# Charting a Course to Their Brightest Future:

## Navigating the Opportunities and Challenges of Generational Change


Jimmy Jean, Vice-President, Chief Economist and Strategist

Randall Bartlett, Senior Director of Canadian Economics

Marc Desormeaux, Principal Economist

Kari Norman, Economics Document Production Specialist

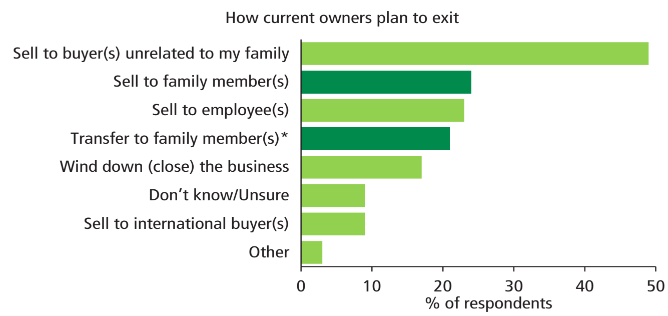

Desjardins

# Executive Summary

Desjardins Economic Studies has published a research series on the economic opportunities and challenges facing youth in Canada. Our first report focused on the path being navigated by younger Canadians as they leave home to pursue an education and embark on their careers. We followed it up with a report that looks at the challenges being experienced by young adults as they look to put down roots in their communities. This third and final report examines the circumstances that will come to define this generation over the coming decades.

Starting on a positive note, today's young adults in Canada stand to receive an unprecedented transfer of wealth in the coming decades. And this has already begun, as family members come together to provide financial assistance for things like education and a down payment on a house. Going forward, the pace of this transfer is expected to accelerate, including not just investment assets but also businesses (graph A).

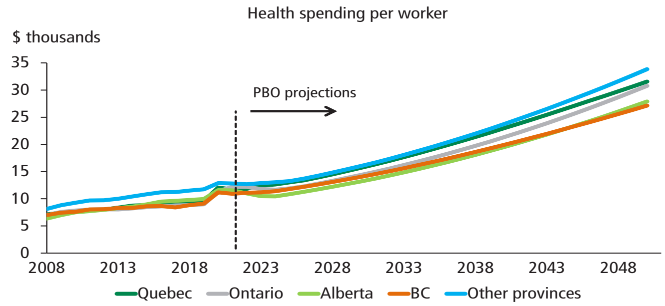
**GRAPH A**
**Many Canadians Are Poised to Take Over the Family Business**




* Inheritance, etc.
Sources: Canadian Federation of Independent Business and Desjardins Economic Studies

But there will be a lot of challenges leading up to this intergenerational wealth transfer. As the baby boomers age, the costs associated with providing them with healthcare and social assistance will increase dramatically. And given these programs are funded directly from tax revenues, the burden of paying for these services will fall disproportionately on today's young adults (graph B). The rapid population growth resulting from the heightened pace of immigration will help to offset the cost to households, but likely not entirely given the size of the demographic challenge.

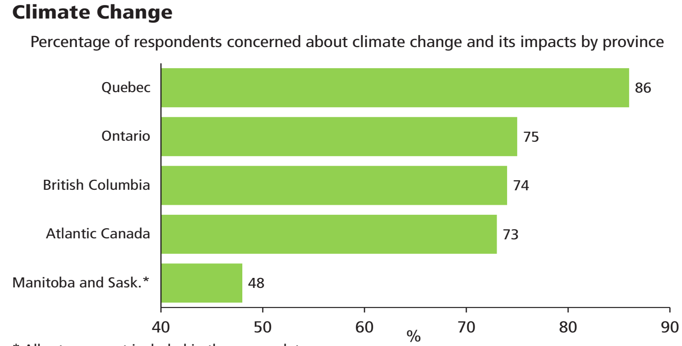
**GRAPH B**
**Healthcare Costs Will Increasingly Be Borne by the Working Population**




Sources: Parliamentary Budget Officer and Desjardins Economic Studies

As if managing dramatic demographic headwinds wasn't enough, young Canadians are also feeling a lot of anxiety about what climate change will mean for their futures (graph C). More than any other group of Canadians, they believe governments are not doing enough to mitigate the long-term impacts. Climate change and the energy transition will bring substantial risks—both physical and related to the transition—some of which we know about and others that will only emerge over time. However, the energy transition will also bring with it enormous opportunity in the form of new investments in nascent industries.

**GRAPH C**
**BC and Provinces East of the Prairies Are Concerned about Climate Change**

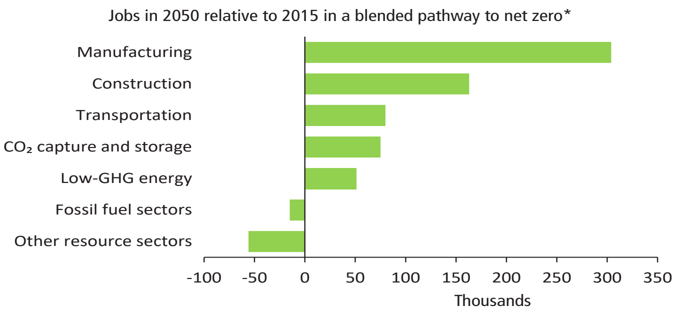



* Alberta was not included in the survey data.
Sources: Unite for Change and Desjardins Economic Studies

Today's youth are, and will continue to be, at the forefront of developing and using new technologies. Artificial intelligence has garnered particular attention recently. But innovations in communications, transportation, advanced materials and renewable energy are also charging ahead. As these different technologies interact in a mutually reinforcing manner, our lives will become increasingly interconnected in all that we do. To take advantage of this accelerating innovation, Canada must ensure that our young people are prepared to be global leaders. This must start early, by teaching young students cutting-edge science, technology, engineering and mathematics (STEM) skills, creating a pathway to postsecondary education for underrepresented groups and building a talent pipeline from school to work, among other things (graph D).

While we have identified several of the most prominent generational opportunities and challenges facing Canada's youth, this list is by no means exhaustive. As in every generation, new circumstances will emerge that no one today is anticipating. But as this series of reports has illustrated, young adults in Canada are well prepared to contend with what the future will throw at them. They are educated, hardworking, entrepreneurial and international in their perspective. As they are struggling with affordability and anxiety about the future, it's incumbent upon earlier generations to work to alleviate this burden. And with technological innovation accelerating at a torrid pace, it is of paramount importance that we all work to position today's youth for success in the decades to come.

**GRAPH D**
**Many Job Opportunities Lie Ahead in the Transition to Net Zero by 2050**




* Blended pathway is a mix of decarbonization by reducing fossil fuels and direct air carbon capture.
Sources: Future Skills Centre and Desjardins Economic Studies

# Table of Contents

In our first note on the economic circumstances of Canadian youth, we looked at the successes and struggles involved in pursuing an education and embarking on a career. Then in our second note, we examined the challenges facing youth as a result of economic uncertainty and a lack of affordability and how these are impacting life decisions. In this third and final note, we explore some of the central challenges that will be facing today's youth over the next several decades. From aging parents to climate change, some significant obstacles await young Canadians. But from overcoming these difficulties will also come immense opportunity.

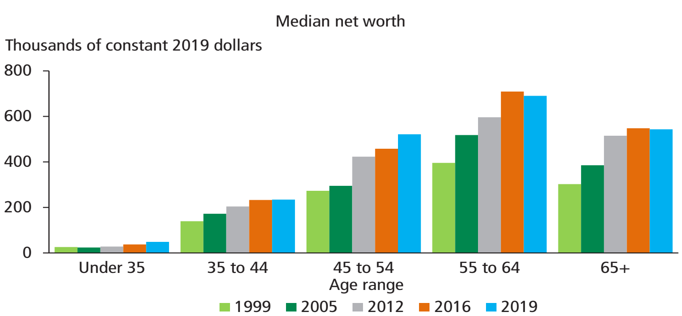
## Intergenerational Wealth Transfers

In our last note on the economic circumstances of Canada's youth, we highlighted the role that gifts from family members play in helping to support the transition through various life stages. And there are several life stages when young adults may receive a significant financial gift or loan from their parents or other relatives. Gifts of money are common at celebratory life events such as graduations, religious holidays, birthdays, weddings and the birth of a child. Parents may also choose to step in to help financially when they see a loved one struggling with a job loss or a major expense.

### Wealth in Canada

Not surprisingly, youth have amassed much less wealth than older Canadians. In contrast, families in all age groups 45 and over had a median net worth of over half a million dollars in 2019 (graph 1). Canadians 65 and older are typically in the drawdown years, thus their median net worth is lower than that of people in the decade before retirement.

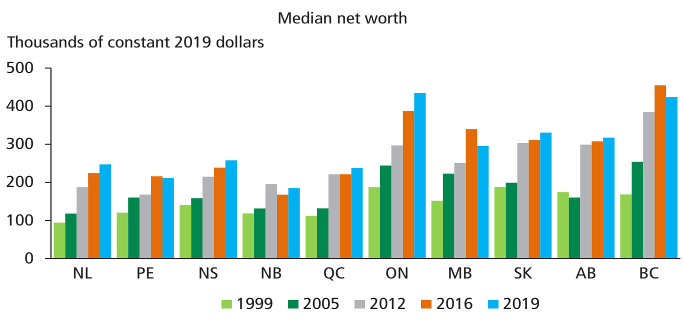
**GRAPH 1**
**The Typical Canadian Has a High Net Worth by Age 45**




Sources: Statistics Canada and Desjardins Economic Studies

Wealth grew considerably from 1999 to 2019 across all age cohorts and provinces (graph 2). In 2019, it was highest in Ontario and BC followed by the Prairie provinces. What caused this acceleration in wealth accumulation in Ontario and BC? You guessed it: home ownership. Equity held in real estate net of mortgage debt has taken on a more important role in families' wealth over the years, rising from about one third of net worth in 1999 to just over 40% twenty years later. Real estate is particularly important in Ontario and BC, where it accounted for 46% and 50% of median household wealth in 2019, respectively.

**GRAPH 2**
**Central and Western Canadians Have a Higher Net Worth**



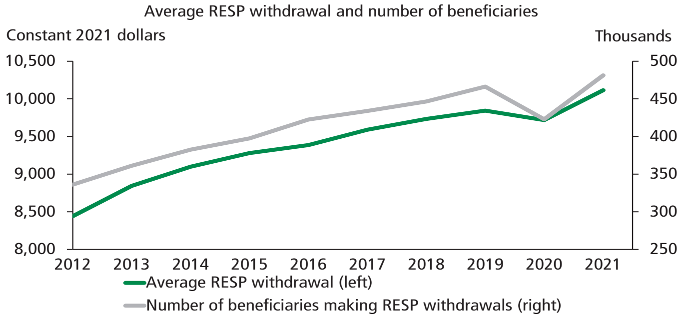

Sources: Statistics Canada and Desjardins Economic Studies

## Education Is a Priority

As we showed in our first report on youth, education is a high priority, with 66% of Canadians ages 25 to 34 having completed a tertiary education. This comes as no surprise given the substantial return on education. This stage of life is often the first source of intergenerational wealth transfer, as parents, grandparents or other close relatives help to fund the cost of postsecondary education.

The federal government and some provinces also offer a financial incentive to save for postsecondary education in a Registered Education Savings Plan (RESP). An RESP is a tax-sheltered way for parents and others to save for a child's future postsecondary education costs. Over the past decade, the number of students withdrawing funds from an RESP account has increased from about 336,000 to over 480,000 (graph 3). Not only are more youth benefiting from this wealth transfer, but the amount they are withdrawing each year has also increased by almost 20% in constant dollars to an average of over $10,000.

**GRAPH 3**
**RESP Withdrawals Are Growing**

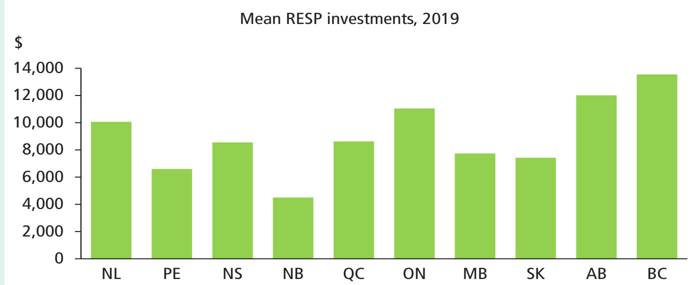



Sources: Statistics Canada and Desjardins Economic Studies

One of the primary benefits of an RESP is the Canada Education Savings Grant, whereby the federal government contributes 20% of the first $2,500 in annual contributions made to an RESP. Quebec and BC offer additional RESP incentives. Low-income families can also receive another grant via the Canada Learning Bond, helping to make this source of intergenerational funds transfer more accessible to those who may not have other forms of wealth to transfer.


Parents across the country vary considerably in their use of the RESP program as a vehicle for transferring wealth to their children. Average RESP investments per family range from a high of over $12,000 in BC and Alberta to a low of under $4,500 in New Brunswick (graph 5). Research by Statistics Canada found that some of this provincial discrepancy can be explained by different socioeconomic characteristics, such as income, parental education levels and the number of children.

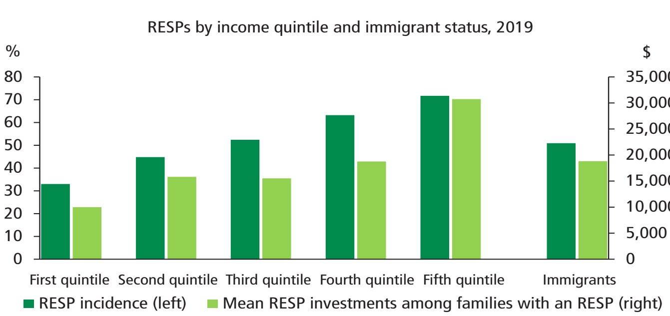
**GRAPH 5**
**RESP Investing Varies Considerably by Province**




Sources: Statistics Canada and Desjardins Economic Studies

Despite this federal government assistance, only 33% of low-income families had an RESP in 2019 (graph 4). This compares to more than half of families in the middle quintile and a high of over 70% of families in the top income quintile. Of those low-income families who had an RESP, the average amount invested was just under $10,000 compared to $15,000 to $30,000 for higher income quintiles. Immigrant families were only slightly less likely to invest in an RESP than the middle-income quintile, but those who did invested somewhat more money. This speaks to our earlier finding that education is a top priority for many immigrant families that have made Canada their new home.

**GRAPH 4**
**Lower-Income Families Are Less Likely to Invest in RESPs**

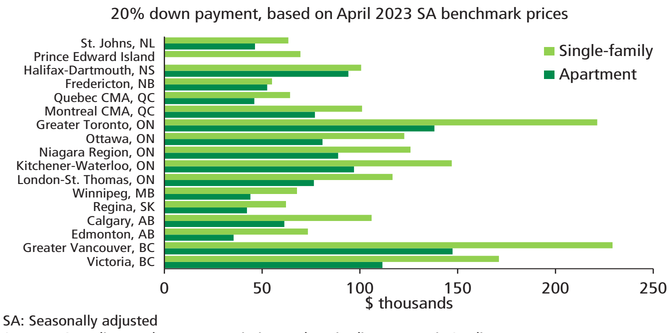



Sources: Statistics Canada and Desjardins Economic Studies

## A Hand Up to Home Ownership

With a median net wealth of just under $50,000, young adults often struggle to build up a 20% down payment for a home in many parts of the country. According to current data from The Canadian Real Estate Association, there are no provinces where the benchmark price of a single-family home is less than $250,000. A 20% down payment for an average apartment ranges from under $50,000 in St. Johns, Québec CMA, Winnipeg, Regina and Edmonton, to a high of $138,000 in Greater Toronto and $147,000 in Greater Vancouver (graph 6).

**GRAPH 6**
**Home Prices Are Out of Reach in Many Cities**




SA: Seasonally adjusted
Sources: Canadian Real Estate Association and Desjardins Economic Studies

With the recent, persistent increases in home prices, many parents recognize that it is nearly impossible for their adult children to save up enough money for a down payment on their first home. As we highlighted in our second report on youth, the Ontario Real Estate Association found that 4 in 10 parents of those ages 18 to 38 provided funds to help their children purchase a home. Over 70% of those gifted money, while over 60% loaned funds to help with a down payment.[1] These are substantial amounts, with the average gift being over $73,000 and the average loan more than $40,000. In contrast, according to a 2021 survey by the Association professionnelle de la construction et de l'habitation du Québec, only 20% of first-time home buyers in Quebec received a gift of money from relatives for their down payments. Another 10% of them received help in the form of a loan.

[1] Some parents helped provide funds for their child's down payment with both a gift of money and a loan.

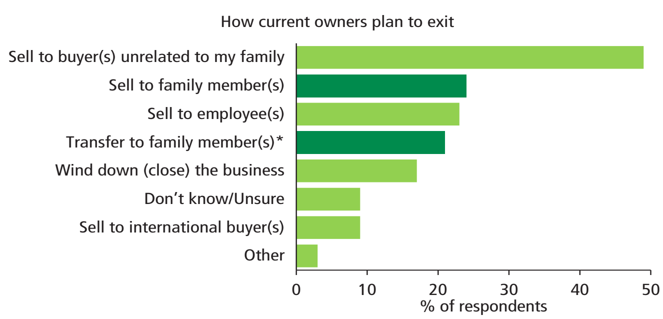
## Passing the Baton of the Family Business

Looking further out into the future, some in the older generation may pass along the family business when their gaze turns to retirement. A recent report by PWC Canada notes that over 70% of private and family business owners are planning to exit the workforce over the next few years. Some may choose to sell their companies for a financial windfall that may ultimately be passed down to their heirs. Others may pass the management and/or ownership of the business to the next generation.

The Canadian Federation of Independent Business echoes this figure, stating that 76% of Canada's business owners plan to exit within the next decade. At stake is over $2 trillion worth of business assets. When surveyed, many business owners said they intend to sell (24%) or transfer (21%) the business to family members (graph 7). In 2021, Bill C-208 introduced rules that generally made it more tax advantageous to sell businesses to individuals outside of the family than to descendants. Budget 2023 has amended the rules to close that tax loophole but includes restrictive conditions that must be met.

This type of wealth transfer may be particularly important for immigrant families and second-generation Canadians. This is because business ownership and self-employment are higher for those groups of Canadians than for "third plus" generations.

**GRAPH 7**
**Many Canadians Are Poised to Take Over the Family Business**



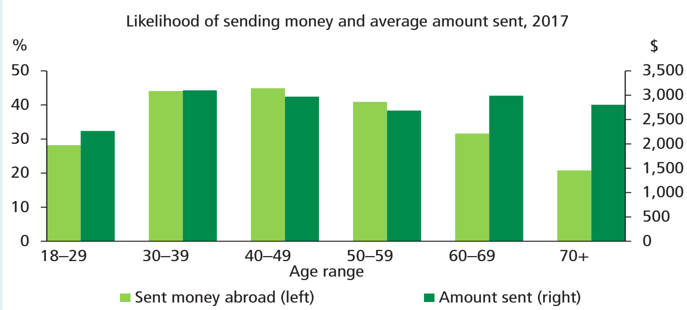

* Inheritance, etc.
Sources: Canadian Federation of Independent Business and Desjardins Economic Studies

## Intergenerational Wealth Transfers in Reverse

Up to this point, the discussion has been about the ways in which older generations provide financial assistance to younger adults. However, not all wealth transfers are from parents to children. According to a recent Statistics Canada report, almost 58% of Canadian residents born in countries eligible for official development assistance have at some point sent money to relatives living outside Canada. While some of these funds are sent as gifts, the main purpose is to pay for living expenses and medical bills.

In 2017, 28% of immigrants ages 18 to 29 sent an average of $2,265 to support family back home. That percentage increased to 44% among those in their thirties, who sent an average of $3,100 (graph 8). Moreover, transfer fees are typically north of 5% of the amount sent. This is a significant financial burden on young adult immigrants, which may hinder their ability to buy a home or save adequately for their own futures.

**GRAPH 8**
**Many Immigrants Send Funds Home to Support Relatives**




Sources: Statistics Canada and Desjardins Economic Studies

## The Final Wealth Transfer: Inheritance

For all but the families with the least wealth, the loss of a parent typically results in an inheritance for their children. This may include life insurance, financial wealth and other assets. If the parent owned a home or other real estate, this could result in a sizeable inheritance even if they didn't have a lot of financial wealth.

Statistics Canada research indicates that Canadians ages 65 and older held a total net worth of over $3.6 trillion in 2019. This is a substantial increase from twenty years prior, when seniors held net wealth of just over $1 trillion expressed in constant 2019 dollars. Clearly, Canada is facing an unprecedented level of intergenerational wealth transfer over the coming decades.

This speaks to the importance of estate planning. While Canada doesn't have an estate tax or capital gains tax on a principal residence, there are many substantial costs associated with an inheritance. These include the final year of income taxes, inflated by the capital gains of liquidating all financial investments; probate fees; legal and accounting fees; and costs associated with selling the home. Estate planning can reduce some of these costs and ensure that the estate is divided as wished. While any debts will be deducted from the value of the estate, descendants do not inherit any debt if the parents owed more than the value of the estate.

# Aging, Immigration and Their Implications

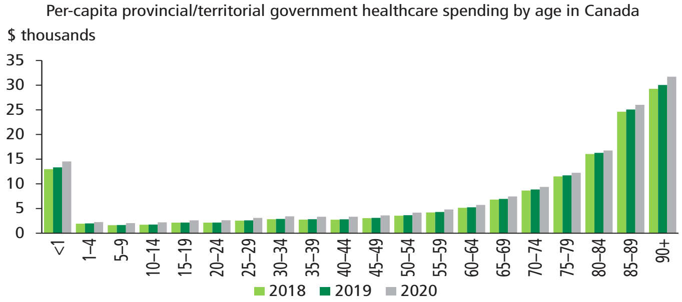
## An Aging Population Will Put Pressure on Younger Workers

As myriad challenges impact youth over the next several years, population aging will have profound effects on our economy and life in Canada.

Economically speaking, slower growth is the primary consequence of population aging. While attrition may create some opportunities for young workers in some industries, aging ultimately means that fewer working-age people are available to produce goods and services. All else equal, with economic growth progressing at a lower rate, earnings for those workers still in the workforce could reasonably be expected to advance at a slower pace.

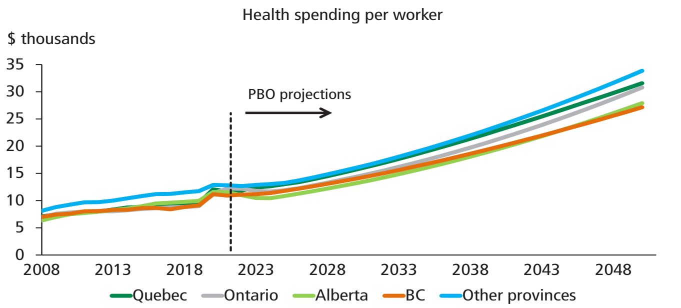
Higher deficit spending is another consequence of aging. Larger senior cohorts put upward pressure on healthcare spending (graph 9). With healthcare expenditures set to rise steadily versus the size of the workforce across Canada (graph 10), that means costs will increasingly be borne by working-age taxpayers. While the burden of rising healthcare costs will be disproportionately felt by the provinces, pressure will also be put on the federal government to provide more support. This at a time when the cost of providing Old Age Security will also be rising as the population ages.

**GRAPH 9**
**Our Aging Population Puts Upward Pressure on Healthcare Spending**




Sources: Canadian Institute for Health Information and Desjardins Economic Studies

**GRAPH 10**
**Healthcare Costs Will Increasingly Be Borne by the Working Population**




Sources: Parliamentary Budget Officer and Desjardins Economic Studies

## But Immigration Will Mitigate the Effects

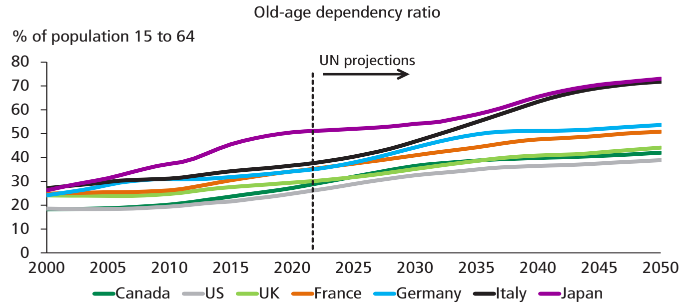
The good news is that despite its low fertility rate relative to peer countries, Canada is poised to experience one of the lowest old-age dependency ratios in the developed world over the next few decades (graph 11). Immigration is a big part of that story and is being used to address the challenges of an aging workforce. Immigrants to the Great White North are younger than the native-born population at large, and the overwhelming majority are selected for their ability to meet the needs of the Canadian labour market.

But immigration is not just about simply filling open positions. Immigrants bring with them critical skills and cultural experiences that contribute positively to productivity, innovation and entrepreneurship. As well, many newcomers now experience higher rates of employment and labour force participation than their Canadian-born peers and earn higher average wages (graph 12). In fact, we've argued that recent increases to Canada's newcomer admissions targets could—under the right circumstances—boost GDP per capita at the national and provincial levels.

## The Pace of Construction Must Ramp Up

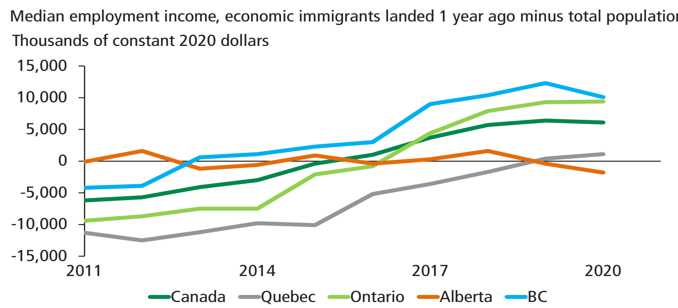
Against the backdrop of an aging population and rising immigration, the key question then is how to create conditions conducive to economic growth. For one thing, governments of all levels must be relentless in their efforts to increase the housing supply as a means to support affordability. In February we estimated that national housing starts would have to increase immediately by almost 50% above our baseline forecast and stay there through 2024 to offset the price gains from Ottawa's immigration target increase. This illustrates the depth of the challenge and the potentially long time horizon needed to address the lack of housing affordability. Infrastructure spending will also need to rise dramatically to meet the needs of skilled newcomers and Canada's aging population.

**GRAPH 11**
**Canada Is One of the Youngest Countries in the G7**




UN: United Nations
Sources: United Nations and Desjardins Economic Studies

**GRAPH 12**
**Immigrants to Canada Have High Earnings**




Sources: Statistics Canada and Desjardins Economic Studies

# Climate Change and the Energy Transition

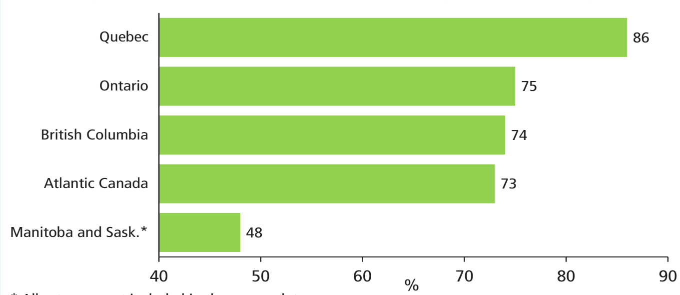
The climate is changing, and Canada is stepping up to the challenge of reaching net zero by 2050. This will lead to enormous economic changes, including a reduced role for the non-renewable energy sector. In its place, other industries will assert themselves, including renewable energy; critical minerals; electric vehicle manufacturing; and new construction and building retrofits. But there is only one climate. As it continues to change, there will also need to be investment in adaptation to ensure Canada is ready to face whatever comes its way. And it's today's youth that will lead us into that low-carbon future.

## Youth Are Very Concerned about Climate Change

According to a 2023 survey commissioned by advocacy group Unite for Change, three in every four Canadians are worried about climate change and its impacts. But when it comes to younger adults ages 18 to 34, that number climbs to 81%. Only the rising cost of living/inflation and access to quality healthcare outranked climate change and its impact among the perceived risks to respondents' futures. But these concerns varied across the country, with Quebecers overwhelmingly concerned about climate change and its impacts while folks in the Prairies weren't so much (graph 13).

**GRAPH 13**
**BC and Provinces East of the Prairies Are Concerned about Climate Change**

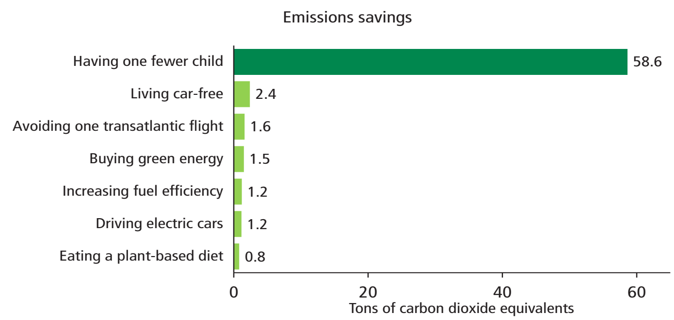
Percentage of respondents concerned about climate change and its impacts by province




* Alberta was not included in the survey data.
Sources: Unite for Change and Desjardins Economic Studies

Importantly, young people are making major life decisions based on climate anxiety. Indeed, "the concerns are so great that one-in-five Canadians (21%) say they are having fewer or no children as a way to take action against climate change." When looking just at Canadians ages 16 to 25, Galway and Field (2023) found that number nearly doubles to 39%. This implies young adults are heeding the messages they are receiving from scientists, as having fewer children is by far the best way to minimize your individual carbon emissions (graph 14). In fact, it trumps other personal decisions like living car-free and avoiding long-distance flights by a wide margin. Many people feel the need to take on these individual responsibilities as governments are widely perceived as not having done enough. And this is for good reason, as they've consistently missed emissions reduction targets.

**GRAPH 14**
**Having Fewer Kids Is by Far the Best Way to Reduce Emissions**




Sources: Wynes and Nicholas (2017) and Desjardins Economic Studies

## With Great Challenges Come Great Opportunities

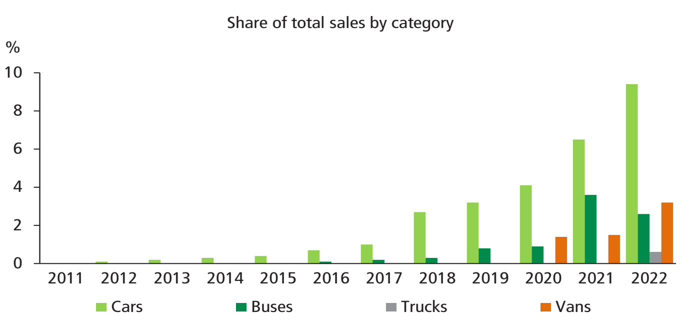
Getting to net zero by 2050 will be a monumental challenge, not just for Canada but for the entire global community. Individual action to reduce carbon emissions will be necessary but not sufficient to get there. A lot of planning will need to take place to both curb emissions and also prepare us for the increased risks associated with climate change. These include both physical risks like floods and wildfires and transition risks such as financial market volatility and investment losses. While mitigating these risks through reduced emissions is key, adapting to them is also going to be part of the process.

**Opportunities and Challenges of the Energy Transition**

Canada has several policies in place to reduce greenhouse gas emissions. Most notably, we have a federal carbon tax in addition to some provincial carbon taxes and emissions trading systems. This is intended to incent consumers and businesses to reduce activities that generate emissions. Measures have also been taken to reduce emissions of other greenhouse gases, such as methane.

To encourage people to buy electric vehicles, various levels of government have provided purchase incentives. This has been particularly impactful in provinces like Quebec, where hydroelectricity is generated cheaply and in massive quantities. Other jurisdictions with fewer natural endowments of clean energy have seen less take-up. Canada's targets for light-duty zero-emission vehicle (ZEV) sales are 20% for the 2026 model year and increasing annually to 60% in 2030 and 100% by 2035 (graph 15).

**GRAPH 15**
**Electric Vehicle Sales Are Growing Steadily in Canada**




Sources: International Energy Agency and Desjardins Economic Studies

But polling suggests these provinces tend to be more open to nuclear energy, which is itself a form of low-carbon power generation. This is particularly true in Western Canada and Ontario, the latter already deriving much of its electricity from nuclear. Wind and solar will also make up an increasing share of the energy mix in Canada, particularly as their price continues to fall sharply. This is thanks to economies of scale and persistent technological innovation, the latter of which will have knock-on benefits for other industries. This said, the objective should ultimately be to provide adequate transportation solutions to get people out of cars—electric or otherwise—and get them to opt for public transit or active mobility.

Critical minerals are necessary inputs into the energy transition. However, geopolitics are making them more and more difficult to obtain, particularly rare earth minerals. Additionally, vast amounts of copper, lithium, nickel and other metals required to generate, transmit and store electricity will be required in unprecedented amounts. Canada will continue to play an increasingly important role in providing a stable source of these materials, as laid out in the federal government's Critical Mineral Strategy.

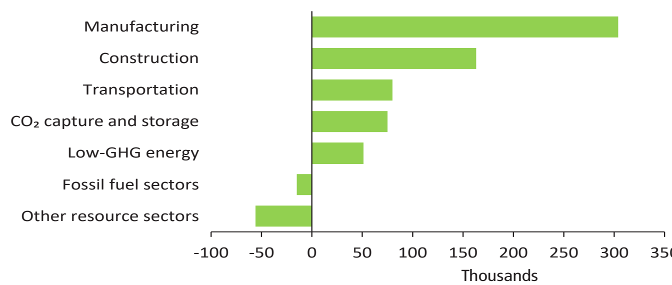
Along with these economic opportunities for Canada will come challenges. The ongoing global reliance on fossil fuels leaves countries vulnerable to geopolitical instability, such as the war in Ukraine. However, the intermittent nature of renewable energy can lead to price volatility, at least until better storage solutions are found. The Bank of Canada has flagged the risk that climate change may lead to inflation that is both higher and more volatile than in the past. This likely means higher interest rates as well, which can be expected to erode profits. Together, these factors have the potential to put immense financial pressure on today's youth as they plan to build up savings for the future.

Young people today are also making plans for the future by deciding the types of education and careers they would like to pursue. We wrote about this extensively in our first youth report. The energy transition could lead to enormous dislocation in the labour market, as careers that didn't exist before like wind turbine technician become the norm, while others diminish in importance. It will also be uneven across sectors and communities, adding to the uncertainty facing today's youth.

But Canada has been through similar transitions in the past, such as during the onset of industrial agriculture, and has risen to the challenge. The transition to Net Zero by 2050 is expected to create job opportunities in several key sectors, although according to work by the Future Skills Centre it will also likely result in job losses in fossil fuels and other resource sectors (graph 16). That said, the growth of 75% of jobs in Canada is not directly affected by decarbonization, as most sectors are not energy- or GHG-intensive.

**GRAPH 16**
**Many Job Opportunities Lie Ahead in the Transition to Net Zero by 2050**

Jobs in 2050 relative to 2015 in a blended pathway to net zero*

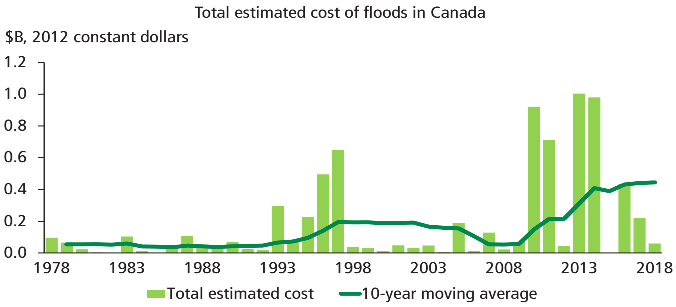



* Blended pathway is a mix of decarbonization by reducing fossil fuels and direct air carbon capture.
Sources: Future Skills Centre and Desjardins Economic Studies

### Adapting to Climate Change

Along with the risks of the energy transition are the actual physical risks of climate change. We are already seeing this in Canada in the form of increased damage from flooding. According to Public Safety Canada, "flooding is the source of Canada's most common and costly disasters." While yearly data can be volatile, the trend is unquestionably toward higher costs through time, even when adjusting for inflation (graph 17). This, along with other extreme weather events, is likely to accelerate the rising cost of property and casualty insurance, while leaving other assets entirely uninsurable. Rising insurance costs will be just one more factor eroding the affordability of housing in Canada—an issue discussed at length in our second youth report. It will also put further upward pressure on inflation.

**GRAPH 17**
**Flood Frequency and Severity Keep Rising in Canada**




Sources: Canadian Disaster Database, Statistics Canada and Desjardins Economic Studies

Flooding is just one natural phenomenon that is likely to get more unpredictable going forward. Wildfires are too, as we've witnessed recently across Canada. And as sea levels rise in warming oceans, our coastal communities, ports and shipping lanes will be increasingly battered. This will also exacerbate the damage caused by ever-more-intense hurricanes. Melting permafrost is complicating overland travel in Canada's north as well. Moreover, the release of massive amounts of carbon stored in the Arctic tundra will in turn feed back into additional global warming.

The physical impacts of climate change will require significant investment in adaptation. According to research by the Insurance Bureau of Canada, "an average annual investment in municipal infrastructure and local adaptation measures of $5.3 billion is needed to adapt to climate change. In national terms, this represents an annual expenditure of 0.26% of GDP. This estimate represents the total annual cost of the actions that need to be taken at the local level for public infrastructure."

That said, climate change is not all bad news for Canada. The increase in arable land and frequency of ice-free passage through northern transportation corridors will be positive for economic growth. Indeed, some analysis suggests Canada may be a net economic beneficiary of climate change, although this has been disputed. Regardless, the negative effects are likely to have more influence on public opinion. And even if the economic impact of climate change is a wash for Canada, we have a role to play as a responsible global citizen in providing leadership in mitigating climate change.

### Is Canada Doing Enough to Combat Climate Change?

Arguably, Canada should be doing more to combat climate change. We continue to have among the highest per capita greenhouse gas emissions on the planet, ranking 7th in 2019 for per capita carbon dioxide emissions. And we continue to lag behind in meeting our international commitments for reducing emissions. Young Canadians recognize this, and polling makes clear they are dissatisfied with the inaction by governments in Canada.

Closing this gap is important to young Canadians, and it looks increasingly as though it will be left to them to bear the burden of this adjustment. Hence their climate anxiety and why it is justified. To alleviate this concern, their parents' and grandparents' generations can do more today. This includes making changes to reduce their individual greenhouse gas emissions.

# Technological Change: Transforming the Future

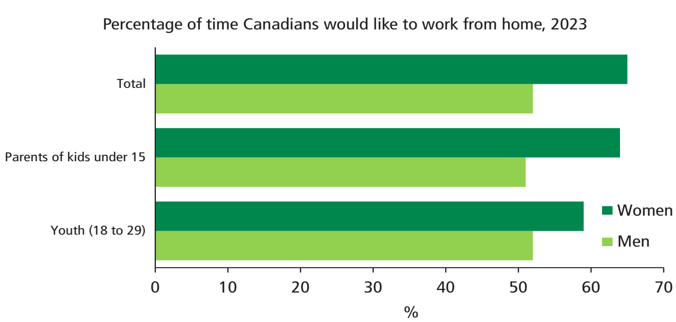
As it does for every generation, technological change will shape the way we work, play, learn and interact with one another. From the industrial revolution to the information age, it's a well-worn cliché that the only constant is change. But there is a sense that the pace of change is accelerating and that today's youth will be at the forefront of that change.

### Communications Technology Exploded during COVID-19 Lockdowns

The COVID-19 pandemic brought about a revolution in the use of communications technology and remote work that are now being blended with in-person interactions. The National Bureau of Economic Research reports that job vacancy postings in Canada explicitly offering hybrid or fully remote work jumped from under 2% before the pandemic to 8% by mid-2020 and have continued to rise to over 11% by early 2023. Notably, more than half of Canadians surveyed in early 2023 wanted to work more from home, particularly women (graph 18).

The healthcare and mental health sectors have emerged from the pandemic similarly comfortable with moving many tasks into the virtual world. As the population rapidly ages, this will help to offset some of the cost pressures.

**GRAPH 18**
**Canadians Want to Work More from Home, Particularly Women**




Sources: Abacus Data and Desjardins Economic Studies

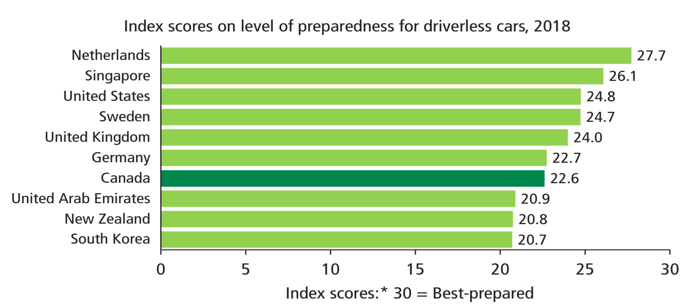
### The Energy Transition Will Power Technological Growth

The energy transition will also bring about new innovations that we can only imagine. From technologies currently in their infancy to those still in early concept, the push to net zero emissions will require an unparalleled pace of innovation. These may include but are by no means limited to the commercial use of hydrogen; carbon capture and storage; battery technology for electric vehicles; large-scale energy storage; and lighter, stronger and more conductive materials.

As all these areas of innovation interact, they will be mutually reinforcing. Already, self-driving electric vehicles are being built with advanced materials, myriad sensors and cameras, and a vast network of algorithms being analyzed by artificial intelligence (AI) to move through an unpredictable 360-degree landscape. And according to KPMG, Canada is among the countries best prepared for autonomous vehicles (graph 19). However, forecasts of autonomous vehicle penetration vary widely. For instance, the Victoria Transport Policy Institute projects "that it will be at least 2045 before half of new vehicles are autonomous, and 2060 before most of the vehicle fleet is autonomous." In contrast, research by KPMG Canada predicts up to 75% of vehicles could be autonomous by 2040. Regardless, technological advances will drive the cost of these vehicles down while incorporating improvements such as longer ranges and expanding into medium- and heavy-duty vehicles. At the same time, the design of transportation infrastructure will also need to change.

These innovations are interacting with other aspects of our lives being measured by the devices we carry in our pockets, on our wrists and elsewhere to create an environment of constant connection. The Internet of Things is everywhere and will only become increasingly integrated in everything we do in the years ahead. But this will come with its own challenges, as the massive computing power required for all of these innovations will generate enormous emissions if power generation doesn't quickly become more renewable and computing power exponentially more efficient.

**GRAPH 19**
**Canada Is Well Prepared for Autonomous Vehicles**




*Scores based on four pillars: policy and legislation, technology and innovation, infrastructure, and consumer acceptance
Sources: KPMG and Desjardins Economic Studies

## Artificial Intelligence Is at the Cusp of Transforming Workplaces

Artificial Intelligence (AI) is on the brink of revolutionizing the way people work in the coming decade. With its rapid advancements, AI is poised to disrupt traditional job roles and redefine the workplace landscape. Intelligent machines and algorithms are becoming increasingly adept at performing tasks previously done by humans, such as data analysis, customer service, and even creative endeavors. As AI continues to evolve, it has the potential to automate repetitive and mundane tasks, freeing up human workers to focus on more complex and creative aspects of their jobs. However, this technological shift also calls for individuals to adapt and acquire new skills, as the symbiotic relationship between humans and AI becomes integral to the future of work.

The above paragraph was written by ChatGPT, a suddenly-popular AI platform, as an example of how advances in computing technology can change the nature of work. It was left unedited and includes small errors such as punctuation mistakes. But AI output may also be considered "good enough" for the trade-off in speed and cost.

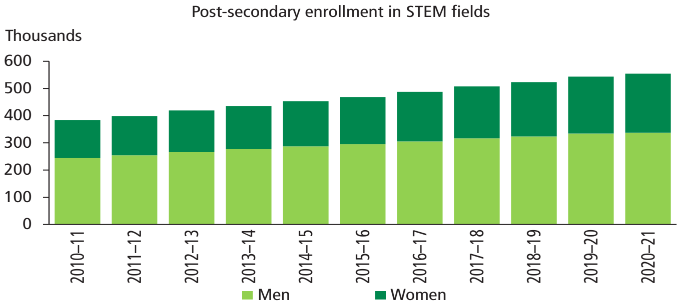
This has rightly raised concerns about impending labour market dislocations. And like the farm labourers, skilled craftsmen and typists of the past, change will be to some extent inevitable. However, humans still excel in myriad ways, including work that requires emotional intelligence and empathy. Because it relies on pattern recognition, AI may also be inferior to humans when faced with new and unpredictable situations.

## Accelerating Canada's Talent Pipeline

Today's youth are and will continue to be at the forefront of developing and using these new technologies. In our first youth report, we identified that young Canadians, particularly immigrants, are moving quickly into science, technology, engineering and mathematics (STEM) fields. First- and second-generation immigrants, both with and without STEM degrees, are also more likely than other Canadians to start a business. And Canada's immigration policy is increasingly designed to attract top global talent of prime working age. We are also attracting exceptional students from around the world, who make up a large share of our graduate students.

But more can be done to accelerate Canada's innovation advantage. As a country, we could do a better job of recognizing the foreign credentials of new Canadians. Provincial educational curriculums at all grade levels will need continual review to incorporate cutting-edge new advances, including corresponding training to ensure teachers are comfortable with the material. This could underpin the creation of a talent pipeline from the classroom to the workplace to attract students to STEM from currently underrepresented groups, such as women and visible minorities (graph 20).

**GRAPH 20**
**STEM Needs to Attract More Women**




STEM: Science, technology, engineering and mathematics
Sources: Statistics Canada and Desjardins Economic Studies

Focus should also be placed on building more inclusive work environments, as men have tended to have better outcomes than women in STEM fields. Toronto Metropolitan University reported that in 2021, women made up less than one-third of all jobs in the information and communications sector. Women earned an average of $7,500 less per year than their male counterparts. Half of all women in STEM have experienced gender discrimination at work. And women in STEM are almost twice as likely as women in other industries to say they are considering leaving their chosen profession. Moreover, women who leave STEM fields are not likely to return.

Access to financing has also been cited as a key constraint among young entrepreneurs. More can be done to support this through partnerships with our world-leading universities.

# Conclusion

While we have identified several of the most prominent generational opportunities and challenges facing Canada's youth, this list is by no means exhaustive. As in every generation, new circumstances will emerge that no one today is anticipating. But as this series of notes has illustrated, young adults in Canada are well prepared to contend with whatever the future brings. They are educated, hardworking, entrepreneurial and international in their perspective. As they are struggling with affordability and anxiety about the future, it's incumbent upon earlier generations to work to alleviate this burden. And with technological innovation accelerating at a torrid pace, it is paramount that we all work to position today's youth for success in the decades to come.

Desjardins