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The lost decade, unsustainable prosperity or the northern tiger?

CanadaWorks 2025

Scenarios and strategies
for the future of work in Canada

Contents

Setting the stage

The best way to predict the future is to invent it

Buoyed by high commodity prices, low unemployment and relative stability in a turbulent global economy, Canada is at an inflection point. Whether by design or accident of history, Canadians today are for the most part prosperous and confident in their futures. Ipsos' latest Global Economic Pulse survey found that 68% of Canadians view their economic situation in a positive light, the highest among G8 countries.[1] The challenge is how to take full advantage of our current economic and political capital. What should decision makers do today to best position Canadian workplaces for success in 2025?

Deloitte and the Human Resources Professionals Association (HRPA) have partnered to address this question by developing detailed scenarios depicting what Canadian society might look like in 2025. The goal of this exercise was not to lay out the definitive future of the Canadian workplace. Rather, it recognizes that despite our relatively enviable position, we must identify strategies that address the very real problems that continue to exist: the sustainability of our industries, the competitiveness of our firms, the quality of our employment, the inclusivity of our workplaces and our level of innovation.

An important component of the study was a series of conversations with over 50 notable CEOs and Chairs of Canadian organizations, ex-Ministers, current Assistant Deputy Ministers, leading academics and economists. We asked these interviewees to react to three scenarios, namely *lost decade, unsustainable prosperity and the northern tiger*. We also asked them to select a single policy change they believed would enable a positive future for Canadian workplaces by 2025. This difficult task was deliberately posed to focus the discussion and elicit trade-offs, as most would agree that creating prosperous and effective workplaces requires a portfolio of strategies. Predictably, we received a multitude of answers (some in direct conflict with others), from targeted enhancements to education and immigration, to improved labour relations and adoption of productivity-enhancing technologies. Throughout the interviews, however, there was a sense of cautious optimism.

Some readers will agree with the scenarios and strategies contained in this paper; others will disagree vehemently. Our hope is that we will spark a debate on the complex dimensions of change that will impact work in this country. Through this dialogue, we can begin to invent the future of the successful Canadian workplace.

William (Bill) Greenhalgh
CEO, Human Resources Professionals Association

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Introduction

In June 1911, Thomas Edison sat down with a newspaper editor to describe what the world of 2011 might look like. He predicted that steam engines would be replaced by trains driven at unimaginable speeds by electricity, and that electronic books would be created to hold an entire library in a single volume! He also predicted that gold would be as inexpensive as bars of iron.[2]

Regardless of its success rate, prediction can open our eyes to new possibilities and prevent us from being complacent about what lies ahead. Using alternative scenarios allows policy makers and managers to draw pictures of the future which might plausibly unfold, and in doing so, develop strategies to "win" in these futures.

Image source: Paleofuture, 2009. "One-World Job Market (1959)".
Accessed at: http://www.paleofuture.com/blog/2009/6/30/one-world-job-market-1959.html on February 1, 2012

The scenarios: lost decade, unsustainable prosperity and the northern tiger

To study the future of the Canadian economy and society, the Deloitte/HRPA working group examined four fundamental drivers of change: demographic shifts, economic prosperity, technological adoption and sustainability. We then developed alternative futures to set the foundations for a broader public policy debate. Using Michael Raynor's scenario methodology[3], 16 potential scenarios were examined; from this list, three scenarios emerged which represented alternative, but ultimately plausible futures.

In *lost decade, unsustainable prosperity* and *the northern tiger*, we have created fulsome pictures of the Canadian workplace and workforce with respect to the **labour market**, the impact on **workplace productivity**, changes to the **employment contract**, and the **organization of work**. Our fictional scenarios are written from the point of view of 2025, and are based on extensive secondary research and the insights of a list of highly qualified interviewees – whose insights are inserted throughout to generate debate. The scenarios are not meant to convince readers of a particular direction for Canada, but to force us to agree, disagree, and even innovate well beyond the scope of these pages. While the first and second scenarios represent darker alternatives, they are also realistic if we continue with the status quo. Bridging the second and third scenarios are a series of recommended strategies whose adoption would foster the achievement of a brighter, more sustainable future we have labeled the "northern tiger." The strategies are among the things we could do to improve our labour market efficiency, productivity, employment contract, and the very structure of work itself.

Although the scenarios are based on extensive secondary research and the insights of our interviewees, as with any fiction you must suspend your disbelief to appreciate the value. **Imagine it is 2025 and you are browsing an economic publication that explores Canada's performance over the previous fifteen years. In each future scenario, you will meet the same two residents: Louie Grimson, a 70-year-old executive, and Salimah Shah, a 23-year-old software engineer.**

While the first and second scenarios represent darker alternatives, they are also realistic if we continue with the status quo. Bridging the second and third scenarios are a series of recommended strategies whose adoption would foster the achievement of a brighter, more sustainable future we have labeled the "northern tiger."

The lost decade

Special report – January 1, 2025

In these days of the global middle class and the continuing Great Shift from Western dominance, it is easy to forget about Canada. Muddling along without fanfare, the Canadian economy is neither a cautionary tale nor an inspiration.

What happened to the true north strong and free?

Canadian leaders will tell you that their country's aspirational goals now seem a distant memory. The economy has sputtered to an average GDP growth of 1% over the last decade, with inflation outpacing growth and the standard of living rapidly in decline. Even the country's once sound banking system has been unable to weather the economic storms that have sidelined capital, with the interest on debts swallowing increasing portions of federal and provincial budgets, and Canadian households and investors nervously hoarding cash.

The Canadian brand has suffered as well. The nation's default industrial policy of running a regional "convenience store" of raw materials for the declining U.S. market appears to have been dangerously short-sighted. A decade of complacency has led to an undiversified industrial mix and a limited number of global trading partners, especially among the now-powerful economies of China, India and Brazil.

National firms have lost manufacturing and service work to low-wage greenfield sites, and are now increasingly moving knowledge jobs to markets such as India. For example, the highly successful School of Canadian Law at the University of New Delhi is turning out graduates at a higher rate than Canada's top three law schools combined. What began as a well-intentioned strategy to train outsourced talent on the idiosyncrasies of the Canadian marketplace has created a monster: full service Indian legal firms with the ability to provide quality service at low prices.

Spurred by slow global recovery, Canada finds itself caught in a vicious cycle. Low growth and the "hollowing out" of jobs has led to a lower tax base, which in turn has devastated government budgets as they struggle to cover basic service needs such as health care and pensions. Governments are paralyzed by debt and cannot find a way to stimulate growth. While it is arguably too late to easily exit this cycle, there were several crucial missed opportunities. A strategy to encourage the growth of diverse industries was absent; as a result, the Canadian export market depended too heavily on the packaging and export of raw materials. Increasingly, Canadian's educational choices failed to match changing employment market demand, and the country's educational institutions struggled to meet the pace of change.

Adding fuel to the fire are the recent shocking Calgary riots. While many pundits debate the underlying causes, one need look no further than Canada's high youth unemployment and the failure to integrate many immigrant communities over the last twenty years. Canadian organizations remain largely unchanged – women, visible minorities, aboriginals and the disabled are poorly represented, and rarely seen in the highest echelons of power. What was once a blueprint for multiculturalism and diversity has become a fractured landscape of the marginalized and the powerful, with deep fissures of distrust on both sides.

In short, Canada has endured a painful decade that begged for but did not receive leadership with long-term foresight.

Louie Grimson

70-year-old Executive Vice President, Operations

Seated in his executive suite, Louie Grimson can't shake a general malaise. Louie is the Executive Vice President of Operations for Tormedica International, an ascendant research and development firm that had become the apple of the Canadian market's eye only a decade earlier. The firm achieved success by buying up emerging intellectual property across the country at fire sale prices after Canadian universities were unable to find international buyers. But the relationship with the government has soured. The long end of Tormedica's market play was to find profitable markets for the incubation of high-potential ideas. As it turned out, those markets were rarely in Canada. Recently, the government threatened to label increasing portions of Tormedica's assets as strategic and therefore not for sale.

Tormedica's response was predictable, and now Louie spends his days executing the company's strategy to get out of Canada. Louie's job is to hollow out the organization he helped build. He once saw Tormedica as the great hope for Canadian medical research innovation. Now it is a corporate office of fourteen people working to leave Canada behind, mostly lawyers poring over regulations and legal precedent to ensure every conceivable asset is out of the government's reach.

The whole thing makes Louie feel small. Seven hundred Canadian employees, gone. Influence in the corridors of Canadian power, also gone. While technically still a Canadian firm, global sourcing has spread the corporate decision-making process around the globe in the hope that no single government will have enough influence to threaten Tormedica again. Oh well, he thinks. Not much longer and he will retire to his newly-built cottage, leaving the headaches of running a firm in Canada's lost decade to the next generation.

Salimah Shah

23-year-old software engineer

Salimah Shah wakes up in an unfamiliar one room apartment. Slowly it dawns on her – she has moved again, this time to a low-cost pre-fab project for professionals. It is two hours north of Toronto, but on the grid and affordable. Her tablet, mounted in its dock nearby, reads her biometric patterns through a sensor on her watch. As her last sleep cycle ended, it booted up and displayed overnight messages.

The Radical Indexing Protocol, known as RIP (her freelancer friends call it Rest-In-Pieces), is an artificial assistant Salimah has named John. John has organized her messages – email, texts, social media, videos, requests for bids, invoices and bills – based on importance; answered some using a knowledge base; and filed many into a folder it assumes she would rather ignore.

"Show bids," Salimah yawns, hoping she has won some work for the day – maybe a follow-the-sun project looking for a low-cost North American pickup. A few hours would help enormously. "Of course," replies John. "First, a priority message from the Government." Salimah is part of a program for the underemployed which pays a monthly welfare entitlement if she agrees to become a knowledge transfer specialist. She is supposed to spend hours daily learning from managers who are retiring from industry, but has so far managed to shirk her responsibility. One of her programming friends tweaked John so that "he" could appear for her as an avatar, take notes, and email them to her case worker.

When the bids appear Salimah's mood darkens: another strike out. She thought she had turned a corner, but new bidders in her area of software expertise are coming out of nowhere. She spends much of her time desperately searching the net for free teaching resources to find an untapped niche.

Salimah checks a folder she has labeled "Long shots." She dreams of a permanent job she could use to secure a loan. Her family came to Canada in pursuit of prosperity, but found only struggle. The folder, as usual, is empty.

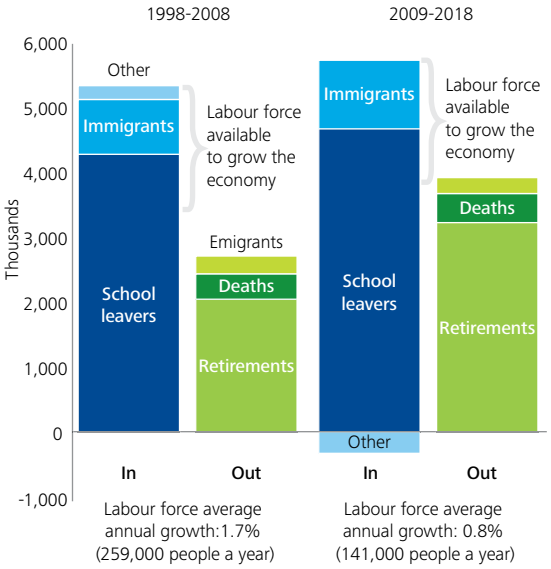
Labour market profile

The labour market of 2025 for Canada is discouraging. Focusing its attention on high-growth/low-employment industries, the educational system has prepared job seekers for knowledge work, and then fed graduates into an undiversified and resource-heavy industrial mix. While high-skill immigrants could potentially fill some of the unsatisfied market demand, they sit on the sidelines with unrecognized credentials.

If you belong to Generation Y[4], chances are that your high school career counselors were excited about your future. The Baby Boomers had started to retire en masse, and your generation would benefit. Your comfort with technology meant that while the future of work from the shop floor to the corporate office would be complex, you would enjoy a labour market full of choices. But in 2025, this vision of unbounded opportunity for Generation Y has not materialized.

In the years leading up to 2025, nearly three-quarters of the demand for jobs came from positions vacated by retiring workers (Figure 1).[5] Increasingly, demand has fallen short of supply, resulting in high rates of unemployment among youth.[6] In a complex mismatch of skills, many Canadians are finding themselves unqualified for opportunities employers are desperate to fill, while others are well qualified for jobs that employers would rather do without.

Figure 1: Labour force inflows and outflows, 1998–2008 and 2009–2018[5]



The demise of brand Canada

One remedy for high-skill talent shortages might have been targeted immigration. In 2010, Canada was tied for second place with the United Kingdom as a desired destination (Figure 2).[7] The greatest immigration hurdle was the lineup to get into the country, and the ability to integrate high-skill immigrants into high-skill Canadian jobs. Yet today, in 2025, the immigration supply tap has been largely turned off. Brazil, India and China continue to modernize, with ever-growing middle classes and domestic job opportunities for millions of people who would have otherwise sought opportunities abroad. At the same time, the massive and well-funded immigration attraction strategies of Germany, China, and Brazil have instigated a truly global talent war that Canada is losing.

Figure 2: Top desired destination for potential migrants: 2008–2010[7]

Country	% who desire to move there	Millions of adults (projected numbers based on % who would like to move)
United States	23%	145
United Kingdom	7%	43
Canada	7%	43
France	5%	34

Today's hot and cold jobs

Back in 2010, mining and energy employment was heating up, but constituted only 3.9% of direct employment for Canadians.[8] Even then it was clear that a doubling or even tripling of energy sector growth would not result in a widespread employment solution. Knowledge work in human capital-intensive industries including data processing, legal services, accounting, engineering services, and the scientific and technical services sectors, which accounted for more than 10% of Canadian employment[9] in 2010, have shrunk by 2025 as Canadian firms utilized outsourcing to great effect.

Additionally, automation has impacted several industries, driving their employment impact down further, with manufacturing, agriculture and mining all declining due to rapid technological advances. Conversely, employment in healthcare and social assistance has skyrocketed to support Canada's aging population. By 2036, seniors will make up 25% of the Canadian population – almost double the proportion of 13.1% in 2005.[10]

Productivity

The mismatch of employment supply and demand could be blamed as the key contributor to the stagnation of the Canadian economy. But neither has the country made inroads in productivity, long recognized as a key to economic growth. A U.S. poll conducted at the turn of the century by Gallup found that 29% of the workforce was engaged, 55% was not engaged, and 16% was actively disengaged – a problem costing the U.S. economy over $300 billion annually in lost productivity.[11] In 2025, despite evidence that firms investing in improving employee engagement enjoy superior results,[12] the engagement problem in Canada has worsened. Firms are reporting levels of disengagement not seen in advanced economies since the turn of the century: most Canadian employees would rather be employed elsewhere. And though Canada is thought of as relatively advanced technologically, the newest technologies are not available to all employees, leaving many Canadian employees without the tools required to maximize productivity.

Risk aversion and underinvestment

Disengagement alone does not make for an unproductive workforce. As noted in the Deloitte Productivity study in 2011, underinvestment and risk aversion were key drivers of Canada's productivity disadvantage, especially compared to the U.S. (Figure 3).[13] Risk aversion in particular was seen as a root cause, as critics of the Canadian risk approach felt that Canadian business needed to embrace the "win big or lose big" mentality that had long defined the U.S. entrepreneurial spirit. In 2025, little has been done to change the typical Canadian firm's chronic underinvestment, a frustrating problem that has outlasted a myriad of private and public sector initiatives.

> Globally, potential immigrants love Canada. They like our social stability, strong education system, our currency stability, and fair tax rates. Brand Canada is one of the strongest in the world. If we protect it, immigrants will continue to come.

Figure 3: Issues driving Canada's lagging productivity in 2011[13]

Business leader risk aversion	Americans are on average a full 13% more tolerant of risk than Canadians.
Inefficient and insufficient support for innovation	Despite Canada's high levels of R&D support, private sector R&D funding remains low. Over 90% of Canadian R&D incentives are delivered as tax credits which some firms find challenging to access.
Lack of risk capital for start-up companies	With friends, family and angel investments well below US levels and an underdeveloped venture capital sector, Canadian entrepreneurs have a lack of access to start-up financing in Canada. 2.84% of the Canadian population invests in startup venture, compared with 4.3% in the United States.
Chronic under-investment in machinery and equipment	Canadian firms have consistently under-invested in M&E in relation to the US, specifically in the investment of information and communication technology (ICT), at 49% of 2011 US investment levels.
Sheltering of the Canadian economy	The limited progress in expanding trade relations with other nations post-NAFTA has stalled Canada in its quest for productivity. Canada has completed 9 free trade agreements since NAFTA, compared to 17 by the US.
Increasing competition for human capital	Both the low return on Canadian investment in education relative to the US, and the barriers to credential recognition, have contributed to Canada's inability to take advantage of increasingly scarce global human capital.

Failure of sophisticated application

A striking example of this underinvestment has been in the area of information communications technology (ICT). While in 2010 nations like South Korea were demonstrating what a focus on ICT could accomplish,[14] Canada came last of 17 countries investigated for the use of Web 2.0 for business functions (Figure 4).[15] Today, in 2025, Canadian firms continue to lag the competition with less connectivity and access to the information offered by Web 2.0 applications that can lead to collaboration and innovation.[16]

This is not to say that advances in technology have not impacted the Canadian market. Automation is of paramount importance to Canadian firms as they struggle to maintain margins, and has resulted in a long downward trend of total employment in some industries. For example, driverless trucks are now the standard in mining operations,[17] and large farming operations use GPS-driven harvesting, automated irrigation and feeding, and distributed sensors to monitor crops and livestock.[18] But even those Canadian firms possessing the latest technology are not consistently building sophisticated applications – a problem with its roots in 2010, when the obvious need to upgrade manufacturing and processing machinery was sidelined and the collaborative potential of social media undervalued.[19] Little has changed as Canadian firms in 2025 fail to tap into available technologies to enhance workplace productivity.

This story is also true of Canada's small and medium enterprises (SMEs). In 2010, SMEs represented approximately two-thirds of the Canadian private sector.[20] ICT investment from SMEs in Canada was significantly behind their U.S. counterparts, with 45% of SMEs citing a lack of capital and 28% complaining of a lack of qualified staff to lead adoption.[21]

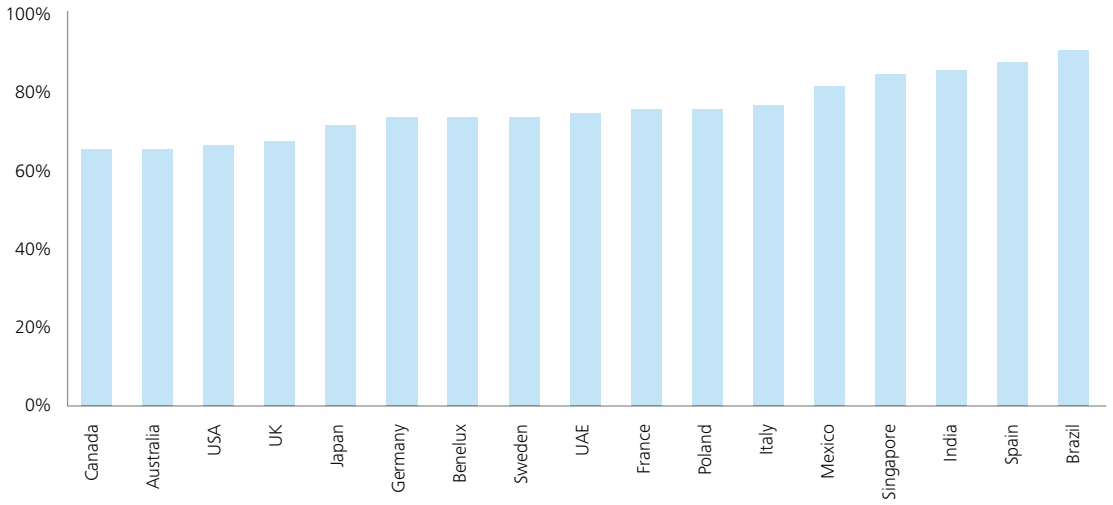
We delude ourselves about our global reputation. For whatever reason we have not kept pace with the rest of the world in terms of developing a global outlook. There is a danger that we will lose the race to attract the best and brightest to this country.

This slow adoption underscores Canada's somewhat adversarial relationship with technology. A general view in the workforce that technology-driven automation is a threat to job security has entrenched a position of resistance among disengaged employees, who, not surprisingly, fail to trust their employers.[22] Additionally, network infrastructures have been unable to keep up with the increased demand of potentially breakthrough devices for bandwidth. Wireless networks in particular have lagged, forcing consumers and businesses alike to lower their expectations for wireless service.[23] The result is that in 2025, Canada is burdened not only with a mismatch of supply and demand, but an unhappy workforce improperly equipped to produce the productivity gains required to compete globally.

Employment contract

The formal employment contract consists of pay and benefits, job security, and working conditions. There is also an informal contract for intangibles like the desire for a sense of purpose, continuous learning opportunities, and a sense of autonomy. As the economy in Canada has soured over the last 15 years, these expectations have begun to unravel. Firms looking for bottom-line relief had little choice but to build a flexible workforce of contingent workers, often to avoid the protections offered to permanent employees. These contractors often feel underpaid and insecure, creating a vicious cycle in which their dissatisfaction translates to lower productivity and poor goal alignment.

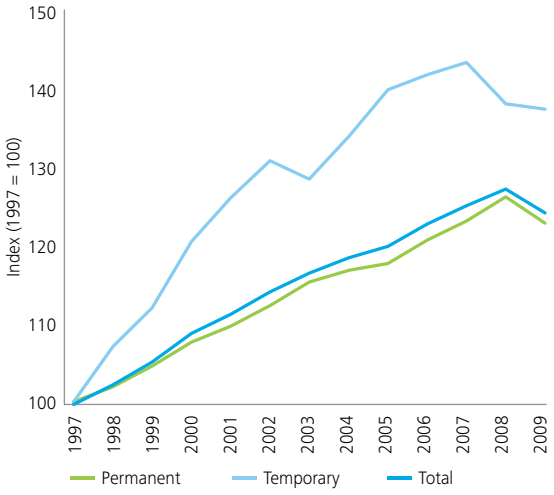
Figure 4: Web 2.0 adoption by country – 2010[15]



It is possible that the workplace of 2025 will look a lot like the workplace of today. We don't have the wireless network to handle all of the wireless innovations we know are coming. We won't have the current wireless spectrum issue worked out until 2050.

Much of the formal employment contract is about the employee's need to feel secure. Between 1997 and 2009, Canada experienced an explosion in the growth of temporary work arrangements (Figure 5).[24] However, while other countries made significant policy moves to engage and reassure the contingent workforce (through, for example, employment insurance protection), by 2025 public policy in Canada had not significantly changed to reflect its needs. As a result, too large a balance of contingent work is offered by organizations seeking to avoid out-of-date labour laws still focused on the protection of a dwindling number of permanent employees. In 2010 there was hope that the shift to self-employment and contract employment would create a mutually beneficial flexibility. That hope failed to materialize; now, in 2025, Canada is saddled with a growing class of underemployed which is increasingly in need of support to make ends meet.

Figure 5: Temporary job growth vs. permanent job growth 1997–2009[24]



Us versus them

Youth unemployment reached 14.8%[25] in 2010; since then, it has continued to worsen along with rates of unemployment for new immigrants. Today in 2025, the opportunity and income gap between rich and poor, Canadian-born and recent immigrant, and manager and employee has continued to widen, and the number of disenfranchised has grown to become the more populous group.[26] Unemployment, underemployment, and disengagement have given rise to an "us versus them" attitude. Marginalized groups have become organized and vocal; increasingly, Canadians vote in the streets through disruptive protests and general strikes.

Though it is difficult to discern a precise or unified political agenda, there is no doubt that the common target is the Canadian establishment. Incendiary new websites such as dirtylaundryX.ca, which were inspired by the more benign vault.com model of 2012, provide a telling example. These websites are open forums for disgruntled employees to shame employers virtually, and to foment opposition, protests and direct action on issues as insignificant as the dismissal of a single employee.

We can't expect working harder is going to get us ahead. We have to work smarter. The problem is most organizations haven't embraced productivity-enhancing technology. If we make the investments, the workplace of 2025 will likely be unrecognizable from today's reality.

International comparisons have long suggested that the Canadian union environment is comparatively prone to job action; this trend has continued into 2025.[27] Labour relations are strained as neither side is focused on mutual agreement, but instead on the furthering of divergent goals.

The reality is that a growing disenfranchised group of Canadians has significantly heightened the general distrust of institutions. We have long assumed that serious political turmoil can only happen in so-called developing nations, but the Canadian political landscape is fraught with danger. And Canadian institutions, both government and business, know it.

Organization of work

In 2025, a vast number of Canadian firms are both poorly structured and underperforming. By failing to take advantage of distributed work/telework arrangements and integrate contingent workers, they are ushering in a new "branch-office" economy.

Rather than attempt structural change, the median Canadian firm has focused on outsourcing to drive shareholder value, continuing a trend that emerged at the turn of the 21st century. Studies found that between 1961 and 2003, offshoring of services grew at a rate of 11.9% annually.[28] Today in 2025, the protracted stagnation of the Canadian economy has accelerated this process, shrinking Canadian firms in terms of core competencies, knowledge work and transactional jobs.

The death of the Canadian HQ

In the 1970s, Canada was tremendously concerned about the U.S.-controlled branch-plant sector which was making decisions abroad and only assembling locally for domestic markets. In 2025, the problem has intensified and spread into service and technology organizations. Many sectors of the Canadian economy are now owned by foreign multinationals whose headquarters make decisions on product development, R&D and corporate strategy. At best, Canada is used as an assembly springboard to the North American market; at worst, it is ignored altogether as a corporate destination.

The increasing vacancy rates in the financial districts of Toronto, Vancouver and Montreal are a harbinger of the branch-office economy, with the "Office of the CEO" becoming an "Office of the General Manager" focused on the procedural rather than the strategic. Sadly, there are simply not enough Canadian companies with the decision-making power and resources to innovate.

Organizations are also hollowing out in terms of professional talent. Contrary to the predicted growth of distributed work,[29] Canada's take-up in this area for permanent employees remains low. In 2025, the majority of Canadian managers still suspect that employees will shirk their responsibilities if they are not organized into a traditional workspace. Ironically, nothing is stopping Canadian employees from taking up distributed work for more progressive foreign companies with a single click, making it difficult for domestic firms to compete. Indeed, from the boardrooms to virtual networks, the country is becoming hollowed out.

> If something radical doesn't happen we will see brutal poverty in Canada. Poverty is increasing and there is wealth at the top that maintains the system. We are ignoring at our peril the idea that social unrest could manifest.

A decade lost

The Canadian workplace has lost competitive advantage by not moving forward, and word is spreading. In a world where talent is increasingly mobile, Canada is in danger of becoming little more than a "resource quarry." Without significant intervention by both government and business, the people of Canada will either demand significant change or abandon the Canadian brand altogether.

Rewind to 2012

This bleak view of Canada's future is a worst case scenario – one where we fail to make strategic decisions about education, immigration and employment, and squander our critically important resource industry base. If we make smarter choices today about the long-term viability of those industries currently riding the wave of global infrastructure development, the somewhat brighter future described in the next scenario can unfold. However, as the name "unsustainable prosperity" suggests, there is a significant risk in placing all of Canada's eggs in one basket.

The lost decade

Summary of workplace and workforce implications

- A combination of high unemployment and educational mismatches led to a labour market characterized by people without jobs and jobs without people.
- New global players began to seriously pursue immigration and global talent increasingly settled elsewhere in the world.
- Disengagement, risk aversion and poor adoption of technology damaged productivity.
- Out-of-date labour laws and a rise of temporary work led to the marginalization of a growing number of employees and a growing income disparity between the richest and poorest in Canada.
- An over-reliance on outsourcing to drive shareholder value caused Canadian firms to shrink in terms of back office work, knowledge work and core competencies.

There is always going to be a percentage of Canadians that just don't participate in the economy. Sure it is inequitable, but they are not being tossed into the streets.

Unsustainable prosperity

Special report – January 1, 2025

Global fund managers are full of praise for Canada's booming resource economy and stable government. Prosperity in the world's newest oil-rich country has spread from the resource sectors to supporting professional services and industrial sectors. The economy has seen strong annual growth since 2015, built upon the need to fuel the U.S. economy – literally – and newer trading relationships with Brazil, India and China. The period has been characterized by an international scramble for resources, and Canada has benefited. Pensions and RRSPs are well funded and growing at a healthy pace; government debt is generally well managed; and household income-to-debt ratios are among the best in the OECD.

But just below the surface are signs that Canada's rise may not be sustainable. Today, in 2025, exports other than resources are anemic. In the absence of strategic investments (e.g., tax incentives for R&D, centres of excellence, cluster strategies, investments in productivity-enhancing tools), very little has developed in terms of other tradable sectors. If the Canadian resource sector takes a significant hit due to, for example, plunging commodity prices, the impact would be devastating.

This report examines cracks in the Canadian foundation. Unlike many resource-rich nations, Canada started with a well-educated population and aspired to build a diversified modern economy. Much success has resulted, with the country's economic fundamentals – as defined by GDP – performing well. But with prosperity stealing the headlines, underlying problems such as inequality are not being addressed. High energy costs have crushed the poorest in the country and poked holes in the social safety net. A division has developed between high-demand professional employees who can command top wages, and those who don't qualify for "knowledge class" jobs.

Despite clear strength in some industries and sectors, there has been little re-alignment of educational choices to serve shifting labour market demands; as a result Canada is graduating too many students unprepared for high-demand employment. With the employment market continuing its focus on scarce top talent, an uneven distribution of leading work practices has occurred. The cumulative effect of these factors is an increased stratification of the Canadian market and workplace in general. Despite available capital in both private and public coffers, the opportunity to build lasting economic growth has been missed. In essence, "short-termism" has taken hold as booming commodity strength has masked serious underlying problems.

Louie Grimson

70-year-old Executive Vice President, Operations

Louie hides in the safety of his third floor executive suite, peering down into the foyer. He wasn't prepared for the chaos happening below: his own employees are conducting a sit-in – people Louie knows well and has worked with for years.

Only two weeks ago, with clear direction from the board, Louie had made the decision that had triggered today's event. Only Louie and a handful of other executives know that one of their key patent revenue streams is doomed, and that Tormedica's long run of market eminence is in danger. The formula in question includes compounds extracted from petroleum – with oil prices skyrocketing, a competitor is about to announce a much cheaper alternative. The high price of oil may be benefiting Canada in terms of GDP, but firms like Tormedica are paying the price.

In an effort to shake up the firm and reduce costs, pink slips went out to nearly a third of the staff. Much to the board's surprise, the focus following the reduction wasn't on the size of the lay-off, but on the new employees hired in a desperate search for the next market-leading breakthrough.

The new staffers have multi-company credentials and big ideas for change. But the case made by exiting staff is what has caught the media's attention: "We had big ideas," they claim, "you just weren't listening. You didn't invest in us, but kept us grinding away on short-term deadlines." They have hired lawyers, and are demanding more compensation – or their jobs back.

The conflict playing out below isn't new. For a long time, employees deemed critical to Tormedica's success were rewarded well beyond their peers; over time, the gap between internal "haves" and "have-nots" had increased – and with it, resentment.

Salimah Shah

23-year-old software engineer

Salimah Shah is bored. She was at the top of her graduate studies class at the Kanpur Indian Institute of Technology – renowned as a top technology school – and she is testing code. It is badly written code, but she has already learned to follow protocol. In the first week of her six-month contract she had found an inefficient section in the program, and had coded an elegant solution in her own time. She was told by her manager that it was wrong of her to think she knew better than those educated here in Canada. Garbage, thought Salimah. She had been right, but someone at the top being paid ten times her hourly rate felt threatened.

Every day, Salimah arrives at her office building to attend a conference call with people in another office building down the street. Why couldn't she do this work at home, or from Montreal with the rest of her family? The camera in the hall and her pacing manager are a constant reminder of the answer. She needs to be in Calgary and in that cubicle because she is not trusted.

Mid conference-call, her display freezes – again. Salimah's personal tablet is at least two generations ahead of the system she is saddled with at work, and there are senior employees in her own organization using far better technology. She sighs with frustration and reboots. Uninspired by her mundane projects, Salimah would love to offer new big ideas. She wants to create programs that hide complexity from the user by making the interface like speaking to a friend. Some testers at her level straight out of top Canadian schools are given opportunities to add value, but she has been told to wait and "learn the ropes."

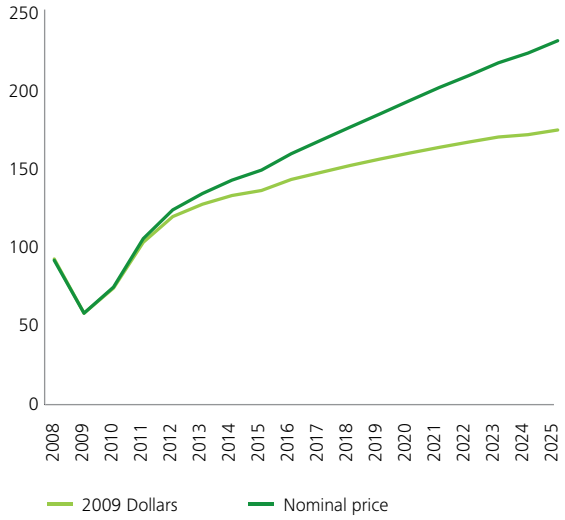
Salimah promises herself to be patient. She hopes if her performance is strong enough she may be able to land a permanent, better paying position and truly begin the long climb to the top.

Labour market profile

In 2025, Canadians seeking stability and security for their families increasingly look for a job with a resource industry firm or the public sector. A lack of industrial diversity has limited the types of jobs available in the market and eroded the quality of immigrant integration outcomes.

Canada picked the right time to extract oil. While the Texas oil boom of 1901 was formative,[30] the relative price of oil was insignificant in comparison to today's prices. In 2009, it had been estimated that even a 20% increase in the price of oil (then around $60/barrel) would result in nearly a 0.4% rate of GDP growth per year for Canada as a net exporter.[31] But in 2025, due largely to global instability and skyrocketing demand from Brazil, India and China, oil has topped $175 USD (in 2009 dollars) per barrel (Figure 6).[32] Who would have predicted the surge in GDP resulting from this 120% increase in oil prices?

Figure 6: Imported crude cost per barrel[32]



Hewers of wood and drawers of water

Combined with in-demand metals, minerals, water and wood, Canada has the supplies the world needs. But there is a darker underside to the country's resource bonanza. High energy prices have masked systemic and deeply rooted issues stemming from a lack of industrial diversity. For example, the rapidly declining manufacturing sector struggles to compete globally with the soaring Canadian petro-dollar. Yet high GDP numbers have softened the resolve of policy makers to make the significant investments required for creating the winning conditions Canadian firms need to succeed globally.

Today in 2025, there is a startling absence of government programs and policies aimed at supporting ICT, manufacturing and R&D. Devoid of infrastructure investments, favourable tax incentives and proper educational alignment, Canadian firms are increasingly uncompetitive in non-resource industries. Even within the resource sectors, much of the nation's economic engine is powered by extraction rather than the more value-added and tradable sectors associated with refined and processed raw materials.

Beyond domestic production, the lack of diversity extends to export markets and trading partners. In 2009, 3.1% of Canada's exports went to China[33] and 0.7% went to India[34] – Canada's two largest emerging markets at the time.[35] Almost twenty years later, the data is nearly identical.

Today's hot and cold jobs

For those with the right skills, the Canadian job market is promising. Though the mining, oil and gas sectors remain highly automated and marginal employers, they have a disproportionate influence on the rest of the Canadian job mix. Some manufacturing and field service niches and transportation sectors have enjoyed a steadying effect, but like the old manufacturing model that relied heavily on U.S. growth,[36] these new industrial sectors depend for growth on new resource projects, service and repair, and a steady need for supply chain services from oil-rich provinces (Figure 7). Agriculture has also become a major growth engine for Canada, as many nations struggle to feed their populations. However, Canada remains chiefly an exporter of food-as-commodity, and does very little value-added manufacturing in the food sector for global markets. Thus Canada has failed to benefit in terms of job growth, even while agriculture grows its contribution to GDP.

Jobs without people; people without jobs

In 2010, the national unemployment rate averaged 8.0%;[39] at the same time, more than 20% of employers in Canada were having difficulty filling positions due to the lack of suitable available talent.[40] Labour demand was especially acute in the health, management, oil and gas, IT and skilled trades[41] sectors[42]. Alternatively, there was an excess supply of low-skilled workers in manufacturing and utilities sectors, as well as in sales and service occupations.[43] Since 2010, the unemployment rate has grown to levels not seen in Canada since the early 1980s. In the aftermath of the Great Recession of 2008, the market settled on higher unemployment rates as the new benchmark due to the so-called "jobless recovery." Today, in 2025, employers must work tirelessly to secure top talent, while at the same time it is relatively easy to acquire unskilled and semi-skilled labour.[44]

Figure 7: Hot and cold jobs – Relative to 2010 Stats can profile[37]

	2010 Total # of Jobs	2010 Percent of Total	Hot and Cold Jobs in 2025
Manufacturing	1,824,140	13%	Cold
Retail trade	1,750,155	12%	Cold
Health care and social assistance	1,583,645	11%	Hot
Educational services	1,037,480	7%	
Accommodation and food services	1,001,225	7%	Cold
Professional, scientific and technical services	988,000	7%	Cold
Public administration	890,170	6%	Cold
Finance and insurance	653,020	5%	Cold
Wholesale trade	651,130	5%	
Transportation and warehousing	587,255	4%	
Construction	487,670	3%	Cold
Agriculture, forestry, fisher[38]	419,040	3%	Hot
Information and cultural industries	361,380	3%	Cold
Arts, entertainment and recreation	284,365	2%	Cold
Real estate and rental and leasing	270,605	2%	Cold
Mining and oil and gas extraction	169,520	1%	Hot
Utilities	116,520	1%	Hot

2025 isn't far enough out to expect diversification. I'm from the West. Every time Alberta has a resource boom they love the oil sector, and after every bust we say, "Next time we're going to diversify."

The buyers' market for semi-skilled and unskilled positions has had an impact on the quality of the Canadian immigrant experience. In 2010, new Canadians had often ended up working in fields outside their areas of expertise. 70% had reported encountering barriers in the job search process,[45] which was borne out in an unemployment rate of 11.5% for immigrants[46] – more than double the rate for the Canadian-born population.[47] By 2011, most researchers agreed that there was a contradiction between the weight placed on education in order to enter the country, and the reality of its use in actually securing gainful employment.[48]

Today in 2025, all net labour force growth and nearly all net population growth rates are driven by immigration.[49] Yet longstanding problems facing Canadian immigrants remain unresolved. Foreign credentials are often not recognized; there is little connection between the job market and immigrant networking efforts; and lack of Canadian experience remains a barrier.[50] Top global talent tends to seek high profile opportunities, and Canada has produced only a handful of internationally recognized brands. Increasingly, the world's talent goes to countries that place greater value on immigrant integration. Thus far, Canada has managed to attract immigrants in volume, but is not seen as destination for top talent.

Productivity

The Canadian economy is heavily reliant on its naturally endowed riches. Canadian firms are essentially exporting raw materials, while the opportunity to add value is being greatly overlooked at the cost of potential employment creation and sustainable advantage. Resource dominance has resulted in the emergence of a Canadian "Big 4" industry group. Led by the oil and gas sector, this group also includes supporting sectors (e.g., manufacturing-service and transportation); the financial services sector; and the public service. But outside these Big 4 industries, Canadian productivity continues to face significant challenges in the underutilization of a highly educated workforce, and the poor adoption of productivity-enhancing technologies.

Let's stop apologizing about our naturally endowed treasures. We have the supply the world needs and rather than making politically expedient comments, we should be doubling down on our natural resources.

Overeducated and underemployed

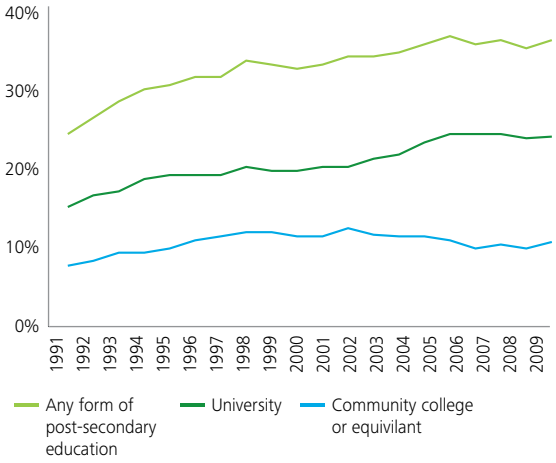
Since the establishment of the Canada Student Loans Program in 1964, Canada has enjoyed leadership among the OECD nations in post-secondary education.[51] Yet as in industries, educational choices are undiversified, with the lion's share of investment and attention going to the university system at the expense of colleges and vocational training. While the percentage of 18-year-olds who attended university had nearly doubled between 1997 and 2009, the college participation rate among 18-year-olds had remained practically unchanged (Figure 8).[52]

The underutilization of well-educated Canadian talent has reached disastrous levels, with postgraduates in Economics and Psychology working as low level accountants and HR assistants. Employee skills are far beyond the demand of the job, and the result is disengagement, lost productivity and increasing levels of societal tension. Many lament the educational choices that led to the mismatch of skill and market demand, suggesting that if there were more math, computer science, and engineering graduates,[53] this problem would be diminished.

Still others suggest the problem lies in too great an emphasis on university education. For example, in 2010, there was already a longstanding shortage of qualified drivers in the Canadian trucking industry[54] – a practical example of how a trade-skill shortage constrains industry productivity.[55]

Canada's education system continues to produce "smart people" who are unprepared for the realities of the 2025 job market demands. Employers complain of engineers who cannot communicate effectively and an abundance of humanities graduates who need to return to college to gain practical skills. The employment supply has disconnected from market demand, creating a further drag on productivity.

Figure 8: Post-secondary participation, ages 20–24, 1990–2009[52]



The demise of Canadian industry is often taken out of context. Industrial Canada continues to be a huge contributor to our economy, and if we focused on things that we are already good at we might actually be able to win back some value added manufacturing.

Technological poverty

Regardless of education, the right tools are critical to productive work. In 2009, Canadian investment in ICT was at 34% of U.S. levels.[56] Though some complained that Canadian firms did not lead in terms of technology investment,[57] others suggested that avoiding ''first-mover status" was a sensible strategy that allowed us to learn from early mistakes in new technology.[58]

In 2025, technology is unevenly distributed in Canada's similarly unbalanced economy. Firms in the resources sector have leveraged their wealth to close the gap with U.S. spending. One example is "muon geotomography," a made-in-Canada solution that uses naturally-occurring cosmic rays to locate high-density ore deposits beneath the surface with minimal environmental impact.[59] This technology gave Canadian mining firms first-mover advantage in productivity, and also spawned a tradable sector in the application globally. However, industries like retail, hospitality and manufacturing have seen little in the way of the latest productivity-enhancing technologies.

Employment contract

While the resource and related benefiting industries are building competitiveness and productivity, there is considerably less improvement outside these areas of strength. In 2025, poor educational choices and an uneven distribution of advanced technology have prevented significant improvements to Canadian productivity. Nowhere is the gap between the haves and have-nots clearer than in the changing formal and informal employment contract in Canada. If you are lucky enough to be among the technically-skilled elite and land one of the few knowledge class jobs, Canada is one of the most attractive places in the world to work.

By contrast, for those in the "transactional class," the story is one of temporary employment, insecurity, low wages, and drudgery. In essence, the Canadian employment contract has contorted to fit every need of top talent, but eroded significantly for those unable to rise to the top.

We are a knowledge based economy. We've gone too far in that direction to worry about heading back. I don't believe we're going to bring back the kind of low-wage jobs of the past. Let's focus on the future.

Autonomy, purpose and mastery for some[60]

A combination of prosperity and scarce high-skill top talent has created a clearly defined "knowledge class". Over time, many organizations have accepted that the attraction of these key employees is worth significant investment. Today in 2025, these fortunate employees have the informal power to demand, and increasingly receive, the best in technology and flexibility. For example, connected smart-glass has become a popular corporate benefit allowing top professionals to work from practically anywhere, with team members video-present and sharing drawings and brainstorming in real-time.[61] Rich media contact is making remote collaboration possible, and giving knowledge class employees the flexibility to work when and how they want to work.

This flexibility has led to "Results Only Work Environments" (ROWEs) where employees work independently toward long-term goals. Though there are many variations in approach, the broad principles involve instilling employees with a sense of autonomy, building a strong sense of purpose aligned with corporate missions, and encouraging them to pursue a mastery of their craft or profession.[62] The time and space to innovate without distractions means that these employees are making significant creativity and productivity improvements.

Modern serfdom for the rest

Unfortunately, the knowledge class is a small subset of the Canadian workforce. Though the leading practices they enjoy capture media attention, not everyone is along for the ride in 2025. Evidence was already emerging in 2010 of an increasing income gap between the rich and poor in Canada. From 1998 to 2007, the period of fastest economic growth in a generation, the richest 1% of Canadians benefitted from almost 33% of all income growth. During a comparably strong period in the 1950s and 60s, the richest 1% received only 8% of the total income growth.[63]

In 2025, Canada lags most OECD nations in terms of income equality. The gap between the knowledge and transactional classes in terms of compensation, flexible work arrangements and other top benefits is getting increasingly difficult for organizations to justify. The less fortunate have a clear line of sight to the good life, and for many, being overqualified deepens the level of resentment.

> Sometimes I think generation Y needs a shake. All this talk of self-direction and work-life balance is worrisome. How are we going to keep up with the enterprising and industrious spirit of countries like China and India if we are so concerned with coddling our young people?

Work intensification

Knowledge class or not, today's employees are working in an environment that is damaging to mental health and places work outcomes at risk. Decades earlier, the signs of work intensification were already surfacing in academia.[64] In 2004, one in four workers in Canada worked 50 hours or more per week, compared to one in ten only ten years before.[65] One in six reported working at high speed "all of the time."[66] Organizations had eliminated many administrative functions through the use of self-service technology, and asked employees to manage their own administrative needs so that more could be accomplished in smaller teams. The same was true of industrial firms which used high performance work practices without due consideration of work-intensification related stress.[67]

In 2025, the Canadian workplace has seen pressure intensify. Those in the knowledge class may have more flexibility, but they never actually have to (or can) stop working. Promises of work-life balance seem a distant memory today. For the rest of the employment market, the pressure extends to a stress-inducing lack of job security. Employers have replacements lined up looking for work, and use contingent work to maintain the flexibility.

Organization of work

Today, in 2025, the organization of work in Canada is generally aligned with one of three structures suited to the needs of businesses at different lifecycle stages. The first is used by traditional organizations, which have largely resisted structural change and continue to drive the concept of upward mobility. Although they succeed in the short term by hiring people willing to put in the time to learn the hierarchical ropes, these organizations find it increasingly difficult to attract the best and brightest required for competing globally.

The second group, smaller organizations and startups, have flattened their structures or even dispersed into virtual organizations to attract knowledge class employees or highly skilled trades. They have been quietly siphoning young talent away from traditional organizations by offering new ways to think about work. These organizations function as petri dishes of structural experimentation, adopting leading practices around job rotation and lateral transfers associated with lattice organizations. In effect, these innovative firms are adopting the career customization associated with allowing talent to define where and how they support the bottom line.[68] Unfortunately, they are too few in numbers to position Canadian business, as whole, for success globally.

> While work-life balance as a concept is flawed, I think that work-life harmony will continue to grow in its importance to organizations. It will mean different things to different employees, but we have to factor the private sphere into how work is organized.

The third structure is the low-skill, low-wage firm. These mostly service and industrial firms run low-margin operations with little room for error. Increasingly, they have very few permanent staff and rely heavily on the ability to adjust employment levels to current demand. Managers spend most of their time and energy hiring, training and ensuring standards. Electronic monitoring technology is key to keeping these structures cost effective, along with "Smart Objects" – tools that carry chunks of application logic and communicate with users, management, and performance systems regarding work processes, policies, and safety.[69]

Today's low-skill employees answer as much to the tools they use as to the managers who oversee their workplaces.

The rise of the specialist

Crowdsourcing within corporate networks has had a particularly significant impact on work for the Canadian knowledge class. In 2025, these employees are increasingly able to concentrate on the delivery of highly specialized insights and creative work without the need for comprehensive project knowledge. For example, a "crowd" of engineers can create a single document in a short timeframe by contributing their particular knowledge; their ideas are then edited and integrated by an engineering designer. This process removes much of the drudgery of the work, while making the best possible use of specialized knowledge.

As Lynda Gratton predicted in 2011, general knowledge has become less attractive to firms seeking to manage complex markets and problems. Deep specialists have potentially better insights within an efficiently connected network.[70] At the same time, the move toward specialization also creates risk for the specialized employee, as shifts in technology or demand require the rapid creation of new niches to remain employable.[71]

The centre will not hold

The Canadian economic model is built on too few leading resource firms. If this fragile supply chain of success is threatened, the whole tower may topple. History tells us that the tension seen in the 2025 Canadian market will eventually result in work disruptions at best, and significant societal upheaval at worst. Continually denied opportunities, an underclass is motivated to seek solutions that are inconvenient to organizations and policy makers.

The millennial generation is big and bold enough to force organizations to change. They will change how work is completed, organized, and undertaken. The won't wait for us to do this, they are already transforming the workplace.

Rewind to 2012

From today's perspective, the unsustainable prosperity scenario presents a distinctly possible future; but it is not inevitable. What if Canada recognized that our resources, although an advantage and fundamental to our economic strength, are not enough to build prosperity for all? What if we chose to address the very real challenges inherent in a resource-based economy by taking bold steps today? What if our politicians – encouraged by business leaders who recognize the competitive value of innovation and increased productivity – implemented policy changes that invigorated our systems for education and immigration, and redefined the employment contract? What if they proactively addressed the very real challenges of an undiversified economy, and set their sights on becoming a new centre of excellence for a range of globally important industries – a northern tiger? It is possible – but only if we pull the right levers today.

Unsustainable prosperity

Summary of workplace and workforce implications

- Canada is locked in a jobless recovery as a lack of new value-added products and services resulted in slow job growth outside of the health care and resources sectors.
- Educational choices failed to evolve to meet new labour market conditions as the education system produced "smart people" unprepared to deliver value and productivity in the roles that were available.
- Access to technology, higher compensation, and progressive management styles were enjoyed by an elite of knowledge class employees and highly-skilled trades, while "transactional class" employees felt increasing resentment about gaps in working conditions.
- The stratification of organizational practices was evident in larger firms versus smaller firms and low-skill industries; even organizations were broken down into have and have-not status based on the way they structured themselves.
- Further stratification was evident in terms of job design as specialists won a greater share of reward in the marketplace.

There has been a lot of talk about too big to fail, but should also talk about too big to manage. If you ask me, both Canadian public and private sector organizations need to go through a dramatic program of decentralization, delayering, and right sizing. Our generation needs to step up before retiring to set up future success.

Strategies for future success

The first two scenarios we explored, *lost decade* and *unsustainable prosperity*, illustrate how the future might look for Canada if we continue to a lesser or greater extent along the path of least resistance. These "default futures" do not assume complete inaction, but a lack of innovation and the type of leadership that results in status quo decisions – with no collaborative effort to bring about change. To reach the "crafted future", we must experiment with new ways of working, learn quickly from each other, and rapidly adopt good ideas.[72] The following strategies represent bold actions – and could lead to a more positive third scenario.

Modernize education	Preparing future talent with the tools, technology and skills from K-12 to Post-Secondary, and considering changes to improve teaching performance
Reform and fully leverage immigration	Correcting long-standing challenges with immigrant accreditation and integration to fully leverage the contributions of new Canadians
Improve employment flexibility	Addressing looming skill gaps and shortages by fully tapping into the potential of all Canadians (through flexible and customized work arrangements and regulations)
Invest in industry excellence	Creating the conditions for Canadian companies to win in strategic sectors (through incentives, investment and infrastructure)
Infrastructure for access to talent	Investing in infrastructure to enable labour mobility, access to diverse talent pools, and improved take-up of distributed work

Modernize education

Canada has historically made education a priority, but in recent decades the system has failed to meet the needs of our society. We must prepare Canadians for jobs that are in demand and allow them to be globally competitive. Accordingly, we recommend:

Influencing educational choices and outcomes
Monitoring employment trends and aligning educational programs to match demand is essential.[73] While there is debate about the efficacy of intervening in the educational supply and demand equation,[74] steps can be taken to ensure a better connection. Currently, the very educations that would most benefit the economy are often the most expensive. These costs signal the desirability of a program to students, but also suggest that certain careers are out of reach. Influencing educational outcomes will involve thinking critically about what we are communicating to students considering their future careers.

Governments can lead the way by working to develop market demand projections. This information can be used by educational institutions to determine the size of programs made available to students, and in career planning services. Governments can also use this data to stream funding to educational institutions based on projected demand for skills. At the same time, students must be kept better informed about market realities – technology can be leveraged to help them understand the jobs available and the skills required to attain them.

Governments could go further to address the signaling mismatch and subsidize skill acquisition for high-demand jobs. This does not mean funding and scholarships for the arts should be cut, but that in-demand degrees (e.g., engineering, math, computer science, skilled trades) should be more financially feasible. Today, tuition for students in Engineering at the University of Toronto is nearly twice that of their colleagues in Arts.[75]

Enhancing business and entrepreneurship curriculum for K-12

It is critical for primary and secondary schools to graduate students with the skills to be self-sufficient and ready for the challenges of employment and citizenship. Recent research suggests that more Canadians struggle with financial literacy than with reading.[76] Consider how the recent global financial situation might have unfolded if people had a better understanding of the principles of compound interest. Robust, citizen-ready literacy can be enabled through the development of broad-based advisory councils (e.g., educators, voluntary sectors, government, private sector, and financial services providers) who build solutions and realign curricula to include a focus on financial literacy and other self-sufficiency skills.[77]

Self-sufficiency is an important first step, but research has demonstrated that Canadians are also relatively more risk averse,[78] and educators must help address this challenge. Educational structures should encourage broader student experimentation – permitting failure and success – as our future innovators must be bold enough to take risks.[79] K-12 schools should seek the support of alumni from the private sector to enrich the student experience, providing inspiration to pursue entrepreneurial opportunities.[80]

Exploring teacher performance improvement

In the last decade, pressure has increased in North America for the establishment of teaching performance standards.[81] Many have advocated for this approach, while others have argued that such a system could encourage competition rather than cooperation among teachers, and that an increased pressure on student test scores could adversely affect learning outcomes.[82] Regardless, there is room to improve performance management standards, as Ontario teachers, for example, face performance reviews only once every five years.[83] To meet the debate head on, programs should be launched to evaluate the effectiveness of performance-based pay for teachers.[84] At the post-secondary level, experimentation with teaching-only faculty[85] should be undertaken to assess whether it better meets the needs of increasing post-secondary education demand and larger classrooms[86] than the current research only focused model.

Investing in tools and new curriculum for K-12

A recent paper from the Ontario Public School Boards' Association noted that there is a growing disconnect between the private use of technology by youth and the availability of those same tools in public school environments.[87] Accepting it as a fact of life and integral to learning, technology should be built into early childhood education and sustained for all students across the country. The emphasis should not be on hardware alone, but on training for teachers so that they can unlock the potential of new technologies and access to information to deliver new levels of educational outcomes.[88]

Part of the challenge is to radically rethink the old teacher-classroom model. Students can already link to information from around the world; progressive sites such as khanacademy.org have begun to reshape access to education. The site makes 2,700 video-based basic and advanced lessons available for free to anyone with an internet connection.[89] As new tools emerge, the Canadian education system must embrace the leading edge to maintain our education advantage.

Reform immigration

Canadians in our larger cities are familiar with the anecdotes of taxi drivers with PhDs; data suggests that this is a real problem. Despite the fact that 280,000 immigrants come to Canada every year (who are twice as likely to possess a university degree and four times as likely to have a graduate degree than native-born Canadians),[90] a backlog of some 800,000 applications still exists.[91] Wait times are all the more troubling given the skill gaps Canada faces, and the reality that immigrant unemployment rates are nearly twice that of the native born population. To address this critical situation, we recommend:

Solving accreditation

Accreditation is the key to moving the immigration file forward.[92] As a number of our interviewees suggested, when Canada attracts top talent from other nations there is an imperative not to waste that talent. As the "Pan-Canadian framework for the assessment and recognition of foreign qualifications"[93] suggested, professional association and governmental cooperation is required to ensure rapid credential recognition whereby the candidate is able to meet Canadian standards. This involves a comprehensive program[94] that identifies Canadian-equivalent certifications and degrees, ensures rigorous assessment of new arrivals against Canadian standards, and provides pre-arrival supports to enable the accreditation process to start before new Canadians even arrive.

Part of the solution is to recognize international programs that are equivalent to Canadian standards, and to encourage those not up to our standards to seek equivalency. Bodies such as the Canadian Engineering and Accreditation Board already assist foreign institutions in meeting Canadian requirements.[95] Fostering improvements in the credentialization processes of targeted regions around the world would result in several benefits: improved graduate profiles in those areas, more qualified immigrants for Canada, and greater "brain circulation" as skilled workers travel to and from their native countries.[96]

Streamlining integration and meeting market demand

As suggested above, one of the key challenges with the existing system of integrating immigrants is that new Canadians often lose valuable time after their arrival navigating registration requirements,[97] credential recognition, education upgrades, and language programs. At best, this process takes over a year to complete,[98] which suggests an opportunity to manage such activities offshore. Investing in online systems and programs to allow immigrants to begin learning language skills and Canadian customs should be considered.

Additionally, an immigration system that matches immigrant skill supply with employment market demand, modeled after similar initiatives in Australia, should be explored.[99] This requires a retooling of current processes and technologies (e.g., job boards that match immigrant skill profiles with existing needs).

Finally, tax incentives and educational credits can be used to encourage immigrants to settle in locations where labour shortages are especially acute, other than Toronto, Montreal and Vancouver. For example, Alberta has recently forecast that the province will be short 77,000 workers by 2019.[100]

Increasing employable immigration levels

Citizenship and Immigration Canada forecasts that "immigrants are expected to account for all net labour force growth by 2011, and for all net population growth by 2031."[101] With the well-known economic implications of an aging population and the requirement to feed industries with new talent, the time to discuss a significant increase in immigration is now. Among those waiting in the long line to get into Canada are people with the skills, credentials, and entrepreneurial spirit the country needs. However, before making the decision to increase immigration flows, the system must first be fixed and enhanced accreditation processes put into place.

Immigration comes with responsibilities for immigrants as well as for their adopted country. Government and business should develop educational programs and training to encourage new Canadians to embrace relevant national norms and values such as those enshrined in the Charter of Rights and Freedoms; they must also address any lingering employer biases. Recent research[102] indicated that as many as 71% of Canadians believe that immigrants "do not want to fit into Canadian society." A Deloitte study on the topic argued that arbitrary assessments of this nature around "fit" serve to marginalize new Canadians, the very people we believe are essential to a strong economy. Management education, training and cross-cultural learning are required to ensure immigrant integration in the short and longer term.

Improve employment flexibility

It is time to adjust our aging provincial Employment Standards Acts so that they encourage investment, job creation, and innovation. Creating conditions that remove barriers to growth need not be a one-sided arrangement. We recommend strategic changes where both employees and employers win, including:

Agreeing to trade-offs in the formal contract

The increasing demands of employees for more flexible work options is not the new request of a spoiled generation, but a response to work intensification and dual-income households willing to trade increased income for flexibility.[103] In the fight for talent, it will be a disadvantage not to consider these needs. Accordingly, outmoded provisions such as caps on hours worked per week and overtime policies need to be reconsidered. These changes would allow many employees to work hours that are convenient for them and for employers, so that both parties benefit from flexibility without fear of reprisal.[104]

Employers will also need to make adjustments for the aging workforce, allowing for practices such as pension incentives, phased retirement, wellness programs, and self-paced work environments.[105] These types of employment practices should be promoted through, rather than inhibited by, employment legislation. For example, in the absence of mandatory retirement, adjustments to employment laws should be considered to allow employees to work beyond previous retirement age norms. The flexibility to engage older workers in creative ways will be important to ensuring maximum productivity and retention of deep institutional knowledge. A good example is the change to the Canada Pension Plan launched in January 2012, which allows contributors receiving pensions to work and continue to make CPP contributions that will increase their payments through the Post-Retirement Benefit.[106] The broad assumption that all employees will be happy to work toward an ad hoc retirement date in the absence of a mandatory, age-based one is worth challenging, and must also take into account that a healthy turnover of older employees could encourage new employment.

Motivating these changes must be the recognition that flexibility benefits all stakeholders. These changes remove barriers to job creation; they also enable broader hours worked, lower real estate costs through an increased take-up of distributed work, a reduction in work intensification-related stress as employees achieve better work/life balance, and improved productivity due to higher levels of satisfaction and engagement.[107]

Improving labour relations

Ironically, continued economic uncertainty has encouraged labour-management cooperation in recent years.[108] If Canada aspires to becoming the "northern tiger," collaborative approaches to union-management relations will be essential.

The Conference Board's Industrial Relations Outlook for 2011 argued that the key to finding common ground between bargaining agents and management is to define a clear value proposition as a basis for cooperation.[109] Governments should encourage cooperation in substantive areas related to the adoption of productivity-enhancing systems and technology. This type of cooperation can also extend to other areas where employer and employee have common interests, such as workplace health and safety and corporate social responsibility.

The Federal Labour-Management Partnerships Program, which provides funding for innovative solutions to labour-management relations,[110] is one way to encourage collaboration in the public sector.

Finally, as economic uncertainty continues, additional flexibility should be sought to ensure that pay wage increases demanded during collective bargaining are within the realm of the possible. Some organizations are advocating for changes to legislation to oblige arbitrators to consider the ability of organizations to pay wage increases in "light of their fiscal situation"[111] when issuing contract awards/decisions. While these clauses should not be used as a default management position, collective bargaining demands should also be made in a responsible way that factors in the economic climate and competitive pressures.

Invest in industry excellence

The debate about government involvement in the development of business sectors too often focuses on the appropriateness of governments selecting "winners."[112] The argument is not about picking winners; it is about creating the conditions to win. As one interviewee suggested, rather than earmarking particular companies or narrow sectors for development, the role of government should be to "plough the field and supply the water for broad sectors; it is up to the private sector to plant the seeds and tend the crop." Efforts by government and business should focus on:

Accelerating industrial growth

Among other findings, the Independent Panel on Federal Support to Research and Development suggested the need for greater access to capital for fast-growing innovative firms and public-private research collaborations in areas of strategic importance.[113] The following initiatives foster the growth of whole industries, thus promoting new jobs and export markets:

- Public/private council partnerships that build international awareness campaigns for their sector, provide intelligence to stakeholders and proactively manage private sector relationships to develop positions on common challenges[114]

- Existing business clusters (e.g., technology in Kitchener/Waterloo/Guelph, oil industry in Calgary) that enable faster diffusion of best practices, encourage strategic differentiation, encourage the growth of specialized support industries catering to local needs,[115] and provide an ideal backdrop for innovative start-ups and spin-offs[116]

- The adoption of leading technology that vastly increase global competitiveness, spurred by the private sector taking advantage of favourable currency conditions to close the ICT and machinery and equipment investment gaps between Canada and the U.S.,[117] and the government providing encouragement through simple and effective tax policy

- Improved access[118] to venture capital that engenders high-quality innovative Canadian start-ups featuring policies such as B.C.'s angel tax credit and the establishment of a profitable self-sustaining community to support the development of a healthy early-stage financing[119]

- Simplified and expanded tax supports for R&D (e.g., SR&ED) that support earlier stage research and young firms[120]

Building on existing strengths

To continue the metaphor, Canada should plough industrial "fields" where we have existing strength and thus a strong chance for competitive advantage. For example, Canada's manufacturing industry continues to be an important contributor to the economy despite anecdotal evidence of its demise. The sector directly employs 1.8 million Canadians, accounts for two-thirds of goods and service exports, 56% of business sector R&D, and 80% of all new patents commercialized in Canada.[121] A focus on value-adding manufacturing (e.g., equipment to support the resources industry, custom manufacturing, plastics, pharmaceuticals and aerospace) will be critical if Canada is to advance beyond the simple export of commodities.

Even with substantial efforts to improve the strength of other industries, Canada will continue to rely on natural resources to drive economic growth for the foreseeable future. The resource industry (including forestry, minerals and metals, energy, and geoscience) generated 11% of Canada's GDP and directly employed 759,000 Canadians in 2009.[122] Focusing efforts on R&D and commercialization of new products and services that will aid the resource industry will benefit our overall economy directly, but also add new tradable sectors capable of exporting solutions to global resource industry firms.

There is also a market for solutions and technologies that reduce energy dependence and repair or prevent environmental damage. The high-potential green market will grow substantially as alternative sources such as solar energy become profitable, and clear opportunities already exist. The best way to encourage environmental sustainability is to appeal to the profit-seeking motive of the markets by supporting high-potential green industries (e.g., smart grid technologies,[123] smart building technologies,[124] "green" nanotechnologies).[125]

Infrastructure for access to talent

Statistics Canada research suggests that every dollar invested in public infrastructure lowers business costs by an average of 11 cents.[126] Public infrastructure is an important contributor to productivity, averaging a contribution to labour productivity of 0.2 percentage points per year from 1962 to 2006, or an average of nine percent of growth during the period.[127] Simply put, it is difficult to utilize diverse talent if the talent can't get to the employer.

Currently there are tremendous infrastructure challenges in Canada's largest cities, and looming challenges to our communications infrastructure.[128] To take pressure off the core of Canadian cities, high speed trains and improved transit options will ensure that employers have efficient access to talent from broad regions – both into and out of major cities. Infrastructure investment creates short-term economic and jobs benefits, and leads to long-term jobs in the transportation sector.[129] Additional benefits include reduced traffic congestion leading to direct travel cost savings, and broader access to diverse skills for labour markets.[130]

While the concentration and affordability of U.S. travel infrastructure promotes strong labour mobility, the high cost of travel in Canada – particularly by air – constrains the distribution of the labour force.[131] While understanding the challenges presented by sheer geographical size coupled with a low population, it remains important to invest in improvements that encourage mobility.

To attract the talent needed for productivity improvements, we need to build an infrastructure that supports a highly distributed workforce. Currently Canada does not have the high speed access of fiber-to-the-home as in countries like Japan, and our wireless networks also lag leading nations.[132] The existing wireless infrastructure requires upgrades and R&D to overcome current-generation limitations.[133] Without quality connections, a future distributed workforce will be constrained.

An increase in the take-up of distributed work would further reduce pressure on city infrastructure, but requires new infrastructure in outlying areas to allow for face-to-face collaboration and access to office facilities. Project facilities can be located close to where employees live.[134] Private sector investors can also build collaboration centres that can be accessed by workers from various firms seeking space to work and gather.[135]

Rewind to 2012

Armed with a bold plan for change, Canada has a chance for a dramatically different future. By implementing some of the strategies outlined above, we can put into place a sustainable foundation for prosperity. There are no guarantees, but making the necessary investments today will increase the likelihood that Canada will earn a global reputation for excellence – not just in providing resources, but for adding value to our exports, our people, our society and the world.

The northern tiger

Special report – January 1, 2025

During World War II, Joseph Schumpeter used the term "creative destruction" to describe how economic crisis can clear the way for renewal. Following the Great Recession of 2008, Canada entered just such a period of rethinking and rebuilding. As the recession lingered into 2011 and 2012, making the extent of the challenge apparent, Canada and the U.S. took full advantage of the opportunity to recreate their economies. In this feature, we examine how Canada developed a unique and sustainable competitiveness via its resource base and the strategic utilization of talent.

With cooperation borne of necessity, the public and private sectors pushed forward agendas of innovation and inclusion that crystalized the new Canadian brand globally. Strong GDP growth has held steadily over the last fifteen years. Despite its small population, Canada has a varied industrial platform of resource extraction, high value manufacturing, green technology, ICT, R&D and professional services. Each industry has a healthy mix of domestic and export strength.

The diversity of Canadians has been recognized as a source of global opportunity, with organizations relocating to Canada to access this unique human pool. As a group, Canadians speak more languages than any other nation on earth, and today they have leveraged that competency with an impressive range of global trading partners. Exports have been particularly buoyed by the development of a significant Canadian presence in the "New Silk Road" featuring impressive penetration in emerging Asian markets.

Productivity is also maximized through educational choices that match job market demand, breakthrough technology adoption, greater diversity of industries, and management styles that integrate changing attitudes toward work. The country has managed to balance the ruthless efficiency necessary for successful global competition with an engaged workforce, providing sustainable power for the Canadian economic engine.

The financial crisis of 2008 introduced a test of leadership which many nations failed to meet. Admirably, Canada met the crisis head on, focusing the country's post-recession economic strength on increasing the competitiveness of the private sector. Leaders in both the public and private sectors moved boldly to invest in diverse industries, an enhanced education system, improved immigration policies and significant improvements to infrastructure and technology. **Canadian leaders in 2012 set the country on a course to achieve its ambitious goals.**

Louie Grimson

70-year-old Executive Vice President, Operations

Louie is in his executive suite. His desk surface and corner office windows are interactive surfaces. Each can become a whiteboard, teleconference, or collaborative space. He fishes his tablet out of his pocket; the AI immediately pops up dashboards and unfinished work for Louie to review.

In the background, the coffee maker communicates with Louie's AI to understand his preference based on time of day, mood, and workload. This morning, it's an espresso. With a simple verbal request, the AI connects Louie to data, applications and live video links to his team around the country and the world. Tormedica has the best technology and the cash to pay for it because it recognized early on that a wholesale reorganization was required.

Tormedica has distributed its core competencies globally. They rely on engineering from Tokyo, marketing from Halifax and Montreal, scientists from Mumbai and market research from San Jose. It is a workplace of choice for top global talent, both permanent and contract. Financial results have allowed Tormedica to maintain top-quartile compensation. As a result, Louie was recently able to recruit people like Montreal up-and-comer Salimah Shah to manage a major cloud computing project.

Louie attempts to pull up a new dashboard, accidentally launching a music playlist and lowering the blinds. While he is still getting used to smart glass, Louie is no novice when it comes to financing approvals for commercialization of technology. Currently, Tormedica is seeking further diversification through a push into agri-science. The project team is based at the University of Guelph, with subject matter experts in Calgary, Los Angeles, Istanbul and Beijing. With a swipe of his hand he makes his presence on the dashboard public, and the team is video-present to discuss the project feasibility and business plan.

Half an hour later Louie announces, "Excellent work." The team has found a perfect target for commercialization of a new wheat patent, this time in Saskatchewan. Louie appreciates the freedom and ease with which he is able to apply his hard-won expertise for real results. The future of Tormedica is bright indeed.

Salimah Shah

23-year-old software engineer

There is an almost child-like atmosphere in the park as a sudden spring shower sends people dashing for cover. The park is situated in Montreal's west end, Salimah's favourite spot to work. The city disappears beyond the leafy paths, and she finds the peace perfect when deep thinking is required.

Salimah calls up her AI on her tablet and mutes the microphone. "John, take notes while I find a dry spot," she commands. The AI begins logging notes for her video conference, including observations about facial expressions and advice as how best to respond to any missed points based on an amalgam of Salimah's past responses. In the meantime, she packs up and moves toward a nearby pavilion in the workpark that offers coffee and professional services to patrons.

Salimah has recently started work with Tormedica. When she was an undergrad, she and a few classmates had entered an entrepreneurial business case contest sponsored by the multinational. Her group won, and she found herself on the company's radar. When she and her partners sold their startup last year, she received a recruiting call.

Salimah is happy and motivated. She has set her parents up in a nice condo a few blocks from her own place. The Tormedica opportunity is huge and the work an addictive challenge. The company wants to view and manipulate complex medical design templates in real time across its global networks. Salimah is leading the team to make it happen.

As Salimah finds a seat she apologizes to her AI, "Sorry, John, need a quick rewind." She plays back the portion of the meeting she missed. A member of her team from Mexico City is concerned about project risks and overruns that might materialize if one of their more ambitious plans fails to meet expectations. Now caught up, Salimah signals her agreement with the assessment. "Win big, lose big, right?" she adds. Her team laughs. Salimah likes their chances.

Labour market profile

In 2025, Canada has achieved impressive employment numbers. As production-enhancing technology replaces jobs, new opportunities arise. By encouraging the right education choices and ensuring that immigration supply feeds demand, Canada now "owns the podium" when it comes to the labour market. In addition, Canada has built a diverse industrial mix, offering opportunities for most employees. Canadian governments carefully built the conditions to win for strategic industries through incentives and the construction of centres of excellence. It has taken foresight, visionary leadership and consensus building for this small democratic nation to succeed so admirably, and Canada is recognized globally for its achievement.

Correcting an education mismatch

In 2012, as emerging nations became global powers, pundits began to notice that countries like China and India were producing twice the number of graduates with advanced degrees in engineering or computer sciences as the U.S. – and that 50% of American engineering degrees were awarded to Indian or Chinese students.[136]

The Canadian government's somewhat controversial response had been to influence educational choices directly. In-demand medical or business degrees, which were at the time the most expensive to acquire, were adjusted through incentives to become more affordable. In Canada today, it is surprisingly affordable to become a neurosurgeon if you have the aptitude. The implementation of these policy changes was guided by private sector councils, which worked with educational institutions to model and predict a better alignment between supply and demand.

Winning back manufacturing

In 2010, there was already growing pressure on long supply chains, as the cost of shipping goods over long distances was hurting the bottom line. Every dollar increase in world oil prices since 2000 fed directly into a 1% rise in transport costs (Figure 9).[137] Given rapidly rising oil prices, transportation was becoming prohibitively expensive for low margin goods and large products. While some suggested the cost of energy would stunt globalization, Canadian firms took a different view and instead saw a global opportunity.

Rather than continue to watch manufacturing collapse[138] under the growing weight of long supply chains, Canadian firms promoted "distributed globalization" which featured smaller factories and shortened supply chains. This alternative was not only more environmentally responsible, it could be sustained economically. Today, in 2025, Canadian firms have taken advantage of locally sourced raw materials and organized manufacturing to add value before export.

Figure 9: Cost of transport in 2010[138]

West Texas Intermediate (WTI)

3D printing, or additive manufacturing, has also revolutionized the manufacturing space,[139] allowing Canadian firms to compete in custom markets that do not require the scale of a larger nation. Rather than being directly disruptive, the ability to "print" 3D computer models into finished plastic and metal components has meant manufacturing success increasingly relies on the quality of ideas rather than on scale. Today's custom manufacturers have spawned large workforces dedicated to the handling of custom orders and specifications for complex 3D modeling and just-in-time delivery.

Profitable green

In 2010, international efforts to build green industries operated more like taxes than investments, with "green" jobs often created at a prohibitive cost[140] and without a corresponding productivity or employment benefit. Despite this, some profitable green sectors were emerging. Hybrid technology had already broken into profitable territory, with the fuel cell market growing at a compound annual rate of 27%.[141] Another example was the recycling of disposed electronic products and components, also growing tremendously from a worldwide market of $5.7 billion in 2009 to $14.7 billion in 2014. Today, in 2025, electronic recycling represents one of the largest green markets in the world.[142]

Canadian firms have leveraged niche Canadian strengths to build profitable green industries in areas such smart grids that allow for two-way communication with various appliances and equipment.[143] By focusing on profitability, the business case for sustainability has become easy to sell and new green-collar jobs are sprouting across the country.

Sustainability investments, for many economists, are viewed as a tax. If it's something you do unilaterally, you disadvantage yourself against the rest of the world. In the end, multi-lateral cooperation will be required but it's not going to be easy. Sacrifice never is.

Clustering and regional specialization

Even back in 2010, Canada had emerging sectoral centres of excellence. The city of Toronto was recognized globally as a centre for financial services.[144] The Toronto Stock Exchange was the largest exchange in Canada and the third largest in North America, and the undisputed world leader in energy, mining and minerals.[145]

The Kitchener/Waterloo/Guelph region was the centre of Canada's technology cluster, employing more than 30,000 people and home to more than 500 technology firms including Research In Motion (RIM), Google, Open Text, 3M and Oracle.[146] The region had the brains, capital and infrastructure to attract the best and brightest.[147] Additionally, with Alberta holding the world's second-largest crude oil reserves,[148] Calgary became the hub of Canada's energy sector and the location of most domestic and international energy firms and suppliers.

Governments seized the opportunity represented by these early economic clusters, and assisted in promoting the regions internationally through tax incentives, R&D grants and education programs tailored for local employment market demand. The Canadian approach was modeled after other international clustering plans such as Singapore's Science Park.[149] The educational institutions in these clusters, already geared to produce talent for local industries, flourished as demand for related programs surged and word spread beyond Canada's borders. The result was innovation – and jobs.

Today's hot and cold jobs

Despite tremendous productivity improvements, Canada is constantly on the hunt for talent of all kinds from across the globe: trades, engineers, researchers in various fields, IT, health care workers and more. Canada is also one of the few places where unskilled workers can expect to make a decent wage, as the service and retail industries struggle to meet demand in localized boom economies.

The health care sector has managed impressive growth, and has restructured to improve service and open Canada to new opportunities. Rather than having doctors serve as primary care givers, nurse practitioners and a host of other service-provider jobs have been added to complement a more specialized group of doctors. Excellence in hospitals and international marketing has also grown a health medical tourism industry for international patients seeking premium service.

The reality is that the Canadian voter doesn't really care about sustainability. The problems associated with it are not real to them. The only way to push the agenda forward is to appeal to the pocket book. Sustainability investments that save consumers money and lead to profit should be pursued. Saving the planet is a nice side benefit.

The immigration supply chain

In 2010, despite its inadequacies, Canada's immigration policy was often praised outside the country. A group of prominent Swedes, for example, pushed their government to adopt Canada's immigration system, spurred by a book titled "Kanadamodellen" – "The Canada Model."[150] Despite this international recognition, industry and the electorate put increasing pressure on the Canadian government to adopt a bold immigration plan. This plan, with a goal of directly matching high-skill immigration supply with employment market demand, was modeled after the just-in-time supply chain concept.

To solve the inherent logistical problems, Canada invested in building offshore immigration processes that ready new immigrants for employment before they arrive. Today in 2025, that system has evolved into an online mega-resource that offers credential recognition programs (including the automated recognition of a growing number of international programs), language training, and Canadian business courses on issues from processes to business etiquette. With the enthusiastic support of industry, many new Canadians can now arrive and start work the very next day.

A land of opportunity

Through the use of analytics and technology to match supply and demand, the employment market in Canada has been transformed. But as many nations continue to struggle with jobless recoveries, they may wonder whether the Canadian version of employment is highly productive, or simply employment for employment's sake.

Industrial policy is a dirty word for a reason. Governments simply can't (and shouldn't) pick winners. What you end up with is a lot of public funds spent on an enterprise that can't last a second without subsidy. Let the market determine our industrial mix.

Productivity

While Canadians were once accused of being too kind for a cut-throat business world, in 2025, they have embraced their growing global eminence. Encouraged by the improvements seen in worthwhile Canadian initiatives in the last fifteen years, Canadians have set their standards higher. The nation's surging productivity numbers reflect efficient employment achieved by leveraging diversity and adoption of best-in-class tools. Today, Canadians expect and strive for excellence.

As an example, Canadian firms lead the pack in the successful implementation of the results-oriented management style. The broad goals of this approach are to align all employees on strategic direction, reward work generously but fairly at all levels, and ensure that the work itself is as satisfying as possible. Job design and proper adoption of technology have been keys to eliminating drudgery. A visionary example occurred in the 2000s, when Disney World sought to better direct crowds of visitors.[151] The creative solution was to train ubiquitous park sweepers to assist visitors – and the result was happier customers and more engaged staff. Applying this lesson with scientific rigour, Canadian organizations are giving their workers a sense of purpose. From empowered nurse practitioners to innovative industrial workers, the result of improved job design has been enhanced goal alignment from employees and a dramatic rise in per-hour productivity.

That strong sense of inclusion has been supported by strong labour relations. In 2010, there was hope that the tone in Canada could transition from conflict to cooperation.[152] Today, in 2025, cooperative labour relations are a real contributor to Canadian productivity. Proactive tri-lateral discussions between government, business, and unions have laid the foundation for organizations to act as one.

Sophisticated application of technology

In 2025, the number of scientists in the world is greater than the total number of scientists in previous history combined.[153] In addition, this vast number of innovative minds can now communicate instantly. One result has been ongoing disruptive changes in workplace technology,[154] and the resulting challenge for businesses to make a case for adopting the latest innovations which are often outmoded before the investment pays off.

Canadian firms have excelled at understanding the broad benefits of technology earlier than their competitors. For example, the benefits of telework are being sold to shareholders in 2025 as a way to drive down real estate costs, reduce the carbon footprint of commuting, and drive productivity among motivated employees who are free to work how and when they want – so long as results are delivered.[155]

This idea that government can't pick winners is a simplistic ideological caricature. While we shouldn't pick individual companies, incubation strategies, sectoral credits, clustering strategies and the like are examples of government having an important role in fostering the conditions for Canadian firms to win.

While Canada is a hotbed for new technology, it is the rapid adoption that really strikes newcomers and visitors. Firms and local governments have taken advantage of cheap solar energy to power distributed infrastructure such as the highly-touted Canadian wired-parks, where workers can be found enjoying the country's warmer months. Take-up of ultra-low power processors is also high, with one Canadian firm distributing solar or motion-powered tablets which rely entirely on cloud applications to eliminate the need for top-end processing power. For other firms, tablets have been replaced with wearable computers that fit the human environment. In one industrial setting, this type of technology allows high-skill line workers to preview complex customized assemblies through wearable-computing safety goggles.

Infrastructure

In 2008, the basics of Canadian infrastructure – roads, sewers and water treatment systems – were crumbling and in need of $200 billion in repairs.[156] Over the next fifteen years, Canada made the critical decision to build a completely new infrastructure rather than "patch up" the old one. Despite trends toward mobile work, Canadian governments placed a bet in favour of the future of cities, and built the transit and support structure necessary to give birth to Canadian mega-regions in Montreal, Toronto, Kitchener/Waterloo/Guelph, Ottawa, Calgary, and Vancouver. Rapid transit and world class airports ensured that once Canada attracted talent, the talent was able to get where they wanted to go.

Canadian cities have built new public infrastructure such as city wide Wi-Fi and parks that allow many employees to escape the office and work outdoors. Entrepreneurial-minded businesses have clustered around these locations, offering printing services, video conference rooms and shared satellite offices where local workers can drop by and work together, saving a commute while still enjoying access to a social network.

Trading for shared prosperity

Of course, none of today's productivity achievements would be possible if the employment contract in Canada had not undergone a radical change as well. In order to achieve productivity through improved flexibility, new trade-offs were addressed.

The footprint of a large enterprise is going to look very different in 2025. The workplace is going to be a place to aggregate, share ideas, and socialize. Younger generations and post-65 employees want flexibility and concepts like telepresence will be the norm.

Employment contract

In 2010, the Canadian employment contract was showing its age. Although there was a growing trend toward contractual work and telework, the Employment Standards Act still had laws disallowing employers to make full-time employees work more than eight hours in a day or 48 hours a week.[157] Today, Canada has a new "new deal" – one that required careful negotiation. In the negotiations that preceded its adoption, neither "side" won; rather, constructive trade-offs allowed employers and employees to share the benefits of improved flexibility.

The employment contract "new deal"

In arriving at this new deal, firms sought to maximize flexibility to ensure that human capital was profitably applied. Employees sought flexibility to balance work with life. In the new employment contract, provisions that restricted hours worked were lifted. In return, Canadians have new rights when it comes to requesting flexible work arrangements. Regularly scheduled rest periods have become difficult to track for a workforce that is increasingly distributed, and employers are no longer held to strict standards. Overtime pay has also fallen out of the legislation, though many employers still find creative ways to reward employees for productive effort.

While contingent work continues to be significant, it is commonly accepted as a mutually beneficial arrangement (though critics wonder if it would remain so if employment were not in such strong demand). Employment law now extends to those working outside traditional permanent employment – contingent workers have a national safety net guaranteeing rights such as disability insurance and employment insurance.

In 2025, many Canadians work in multiple jobs and have a portfolio of income sources.[158] Popular artificial intelligence agents trawl job exchanges and even negotiate contracts that fit the employee's schedule. For example, a high-demand tradesperson may do custom industrial work onsite as well as having a field service contract, a training contract to support new apprentices, and a consulting contract to help a new firm integrate leading practices. In today's families, both parents often have contingent flexible work schedules, allowing for more time with family.

A network for empowerment

In 2011, the UN declared that access to the internet was an indispensible and fundamental human right.[159] Canada's expensive and sometimes criticized response, the "Right to Connect," was enshrined in 2023 as an addition to the Canadian Charter of Rights and Freedoms. It ensures that every Canadian has an equal right to quality information network connectivity regardless of social status or geographical location. The Canadian approach to creating connections, much deeper than a simple next-generation broadband connection[160] or next-generation mobile access, has impacted the workplace. Canadians now expect to have a voice in any institutional setting. Marginalization is unacceptable to this new cohort of employees, and Canadian organizations must work hard to build modern systems in which employees can both speak and be heard.

Many telework programs have failed. Technology has forced us to impose work patterns on people who are not habituated to them. Younger generations may break this pattern, but I still see office towers, and all that they represent, in our future.

Pitching in post-65

For many Canadians looking back, it is difficult to conceive of the "right to retire" at age 65. Though this mandatory retirement was effectively eliminated in 2010,[161] Canada's public retirement income system continued to produce strong disincentives.[162] For example, payroll tax ceilings made it costly for employers to offer short work hours or fewer weeks of work for older workers, who sought to phase out their retirement with more flexibility.[163]

As aging populations generally have a drag effect on GDP, it was clear that something had to be done. With an estimated 50 Canadians turning 65 every hour from 2010 to 2030,[164] the combined impact of an increasing rate of attrition and increased healthcare and pension costs looked threatening to the Canadian economy.

Accordingly, Canada overhauled public policies that hindered the continued employment of older workers, making changes to the retirement provisions in the Canada Pension Plan.[165] By providing adjustments to pension levels for workers who continue to work beyond the usual retirement age, employers in 2025 are better able to retain older workers.[166] Flexible work-time arrangements, lateral and downward transfers, and self-paced work environments are the tactics deployed to ensure productive contributions from post-65 employees.[167]

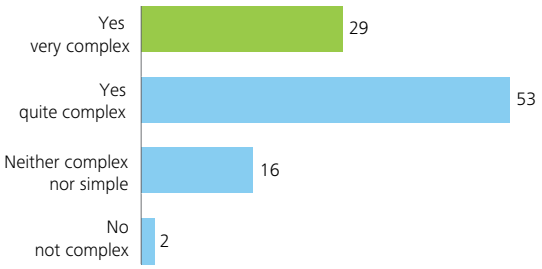
With pension rules relaxed, many organizations in 2025 are introducing the "employee emeritus" role, where retired employees supplement their income with reduced wages and vastly improved flexibility. These highly seasoned employees solve problems, conduct training and contribute to projects in need of subject matter expertise. The idea is not limited to knowledge work, and includes the engagement of highly experienced tradespeople in expanded apprenticeship programs, helping to solve the longstanding problem of journeyman-to-apprentice ratios.[168]

Organization of work

Even as business continues on a path of change, Canadian institutions are rethinking the employment contract to achieve the aspirational goal of bringing everyone "along for the ride." As Canadian firms react to increasing complexity (see Figure 10), the way in which work is organized has changed substantially. Improvements in collaboration-enabling technology have allowed Canada to be among the leaders in enabling truly global operations.

Figure 10: Global executive survey: rising business complexity, 2011

Do your consider your business, as a whole, to be complex? (% respondents)



The headless organization

At the turn of the 21st century, IBM sold its PC business to China's Lenovo.[169] The decision regarding the location of the company's future headquarters became something of a political football. The solution was a "headquarter-less" organization, with decision making, strategy, innovation, and general management distributed throughout the globe.

In the multi-polar global marketplace of 2025, which features numerous centres of power in banking, resources, and consumer spending, it is no longer practical to focus strategic thinking in a single location. This is the age of the headquarter-less multi-national. National governments may have lost control of these new global behemoths, but remarkably, the distribution of decision-making has helped to ground complex corporations in regional practicalities.

Worldsourcing

Worldsourcing, a trend gaining traction since 2012, has transformed what it means to operate on a global scale. Firms disperse critical functions where they can be closest to customers or take best advantage of available resources and talent. In sharp contrast to outsourcing, where developed nations control innovation, marketing and general management, worldsourcing seeks resources, opportunities and ideas anywhere in the world.[170]

While many developed nations worried about a low-cost provider race to the bottom, countries like Canada view worldsourcing as a race to the top – a way of creating unique, best-provider advantages beyond cost. Canada's global strength in mining and resource financing is a case in point. In 2010, two-thirds of the world's mining deals were done through Toronto[171], generating a large group of financiers, consultants, lawyers, and subject matter experts. Since then, Canada's reputation in this area has blossomed, as has the strength of Canadian firms in other financial services niches including integrative risk management, retirement finance and asset management, and the associated back-office expertise.[172]

Another example of Canada's strength in worldsourcing is the country's new role as a pre-eminent data centre. Through a public-private partnership, the right conditions have been fostered to entice many of the world's largest companies to locate their data storage facilities here. These advantages include cool average temperatures, access to water for natural cooling, available talent to manage critical data assets, and political and social stability.[173]

Cities like Toronto, Vancouver, Montreal and increasingly Calgary have led in the worldsourcing race. In fact, Toronto's brand of multicultural diversity is more renowned than many cosmopolitan centres like New York.[174 175] Companies locating functions in Canada can access leading talent, a vast number of languages spoken, and the "worldly" attitude necessary to understand and serve multiple cultures and geographies.

Admittedly, worldsourcing has not reduced organizational complexity. Between 2007 and 2010 the number of organizations in which employees were organized by multiple constructs (e.g., geography, function, process, customer) rose from 19% to 24%.[176] Today, in 2025, dynamic Canadian companies are adopting matrix designs in response to increasingly competitive and interconnected markets.[177] Canadian organizations see the need to be in more than one place at a time, as they deal with global competitors moving toward increasing diversification in product portfolio, employee pools, and customer bases.

Public and private sector innovations in governance

Both the public and private sectors in Canada have undergone changes in structure and governance that have significantly impacted the workplace. In 2011, the World Economic Forum had recommended that governments consider a transition to public sector structures that were flatter, agile, streamlined and tech-enabled (FAST).[178] The Canadian government responded by committing to the development of a new modern, flatter public service, and seeking cooperation at all levels of government.

Today, in 2025, Canadian public institutions now directly engage citizens through the use of technology. This has ushered in both an improvement in outcomes and a rise in volunteerism. Layers of bureaucracy have been removed and new tools introduced to enable real-time decision-making. All levels of government now cooperate to ensure there is little duplication of service or competency, and tactical use of outsourcing ensures efficient use of tax dollars.[179]

The private sector has also undergone structural change, most notably in the area of governance. Firms have adjusted public company structures to focus on multiple stakeholders rather than on shareholders alone.[180] As a result, there is less emphasis on short-term financial returns, and more on higher-order issues that impact employees, regions in which the firm operates, educational institutions that supply talent, and environmental protection associations.

High-tech health care

In 2011, there was considerable concern over wait times in the Canadian Health Care system.[181] Health care costs were also soaring, doubling in a decade by 2011.[182] The cost crunch prompted Canadian governments into action; rather than focusing only on reactive budget cuts, they chose to support innovation as well. Information technology allowed doctors to spend less time on administration and scheduling. More importantly, technology allowed for the creation of transparent and accessible patient health records that would improve healthcare outcomes.[183] In 2025, the concept of "virtual

Canada doesn't have a culture of winning. As a rule failure is part of success and our policies around bankruptcy and failure are a perfect example of a tepid Canadian approach, which is not going to create the big windfalls that the next 15–20 years will call for to regain Canadian competitiveness.

experts" has been taken to a new level through the programming of artificial intelligences to build integrated knowledge bases and virtually represent busy specialists on the frontlines of service.

In terms of organization structure, the greatest innovation has been the emphasis to minimize avoidable hospital admissions by proactively treating conditions before a patient needs hospitalization and using technology to support ambulatory care.[184 185] Patients are given low-cost radio-frequency identification devices that monitor blood pressure, pulse, and other key health data. These devices can communicate to the network in cases of emergency, and allow doctors to conduct meetings with patients through video-conference, further easing pressure on waiting rooms.

The true north, strong and free

For this still-young nation with a relatively small population on an enormous tract of land, the future looks bright. Canadians have shown themselves bold enough to embrace a straightforward challenge in response to the Great Recession of 2008. The country focused on its niches and built an efficient labour market, creating a winning and sustainable global force.

Northern tiger

Summary of workplace and workforce implications

- Educational choices were influenced to meet high demand in the labour market.
- Clustering strategies and a focus on existing strengths improved industrial/sectoral diversity.
- Immigration was improved by offshoring time-consuming application processes and improving accreditation.
- Canadian firms and governments accepted the business case for adopting the latest in technology, despite the pace of change.
- Infrastructure was built to improve mobility and support new modes of work.
- New trade-offs were built into provincial employment standards acts to balance a new and modern Canadian employment contract benefiting both employees and employers.
- Canadian firms positioned themselves to win the global worldsourcing race by excelling in select niches (e.g., mining financing, financial analytics, data centres).
- Private sector governance was reformed and made accountable to multiple stakeholders, in place of a singular focus on short-term shareholder value.

Our current economic standing, in a world of bank failures and downgraded credit, is a direct result of a measured Canadian mentality toward risk taking. We are by no means perfect, but we have the ingredients for success if the right investments are made today.

The challenge: Grow brand Canada

As we seek a path to the brightest future for Canada, the complexities of the global market make it easy to be defeatist. However, while many countries have scale beyond ours, there is room to maneuver. If we are to become the northern tiger by 2025, however, we need to take action. It's far closer than we think. In political terms, 2025 is only three to four elections cycles away.

Most of the strategies described here relate to the future of work in one critical way – they encourage a healthy relationship between employer and employee, and help develop a workforce that will loudly promote the advantages of Brand Canada. The new technologies that will enable this relationship will profoundly impact our personal and work lives, so public policy debate will be critical. The employment contract is shifting as we speak, and both employees and employers must contribute to the discussion. Through dialogue and collaboration, nothing will build our future more than delivering on promises of education, prosperity, sustainability and global competitiveness.

Australia is often looked to as an example of a country punching above its weight. With only half our population, it seems to have twice our international stature. In 2010, Australia sought to create a fresh brand, "Australia Unlimited." Ironically, on the brand's site they state, "One of the key findings from this process was the desire for a contemporary and consistent way of presenting Australia internationally in the same way that other nations such as Canada have done for many years."[186] Clearly, we have a solid reputation on which to build. But instead of looking to Australia while Australia looks to Canada, it is time for us to step forward and lead the way.

Inventing a prosperous new Canada will take effort from both government and business; but all Canadians have an important role to play. As one of our interviewees observed, "Canada has the ingredients to achieve success, but not necessarily the will." With our nation at a critical inflection point, we must summon that will. As argued in this paper, we have been blessed with natural resources that allow us to compete – but should we not aspire to more than mere participation as 21st century "hewers of wood and drawers of water?"

Our history as a country is replete with examples of overcoming adversity and, in our own quiet way, surprising the world with our resilience and capacity for change. Canada came of age as an independent nation in the post-war era of the 20th century; by embracing cultural diversity, education and financial prudence since then, we have been preparing for today's challenge of leading in a global economy. Let us not be discouraged by the complexity of the modern world, but remember our commitment to a just society that seeks an enviable standard of living for all our citizens. Those who claim we lack ambition and the drive to win misunderstand our national character, and the sacrifices and determination of which we are capable.

In order to realize a positive future for the Canadian workplace, we must act together and focus our efforts on critical problems. Get involved. Watch for opportunities to join this continuing debate. Join a group working toward solutions in one of our identified policy areas, or champion one you think we missed.

**We can, and we must,
invent a prosperous future for Canada.**

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