

Addressing Inequality in Canada and Around the World

Income Inequality, the Concentration of Wealth, and Technological Change

A Backgrounder

Inequality of income and wealth distribution has emerged as a notable societal, political and economic issue. Though a recurring concern since the first industrial revolution, inequality has again risen to the forefront of public consciousness and debate since the Great Recession of 2008-2009, including the contribution of inequality to the rise of populism, the extent to which the growth of the intangible economy and rapid technology change – especially robotics and Artificial Intelligence (AI) – will affect the nature and future of work, and the impact which concern over inequality may have on the evolution of capitalism.

The global COVID-19 situation has heightened public concerns over inequality as the pandemic has exposed and accelerated divisions. Infection rates, deaths and unemployment have had greater impact on certain classes and types of people based on income, gender, race and colour. COVID-19 is also likely to cause and accelerate workplace and workforce changes. An additional consequence of COVID-19 has been quickly imposed restrictions which harden borders – in this case for arguably justifiable public health reasons – but which establish yet another pretext to inhibit cross-border human resettlement and immigration which can contribute to greater equality over the longer-term. The death of George Floyd in Minneapolis, along with other high profile confrontations in the US, Canada and elsewhere based on deep-set race, gender and religious inequalities, has accentuated the pervasiveness of public concerns about racial inequality, the systemic barriers that perpetuate them, and the need for consequential and effective policy responses and initiatives.

Measuring Income and Wealth Inequality

Although there are differences among researchers over methodologies for calculating wealth and income inequality,¹ data available from the most often referenced sources shows stark contrasts between the wealth and incomes of those at the pinnacle and those at the other end of the scale.

Wealth inequality is more pronounced than income inequality. The top one percent of wealth holders in a country typically own 25 to 40 percent of all wealth, while the top ten percent usually account for fifty-five to seventy-five percent.²

¹ The Economist, “Measuring the 1%: Economists are rethinking the numbers on inequality”, November 30, 2019.

² Credit Suisse Research Institute, “Global Wealth Report 2020, October 2020.

Selected Indicators of Wealth and Income Inequality

		The Top 1%	The Bottom 50%
By Wealth	Global³	The top 1% of the world's population accounted for 45% of global wealth in mid-2019	The bottom half of wealth holders collectively account for less than 1%
	US²	The top 1% of the US population accounted for 35% of the country's wealth in 2019	
	Canada⁴	The top 1% of families in Canada held a 25.6% share of the total wealth in Canada in 2016	The bottom 40% of families in Canada held a 1.2% share of total wealth in Canada in 2016
		The Top 1%	The Bottom 50%
By Income	Global⁵	The share of national income of the top 1% globally increased from 16.9% in 1980 to 19.1% in 2019	The share of national income for the bottom 50% rose from 6.8% in 1980 to 9.4% in 2019
	US⁵	The share of national income of the top 1% in the US rose notably from 10.3% in 1980 to 18.9% in 2019	The income share for the bottom 50% in the US has declined significantly – from 20.1% in 1980 to 13.5% in 2019
	Canada⁵	The share of Canada's top 1% of national income rose from 8.8% of in 1980 to 14.3% in 2019	The national income share of the bottom half declined from 20.5% in 1980 to 18.4% in 2019

In several countries, the top one percent have greater percentage wealth shares than the United States. These include Russia (where the top one percent accounted for over 55 percent of the wealth in 2020), Brazil (over 45 percent) and India (approaching 40 percent). The concentration of wealth controlled by China's top one percent was estimated to be just under 30 percent.⁶

The One Percent

The spotlight on the top one percent and their disproportionate share of wealth and income compared to the other 99% was fueled by an influential 2001 paper which the French economist, Thomas Piketty, co-authored with Emmanuel Saez, examining income inequality in the US between 1913 and 1998.⁷ This focus on the one percent became the rallying cry for the 2011 Occupy Wall Street movement which also found resonance outside the US, including in Canada. Piketty went on to argue in his subsequent 2013 book, "Capitalism in the 21st Century", that rising inequality was to be expected under the capitalist system as wealth generated greater returns historically than the increases in workers' income that technologically-led productivity increases might justify. In a sweeping further work in 2020 which

³ Credit Suisse Research Institute, "Global Wealth Report 2019", October 2019.

⁴ Office of the Parliamentary Budget Officer, Ottawa, "Estimating the Top Tail of the Family Wealth Distribution in Canada", June 17, 2020.

⁵ World Inequality Database (<https://wid.world/>). Accessed on March 28, 2021.

⁶ Credit Suisse Research Institute, "Global Wealth Report 2020", October 2020

⁷ Piketty, Thomas and Emmanuel Saez, "Income Inequality in the United States, 1913 to 1998", NBER Working Paper No. w8467.

provided an extensive historical perspective, “Capitalism and Ideology”, Piketty sees the determinants of inequality as primarily political and ideological rather than merely technological or cultural.⁸

Philanthropy – Committing to Giving Back

Some signature members of the world’s top one percent have publicly acknowledged their outsized financial fortune. Sensitive to the positive societal outcomes which their immense wealth could achieve, over 200 “super-rich” – a significant portion from the tech sector – have committed to give half of their net worth to philanthropy, either during their lifetime or upon their passing, in accordance with the Giving Pledge initiated in 2010.

Another group, 83 “Millionaires for Humanity” – mostly from the US – released an open letter in July 2020 prior to a meeting of G20 finance ministers and central bank governors calling for a permanent wealth tax to fuel economic relief, starting with the COVID-19 challenges.⁹ In Canada, Resource Movement, inspired by Resource Generation in the US and founded in 2017, describes itself as “a community of over 200 young people with wealth and/or class privilege across Canada working toward the redistribution of wealth, land and power.” Resource Movement has called for a wealth tax in Canada on the richest 10% of Canadians.¹⁰

The Changing Nature of Work

The future nature of work is being significantly altered by the exponential rate of recent technological advancements, according to researchers. Some wonder whether the pace of these changes may risk exceeding the ability of humans to adapt. The impact of Artificial Intelligence (AI) and Machine Learning is anticipated to be dramatic and positive, though the timeframe is uncertain. The advances AI brings engender concerns over the disruption it may visit on workplaces and income inequality it may foment.

According to the 2020 Edelman Trust Barometer undertaken prior to the COVID-19 lockdown, 62% of Canadians indicated that the pace of change in technology is too fast. Three-quarters worried about losing their jobs. The principal threats identified were the freelance or “gig economy” (56%), lack of training or skills (50%), and automation (45%).¹¹

Headline-getting analysis published in 2013 forecast that 47% of American jobs were “susceptible to automation”, meaning that “they are potentially automatable from a technological point of view, given the latest computer-controlled equipment and sufficient relevant data for the algorithm to draw upon”.¹² Subsequently, a more cautious 2018 OECD analysis estimated that 14% of jobs were at risk of being replaced on average among member countries, with another 32% being at risk of significant

⁸ Piketty, Thomas, “Capitalism and Ideology”, 2020.

⁹ Oxfam International, Press Release, “Over 80 Millionaires Around the World Call for Higher Taxes on the Richest to Help COVID-19 Global Recovery” (with attached letter and list of signatories), July 13, 2020. (Three Canadians signed the letter: Claire and Sylvie Trottier and Barbara Clayton, directors of the Montreal-based Trottier Family Foundation and daughters of Lorne Trottier, co-founder of Matrox which produces video card components and equipment for computers.

¹⁰ Resource Movement Media Statement, “Resource Movement reiterates its call for a federal Wealth Tax”, November 5, 2020

¹¹ 2020 Edelman Trust Barometer: Canada, February 2020.

¹² Frey, Carl Benedikt, and Michael Osborne, “The Future of Employment: How Susceptible Are Jobs to Computerization?”, September 17, 2013.

change. The OECD report's prediction for Canada was close to these averages.¹³ The OECD had identified inequality as a serious economic and political problem in 2015.¹⁴

A major Massachusetts Institute of Technology (MIT) Task Force on the Work of the Future, initiated by the MIT President, L. Rafael Reif, presented its final report in November 2020, "Building Better Jobs in an Age of Intelligent Machines". The report found that decades of technological change have polarized the earnings of the American workforce, helping highly educated white-collar workers thrive, while hollowing out the middle-class. Yet, the report concludes, present-day advances like robots and Artificial Intelligence do not spell doom for middle-tier or lower-way workers, since innovations create jobs as well. What is at issue, according to the report, is how to improve the quality of jobs, particularly for middle- and lower-wage workers, and to ensure there a greater shared prosperity than the US has seen in recent decades.¹⁵

The COVID-19 pandemic will further accelerate change and transform organizations, given its unprecedented impact on workplaces, roles, learning, mental health, organizational culture, the ability to travel, and interpersonal relationships.

Most recently, as a follow through to its earlier analysis, the OECD has undertaken a retrospective examination of what has actually happened to jobs at risk of automation over the past decade across 21 countries. The conclusions of the study do not find support for net job destruction at the broad country level. At the level of individual occupations, however, employment growth has been much lower in jobs at high risk of automation (6 percent) than in jobs at low risk (18 percent). Looking ahead, the report sees the risk of automation increasingly falling on low-educated workers. Moreover, the OECD says, the COVID-19 crisis may have accelerated automation.¹⁶ In other parallel analysis regarding the potentially significant impact of Artificial Intelligence (AI) on job loss, the OECD says the empirical evidence based on AI adoption over the last decade does not yet provide indications of declines in overall employment and wages in occupations exposed to AI. Nonetheless, the OECD believes that AI is likely to reshape the future work environment both positively and negatively.¹⁷

A growing feature of work has been the substantial shift in the labour market in Canada and elsewhere from stable or permanent employment to greater temporary or contracted work that characterizes the "gig economy". According to Statistics Canada, 2.1 million Canadians were working in temporary jobs in 2018, an increase of 50% over the previous two decades, compared to the 33% rise in permanent employment.¹⁸ The precariousness of this genre of work is highlighted by the disproportionate levels of job loss among temporary workers as a result of COVID-19. The downsides are also illustrated in the legal and legislative battles over the status of Uber and Lyft drivers – whether they are "employees" entitled to benefits or not. Still, a significant – if not clearly enumerated – proportion of temporary workers consciously choose to establish their own offerings and seek their own business relationships,

¹³ Nedelkoska, Ljubica, and Glenda Quintini, Organization for Economic Cooperation and Development (OECD), "Automation, Skills Use and Training", Social, Employment and Migration Working Paper 202, March 8, 2018.

¹⁴ OEDC, "In It Together: Why Less Inequality Benefits All", OECD Publishing, Paris, May 21, 2015.

¹⁵ Massachusetts Institute of Technology (MIT) Task Force on Work of the Future, "The Work of the Future: Building Better Jobs in an Age of Intelligent Machines", November 2020 Final Report

¹⁶ Georgieff, Alexandre, and Anna Milanez, Organization for Economic Cooperation and Development (OECD), "What happened to jobs at high risk of automation?", Social, Employment and Migration Working Paper, No 255, January 25, 2021.

¹⁷ Lane, Marguerita, and Anne Saint-Martin, Organization for Economic Cooperation and Development (OECD), "The impact of Artificial Intelligence on the labour market: What do we know so far?", Social, Employment and Migration Working Paper, No 256, January 21, 2021.

¹⁸ Statistics Canada, "Temporary Employment in Canada", May 14, 2019.

often as a means to control their own destinies. For many of these workers, technology has increasingly influenced and enabled their “gig” work, including through app and web-based matching platforms.

Which of the Previous Industrial Revolutions Will the Fourth Replicate?

Viewed through a historical lens, leading economists have asked whether the technological impact on the workforce today of the Fourth Industrial Revolution (Industry 4.0) which is widely believed to be underway, accompanied by the rise of the “intangible economy”,¹⁹ will cause workplace dislocation more like the First Industrial Revolution (1800 to 1840) when the new technologies were predominantly labour replacing breakthroughs which caused disruptive and extensive unemployment, wage stagnation and growing inequality; or whether it will mirror the more moderate shifts associated with the 20th Century’s Second and Third Industrial Revolutions which largely involved technologies of the labour enabling sort.²⁰ The latter type of technologies tend to enhance workers productivity, therefore making them deserving of better pay. Though the adoption of these new technologies in the last Century did displace some workers, the extended periods of dislocation which can breed widespread personal hopelessness or distress were averted.²¹

Inequality and Economic Growth

Rising income inequality results in lower economic growth in advanced economies, according to research by World Bank economists. Using increases in the Gini coefficient as the indicator for rising inequality, the researchers found a long-run correlation with the level of GDP per capita.²² The Washington, D.C. based Economic Policy Institute estimated in a 2017 paper that rising inequality in the US had slowed growth in aggregate demand by two to four percentage points of GDP annually in prior years.²³ A recent World Economic Forum report also finds that higher social mobility, which allows more rapid movement up the socio-economic ladder, is linked to lower levels of inequality.²⁴ Future of work strategist and author, Heather McGowan, sees income inequality not simply being a question of fairness, as a loss of human potential.²⁵

Inequality and the Future of Capitalism

Public debate about income inequality puts a spotlight on the future of capitalism that can place capitalism’s advocates on the defensive. The 2020 Edelman Trust Barometer for Canada found that 47% of Canadians believe capitalism, as it exists today, does more harm than good in the world. Trust fell

¹⁹ Haskel, Jonathan, and Stian Westlake, “Capitalism Without Capital: The Rise of the Intangible Economy”, Princeton University Press, 2019, and Asselin, Robert, and Sean Speer, Public Policy Forum, “A New North Star: Canadian Competitiveness in an Intangible Economy”, April 2019.

²⁰ The First Industrial Revolution adopted steam to mechanize production. The Second used electric power to create mass production. The Third applied electronics and information technologies to automate production. The Fourth, building on the Third, is characterized by a fusion of technologies that blurs the lines between physical, digital and biological spheres.

²¹ Frey, Carl Benedikt, “The Technology Trap: Capital, Labor, and Power in the Age of Automation”, 2019.

²² Lederman, Daniel, “How Does Income Inequality Affect Economic Growth”, World Economic Forum Platforms, July 9, 2015.

²³ Bevins, Josh, “Inequality is Slowing US Economic Growth: Faster Wage Growth for Low- and Middle-Wage Workers in the Solution”, Economic Policy Institute, December 12, 2017.

²⁴ World Economic Forum, “The Global Social Mobility Report 2020: Equality, Opportunity and a New Economic Imperative”, January 2020.

²⁵ McGowan, Heather E., “How the Coronavirus Pandemic is Accelerating the Future of Work”, Forbes Magazine, March 23, 2020.

across all sectors compared to the previous year – with consumer packaged goods, telecommunications, technology, financial services and fashion taking the biggest hits. Still, three-quarters of the Canadians agreed that a company can simultaneously increase profit while improving the communities in which it operates. Eighty-nine percent believed it is important for CEOs to speak out on societal issues such as income inequality, training for jobs of the future and climate change.²⁶

Inequality and Political Discontent

Inequality has been a contributing influence behind important manifestations of global political discontent over the past decade. Concern over entrenched income and wealth disparities are seen as being consequential considerations in the success of the Brexit cause in the UK, the election of Donald J. Trump, and the “Arab Spring” uprisings in the early 2010’s. During the US 2020 Democratic primaries, several prominent presidential challengers in the 2020 campaign made wealth and income inequality and its consequences a central party issues. Ambitious policy proposals were advanced to redress its manifestations – including wealth taxes, higher corporate tax rates, power sharing in corporate boardrooms, and greater tax rate progression.

What Are the Potential Societal, Policy, Business and Technology Responses?

What responses do the many manifestations of global inequality invite us to consider, articulate, debate and act upon?

And, in what areas related to inequality have we recently reached points where sustained pressure has been sufficiently compelling that meaningful changes can and will realized?

1. Personal Income and Wealth Inequality

Personal income and wealth inequality invites examination of how to stimulate innovation and reverse declining productivity increases and of governmental fiscal and monetary policy responses. The latter include engineering a post-COVID-19 “she-recovery”, introducing a universal basic income, increasing the minimum wage, greater income support for children, “gig” workers and seniors, making income tax more progressive, adopting wealth and inheritance taxes, limiting capital gains tax preferences, and constraining the use of tax havens. Many countries’ responses to COVID-19 were quickly-dispersing government income supports. What can be learnt from these? Where greater government spending may be involved, a fundamental question will be: What overall level of government debt is prudent? Has there been a perceptible shift in public attitudes, as some suggest, that would accept higher levels of government debt and government intervention?

2. National Income and Wealth Inequality

National income and wealth inequality is a product of the geography of the citizenship into which people were born. Development assistance programs offered by international organizations and the governments of developed countries too often fall short of the targeted giving levels. Innumerable non-governmental organizations (NGOs) and personal philanthropy complement official development assistance. Some broad gains have been made globally in raising incomes and mitigating inequality, but COVID-19 will almost certainly represent many steps backward that will need to be regained. Have we

²⁶ 2020 Edelman Trust Barometer: Canada, February 2020.

now moved into a period where more inward looking policies will lead to pull backs in foreign government aid to the developing countries and will result in borders being less open and more of a barrier? The national costs of countering COVID-19 will also fall heavily on developing countries whose indebtedness and financial challenges have grown.

3. Race, Religious, Gender and Other Inequities

Inequalities rooted in race, colour, religion, age, gender, disability and economic disparity have been starkly framed by high profile incidents and further highlighted by COVID-19's unequal impact. Public awareness and impatience has risen and been more sustained. There is a more widespread sense that there may be prospects for meaningful change. How likely are major changes? How will the prospects of success be maximized?

4. The Changing Nature of Work

The changing nature of work, which was already a growing factor, has been greatly accelerated by COVID-19. Pervasive digitalization which facilitates the automation of more and more complex routine tasks has been widespread and profound. The results include the displacement of classic "middle-class" jobs and an extended period of little or no income growth for less skilled workers. Tasks that involve cogitative skills are being challenged by Machine Learning and other rapidly advancing Artificial Intelligence (AI) applications, leaving observers to speculate on what the limits to technology replacing human effort may be and how fast it might be realized. Can humans continue to adapt fast enough? What changes are needed to ensure timely workforce and management reskilling? Do educational and training organizations and programs need radical reinvention?

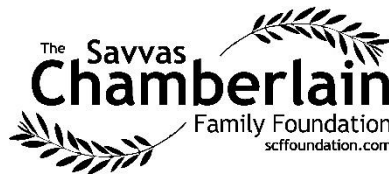
5. A Special Tech Sector Role?

Does the technology sector have a special responsibility, role and opportunity in addressing inequality? The tech sector is at the vanguard of the economic and technology change which has been unleashed and which has brought new business models and new regulatory, tax and employment challenges.

- Fast growing innovative firms are the major source of employment opportunities. They have an opportunity to be innovators in creating 21st Century organizations with workplaces which embrace high "Tech for Good" standards. These firms can develop and adopt proactive initiatives that will facilitate workforce and workplace adaption which takes account of the anticipated changing nature of work. This can include coalitions of peers to understand, prepare and assist employees, companies and educators to adapt to the influences that are radically shifting the nature of work. An example is the Communitech-led Waterloo Region Future of Work and Learning Coalition, a model which has attracted the interest nationally.
- New digitally-based companies scaleup globally with unparalleled speed, often leveraging digital platforms that rapidly add large numbers of new customers with marginal incremental cost and employment, swiftly dominating new business segments. The conduct and role of these fast moving new age enterprises – Alphabet, Amazon, Facebook, Netflix and Apple being leading edge examples – have raised policy questions about the need for greater oversight and regulation, actions to counter inequitable market power, and the need for new tax regimes that allow countries to equitably tax digital activity occurring within their borders.

- Technology can play a direct, prominent and positive role in answering workplace and workforce needs.
 - Technology can enable and hasten wider access to the reimagined and redesigned education, training, literacy enhancement, credentialing and lifelong learning which will allow people to successfully adapt to overcome potential inequities associated with the rapidly evolving and changing nature of work and workplaces.
 - Technology can enable programs to more efficiently match people and jobs and facilitate advancement and career shifts in the dynamic workplaces of the future.
 - Technology can be applied to talent sourcing and more robust, fairer and more efficient “gig economy” hiring and other employment models.
 - Technology can enhance human workplace performance, including for people with disabilities (e.g. companion robots).
- Tech can also be a power for global good – by promoting international development, alleviating global poverty, addressing and mitigating world health and environmental challenges, and promoting international peace and security through applications of new technologies which will contribute to these goals.

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About The Savvas Chamberlain Family Foundation: In 2011, Savvas Chamberlain founded [The Savvas Chamberlain Family Foundation](https://www.scffoundation.com/) in order to support community causes and projects in and around Waterloo Region and Ontario. One of the goals of the Foundation is to help to create a more civilized, gentle and caring Canada. The Foundation funds Canadian initiatives in health and welfare, education, the arts, culture, music and the environment. In particular, it focuses on helping Canada’s underprivileged.

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