



Driving innovation and entrepreneurship in Canada:

The benefits of immigration

Key Insight Report #2

December 2021



Acknowledgements

This report was prepared by Sara Ditta, Sihwa Kim, Jon Medow and Stephanie Procyk (Meadow Consulting). Special thanks are due to Craig Alexander, Howard Duncan, Kareem El-Assal, Lisa Lalande, and Matthew Mendelsohn for their feedback and guidance. And to Sandbox Inc. for the design of the report.

Century Initiative gratefully acknowledges the support of Scotiabank, Bank of Montreal, CIBC, The Business Council of Canada, MobSquad, Hassan Bhatti, and The Institute for Canadian Citizenship to develop this report.

About Century Initiative

Century Initiative is a national, non-partisan charity with a mission to enhance Canada's long-term prosperity, resiliency and global influence by responsibly growing the population of Canada to 100 million by 2100. Century Initiative delivers its mission by leading, enabling and partnering on initiatives that support long-term thinking and planning in immigration, urban development, employment and entrepreneurship, early childhood supports, and education.



**Century
Initiative** | **Initiative
du Siècle**

www.centuryinitiative.ca | info@centuryinitiative.ca

2 St Clair Ave E #300, Toronto, ON M4T 2T5 Canada

Canadian charitable number: BN 843519638 RR0001

Increasing innovation and entrepreneurship in Canada through immigration

Canada's performance on innovation and entrepreneurship has been the subject of significant scrutiny over the years.¹ However, despite decades of discussion, the country continues to have difficulty making progress on key innovation and entrepreneurship related metrics such as private sector investments in R&D and the scaling of small and medium sized firms. Larger firms benefit from economies of scale, which raises their productivity and competitiveness at home and abroad.

Many pathways to improving innovation and entrepreneurship performance in Canada have been suggested. Yet the role that immigrants play has not received sufficient attention.

The Business Development Bank of Canada (BDC) recently found that immigrants are more likely than those born in Canada to engage in entrepreneurial activities.² This can reflect the fact that immigrants are willing to leave the familiar settings of their countries, take risks, and take on new opportunities in a foreign country. New research conducted by Century Initiative for this report³ concludes that one-third of Canadian private tech companies that have scaled successfully and are best positioned to grow into world-class firms were founded or co-founded by immigrants, a proportion that outpaces their share of the population (22%). Newcomers also provide significant benefits to Canada by sharing new ways of thinking and connections to their countries of origin. These benefits could multiply if challenges and barriers facing immigrant innovators and entrepreneurs are addressed.

Canada is currently increasing the number of immigrants every year and is regularly assessing and refining immigration programs and policies.⁴ A larger population and domestic market can make innovation and entrepreneurship gains more likely. Large countries have advantages with respect to economies of scale, depth of public sector support and diversity of potential markets that smaller countries simply do not have.⁵

As Canada recovers from the pandemic, governments, post-secondary institutions, and the private sector should take steps to better support immigrant innovators and entrepreneurs. This can be done by refining Canada's value proposition to immigrants, appreciating the important role immigrants and their children play as entrepreneurs and innovators, and implementing policies and practices to build opportunity and remove barriers. Improving our performance on innovation and entrepreneurship is absolutely necessary if Canada is to grow well into the future in a sustainable and inclusive way.

Innovation and entrepreneurship: Canada's current performance

Century Initiative's *National Scorecard on Canada's Growth and Prosperity* is our annual pulse check on progress towards building a bigger, bolder and more prosperous Canada. The inaugural 2021 *National Scorecard* found that Canada has mixed results on key indicators related to innovation and entrepreneurship.⁶

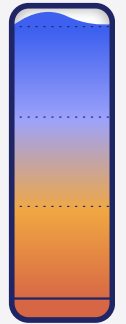
Indicator

Entrepreneurship Ecosystem

Direction Canada is Trending

Leading

Canada has consistently ranked high in its ecosystem for entrepreneurship, which represents the preconditions and health of the environment for business growth.



Indicator

Productivity

Direction Canada is Trending

Falling behind

Canada has a notable productivity gap compared to similar countries and has consistently scored lower compared to the OECD average.



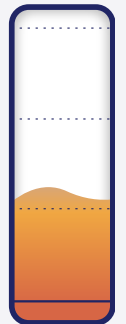
Indicator

Business Growth

Direction Canada is Trending

Needs Attention

Canada has trended in a positive direction in recent years on number of high-growth firms, but small and medium-sized firms are having difficulty scaling into larger firms.



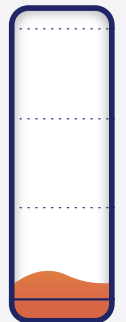
Indicator

Business spending on R&D

Direction Canada is Trending

Falling behind

Canada's business spending on R&D as a percentage of GDP, which is an indicator of the private sector's support for innovation, is on the decline and well below the OECD average.



Canada has a strong entrepreneurship ecosystem, but its promise is not being fully realized. Canada's healthy entrepreneurship ecosystem is not matched by enough productivity-enhancing adoption of technology, or sufficient investment in capital, skills, research & development. Such factors are critical to promoting innovation and supporting the growth of globally-competitive firms.

A central driver of innovation and entrepreneurship is talent. The diversity and capacity of people and their ability to thrive in a supportive environment is key to creating and scaling new businesses. As a less populated country on the world stage, bringing in new talent through immigration can play a critical role in moving the needle on Canada's innovation and entrepreneurship performance. The following sections will explore this connection more deeply.

Immigration contributes to economic growth and is a key driver of innovation and entrepreneurship in Canada

Immigration creates economic prosperity

The role that immigration plays in improving economic growth through workforce and population expansion has been well established. A recent Conference Board of Canada and Century Initiative report, *Building on Covid-Period Immigration Levels – The Economic Case*, found that a high-growth immigration scenario in the years ahead would result in an extra \$67 billion in GDP and \$15.5 billion in federal public revenues annually by 2040 compared to a lower-growth scenario.⁷

Economic success for immigrants is critical to Canada's success

Century Initiative's *National Scorecard* found that the income gap between immigrants and non-immigrants in Canada "needs attention." Immigrants are more likely to be overqualified and to work in jobs for an extended period of time that require lower levels of education compared to those born in Canada, and this is particularly true for those immigrants with foreign credentials.⁸

More effectively leveraging the human capital of immigrants can help to close the income gap, improve health and well-being across newcomer communities and improve access to opportunity.⁹ It can also help move key macroeconomic indicators.

Increases to immigration currently exert modest downward pressure on GDP per capita growth in Canada

due to the lower average earnings of immigrants.¹⁰ Supporting immigrants to move more quickly to employment that matches their skills and experience and closing the wage gap would help accelerate GDP per capita growth and productivity growth, helping Canada fully realize the benefits of immigration into the future.¹¹ It has been estimated that closing gaps in earning levels and employment between immigrants and non-immigrants could add up to \$50 billion to Canada's GDP per year, or roughly 2.5%.¹²

However, the economic benefits of immigration go beyond these factors. Immigration contributes positively to entrepreneurship and innovation based on the companies immigrants may found, the new products they may develop, and new ways of doing business.¹³ Immigrants – especially high-skilled newcomers – can contribute to innovation by adding to Canada's diverse human capital, contributing their creativity and connecting with new networks.¹⁴

Immigrants more likely to be entrepreneurs or found high growth firms

Immigrants are twice as likely to engage in entrepreneurial activities compared to those born in Canada, according to the Business Development Bank of Canada (BDC).¹⁵ The number of immigrant entrepreneurs has also grown over the last decade, by 22% between 2006 and 2018.¹⁶ Immigrants account for 33% of all business owners with paid staff,¹⁷ creating jobs for Canadians and contributing to local economies at a rate that exceeds their share of Canada's population (22%).

Immigrant-founded firms are also more likely to be high-growth compared to firms founded by those born in Canada.¹⁸ These firms tend to be newer companies in more rapid stages of development.¹⁹ Immigrants provide new ways of thinking and connections that may not otherwise have been possible. For instance, research indicates that immigrant-owned firms have stronger international trade connections compared to firms owned by people born in Canada.²⁰

However, alongside these positive metrics sit significant challenges. Immigrant-owned firms on average are smaller than those owned by non-immigrants and have lower survival rates, particularly for recent immigrants.²¹ In addition, some immigrants pursue entrepreneurship not because it is a desirable career pathway for them, but due to a lack of recognition of foreign experience and credentials or racism and discrimination in the labour market.²² These challenges point to clear opportunities to build better supports for success.

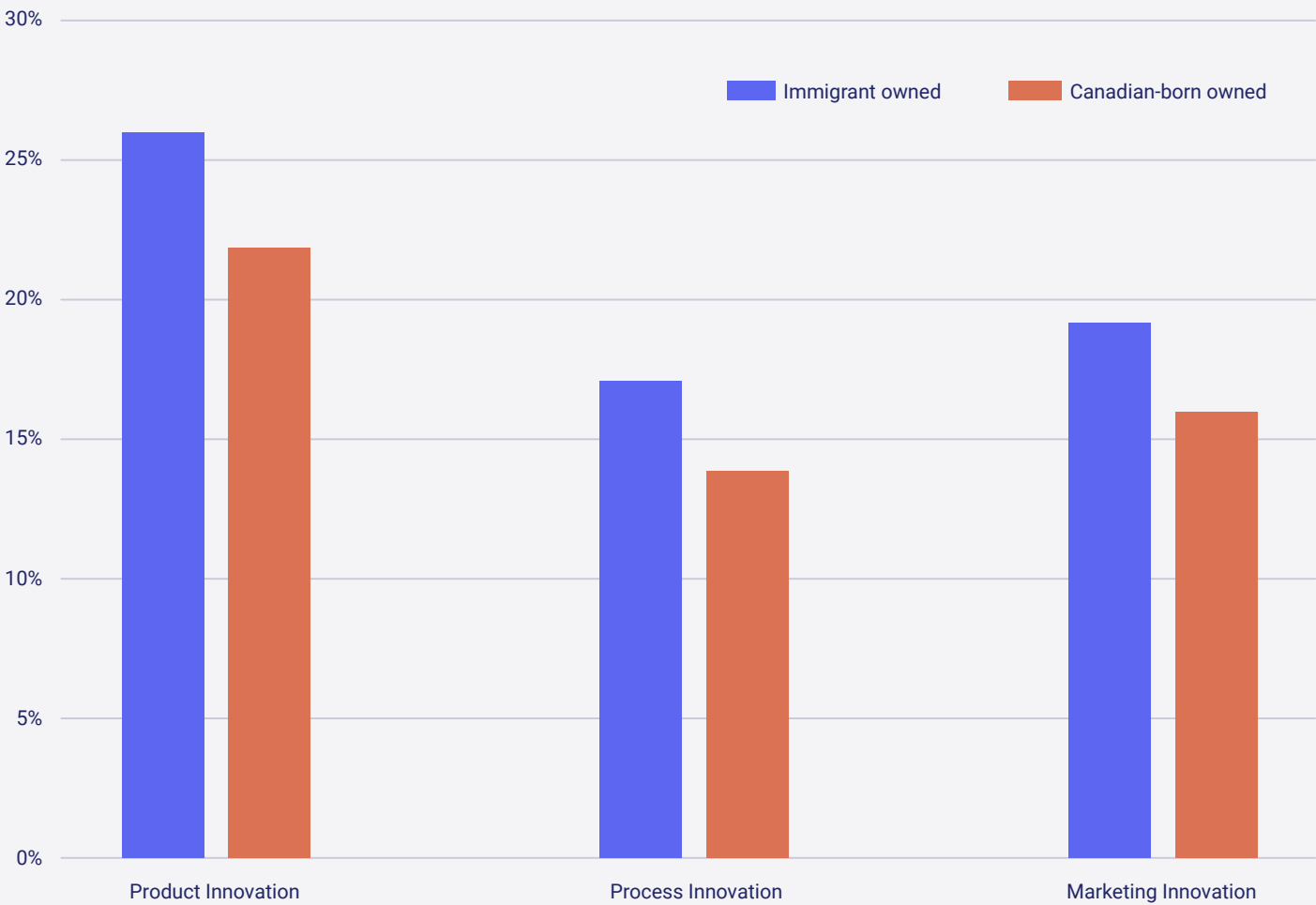
Measuring immigrant contribution to innovation

Innovation can be measured in a variety of ways. One common approach includes measuring rates of patent filing. When measuring through patent filing, Canada has shown only modest gains in innovation resulting from skilled immigration when compared to the United States.²³ Another approach is to measure innovation practices within companies, given that “innovation occurs within firms” and that patent filings may be a better measure of invention rather than innovation. In this vein, a recent Statistics Canada study considers dimensions of innovation in Canadian Small and Medium Sized Enterprises (SMEs) with immigrant and Canadian-born ownership.²⁴

Based on Statistics Canada data, immigrant-owned SMEs had higher rates of product innovation, process innovation and marketing innovation compared to SMEs with owners born in Canada. Immigrant business owners had an 8.6% higher probability of developing a new product or service and a 20.1% higher probability of developing a new production process or method (see **Figure 1**).²⁵

A critical metric for Canada’s success is the country’s collective capacity to bridge innovative SMEs into becoming thriving at-scale enterprises, as highlighted by Century Initiative’s *National Scorecard*. Though innovation is essential across the breadth of Canada’s economy, the country’s success in business scaling within the tech sector is a vital area of focus as Canada’s digital economy is growing rapidly,²⁶ contributing \$118 billion to GDP in 2019.²⁷ **Figure 2** looks at the role that immigrants are playing in tech sector scaling.

Figure 1: Innovation rates for SMEs with immigrant and Canadian-born owners

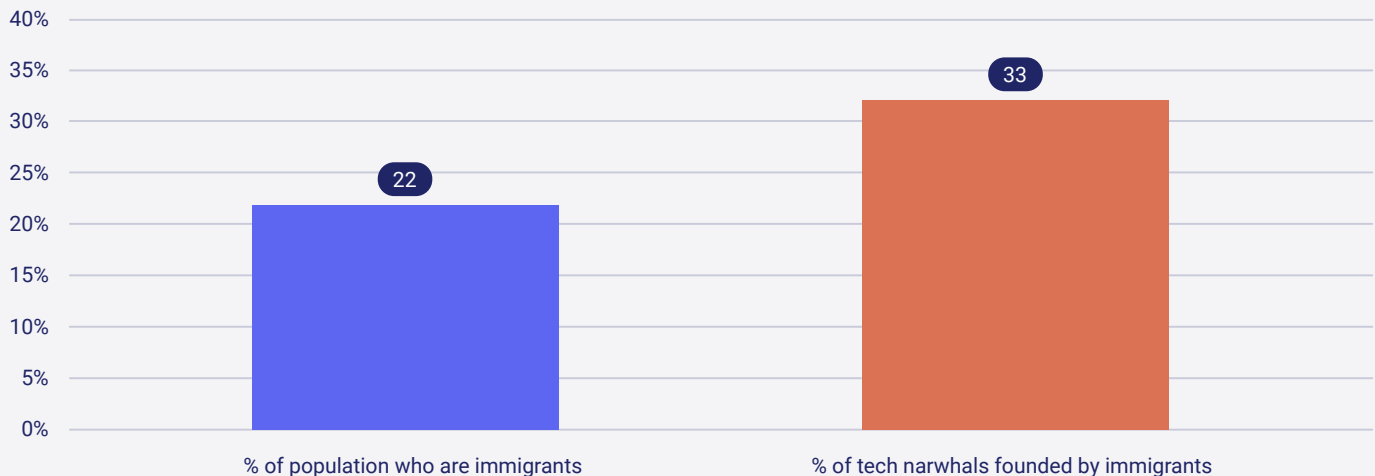


Source: Ostrovsky, Y. & Picot, G. (2020). Innovation in Immigrant-owned Firms in Canada. Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2020009-eng.htm>

Canada's fastest-growing tech companies founded by immigrants

The Narwhal List tracks private Canadian technology companies best poised to become world-class firms based on financial velocity, growth and firm size. Century Initiative analyzed founder profiles from the 2021 edition of the Narwhal List to determine the share of immigrant-founded Canadian tech companies that are scaling successfully. Of the 60 narwhal companies, 33% were founded or co-founded by immigrants (**Figure 2**).²⁸

Figure 2: Percentage of narwhal companies in the tech sector founded by immigrants in Canada



Sources: Statistics Canada (2017). Immigration and ethnocultural diversity: Key results from the 2016 Census. <https://www150.statcan.gc.ca/n1/daily-quotidien/171025/dq171025b-eng.htm?indid=14428-1&indgeo=0>; Authors' calculation based on Narwhal Project (2021). The Narwhal List. <http://narwhalproject.org/narwhal-list/>

Notably, five of the top 10 computer tech companies on the 2021 Narwhal list were founded or co-founded by immigrants. These include:

- I ApplyBoard, which topped the 2021 list of Canada's fastest-growing computer tech companies, was founded by three brothers who arrived in Canada as students from Iran. In 2020, ApplyBoard had more than 1,000 employees and became one of Canada's few unicorn companies – privately held start-up companies valued at over \$1 billion – and the world's largest online international student recruitment portal.²⁹ As of 2021, the company had a \$3.2 billion USD valuation.³⁰
- I Symend, a start-up company which helps customers avoid defaulting on bills, ranked second on the list of fastest-scaling computer tech companies in Canada in 2021. It was founded by a refugee who spent 12 years in refugee camps in Iraq before settling in Canada and founding the AI-driven digital engagement platform company.³¹ In 2020, the company reported that it expected to work with 100 million customers.³²

The three other companies in the top 10 founded or co-founded by immigrants to Canada included Geotab, Talent.com and 1Password. Geotab's founder, who moved

to Canada from his native South Africa, has highlighted the importance of immigration in enabling Geotab to attract top talent.³³

Analyzing the Narwhal List, a key factor that stands out is that the overwhelming majority of founders are men. This highlights that women, both immigrant and non-immigrant, are a major source of untapped potential to advance Canadian innovation.

In this report we have considered firms owned and founded by immigrants and by individuals born in Canada (see Figure 1 and Figure 2). However, this does not capture the impact of Canada's multi-generational commitment to immigration. Expanding the frame of reference to include businesses owned by children of immigrants would only further demonstrate how different Canada would look in the absence of this long-term commitment.³⁴ In addition, our focus on founders does not account for the role that immigrants can play in driving innovation within firms in which they are employed, a role which can be further enhanced by addressing barriers in the labour market, such as discrimination and a lack of recognition of skills, education, and experience.

Where are we now?

Key policies and programs for immigrant entrepreneurs and innovators

Canada is committed to high levels of immigration and there is significant public support for it.³⁵ In addition to Canada's major economic class immigration streams, which can support the entry of innovators and entrepreneurs, specialized programs have also been developed at both the federal and provincial levels to attract talented immigrants that could boost innovation and entrepreneurship. These include:

- I Federal Start-Up Visa: Created in 2013 as a pilot program, the Start-Up Visa was "designed to attract innovative foreign entrepreneurs" to contribute to the "innovation needs of the Canadian economy."³⁶ The program requires a prospective immigrant entrepreneur to develop a viable business project. Designated bodies – including venture capital funds, angel investor groups and business incubators – endorse selected applicants, allowing them to apply for permanent residence in Canada. The federal government made the program permanent in 2018.
- I Federal Global Talent Stream: As part of the 2017 Global Skills Strategy, the government launched a Global Talent Stream (GTS) pilot, enabling accelerated application processing to meet the need for international talent in the technology sector.³⁷ The employer-driven flagship program is now permanent as part of the Global Skills Strategy. GTS workers are eligible to apply for permanent residence after one year.
- I Provincial Nominee Program entrepreneur streams: The Provincial Nominee Program is operated by provinces and territories. Various jurisdictions operate entrepreneurship streams which require candidates to meet investment and job-creation thresholds before applying for permanent residence.³⁸ Candidates are assessed based on their human capital, including business experience, as well as their proposed investment and business plans.

However, such specialized programs are relatively small in scale and narrow, and despite some success stories, such as ApplyBoard, whose founders applied for permanent residence under the Start-Up Visa,³⁹ a limited number of new businesses have been created by immigrants who have arrived through these streams.⁴⁰ More businesses have been founded by immigrants arriving through larger economic class streams, as well as the family and refugee classes.⁴¹

Key roles outside of government

With little public awareness, policy changes enacted in recent years have led to the business and higher education sectors taking on a substantial, if not fully acknowledged,

role in immigrant selection and settlement. These policy changes, leading to the rise of "two-step" immigration, enable businesses and post-secondary institutions to participate in selecting individuals to enter Canada on a temporary basis that include paths to possible attainment of permanent residency.⁴²

- I Business sector: Canada's business sector can attract international talent through employment and income opportunities that it offers, and through support for diversity in the workplace. Canada's business environment and culture shape Canada's attractiveness on a world stage to potential innovators and entrepreneurs. Businesses are also drivers of direct recruitment, leveraging immigration programs like the Global Talent Stream. For instance, Canada's major industries, including the technology sector, have actively reached out to attract talent in the United States to Canada in recent years.⁴³
- I Higher education sector: The strength and global reputation of Canada's post-secondary institutions, including levels of support for entrepreneurial activity and research commercialization, can contribute to overall attractiveness to innovators and entrepreneurs. By selecting international students, post-secondary institutions also select individuals who may enter a path toward permanent residency after graduation. As Century Initiative's *National Scorecard* has highlighted, international student transitions to permanent residency are growing.

Immigration in the context of Covid-19: the essential workforce

Immigration must serve a variety of objectives and renewed focus on entrepreneurs and innovators can take place alongside the continued evolution of immigration pathways designed to address the range of skills needed in Canada. This includes pathways for essential workers.

The pandemic has shed a light on the importance of immigrants within the newly recognized "essential workforce" in Canada. Immigrants played and continue to play a vital role in responding to Covid-19, accounting for one in four frontline health care workers.⁴⁴ Their impact has led to calls to re-examine what we consider to be skilled work, considering vital supply chain, health and safety functions.⁴⁵ In April 2021, the federal government acknowledged these contributions and opened a new pathway to permanent residence for essential workers with temporary statuses.

Key issues and challenges

All three key stages of the immigration process must consider the needs and interests of immigrants who may end up being innovators and entrepreneurs: attraction, selection, and settlement and support.



Attraction: ensuring Canada continues to be attractive

The OECD has found that Canada is among the most attractive countries for high-skilled workers – ranking fifth out of 35. Canada was found to be

the most attractive of all OECD countries for entrepreneurs.⁴⁶ While the country has a solid global reputation, as noted in Century Initiative's *National Scorecard*, its ranking has fallen in recent years due to factors such as less confidence that Canada can compete at a global scale.⁴⁷ Canada cannot afford complacency and must do more to attract innovators and entrepreneurs, and remove barriers to their success.

Canada can become more attractive to innovators and entrepreneurs by further improving the key dimensions of its entrepreneurship ecosystem. These dimensions include policies, support programs, funding, culture, professional infrastructure, university support, labour market, R&D and market dynamics.⁴⁸ Government, the private sectors and post-secondary institutions all have a role to play in nurturing a supportive ecosystem. It must also ensure that general immigration processes are as client-focused as possible by simplifying administrative processes, clearing backlogs and reducing processing times.

Canada must create and sustain the conditions that can attract new talent and retain its own top talent. Many Canadian entrepreneurs are contributing their knowledge and skills in other countries. In a review of U.S. unicorn companies that found that more than half were established by immigrants, Canada was among the top countries of origin of those founders.⁴⁹ It has been estimated that between 7% and 9% of Canadian citizens live abroad.⁵⁰ At the same time, key immigration source countries for Canada are looking to attract talent back. Efforts have been made in both India and China to incentivize high-skilled emigrants to return, with China having greater levels of success in doing so.⁵¹

In recent years, Canada has benefitted from a context in which the United States has been considerably less welcoming to immigrants.⁵² While the current immigration policy landscape favours Canada, that could change in the years ahead. There are indications that Canada will face more significant competition for talent under the Biden administration in the United States.⁵³



Selection: refining programs and initiatives

There have been some notable steps to enable selection of high-skilled immigrants in recent years, but mixed results in prioritizing entrepreneurial

immigrants. For example, though not targeting entrepreneurs seeking to start new businesses, the federal Global Talent Stream program has been effective in helping fast-growing companies meet talent needs. Through the program, work permits were issued for more than 24,000 high-skilled workers in tech occupations over a two-year period.⁵⁴

However, there is currently no streamlined immigration pathway for entrepreneurs and there are challenges associated with key programs:

- | The Start-Up Visa program, a federal pathway specifically targeting entrepreneurs, could be more effective in providing a streamlined immigration process. It has been criticized for the low volume of immigrants accepted. Through the program, 465 immigrants received permanent residence between 2013 and 2018, falling short of its ambition to accept up to 2,750 applications per year – which itself is a low number.⁵⁵ Other issues identified include the low quality of proposals received through the program,⁵⁶ as well as increasing delays and longer processing times to obtain permanent residence.⁵⁷ The design of the program has also received some criticism for limited government involvement in the selection process.⁵⁸
- | Provincial programs aiming to target entrepreneurs have also faced challenges and typically require significant submission requirements and high levels of investment from applicants. A 2019 report highlighted that no entrepreneurs were nominated by Nova Scotia for immigration after the province launched a new program targeting entrepreneurial immigrants in 2016, though a very low number of 15 applicants were approved to begin the process.⁵⁹
- | The Canadian Experience Class, a key immigration stream, does not recognize self-employment in Canada as qualifying work experience on the pathway to permanent residence.⁶⁰ This would include, for example, graduated international students who may found businesses while on post-graduate work permits.

Opportunities for immigrants from retiring business owners

Canada's population is aging, which includes its business owners. The Canadian Federation of Independent Business (CFIB) estimates that 72% of business owners plan to exit within the next decade, the majority through retirement, which could result in more than \$1.5 trillion in assets being transferred over to a new generation.⁶¹ This challenge is particularly acute in Atlantic Canada, which has a population that is aging faster than the rest of Canada.

The CFIB supports a business succession immigration stream that would allow potential immigrants to take over businesses from retiring owners so they can continue contributing to local economies.⁶² Currently, full or partial business purchases are allowed through Provincial Nominee Programs, but criteria vary across jurisdictions.



Settlement and Support: more to do to make pathways easier for immigrants to succeed

Starting a business in Canada, particularly without prior experience, can be difficult. There are rules to navigate, unfamiliar government programs to access, and barriers to accessing financing, all of which may present difficulty for newcomers.⁶³ While this report highlights important contributions of immigrant entrepreneurs, there are challenges to growing a business that a more robust system for support could help address.⁶⁴

Settlement agencies play a key role in supporting newcomers as they integrate in Canada, though they provide mixed levels of support for immigrants who want to pursue entrepreneurship.⁶⁵ At the same time, organizations that typically provide general assistance to entrepreneurs are often not well-equipped to handle needs that are specific to immigrant entrepreneurs. Immigrant entrepreneurs are significantly less likely to access business supports compared to those born in Canada (43% compared to 64%)⁶⁶ and newcomers in smaller communities are more likely to face access challenges.

The federal government has funded some initiatives designed to support immigrant entrepreneurs but gaps remain. Among the challenges immigrant entrepreneurs commonly face are lack of access to capital and barriers in obtaining loans.⁶⁷

International student migration to Canada has grown significantly in recent years, driven in part by the expansion of pathways to permanent residence. Post-secondary institutions thus play a key role in selection and some actively think of themselves as first stop surrogate settlement agencies. They could do more to help international students transition after graduation to permanent residency, develop new ideas and get support to start businesses.

Entrepreneurship support for Black, Indigenous and Peoples of Colour (BIPOC)

To build shared prosperity, it is important to create an inclusive environment for entrepreneurship that provides supports needed to succeed in all communities. There are many barriers to entrepreneurial success that are particularly acute for BIPOC Canadians, including: discrimination, limited access to generational wealth, and limited access to large-scale opportunities or to other entrepreneurs.⁶⁸

According to the Canadian Council for Aboriginal Business, Indigenous peoples are creating new businesses at nine times the Canadian average.⁶⁹ Providing support to build on this foundation will be critical to Canada's economic growth and prosperity, and to becoming a more equitable society, particularly as the Indigenous population grows. The recently-launched Black Entrepreneurship Loan Fund, offering \$291 million in financing from the federal government, BDC, and private financial institutions, is an important initiative to monitor and evaluate.⁷⁰

If we don't get the range of these programs right, another challenge will emerge: retention. Talented immigrant entrepreneurs and innovators increasingly have a variety of choices on where to settle. If they do not feel supported in Canada, or that our business conditions and environment are not conducive to their success, some will choose to leave, and the country will lose out on their valuable contributions.

The way forward

Innovation and entrepreneurship are critical to healthy, sustainable population growth – for short-term recovery from the pandemic and for long-term growth. Immigrants have made an outsized contribution to innovation and entrepreneurship in Canada, often at higher levels than those who were born in Canada.

Despite the important contributions of newcomers and developments in immigration programs and supports over the past two decades, Canada still has more to do to attract, select, settle, support and retain immigrants who are innovators and entrepreneurs. This includes general improvements in the immigration process so that the user experience is easier for immigrants who are trying to understand the rules or working to get family members to Canada.

But it also requires more targeted improvements that put a strategic focus on immigrants who will improve Canada's innovation and entrepreneurship performance.

Century Initiative offers the following three high-level principles alongside potential actions for Canada's governments, business sector and post-secondary institutions:

- | Enhance processes to target and select immigrant innovators and entrepreneurs. This could include:
 - | Exploring ways to streamline applications for high-potential immigrant entrepreneurs that build off of learnings from the Global Talent Stream, which has successfully managed applications through a two-step temporary-to-permanent process. This could involve improvements to the existing Start-Up Visa Program; and
 - | Recognizing self-employment in Canada as experience that can contribute to qualification for permanent residence, including through the Canadian Experience Class.
- | Improve supports for immigrant entrepreneurs to start and scale businesses. This could include:
 - | Improving access to support programs either through expansion of access to existing programs or the development of a new federally funded program available in all regions of the country, recognizing the innovation and entrepreneurial potential of all immigrants; and

- | Supporting succession planning that connects immigrants with retiring business owners, potentially linked to a formalized immigration pathway, as has been highlighted by stakeholder groups.⁷¹

- | Strengthen the environment and underlying conditions to attract top talent from abroad and help retain innovative and entrepreneurial Canadians. This could include:

- | Increasing business investment in R&D along with collaborative research and innovation partnerships with post-secondary institutions;
- | Helping Canadian post-secondary institutions not only attract international students, but also support international students to transition to innovative careers and entrepreneurship in Canada and to become permanent residents; and
- | Monitoring Canada's attractiveness to potential innovators and entrepreneurs in major immigrant source countries with a focus on building and maintaining a globally competitive business climate and culture. The Canadian business sector could lead such an effort, partnering with civil society organizations and the Canadian diaspora community.

To succeed in sustainable, healthy population growth in the years ahead, we must strengthen our innovation and entrepreneurship performance and we need leadership across multiple sectors to do so. An important way to do this is by focusing on immigrant innovators and entrepreneurs, and all aspects of their journey, from attraction and selection to settlement, support and retention. Getting this right will help unlock the innovation and entrepreneurship potential that will be necessary to grow sustainably towards a population of 100 million.

- 1 See: Innovation Canada: A Call to Action: Review of Federal Support to Research and Development (2011). https://publications.gc.ca/collections/collection_2011/ic/lu4-149-1-2011-eng.pdf; Munro, D. & Zachariah, J. (2021). Inclusive Innovation Monitor. Toronto: Brookfield Institute & Munk School of Global Affairs & Public Policy. Available at: https://brookfieldinstitute.ca/wp-content/uploads/Inclusive_Innovation_Monitor-Report.pdf; Beaudry, C. and Solar-Pelletier, L. (2020). The Superclusters Initiative: An Opportunity to Reinforce Innovation Ecosystems. Institute for Research on Public Policy. <https://irpp.org/research-studies/the-superclusters-initiative-an-opportunity-to-reinforce-innovation-ecosystems/>
- 2 BDC (2019). A Nation of Entrepreneurs: The Changing Face of Canadian Entrepreneurship. Available at: <https://www.bdc.ca/en/about/analysis-research/changing-face-of-canadian-entrepreneurship>
- 3 Century Initiative conducted secondary research on the data presented in the 2021 Narwhal List. See: <https://narwhalproject.org/narwhal-list/> for more information.
- 4 Government of Canada (2020). Notice - Supplementary Information for the Immigration Levels Plan 2021-2023. Available at: <https://www.canada.ca/en/immigration-refugees-citizenship/news/notices/supplementary-immigration-levels-2021-2023.html>
- 5 Gaskell, A. (2018). What role does population play in innovation. Forbes. Available at: <https://www.forbes.com/sites/adigaskell/2018/03/09/what-role-does-population-play-in-innovation/?sh=36c722d76ff6>; Century Initiative (2019). For a bigger, bolder Canada: long-term thinking starting now. Available at: https://uploads-ssl.webflow.com/5f931bff6aee7ca287dbada2/5f99ce137eaf1ee0243f1d98_CI-Report.pdf.
- 6 Century Initiative (2021). National Scorecard on Canada's Growth and Prosperity. Available at: <https://centuryinitiative.s3.amazonaws.com/CI+National+Scorecard+2021.pdf>
- 7 Conference Board of Canada (2021). Building on COVID-Period Immigrant Levels: The Economic Case. Available at: <https://www.conferenceboard.ca/e-library/abstract.aspx?did=11234>
- 8 Statistics Canada (2020). Immigrants nearly three times more likely to experience persistent overqualification than non-immigrants. Available at: <https://www150.statcan.gc.ca/n1/daily-quotidien/200902/dq200902a-eng.htm?CMP=mstatcan>
- 9 United Way Greater Toronto (2019). Rebalancing the opportunity equation. Toronto: United Way Greater Toronto. Available at: https://www.unitedwaygt.org/file/2019_OE_fullreport_FINAL.pdf
- 10 Conference Board of Canada (2021). Building on COVID-Period Immigrant Levels: The Economic Case. Available at: <https://www.conferenceboard.ca/e-library/abstract.aspx?did=11234>
- 11 Future of Canada Centre (2020). A vision for a thriving Canada in 2030. Available at: https://www2.deloitte.com/content/dam/Deloitte/ca/Documents/fcc/ca-catalyst-canada-2030-aoda-en.pdf?icid=en_report_hero_section
- 12 Agopsowicz, A. and Billy-Ochieng, R. (2019). Untapped Potential: Canada Needs to Close Its Immigrant Wage Gap. RBC Economics. Available at: <https://thoughtleadership.rbc.com/untapped-potential-canada-needs-to-close-its-immigrant-wage-gap/>
- 13 Innovation typically involves activities related to taking new ideas, devising new or improved products and services, and commercializing products and services in the market. Innovation can occur at the level of an individual organization, in a community or across the country. Entrepreneurship is a process that starts with recognizing an opportunity to generate value, through the creation or expansion of economic activity by identifying and exploiting new products, processes or markets. While entrepreneurship typically refers to the process of starting a new business, entrepreneurial activities can also refer to dynamics within existing businesses.
- See: Statistics Canada (2021). Survey of Innovation and Business Strategy 2017-2019. Available at: <https://www150.statcan.gc.ca/n1/daily-quotidien/210426/dq210426a-eng.htm>
- 14 Lee, S. Y., Florida, R., & Gates, G. (2010). Innovation, Human Capital, and Creativity. *International Review of Public Administration*, 14(3), 13–24. <https://doi.org/10.1080/12294659.2010.10805158>
- 15 BDC (2019). A Nation of Entrepreneurs: The Changing Face of Canadian Entrepreneurship. Available at: <https://www.bdc.ca/en/about/analysis-research/changing-face-of-canadian-entrepreneurship>
- 16 Ibid.
- 17 Government of Canada (2021). #ImmigrationMatters: Growing Canada's Future. Available at: <https://www.canada.ca/en/immigration-refugees-citizenship/campaigns/immigration-matters/growing-canada-future.html>
- 18 Picot, G. and Rollin, A. (2019). Immigrant Entrepreneurs as Job Creators: The Case of Canadian Private Incorporated Companies. Statistics Canada. Available at: <https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2019011-eng.htm>
- 19 Ibid.
- 20 Fung, L., Grekou, D. and Liu, H. (2019). The Impact of Immigrant Business Ownership on International Trade. Available at: <https://www150.statcan.gc.ca/n1/en/pub/11f0019m/11f0019m2019014-eng.pdf?st=qSgur5z->
- 21 El-Assal, K. (2018). Enhancing Success: Canada Immigrant Entrepreneurs and International Trade. Available at: <https://www.conferenceboard.ca/e-library/abstract.aspx?did=9692>
- 22 Wayland, S. (2012). Winning strategies for immigrant entrepreneurship in five communities. http://www2.hamilton.ca/NR/rdonlyres/98D76227-C319-4C2C-9021-4847FEADCF8/0/Jun20EDRMS_n324659_v1_6_1_Workforce_Planning_Hamilton_Final_Project_Report.pdf
- 23 Statistics Canada (2020). Study: Innovation in immigrant-owned firms in Canada. Available at: <https://www150.statcan.gc.ca/n1/daily-quotidien/200609/dq200609e-eng.htm>
- 24 Ibid.
- 25 Statistics Canada (2020). Study: Innovation in immigrant-owned firms in Canada. Available at: <https://www150.statcan.gc.ca/n1/daily-quotidien/200609/dq200609e-eng.htm>. SMEs with Canadian-born ownership had higher rates of organizational innovation, though the difference was not found to be statistically significant. Immigrant-owned SMEs were found to hold intellectual property at higher rates than those with Canadian-born owners, but again, the difference

was not statistically significant.

- 26 BDC (2021). Technology industry outlook: How changes in the economy affect Canada's tech sector. Available at: <https://www.bdc.ca/globalassets/di-gizuite/28336-st-outlookmfg-e2010-2.pdf>
- 27 Statistics Canada (2021). Digital supply and use tables, 2017 to 2019. Available at: <https://www150.statcan.gc.ca/n1/daily-quotidien/210420/dq210420a-eng.htm>
- 28 The Narwhal List is developed in partnership with MaRS Discovery District, Communitech, and Invest Ottawa. Narwhal companies are a set of private Canadian firms that are scaling successfully based on scale-up score that considers employee growth, firm size, and financial velocity. Detailed methodology and a full list of narwhal companies can be found here: <https://narwhalproject.org/wp-content/uploads/2021/03/The-Narwhal-List-2021.pdf>. A foreign university degree was used as an indicator that a founder is an immigrant, given the rarity of Canadians obtaining their bachelor's degree abroad. The proxy was developed by the Toronto Region Immigration Economic Council for its report "Building a Corporate Ladder for All report" (2019). <https://triec.ca/wp-content/uploads/2019/11/Building-a-Corporate-Ladder-for-All-final.pdf> A Narwhal company was considered immigrant-founded if at least one founder was an immigrant.
- 29 ApplyBoard. Our Story. <https://www.applyboard.com/about>
- 30 Sternlicht, A. (2021). Study Abroad EdTech ApplyBoard Triples Valuation to \$3.2 Billion With \$300 Million Fundraise. Forbes. Available at: <https://www.forbes.com/sites/alexandrasternlicht/2021/06/15/study-abroad-edtech-applyboard-triples-valuation-to-32-billion-with-300-million-fundraise/?sh=2748aa6f6885>
- 31 Cremades, A. & Joshaghani, H. (2021). From living in a refugee camp in Iraq to Raising \$52 million for his AI startup. Available at: <https://alejandrocremades.com/hanif-joshaghani/>
- 32 Lundun, I. (2020) Symend nabs \$43M for a platform to help customers avoid defaulting on bills. TechCrunch. Available at: <https://techcrunch.com/2021/02/09/symend-nabs-43m-for-a-platform-to-help-customers-avoid-defaulting-on-bills/>
- 33 Invest Ontario. Geotab: Why the #1 telematics company in the world chose Ontario. Available at: <http://ian-investd8.medi-library.com/success-stories/geotab-why-1-telematics-company-world-chose-ontario>
- 34 Picot, G. and Ostrovsky, Y. (2021, September 22). Immigrant and second-generation entrepreneurs in Canada: An intergenerational comparison of business ownership. Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/36-28-0001/2021009/article/00003-eng.htm>
- 35 The Environics Institute for Survey Research (2021). Canadian Public Opinion about Immigration and Refugees - Fall 2021. Available at: <https://www.environicsinstitute.org/projects/project-details/canadian-public-opinion-about-immigration-and-refugees--fall-2021>
- 36 IRCC (2016). Evaluation of the Start-Up Visa (SUV) pilot. Available at: <https://www.canada.ca/content/dam/ircc/migration/ircc/english/pdf/pub/e5-2015-suv-eng.pdf>
- 37 IRCC (2019). Second anniversary of the Global Skills Strategy. Available at: <https://www.canada.ca/en/immigration-refugees-citizenship/news/2019/06/second-anniversary-of-the-global-skills-strategy.html>;
- 38 El-Assal, K. and Taylor, S. (2019). Turning the Corner. Conference Board of Canada. <https://www.conferenceboard.ca/e-library/abstract.aspx?did=10181>
- 39 IRCC (2019) 2019 Annual Report to Parliament on Immigration. Available at: <https://www.canada.ca/en/immigration-refugees-citizenship/corporate/publications-manuals/annual-report-parliament-immigration-2019.html>
- 40 Toughill, K. (2019). Immigrant entrepreneurs: Highly desired, hard to attract. Public Policy Forum <https://ppforum.ca/articles/immigrant-entrepreneurs-highly-desired-hard-to-attract/>
- 41 OECD (2019). Recruiting Immigrant Workers: Canada https://www.oecd-ilibrary.org/social-issues-migration-health/recruiting-immigrant-workers-canada-2019_4abab00d-en
- 42 Hou, F., et. al. (2020). Two-step Immigration Selection: An Analysis of its Expansion in Canada. Statistics Canada. Available at: <https://www150.statcan.gc.ca/n1/pub/11-626-x/11-626-x2020010-eng.htm>
- 43 See for example: Duhatschek, P. (2020). Canadian tech group spends \$100K on billboards to lure anxious tech workers from U.S. CBC News. Available at: <https://www.cbc.ca/news/canada/kitchener-waterloo/tech-billboards-1.5683762>
- 44 Government of Canada (2020). Fall Economic Statement: Supporting Canadians and Fighting COVID-19. Available at: <https://www.budget.gc.ca/fes-eea/2020/report-rapport/toc-tdm-en.html>
- 45 Omidvar, R. (2020). Canada must make it easier for essential workers to immigrate. First Policy Response. Available at: <https://policyresponse.ca/canada-must-make-it-easier-for-essential-workers-to-immigrate/>
- 46 OECD (2019). Migration Policy Debates. Available at: <https://www.oecd.org/els/mig/migration-policy-debates-19.pdf>
- 47 Argyle Public Relationships (2018). Canada Drops From the Top in Country Reputation Survey. Cision. Available at: <https://www.newswire.ca/news-releases/canada-drops-from-the-top-in-country-reputation-survey-686154851.html>
- 48 Guerrero, M. et. al. (2020). The influence of ecosystems on the entrepreneurship process: a comparison across developed and developing economies. Small Business Economics. Available at: <https://link.springer.com/article/10.1007/s11187-020-00392-2>
- 49 Anderson, S. (2018). The Immigrant-Unicorn Connection. Wall Street Journal. Available at: <https://www.wsj.com/articles/the-immigrant-unicorn-connection-1543534312>
- 50 Zhang, K. (2009). Canadians Abroad: Policy Challenges for Canada. Asia Pacific Foundation of Canada. Available at: https://www.asiapacific.ca/sites/default/files/filefield/PP_09_6_KZ.pdf
- 51 Zweig, D., Tsai, K. and Singh, A. (2021). Reverse entrepreneurial migration in China and India: The role of the state. World Development. Available at: <https://www.sciencedirect.com/science/article/pii/S0305750X20303193>
- 52 Graduate Management Admission Council. (2019). Early Warning Signs: Winners and Losers in the Global Race for Talent. Available at: <https://www.gmac.com/-/media/files/gmac/research/talent-mobility/gmac-white-paper-early-warning-signals.pdf>

- 53 Agopsowicz, A. (2021). The immigration balancing act. RBC Economics. Available at: <https://thoughtleadership.rbc.com/the-immigration-balancing-act/>
- 54 IRCC (2019). Second anniversary of the Global Skills Strategy. Available at: <https://www.canada.ca/en/immigration-refugees-citizenship/news/2019/06/second-anniversary-of-the-global-skills-strategy.html>; Stackhouse, J. (2020). The Post-Covid Economy Will. Be 'a Huge Moment' for Canadian tech talent. RBC. Available at: <https://thoughtleadership.rbc.com/the-post-covid-economy-will-be-a-huge-moment-for-canadian-tech-talent/>
- 55 El-Assal, K. and Taylor, S. (2019). Turning the Corner. Conference Board of Canada. <https://www.conferenceboard.ca/e-library/abstract.aspx?did=10181>
- 56 IRCC (2016). Evaluation of the Start-Up Visa (SUV) pilot. Available at: <https://www.canada.ca/content/dam/ircc/migration/ircc/english/pdf/pub/e5-2015-suv-eng.pdf>
- 57 Standing Committee on Citizenship and Immigration (2021). Number 18. Available at: <https://www.ourcommons.ca/Content/Committee/432/CIMM/Evidence/EV11156399/CIMMEV18-E.PDF>; Fredericton Chamber of Commerce (2019). Improving Start-Up Visa Processes to Decrease Wait Times. Available at: <https://www.frederictonchamber.ca/wp-content/uploads/2019/09/2019-CCC-Policy-Position-Accelerating-Startup-Visa.pdf>
- 58 Hemmadi, M. (2016). How Canada's immigration policy is failing high-tech start-ups. Canadian Business. Available at: <https://www.canadianbusiness.com/innovation/how-canadas-immigration-policy-is-failing-high-tech-startups/>
- 59 Toughill, K. (2019). Immigrant entrepreneurs: Highly desired, hard to attract. Public Policy Forum. Available at: <https://ppforum.ca/articles/immigrant-entrepreneurs-highly-desired-hard-to-attract/>
- 60 El-Assal, K. and Taylor, S. (2019). Turning the Corner. Conference Board of Canada. <https://www.conferenceboard.ca/e-library/abstract.aspx?did=10181>
- 61 Cruz, M. (2018). Getting the Transition Right: Survey results on small business succession planning. Canadian Federation of Independent Business. Available at: <https://content.cfib-fcei.ca/sites/default/files/2018-11/Getting-the-transition-right-succession-planning-report.pdf>
- 62 Cruz, M. (2018). Getting the Transition Right: Survey results on small business succession planning. Canadian Federation of Independent Business. Available at: <https://content.cfib-fcei.ca/sites/default/files/2018-11/Getting-the-transition-right-succession-planning-report.pdf>; Toughill, K. (2019). Immigrant entrepreneurs: Highly desired, hard to attract. Public Policy Forum. Available at: <https://ppforum.ca/articles/immigrant-entrepreneurs-highly-desired-hard-to-attract/>
- 63 Feenan, K. and Madhany, S. (2021). Immigration and the Success of Canada's Post-Pandemic Economy. Public Policy Forum and World Education Services. Available at: <https://fsc-ccf.ca/research/immigration-canada-post-pandemic-economy/>
- 64 El-Assal, K. (2018). Enhancing Success: Canada Immigrant Entrepreneurs and International Trade. Available at: <https://www.conferenceboard.ca/e-library/abstract.aspx?did=9692>
- 65 Diversity Institute. (2017). Immigrant Entrepreneurship: Barriers and facilitators to growth. Available at: https://www.ryerson.ca/content/dam/diversity/reports/Immigrant_Entrepreneurship.pdf
- 66 Ibid.
- 67 Toughill, K. (2019). Immigrant entrepreneurs: Highly desired, hard to attract. Public Policy Forum. Available at: <https://ppforum.ca/articles/immigrant-entrepreneurs-highly-desired-hard-to-attract/>
- 68 Smith, S. (2021). BIPOC entrepreneurs tackle systemic barriers in Atlantic Canada. The Globe and Mail. Available at: <https://www.theglobeandmail.com/business/article-bipoc-entrepreneurs-tackle-systemic-barriers-in-atlantic-canada/>
- 69 Canadian Council for Aboriginal Business (2020). Promise and Prosperity: The 2020 Ontario Aboriginal Business Survey. Available at: https://www.ccab.com/wp-content/uploads/2020/10/CCAB_PP_2020_Final.pdf
- 70 Business Development Bank of Canada. (2021). Minister Ng announces the launch of the Black Entrepreneurship Loan Hub. Available at: <https://www.bdc.ca/en/about/mediaroom/news-releases/minister-ng-announces-launch-of-black-entrepreneurship-loan-fund>
- 71 Cruz, M. (2018). Getting the Transition Right: Survey results on small business succession planning. Canadian Federation of Independent Business. Available at: <https://content.cfib-fcei.ca/sites/default/files/2018-11/Getting-the-transition-right-succession-planning-report.pdf>;