

D2L Whitepaper Contributors

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About D2L

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D2L Brightspace is built to help create highly personalized experiences that unlock learner potential. A leading Learning Innovation Platform, D2L Brightspace enhances the learning experience for millions of learners of all ages.

D2L Wave is built for companies that want to amplify their employees' potential by cultivating lifelong learning and future-proofed skills. An Upskilling Education Platform, D2L Wave connects your workforce with professional development opportunities that align with your company's business strategy.

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Executive Summary

For five years, D2L has published an **annual series** detailing the actions employers, higher education institutions, training providers and governments need to take to better support lifelong skills development. The forces of change we identified in previous papers—demographic shifts, rapid advancements in technology, growing globalization and a shortened half-life of skills—continue to reshape the ways in which we work and learn at an accelerated pace. Businesses are facing pressure to make smart investments in innovative, competitive technologies while at the same time developing a skilled workforce to help navigate larger workforce and industry changes.

Small and medium-sized enterprises (SMEs), defined as those businesses with fewer than 500 employees, employ 47% of the workforce in the United States (U.S.)ⁱⁱ and 88.5% of the private sector workforce in Canada.ⁱⁱⁱ While employing a significant portion of the workforce, SMEs are often absent from literature around skills development, and have fewer resources to support learning and development at scale compared with larger employers.

In December 2021, D2L commissioned Innovative Research Group to conduct surveys of employees and decision makers who work in SMEs, in both the U.S. and Canada, to better understand the infrastructure and policies SMEs have in place to support lifelong learning and the barriers that get in the way of the increased uptake of training programs. The findings of this survey show that SMEs need more support:

- Recruiting and retaining talented employees
 are the biggest human resources challenges
 facing SMEs in both the U.S. and Canada today,
 outranking considerations about compensation,
 adapting to innovation and technology, offering a
 competitive benefits policy, and navigating a remote
 work policy. Only 21% of Canadian SMEs report
 feeling very confident that they will have the skills
 and talent needed to grow their organizations over
 the next three years, compared with 47% of U.S.
 SMEs who say the same.
- Few employers provide financial support or time off for employees to take on external training. While about half of SMEs in both countries (48% in the U.S. and 49% in Canada) report their firms provide internal training for job-specific skills development, only about one in three SMEs (34% in both the U.S. and Canada) say they provide support for training opportunities outside of the workplace. In both countries, SMEs report that the barrier preventing them from increasing financial support or time off for external training is the perception that internal or on-the-job training is sufficient (39% in the U.S. and 34% in Canada).
- Uptake of external training programs remains low for employees despite interest, with major barriers cited including cost and not having the time. Only 17% of U.S. employees and 12% of Canadian employees report taking on training with outside training providers in the last 12 months. This is despite 78% of U.S. and 72% of Canadian employees reporting being somewhat or very interested in taking on training. The most cited reasons for employees not taking on further training are the high financial cost (42% in the U.S. and 43% in Canada) and being too busy at work or due to other childcare, family, or other commitments (around 30–35% in both countries).
- 1 In both the United States and Canada, small businesses are those with 1 to 99 employees. Medium-sized businesses are those with 100 to 499 employees. Companies with fewer than 20 employees were not surveyed as part of this study.

The goal of this paper is to provide a snapshot in time of the current state of employer-supported skills development, creating space for conversation with employers, higher education institutions, associations, unions, policymakers, and thought leaders about the steps we can take today to adapt our systems of lifelong learning to better support working learners looking to upskill and reskill throughout their careers.

Most critically:



• Employers need to recognize the importance and urgency of investing in skills development for their workforce, provide financial support and time off for employees to take on learning and implement technologies that provide ready access to learning that maps against company or industry skills needs. With the speed of technological change, employers cannot reasonably predict all the skills they'll need years in advance. They need to look at all possible options to build and maintain the workforce they need to remain competitive and scale up. This includes recognizing that investing in skills development for new and existing employees is key to improving attraction and retention. Employers also need to develop a multimodal learning and development strategy that includes financial support and time off to take on credentialed and industry-aligned programs at higher education institutions and industry associations.



 Higher education institutions must adapt to better serve adult learners and employers with high-quality, flexible, and industry-aligned training. Institutions need to think beyond credit hours and imagine new models of programs to support working learners. This will require clarity on the needs and circumstances of working learners—how they learn best, what their primary motivators are for taking on training, and where they need support to ensure their learning is valuable. Institutions also need to actively seek out partnerships with employers, associations, and unions to encourage learners to continuously upskill over the course of their careers.



• Governments at all levels have an essential role to play in unifying stakeholders around a collective vision for workforce development. Employers, higher education institutions, associations, unions, and researchers already agree that cross-sector collaboration is essential to helping employers address skills gaps and supporting individuals in navigating the changing nature of work. However, collaboration is highly fragmented across industries and employers. Governments need to uplift the voices of SMEs in their consultations to identify supportive policy changes that can help address the financial and time pressures individuals are facing in taking on training. Taxable incentives to encourage employer investments in training funds for employees should be explored.



Introduction

The forces of change reshaping the ways in which we live, work, and learn...

...have been an ever-present topic of discussion for businesses, higher education institutions, policymakers, and thought leaders alike for the last decade, gaining even more traction in the last five years.

Businesses are facing pressure to make smart investments in innovative, competitive technologies while at the same time developing a skilled workforce to help navigate larger workforce and industry changes. Higher education institutions continue to find their place in a new business model that goes beyond degree-based credentials and offers shorter, job-relevant, skills aligned courses. Governments are also trying to keep pace with the changes that lie ahead, including finding ways to support the many workers who may need to transition to new industries as their existing jobs are heavily disrupted by technological changes.

However, today's approach to learning is still traditional in many ways: an individual goes through primary and secondary school followed by an optional two to four years of higher education before they join the workforce.

This "once and done" approach to skills development is out of step with the 21st century needs of employers looking to attract and retain talent, and employees looking to upskill to advance in their careers. The reality is our current model for skills attainment still largely assumes we have an economy in which job skills have a long shelf life, and employers only need to make a limited investment in skills development programs. However, life expectancy has doubled from the beginning of the 20th century, and centenarians are becoming more common. What impact will this have on our working lives, if 65 is no longer a conceivable retirement age, and careers are extended to 60+ years of work?

As workforce requirements change at an increasingly rapid pace, so too must the systems that enable individuals to learn and stay relevant. Higher education institutions need to be nimble to the evolving needs of the workforce as the half-life of skills continues to shrink from the previous 10 to 15 years to the current three to five years, to prepare students for jobs that do not yet exist and cannot be predicted with any certainty.

The Current State of Employer-Supported Skills Development

In this research, D2L shines a special spotlight on SMEs in the United States and Canada with original research exploring the organizational capabilities that SMEs have in place to support employee lifelong learning, gauging the level of interest of employees in participating in different programs and identifying barriers to greater access.

Methodology

In December 2021, D2L commissioned Innovative Research Group to conduct two surveys to better understand the current landscape of employee skills development:

- Survey of SMEs (20–499 employees) in the U.S. and Canada asking about the infrastructure and policies they have in place to support skills development, their motivators and barriers, and their awareness of government programs for support
- Survey of employees of SMEs in the U.S. and Canada asking about their interest in participating in skills development, their motivators, and barriers

The four samples were weighted to a representative sample size of n=400 by age, gender, regional distribution, and job titles among employees working in firms of 20–499 employees.

Employers Are Concerned About Recruiting and Retaining Top Talent

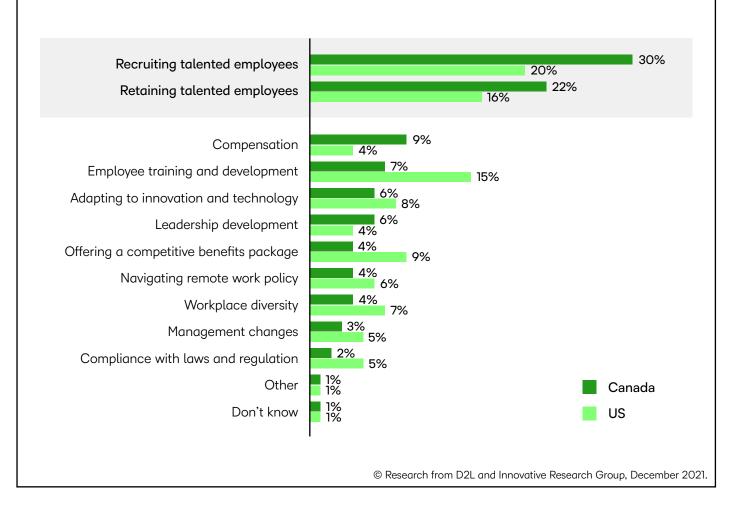
SMEs in both the United States and Canada feel that the recruitment and retention of talented employees are the biggest human resources challenges facing their organizations today, outranking considerations about compensation, adapting to innovation and technology, offering a competitive benefits policy, and navigating a remote work policy.

Maintaining a skilled workforce is a key concern for business leaders who are facing an unparalleled pace of change, requiring business models and organizational design to adapt.

Supporting lifelong learn

EMPLOYER SURVEY

In your opinion, what is the biggest human resoure challenge facing your organization today, i.e., the one that concerns you the most?



U.S. SMES MORE LIKELY TO HIRE INTERNALLY

Unlike in the Canadian survey results, there is a more even distribution among the top three human resources challenges for U.S. SMEs-recruiting talented employees (20%), retaining talented employees (16%), followed by employee training and development (15%).

Interestingly, the top three most cited human resources challenges concerning leaders all relate to maintaining a skilled workforce. U.S. SMEs surveyed were more likely to hire internally than their Canadian counterparts, with 56% saying they always, almost always, or mostly hire from within.

CANADIAN SMES LESS CONFIDENT IN SKILLS TO GROW

Only 21% of Canadian SMEs reported being very **confident** that they have the skills and talent they need to grow their organizations over the next three years, compared with 47% of their U.S. counterparts.

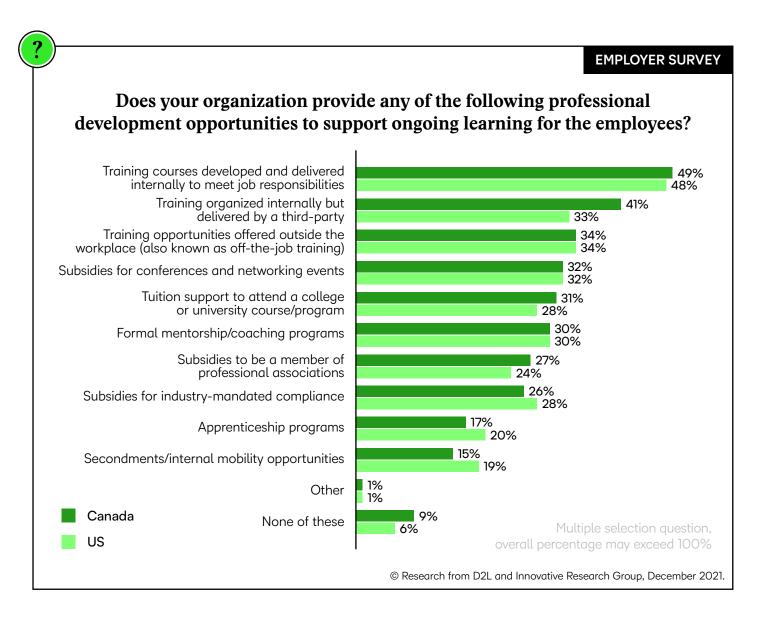
Canadian SMEs are by far the most concerned about recruitment (30%) and retention (22%). All other challenges asked about were in the single digit percentage range. Only 7% of Canadian SMEs listed employee training and development as the biggest human resources challenge facing their organization.

In contrast with their U.S. counterparts, only 39% of Canadian SMEs surveyed preferred or had the capacity to promote and fill new roles from within, indicating they may have an unrecognized internal skills development challenge.

Few Employers Provide Financial Support or Time Off for External Training

While about half of SMEs in both countries (48% in the U.S. and 49% in Canada) report their firms provide internal training for job-specific skills development, only about one in three SMEs (34% in the U.S. and Canada) say they provide support for training opportunities offered by providers outside of the workplace. Even fewer SMEs report offering formal mentorship/coaching programs, subsidies for industry-mandated compliance courses, apprenticeship programs, and secondments or internal mobility opportunities. Approximately half of SMEs surveyed in both countries say their organizations have the same funding to support external training for employees as the last two years—47% of U.S. SMEs and 50% of Canadian SMEs.

While over 90% of employers in both the U.S. and Canada report offering some form of employer supported skills development, employees in both countries are either not taking up the opportunities available to them or do not have these opportunities available to them personally. Results from the employee survey showed that 29% of U.S. employees and 54% of Canadian employees did not take on any employer supported skills development over the last twelve months. The difference in uptake for specific skills development opportunities was most stark between Canadian and U.S. employees who are members of professional associations, took industry-mandated compliance courses, participated in formal mentorship or coaching programs, secondments, or apprenticeship programs.



Thinking about the past 12 months, have you taken any of the following professional development opportunities to support ongoing learning?



of employers in the U.S., and in Canada, report offering support for training outside of the workplace

U.S. SMES RANK BARRIERS DIFFERENTLY

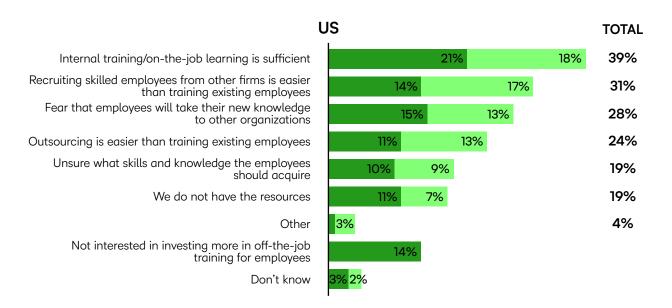
For U.S. SMEs, 39% said the barrier preventing them from increasing financial support or time off for external training was the perception that internal or on-the-job training was sufficient.

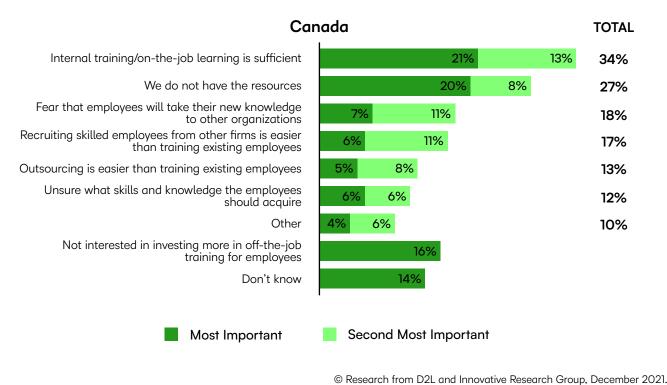
Other top reasons included 31% indicating recruiting skilled employees from other firms was easier than training existing employees, 28% noting a fear that employees would take their new knowledge to other organizations, and 24% indicating outsourcing was easier than training existing employees.

?

EMPLOYER SURVEY

Is your organization interested in providing more financial support or more time off for employees undertaking off-the-job training? If so, what is the most and second most important and reason for not investing more in it?





CANADIAN SMES FEEL THEY DON'T HAVE RESOURCES

For Canadian SMEs, 34% said the barrier preventing them from increasing financial support or time off for external training was the perception that internal or on-the-job training was sufficient.

27% of SMEs felt they do not have the resources to provide more financial support or time off for employees to take on external training.

Notably, 18% of Canadian SMEs said they were fearful that employees would leave to new organizations after receiving skills training.

Employers Generally Offer Some Funding and Time Off for External Training, but Approaches Vary Widely

The approaches employers take to reimbursing employees-to a maximum dollar amount, a fixed percentage, or evaluation on a case-by-case basis vary greatly. The same variability applies for policies around providing paid or unpaid time off to employees to pursue external training.

SPOTLIGHT ON THE UNITED STATES

Of those U.S. employers who do provide funding for external training, 26% reimburse expenses for external skills training to the full cost regardless of the amount, 23% reimburse the expenses to a maximum dollar allowance for each employee, 20% approve requests on a case-by-case basis, and 19% reimburse a fixed percentage of the cost for each employee.

More than half of U.S. employers who provide reimbursement to a maximum dollar allowance for each employee say they provided between \$1,500-\$5,000 USD.

For those who reporting reimbursing 20-50% of the cost, they typically covered about \$2,000 USD in expenses.

On time-off policies, 32% of employers surveyed said time off is provided on a case-by-case basis, 30% said they have some rough guidelines on offering time off, 20% said they offer no time off, and only 16% say they have a concrete policy for time off. Among employers that do provide some time off, nearly 3 in 5 reported saying they provide four to six days of paid leave.

Our research found that U.S. employers with a concrete funding or time off policy were significantly more likely to feel very confident about having the skills and talent they needed to grow their organization over the next three years.

SPOTLIGHT ON CANADA

Of those Canadian employers who do provide funding for external training, 33% approve requests on a caseby-case basis, compared with 20% of U.S. employers surveyed. The next two most stated approaches by Canadian employers included 24% who reimburse expenses for external skills training to the full cost regardless of the amount, and 21% who reimburse the expenses to a maximum dollar allowance for each employee.

> For Canadian employers who provide reimbursement to a maximum dollar allowance, the amounts decline after the \$1,501 to \$2,000 CAD range.

For employers that reimburse less than 60% of the cost, they typically covered \$2,500 to \$4,500 CAD in expenses.

On time off policies, 34% of employers surveyed said time off is provided on a case-by-case basis, 23% said they have some rough guidelines on offering time off, 20% said they offer no time off, and only 12% say they have a concrete policy for time off. Among employers that provide some time off, nearly four in 10 reported saying they provide one to three days of paid leave.

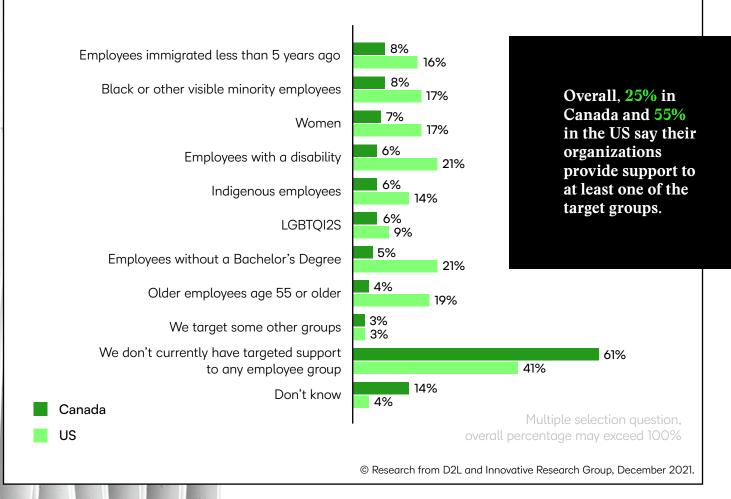


Few Employers Provide Targeted Support for Skills Development to Specific Employees

Levels of educational attainment, previous work experiences, income and skills levels, and time constraints also factor into the need for upskilling. McKinsey has found that in the United States, people without a college degree are 1.3 times more likely to need to make occupational transitions compared to those with a college degree, and Black and Hispanic workers are 1.1 times more likely to have to transition between occupations than white workers." D2L survey data however showed that only 25% of SMEs in Canada, and 55% in the United States provide targeted support to underrepresented employee groups for professional development.

EMPLOYER SURVEY

Does your organization provide targeted support to any of the following employee groups for professional development? If so, please indicate which employee groups are provided with targeted support.



Cost is a Major Barrier to employees Taking on External Training

78% of U.S. employees and 72% of Canadian employees reported being interested in taking on training. However, uptake of external training remains low. Only 17% of U.S. employees and 12% of Canadian employees engaged in external training in the last twelve months.

The biggest motivator for those taking or considering training was raising their skill levels (40% in the U.S. and 46% in Canada), increasing their salary (28% in the U.S. and 22% in Canada), and because they like learning (25% in the U.S. and 21% in Canada).

Conversely, the most important reason for not taking courses or pursuing training in both countries was the high cost (42% in the U.S. and 43% in Canada), followed by being too busy at work (36% in both countries), and being too busy due to childcare, family, or other commitments (31% in the U.S. and 32% in Canada). While lower ranked, employees also cited not thinking the course they considered taking would be relevant for their jobs (17% in the U.S. and 15% in Canada) or relevant to their career development (20% in the U.S. and 13% in Canada).

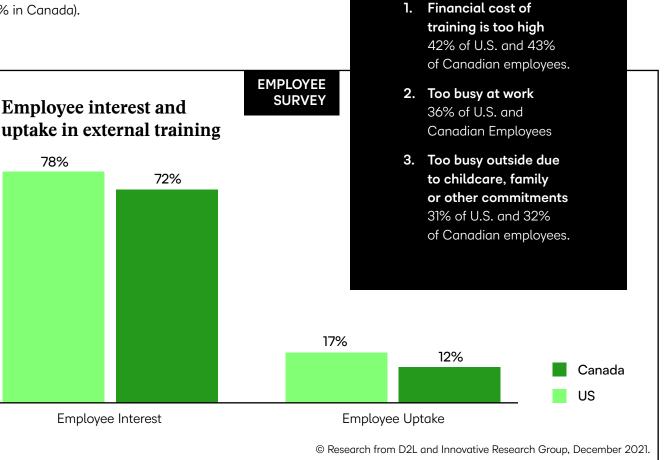
CANADIAN EMPLOYEES ON THEIR OWN

Our research also showed that there is a glaring disparity between approaches to supporting professional development in Canada versus the U.S.:

- Canadian employees are more than twice as likely to complete training on their own time outside of work, with 62% reporting they only train on their own time, compared with 26% of U.S. who said the same.
- Canadian employees are more than three times as likely to pay for the full cost of training themselves compared with their U.S. counterparts (46% versus 15%).
- Only 42% of Canadian employees report that their direct supervisors or managers are involved in helping them pursue their professional development goals, compared with 64% of U.S. employees reporting the same.

REASONS FOR NOT

TAKING TRAINING



Areas for Further Research

D2L's survey results provide a snapshot in time of some of the challenges SMEs in the U.S. and Canada are experiencing. There is ample opportunity for additional research focusing on the needs, motivators and barriers of SMEs in skills development. Particularly in Canada, there is a concerning lack of data on workplace learning and on training and development spending. The Adult Education and Training Survey that previously existed has not been active for more than 15 years. vi Quality data on an ongoing basis is needed to measure:

- the extent to which adults participate in job-related formal and informal training as well as what this entails, including specific data on whether they take higher education courses or formal accreditation, or training provided by associations and unions
- the extent to which employers support jobrelated formal training with financial support and time off, and what the key barriers are for increased investment
- the barriers preventing individuals from participating in training they want or need to take

Data should also be disaggregated by industry, firm size in terms of revenue and number of employees, and region. Disaggregated data is also needed to provide more context to the experiences of employees, looking at the impacts of age, race, gender, region, urban/ suburban, disability, and level of education on access to employer-supported external skills programs. Without quality data, policymakers will face long-term challenges in developing evidence-based policy to address skills development needs.



A New Approach is Needed to Enable Lifelong Learning



To compete now and into the future, we need a robust lifelong learning system capable of serving an individual not just up to their initial entry into the workforce, but throughout the span of their careers, and beyond. The system needs to include on-ramps and off-ramps throughout an individual's life to support them in maintaining a lifelong learning mindset to build their resilience to external shocks and less vulnerable to longterm unemployment. This is a shared responsibility for:

- employers who need to recognize the business opportunity and necessity of investments in skills development to maintain competitiveness in employee recruitment, retention, and company growth
- higher education institutions who help bridge the gap in skills development by creating opportunities for individuals to exit and return to institutions throughout their lives for upskilling
- governments who play a major role in creating the enabling infrastructure for employers to provide support for employee skills development, for training providers to move more quickly in adapting to the changes that lie ahead, and for individuals who need financial support for training

The Need for **Employer Investments** in Skills Development

Employers of all sizes and across all industries are struggling to attract and retain the talent they need to remain innovative and competitive in today's economy. Skills and talent shortages present in many industries in 2019 were amplified over the course of the pandemic as labor shortages take hold in the United States with 4.4 million people leaving their jobs in September 2021 alone and data from the U.S. Chamber of Commerce showing that there are now half as many available workers for every open job across the country as there have been on average over the past 20 years. vii

In Canada, while the "Great Resignation" has not materialized in the same way, tight conditions in the labor market have pushed job vacancies to record highs of nearly one million. SMEs, who account for almost 90% of private sector jobs in Canada, are finding skills shortages are a major competitive challenge impacting their businesses. VIII Employers need to look at all possible options to build and maintain the workforce they need to remain competitive and scale up. This includes recognizing that investments in skills development for new and existing employees is a key benefit to improve attraction and retention.

The World Economic Forum (WEF) estimates that 50% of all employees will need reskilling by 2025 as adoption of technology increases.ix In Deloitte's 2020 Global Human Capital Trends survey of business and human resources leaders.

73% identified employers as the entity primarily responsible for workforce development.

Deloitte, Global Human Capital Trends survey, 2020

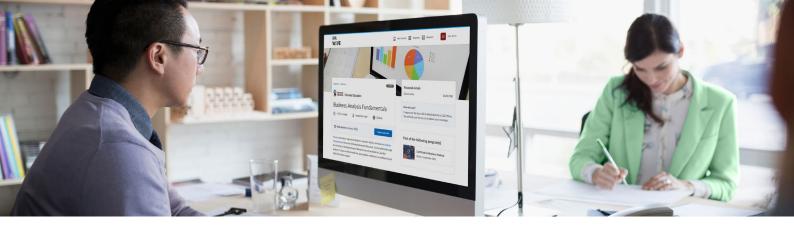
Employers are seen as more responsible for workforce development than of workers themselves, and the role of higher education institutions, governments, and professional associations and unions.* The business case is clear and has been expanded upon with years of research: investing in employees' resilience and longterm employability potential will improve performance, drive productivity, reduce attrition, and increase employee motivation.

Large employers have the resources to explore various options to transform employees into working learners, including offering robust in-house training programs, investing in comprehensive education-as-a-benefit programs, and negotiating academic partnerships with top-tier higher education institutions. Yet SMEs-who account for most new job creation and contribute to more than 50% of GDP in OECD countriesxi-often do not have the data, human resources capacity, or financial capital to explore these options at the same scale as their larger counterparts. Higher education institutions, non-traditional training providers, associations, and unions have an opportunity to support employers in delivering high-quality and accessible skills training, but a transformational shift in the way we think about skills development is needed first.

The Role of Higher Education in Helping to Bridge This Gap

Higher education institutions have the content and instructional expertise needed to design high-quality education programs that are based in learning science and on emerging demand. The opportunity now is to rethink models to meet the untapped employer and employee needs highlighted in these survey findings.

Partnerships between industry and higher education institutions have been impactful for specific employers and communities, such as the FedEx-University of Memphis leadership degreexii, the Rogers Cybersecure Catalyst program at Ryerson Universityxiii, and the recent Amazon announcement of significant investments in three community colleges systems in Washington statexiv. However, while these programs may have success in specific communities, they're not always easy to replicate and are not a viable model for SMEs.



The value proposition for a higher education institution developing one of these niche programs is primarily about establishing some type of competitive advantage to differentiate themselves from other universities and colleges. On a larger scale, however, that individualist thinking will not take the higher education system as a whole into a future where it's able to deliver real value to employers, and more importantly, the learners it seeks to serve.

As Michelle Weise, author of Long Life Learning, has long argued, higher education institutions need to recognize the continual "learn and earn" cycles that will occur throughout one's lifetime, and create the on and off-ramps into the higher education system.xv Higher education institutions in the U.S. were already facing declining enrollments of undergraduate students prior to 2020, and this trend has accelerated over the last two years.

New data shows that...

over a million fewer students are enrolled in U.S. colleges and universities than two years ago.xvi

Public two-year community colleges are feeling the bulk of the decline, with a 13% enrollment drop over the same time period.xvii While enrollment trends are not the same in Canada, higher education institutions north of the border face the same pressures to better serve learners throughout their careers, encouraging them to re-engage with the education system.xviii Learner preferences have evolved, and lifelong learning offerings need to be adapted accordingly. The opportunity is currently open to higher education institutions to improve how they collaborate with and what they offer to employers-but change needs to start now.

Recommendations

Employers, higher education institutions, and governments all have roles to play in facilitating ongoing skills development and lifelong learning for the workforce. Creating a system that's accessible, affordable, and equitable for all will require concerted and coordinated action across all sectors. The ultimate goal is to ensure employers have the talent they need to continue growing, individuals have pathways to develop their skills both on the job and outside of work, and that financial support is available to defray the costs of training.

Employers Need to Invest in Skills Development for Their Workforce

When competition for skilled talent is fierce, organizations of all sizes need to make supporting lifelong learning a priority and provide learning opportunities that equip employees with the skills and knowledge they need to succeed throughout their careers-not just in the jobs they do today. To support ongoing skills development, employers should:

Treat employee skills development as an investment in organization's resilience. Offering financial support for employees to pursue credentialed and industry-aligned programs at higher education institutions, for example, can help to grow their skill sets, improve productivity, and drive retention. With the speed of technological change, employers can't reasonably predict all the skills they will need years in advance. That's why they need to build processes that will support continuous upskilling and build pipelines of talent for jobs that may not yet exist.

- 2. Pool training resources with other organizations that may face the same technical skills development needs. When employers across an industry or sector all require skilled talent in an emerging area, they can form partnerships with governments, training providers, associations, unions, and education institutions to create specialized programs for skills development. One example to explore is the mutuelles de formation, loosely translated to training collectives, that exist in Quebec where employers can submit a percentage of expenses incurred for reimbursement from the government.xix
- 3. Implement technologies that provide ready access to learning that maps against skills needs at your company or in your industry. Employees should feel confident that the training they receive from outside providers will be valued by their employers and can translate into career growth and compensation advancement. One option for employers to explore is to curate a pre-approved catalog of credentialed and skills-aligned course options from external providers, such as higher education institutions, that employees can enroll in using employer-provided education benefits. D2L has successfully piloted this approach using an **upskilling platform** that connects higher education institution programs to employees, specifically focused on areas of importance to D2L, such as business strategy, finance, human resources, marketing, and product.
- 4. Invest in quality internal learning programs that include onboarding, secondments, and project-based learning. In addition to education provided through higher education institutions and training providers, on-the-job learning can ensure employees are getting access to skills development opportunities on a regular basis. Employers should build out their internal onboarding programs to prepare employees for their current jobs and also empower employees to take charge of their own careers with career coaching, cross-team assignments, and job shadowing opportunities.

Higher Education Institutions Must Offer High-Quality, Flexible, and Industry-Aligned Training to Better Serve Adult Learners

Higher education institutions need to re-center themselves around the lifelong learner and recognize that the "once and done" approach to education that prioritizes high uptake of undergraduate degrees is changing as enrollments decline. To stay relevant, nstitutions need to adapt to evolving learner preferences and adapt offerings to better serve working learners and employers looking for training options. To reach this goal, institutions should:

- Think beyond credit hours and seat time and develop new program models to support working learners. Institutions need to understand the needs and circumstances of working learners how they learn best, what their primary motivators are for engaged in training, and where they need support to ensure their learning is valuable. Project-based learning is an opportunity to support the development of durable skills, such as problem solving and critical thinking, that will serve them throughout their careers. Skills-based transcripts, or supplemental verification of earned skills, can validate what they have learned through their courses.
- 2. Think of new approaches for meeting and engaging the learner beyond direct-to-consumer models. Non-traditional education providers are already building catalogs of courses that clearly identify specific skillsets that can be developed in short time periods. Higher education institutions have the same opportunity to leverage the catalog approach to improve their total addressable market size with greater access to learners. This could take the form of an "education as a service" model where institutions offer their learning courses as part of an employer's education benefit program to employees.

3. Cultivate innovative continuing education programs that support lifelong learners who are re-engaging in higher education systems for post-graduate education, certificates, stackable credentials, and more. Actively seek out partnerships with employers and industry associations, creating a value proposition for learners to re-engage with education over the course of their careers, marketing high quality credentials as upskilling opportunities for working learners that are aligned to skills in demand at their employers, and their industries, creating new revenue streams for institutions.

Governments Need to Address **Barriers Hindering Progress** With Supportive Policy Changes

The role of governments in lifelong learning is to incentivize and enable providers of ongoing skills development-employers, higher education institutions, associations, unions, and more—to remain nimble as skills needs shifts, so they are well-positioned to continue supporting individuals throughout their careers. Governments should:

- 1. Offer tax advantages to incentivize employers particularly SMEs—to provide more support for their employees to pursue external training and education. Offering a taxable incentive to employers as opposed to a grant would set up government support for longer-term success, reduce administrative grant efforts on the part of the government and employers, and ensure employers are recouping part-or all-the cost of their investments in training. Several states provide tax incentives to encourage training investments, including Connecticut, Georgia, Kentucky, Mississippi, Rhode Island, and Virginia, with incentives ranging from 5 to 50% of eligible training expenses.xx
- 2. Develop a national workforce innovation strategy that brings together higher education institutions, other levels of government, and employers to set forth a plan for shifting the ways in which we think about delivering high-quality and accessible skills training through existing education infrastructure. A national strategy would provide a unified vision against which all training providers, governments, and employers could unite and focus their efforts to improve the current state of skills development.

- 3. Enable higher education institutions with the agility to develop and start new programs quickly to meet the rapidly changing needs of their local communities. If higher education institutions are not able to participate in the creation of new training programs and credentials at the same level as non-traditional education providers, we'll see an explosion in the creation of parallel corporate credentials. Governments can play a role in ensuring a consistent, transparent playing field for learners who are looking to attain high quality, recognized credentials with frameworks that put clear guidelines on portability of credentials across industries and institutions, and stackability towards certificates, diplomas, or degrees.xxi
- 4. Provide an annual training account or tax credit for individuals to define and pursue their own learning paths, regardless of their employment status (e.g., employed, gig worker, or unemployed). One example is Washington State's Lifelong Learning Program which acts as a voluntary employee benefits program where employers agree to match their employees' contributions to a Lifelong Learning Account.xxii The fund is portable and can be used for any education or training investment. These already exist in many jurisdictions—and should continually be iterated upon to ensure individuals have sufficient funding support to take on training over the course of their lifetimes.



Conclusion

Change is the only constant in the world of work and learning. Technological innovation and globalization continue to reshape the operating environments for businesses and propel them to think differently about workforce development. D2L's research has shown that while SMEs in both the United States and Canada count recruiting and retaining talented employees as their biggest human resources challenges, only one in three are currently offering financial support or the paid time off to incentivize employees to continue their lifelong learning journeys outside of the workplace.

Smaller or less established organizations may not have the time, people, or resources required to close this gap. They need support to develop a robust academic-employer partnership for a custom training program, build out a suite of internal training programs with qualified instructors and facilitators, or even identify high-quality external learning options for employees. Employers need learning and development strategies that are adaptable, changing as new skillsets emerge and business needs evolve.

Higher education institutions have an important role to play in supporting employers and filling this need. For institutions to effectively serve individuals who need access to non-degree education, a new approach that offers seamless, personalized, flexible, technology-enabled, and project-based learning is required. Through cooperative partnerships, employers and institutions should also work together to curate relevant programs for developing in-demand skillsets or create new programs in collaboration with other companies or industry associations where they do not already exist. To support these efforts, governments and employers alike need to create the environment for direct financial support and paid time off to incentivize learning.

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