

Creating an Effective Workforce for the Changing Economy

Issue

Alberta is a prosperous province, with a strong entrepreneurial spirit, and a skilled and energetic workforce. At the same time, Albertans - like many Canadians - are struggling with transitions between learning and work, which is resulting in social and economic implications. If Alberta is to remain competitive with the rest of Canada, it must adapt to and address the coming labour market disruptions.

Background

Skills gaps can be costly. A 2016 study estimated that unmet skills needs are costing British Columbia up to \$7.9 billion in foregone GDP and over \$1.8 billion in tax revenues each year (Kachulis and McKean, 2018). While Alberta's economic outlook is favorable with a low unemployment rate and projected continued economic growth, meeting the demand for skilled workers in the province is essential for ensuring long-term prosperity. Data shows that as of 2019, there were 52,890 (or 2.6%) vacant jobs in Alberta – a figure that does not approach pre-recession levels, but is on an upward trend (Statistics Canada, 2018). Projections developed by the Centre for Spatial Economics confirm, Alberta's labour shortage is likely to grow to about 49,000 by 2025, with in-demand occupations requiring a variety of skill types and levels (Government of Alberta, 2015).

These projections should cause some alarm for policymakers, as they reflect a range of emerging concerns from changing patterns of education and training, labour shortages, post-secondary completion rates, and the continued importance of education and employment information and services.

The Information and Communication Technology Council estimated that in 2020, there will be 200,000 communications and information technology jobs that will need to be filled in Canada (Information and Communication Technology Council, 2015). Certainly, with technology evolving, there is a need to introduce supports and training to fill the kinds of jobs that will be necessary to accommodate the changing digital landscape. Post-secondary institutions should be focused around introducing courses that produce people who can fill voids in software engineering, data science, coding and programming (Kalra, 2016). The Information and Communications Technology Council has viewed these types of programs as essential to addressing the labour shortage and diversity problems in the ICT workforce (Information and Communications Technology Council, 2015). Similarly, the Canadian Council of Academies' Expert Panel of STEM Skills for the Future concluded that the development of "strong foundations in STEM literacy (enabled by effective teachers, research-based pedagogical methods, and engaging instruction and curricular materials)" is essential to preventing future labour supply bottlenecks (Government of Canada, 2018).

With this in mind, it is imperative to create supports for those undergoing career transitions. Innovations in artificial intelligence and robotics have the potential to improve quality of life, increase productivity, and create new jobs, but they may also render some jobs and tasks obsolete, creating a shift in the skills that organizations need to remain competitive (Mullin and Lamb, 2018). The effects of

artificial intelligence will be felt across all sectors: it is predicted that driverless cars, for example, could disrupt over 33 industries (Mullin and Lamb, 2018). Results from a survey from the Development Bank of Canada in 2017 indicate that over a quarter of employers in Canada have already altered the way they operate because of the digital economy. (D'Souza and Williams, 2017)

In addition to assisting with decision-making and customer service, artificial intelligence will play a role in automating repetitive tasks. In Alberta's case, the C.D. Howe Institute estimates that 45.8% of employment in the province is possibly automatable, and 33.8% is highly susceptible to automation. This is slightly above the Canadian average (Wyonch, 2018). With this in mind, many will have to undergo training, ranging from minimal to significant (Wyonch, 2018). Certainly, for Alberta to remain a leader and position themselves in a way that is responsive to the evolving economy, they must introduce measures to ease the transition to an automated future.

The framework for Alberta's workforce development program is strong. Between 2006 and 2018, the Government of Alberta pursued a workforce development strategy called Building and Educating Tomorrow's Workforce (BETW). This strategy was aimed at bringing together several ministries and stakeholders around the common objective of improving Alberta's labour force skills. Another intended outcome of this policy was to provide underrepresented groups with the skills and training opportunities they would need to succeed. Unfortunately, this program expired in 2016 and the government did not release a new strategy to replace it.

As of November 2018, the Auditor General's report indicated that the role of a long-term workforce development strategy is to pursue long-term results alongside immediate needs. "To focus on the things it identifies as most important to the future sustainability of Alberta's labour force, but not necessarily the most urgent right now" (Alberta Auditor General, 2018). Currently, four ministries (Labour, Community and Social Services, Advanced Education and Indigenous Relations) share the responsibility for workforce development (Alberta Auditor General, 2018). While these ministries collaborate to provide programs and services that span the continuum of training required moving forward, no unified long-term vision exists to balance and address the short-term needs with preparing the workforce to also respond to emerging trends.

Recognizing that the bedrock of a strong social and economic foundation is reliant on a vibrant workforce...

The Alberta Chambers of Commerce recommends the Government of Alberta:

1. Through incentives and initiatives, encourage employers to invest more and become more involved in providing training opportunities to their current staff;
2. Promote increased and diversified enrollment in post-secondary tech education programs in Alberta by providing subsidies for micro-credential training;
3. Develop and invest in the essential skills of tomorrow, such as sustained support and investments in STEM education and trades training both within post-secondary and also through career transition programming;
4. Position the delivery of career development services to ensure a seamless, coordinated system that provides effective transition within the high school system and the workplace, for all Albertans;

5. Partner with interested stakeholders to create career development and market information resources and training for target audience; and

6. Continue to track outcomes associated with these programs and initiatives in a transparent manner to allow for continual adjustments when necessary.