that period after being adjusted for inflation.

So while it's undeniable that this period of economic stagnation has affected the job market for young people more than older workers, a bachelor's degree appears to insulate graduates from the harsh job market experienced by their non-educated peers. But not all university educations were created equal. As we've discovered, getting a STEM degree does not necessarily guarantee a job. So what should students concerned about their future look for in their university education?

David Helfand, president of the liberal arts institution Quest University in British Columbia, argues that we shouldn't conflate education and training, that a university education ought to be about learning to think, not about acquiring a set of employable skills. To illustrate his point he recalls a conversation he had with Shirley Bond, B.C.'s minister for jobs, tourism and skills training. "A Quest education sounds great for some students," he recalls her saying. "But B.C. needs 40,000 pipe fitters and you aren't going to send them to me." Dr. Helfand's response: "That's true, but we might supply the one person who can show you why you only need 10,000 pipe fitters." The idea that learning to think, regardless of a student's field of study, will prepare them for the real world may be difficult for young people to swallow while coping with anxiety about their future. But a new survey of 30,000 college and university graduates published by Gallup and Purdue University contains quantitative ammunition in support of Dr. Helfand's assertion that education is about something more fundamental than gaining skills for a job.

Gallup, the large American polling company, started looking into what made workers productive decades ago. By conducting multiple surveys internationally, Gallup learned that people are more likely to be successful at work when they have great lives. As Brandon Busteed, executive director of Gallup Education, explains, the research pointed to five elements of a great life: purpose and motivation, strong social relationships, secure financial circumstances, living in a supportive community and good health.

And so Gallup set out to figure out what sort of education would increase people's chances of having great lives and, by extension, great careers. Mr. Busteed argues that looking at well-being offers a much more valuable view of the outcomes of higher education than simply considering employment and income.

One of the most interesting results was what didn't have an impact: the prestige of the university. As it turns out, highly selective schools performed the same on the survey as accessible ones. What had a big impact was the sort of education that a student received.

The most important factor was whether a student felt "emotionally supported" during their undergraduate education. For graduates who reported that they had at least one professor who made them excited about learning, cared about them and provided mentorship as they pursued their goals, their chances of thriving in their personal life and being engaged in their work more than doubled.

Another key finding was that graduates who reported having "experiential or deep learning" were twice as likely to be engaged in work. The survey defined this sort of learning as doing a long-term project that took a semester or more to complete, experiencing an internship or being extremely involved in extracurricular activities.

These insights are interesting in light of multiple surveys in which employers complain that they struggle to recruit employees with so-called "soft skills:" the ability to effectively collaborate, communicate, problem solve and so on. Students who complete a co-op, community-based project, international exchange or genuine research experience in a lab (the sort of learning experiences that Gallup highlights) also have more developed soft skills.

"Employers call them the 'soft skills', but they aren't soft at all; they are very hard to learn," says Canada West Foundation's Ms. Lane. She argues that university is where young people ought to be developing these skills and notes that Canadian companies are spending less on training employees with technical skills in the workplace than ever before. "There is no such thing as a 'job-ready' graduate. Everyone needs training." The good news is that many of Canada's universities are rising to the challenge and creating new opportunities for undergraduate students to apply their knowledge, work on long-term projects with real-world impact and develop their so-called soft skills. In this year's Canadian University Report, we researched 61 Canadian universities with our lens focused firmly on which universities were innovating in order to create a truly high quality undergraduate education that would best prepare students not only to net a great job after graduation, but also thrive in all aspects of their lives.

Where Canada's universities still need work is in helping students understand how their education, regardless of their chosen field of study, can be applied to life after school. But the students who have received this sort of education, value their experience. In the words of Lauren Tucker, who graduated in psychology from Brock University in spring, 2014: "The main strength of my education at Brock was that it focused on developing well-rounded students," she said. "I not only know the material inside and out but can apply what I've learned to future roles."

Textbook to paycheque

Here are the full-time (at least 30 hours/week) employment rates of university graduates in Ontario in common fields (though not necessarily in jobs related to their field), six months after graduation.

Nursing 92.4%

Computer science 90.4%

Business 88.8%

Engineering 87.6%

Mathematics 87.3%

Education 86.8%

Humanities 86.0%

Physical sciences 86.0%

Social sciences 85.5%

Agriculture and biology 82.2%

SOURCE: COUNCIL OF ONTARIO UNIVERSITIES

CREATIVE THINKING BY UNIVERSITIES

Some universities are rising to the challenge and creating new ways for undergraduate students to think about how their education applies to life after school.

- The Arts Pedagogy and Innovation Lab at the University of Alberta is piloting a program that has arts students engaged in writing assignments that are more related to the real world than straightforward academic essays.
- At Saint Mary's University, students in any major have access to co-op opportunities.
- The University of Waterloo features entrepreneurship education through innovative programs such as its live-in community of student entrepreneurs known as VeloCity.
- At the University of Windsor, the Entrepreneurial Practice and Innovation Centre offers classes on how entrepreneurship relates to students in all fields, from computing to the arts.
- At Dalhousie University, students in any major can take a minor in sustainability, which involves completing a year-long project with a community partner.