LESS OTTAWA, MORE PROVINCE, 2021
How Decentralized Federalism Is Key to Health Care Reform

Steve Lafleur, Nathaniel Li, Ben Eisen, and Jason Clemens
Contents

Executive Summary / i
Introduction / 1
Federal Support for Provincial Health Care / 3
The State of Canada's Public Finances / 8
The State of Canadian Health Care / 12
What We Can Learn from Welfare Reform in the 1990s / 20
Conclusion / 30
References / 31

About the authors / 35
Acknowledgments / 36
Publishing information / 37
Supporting the Fraser Institute / 38
Purpose, funding, and independence / 38
About the Fraser Institute / 39
Editorial Advisory Board / 40
Executive Summary

A significant body of research suggests that Canada’s health care system consistently underperforms relative to most peer jurisdictions with universal health care systems. This underperformance continues despite the fact that Canada is one of the world’s leading age-adjusted per capita spenders on health care. As provincial governments work to address these challenges in the context of constrained resources, they face unsustainable public finances and rising debt.

This paper considers the extent to which governments across Canada can draw policy lessons from Canada’s past to improve the performance of the country’s health care system despite these fiscal challenges. More specifically, it examines the extent to which Canada’s experience with federal-provincial transfer reforms in the 1990s helped pave the way for social welfare program policy innovations and considers whether there are lessons that can be applied today to Canadian health care reforms.

During the 1990s, the federal government undertook a major reform of its approach to welfare and social assistance program financing. The federal government reduced transfers to the provinces but simultaneously removed several “strings” that had previously been attached to federal dollars and that prohibited certain types of policy reform. For instance, the reforms permitted the provinces to create work incentives which previously would have triggered the withholding of federal funds.

The reform of transfers in the 1990s led to a substantial period of policy innovation and reform in various provinces, with different governments pursuing various policy paths to improve their welfare programs, create solutions that addressed local problems, and helped bring down costs. These experiments were frequently successful, as they were followed by a marked decline in welfare dependency and government spending on public assistance.

Canada’s experience with welfare reform in the 1990s may provide important lessons for how Canada can begin to reform and improve its health care system. By reducing transfers while amending specific provisions of the Canada Health Act that inhibit reform, the federal government
can create policy space for the provinces to innovate and pursue policy reforms that could improve health care performance.

Such changes could allow for greater experimentation at the provincial level. For instance, provinces may choose to examine the introduction of cost-sharing arrangements used in most other countries with universal health care systems.

This paper does not prescribe specific reforms or weigh the advantages and risks of various options. Instead, based on Canada’s experience with welfare reform, it examines changes that could be made in the way health care is funded and overseen in Canada. Specifically, it looks at decentralizing revenue generation and decision-making powers to the provinces with the federal government permitting them maximum flexibility (within a portable and universal system) in regulating health care provision in ways that best suit the particular circumstances each faces and the preferences of their residents.
Introduction

COVID-19 has exacerbated two of the most important ongoing public policy challenges facing Canada: the deterioration of government finances and the underperformance of our health care system. The two problems are related as the cost of Canada’s inefficient health care system continues to grow over time, consuming a larger share of government resources and putting increasing pressure on public finances.

Providing health care services is the responsibility of provincial governments, but the policies of the federal government play a role in shaping how health care is financed and delivered across the country—and not always positively. Specifically, the Canada Health Act, established in 1984, governs the way the federal government transfers payments to the provinces (and territories) in support of health care, and uses the threat of financial penalties to discourage provinces from experimenting with policies and innovations. To date, the federal government has not withheld transfers due to noncompliance. However, the threat of withheld payments is almost certainly a constraint on provincial health policy action (Clemens and Esmail, 2012).

This study focuses on the challenges facing Canada’s health care system and the fiscal environment in which provincial governments across the country must face these challenges. Further, we consider policy options by which the federal government can alter its approach to fiscal transfers to help the provinces develop their own strategies for health care policy reform. More specifically, we examine lessons Canada should learn from the reforms enacted to social transfers in the 1990s, especially with respect to welfare and social services. We consider the extent to which the reforms to the social transfer system in that decade provide a template that can be followed to reform Canadian health care today.

The paper will first review how federal support for health care has evolved from the post-war era to the present day. It will then discuss the fiscal challenges currently facing provincial and federal governments across the country. Next, it will assess both the performance and the cost of the Canadian health care system. It will also summarize the reforms made to federal transfers for social programs during the 1990s and the subsequent experimentation and reforms that the various provinces
implemented to their welfare programs. Finally, with these lessons in mind, the paper will discuss policy options for reforming federal health care transfers to the provinces with the objective of stimulating provincial-level policy innovation.
Federal Support for Provincial Health Care

Health care has historically been interpreted as a provincial government responsibility because the original BNA act gave the provinces control over hospitals. Since then, this has been taken to mean that the provinces have authority over health care generally. While health care is a provincial responsibility under Canada’s Constitution, the federal government has long been actively involved in health care funding and, through such funding, in regulating the provision of health care. Specifically, the federal government has maintained a policy of assisting provincial governments finance their health care systems through annual transfers in return for them adhering to the terms and conditions laid out in the Canada Health Act.

The structure of federal health transfers to the provinces has changed several times in important ways since the creation of the modern welfare state during the post-war era. In the 1950s and 1960s, federal transfers to the provinces for health services were primarily provided on a cost-sharing basis. Passage of the Hospital Insurance and Diagnostic Services Act in 1957 and the Medical Care Act in 1966 entrenched the practice of federal cost sharing for health care services—namely, physicians and hospital facilities. This changed with the introduction of a block-grant program known as Established Program Funding (EPF) in 1977 to provide federal funding to the provinces for health care. The EPF was divided between a tax-point transfer and a cash transfer to the provinces (Health Canada, 2012).

The shift away from cost-sharing arrangements towards block grants has been one of the most important ways in which Canada’s system of federal transfers to the provinces has evolved. Under cost-sharing programs, provinces faced an incentive to spend more because additional spending resulted in larger grants from the federal government (Eisen, Lammam, and Ren, 2016). Furthermore, the cost-sharing arrangements put significant pressure on the finances of the federal government, which was responsible for 50 percent of health care spending increases at the provincial level but had no direct input on spending decisions. In short, by eliminating the incentive for provinces to increase health care spending,
the move to block grants ameliorated the incentive problems that plagued the cost-sharing approach.

The EPF (which was also used to fund post-secondary education) and the Canadian Assistance Plan (for social welfare funding) were eliminated and replaced with the Canada Health and Social Transfer (CHST) during the resolution of the federal fiscal crisis of the 1990s. The CHST was a block-grant program intended to help provinces fund health care, post-secondary education, and social assistance. When the EPF and CAP were merged into the CHST, the cash portion of the grant was reduced by approximately one third. Unlike the previous arrangement, the block grants were a flat transfer unaffected by provincial spending levels.

In 2004/05, the CHST was split into two parts: the Canada Health Transfer (CHT) and Canada Social Transfer (CST). The Canada Health Transfer remains the primary mechanism through which the federal government assists the provinces in financing health care services.¹ Under the Canada Health Transfer, all provinces receive equal per-capita transfers in nominal terms, meaning no adjustments are made for demographic differences or for differences in the purchasing power of a dollar across provinces (Crowley and O’Keefe, 2006) (table 1).

---

¹ Some provinces also receive considerable federal support through the equalization program, which is also available for health spending.
In social policy, a second benefit of the transition away from cost-sharing arrangements and towards block grants has been an enhancement of the provinces’ ability to innovate and develop new strategies to improve program delivery, develop more effective solutions to policy problems, and reduce costs. This has occurred because the federal government has generally removed “strings” that were attached to cost-sharing transfers for social welfare programs when these transfers were converted to block grants.

There has not, however, been a similar wave of policy innovation with respect to health care. To be sure, there have been some changes and innovations, such as British Columbia’s reforms to its public drug care reimbursement system. Nevertheless, there has been substantially less large-scale innovation in the health care policy area than change related to social assistance in the 1990s.

One primary reason for the relative policy inertia surrounding health care is that in 1984, the federal government enacted the Canada Health Act (CHA), which was an extension of previous federal laws related to provincial financing for health care. It set the terms and conditions upon which EPF funding would be contingent and created provisions for withholding transfers if they were not met. The CHA set the terms and conditions under which provincial governments receive federal health transfers; they remained in place when the EPF was replaced by the CHST, and they remain in place to this day.

Clemens and Esmail (2012) argued that, of the 23 sections that constitute the CHA, some may pose significant barriers to the introduction of the sorts of policies routinely found in other countries with successful universal health care systems. For example, of the commonly cited five principles outlined in sections 8 to 12 (see table 2 for an overview), section 8 (public administration) disallows multiple insurers; section 10 (universality) disallows individually tailored insurance plans; and the ambiguity of the wording in section 12 (accessibility) can be interpreted to disallow parallel health care, private for-profit ownership of hospitals, and dual practice for medical practitioners. Perhaps most significantly, sections 18 to 21 (in concert with section 12) explicitly disallow user charges and extra billing. Collectively, these terms and conditions represent a barrier to the reform of health care policy at the provincial level and, therefore, have had the effect of maintaining general homogeneity in Canadian health care policy.

Clemens and Esmail (2012) do note, however, that provinces have not pursued a number of policies that are not clearly and explicitly disallowed by the CHA but that could be determined to be disallowed according to certain interpretations and readings of the text.

That is, their freedom to serve patients both in the public and private health care systems.
Table 2: Summary of Key Canada Health Act Provisions

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 8: Public Administration</td>
<td>Requires that the health insurance plan of each jurisdiction must be administered and operated by a public authority that is accountable to the government on a not-for-profit basis.</td>
</tr>
<tr>
<td>Section 9: Comprehensiveness</td>
<td>Mandates that all “medically necessary” health services are covered by provincial/territorial health plans.</td>
</tr>
<tr>
<td>Section 10: Universality</td>
<td>Requires 100 percent of insured services to be covered by provincial health plans.</td>
</tr>
<tr>
<td>Section 11: Portability</td>
<td>Requires that residents are entitled to full coverage when they relocate from one province to another, and when traveling within Canada.</td>
</tr>
<tr>
<td>Section 12: Accessibility</td>
<td>Requires provincial health plans to provide “reasonable access” to insured services. Specifically, it forbids additional charges to patients for insured services.</td>
</tr>
<tr>
<td>Sections 18-21: Extra Billing and User Fees</td>
<td>These sections prohibit user-fees for insured medical services. The penalty provisions require dollar-for-dollar deductions from federal transfer payments for all revenue collected through extra billing or user fees. The penalty provisions also provide for discretionary financial penalties for non-compliance with the acts five criteria.</td>
</tr>
</tbody>
</table>

Source: Clemens and Esmail, 2012: 3-4.

...care policy. They effectively prohibit provinces from pursuing a number of policy reforms that have already been successfully implemented in other developed countries with universal health care systems.4

The Canada Health Transfer (CHT) is a major source of revenue for all provinces (a total of $41.8 billion in 2020/21), to the point that the prospect of losing these transfers makes it impractical for provinces to pursue meaningful policy reform that carries a risk of being deemed non-compliant with the CHA.

Since the post-war period, the precise structure of federal health transfers to the provinces has changed on numerous occasions, leading to the present arrangements under which the federal government helps finance

---

4 For discussions of how the CHA obstructs policy reform and how various amendments to the Act could enable greater policy innovation, see Esmail and Walker (2008) and Clemens and Esmail (2012). For examples of universal health care systems that do allow for-profit hospitals and insurers, see Barua and Esmail (2015). For examples of universal health care systems that employ cost-sharing (copayments, user-fees, deductibles), see Globerman (2016).
provincial health care programs through the CHT, contingent upon the provinces complying with the Canada Health Act. Unfortunately, these arrangements are, in several important respects, not serving Canadians well.

More specifically, there are two major problems that have either emerged as a result of, or been exacerbated by, the current system of federal transfers. The first of these is that as the population ages, almost all projections suggest that health care costs across the country will rise significantly. Recent research projects substantial growth in age-related health care spending in the years ahead.\(^5\)

Second, a significant body of evidence suggests that, despite sustained spending growth, Canada’s health care system is underperforming relative to peer countries with universal health care. The constraints imposed by the Canada Health Act and the resulting of health care policy inertia have been identified as potentially important contributors to the relatively weak performance of the Canadian health care system (Clemens and Esmail, 2012). The following two sections discuss these challenges in turn, demonstrating the need for policy reform.

---

\(^5\) See Barua, Palacios, and Emes (2016), Fuss and Globerman (2021), and Tombe (2020) for more detailed discussions.
The State of Canada’s Public Finances

The federal government

Sound public finances are crucial to the long-term provision of important social programs such as health care. Any discussion of the cost and sustainability of health care spending should include consideration of the state of public finances in Canada. More specifically, health care policy making must be informed by the fiscal context in which decisions must be made, particularly given that health spending consumes a large share of all provincial government spending in every province in the country.

The federal government ran a historic deficit equivalent to 16.1 percent of Canada’s GDP in 2020/21, and it forecasts another deficit of 6.4 percent of GDP in 2021/22, which would still be larger than any deficit during the period of severe fiscal challenges in the early 1990s (Budget 2021). The federal net-debt-to-GDP ratio increased from 31.2 percent of GDP to 48.9 percent of GDP since the onset of the recession and there are no plans to balance the budget in the near term. One recent analysis by the Parliamentary Budget Office projected that under current policy and fiscal trajectory, Ottawa will continue to run deficits until 2070 (Parliamentary Budget Office, 2021).

It is important to recognize that in the future, growing health care costs and, specifically, increases in the Canada Health Transfer (CHT) will contribute to the fiscal pressure facing the federal government and will increase the federal debt. Figure 1 shows both the growth in the CHT and in program spending less the CHT from 2010/11 to 2019/20. We have excluded fiscal year 2020/21 because of the effect of emergency COVID spending. During the period in question the CHT increased by 57 percent. By comparison, all other program spending combined (excluding the CHT) increased by 40 percent.

The data shown in figure 1 demonstrate that growth in the CHT has been a source of pressure on federal finances over the past decade.

---

6 Clemens and Palacios (2021) note that Canada’s net debt is greater than stated if excluding certain assets that some other countries do not consider in net debt calculations.
Provincial governments

While the federal government faces fiscal challenges, provincial finances are in a more precarious state. An examination of provincial finances demonstrates that increasing health care costs are a major contributing factor to the financial pressure they face. These realities raise important questions about the sustainability of our current approach to health care financing and delivery, and highlight the need for reform. Figure 2 shows the growth of provincial-level government debt in Canada between 2010/11 and 2019/20. While this does not take into account the sharp growth in debt incurred since the onset of the pandemic, it shows that debt was increasing at the provincial level even before COVID. We have excluded data for 2020/21 and projections for 2021/22 because of the unique circumstances surrounding the COVID pandemic and resulting recession.

Figure 2 shows that deficits over the past decade have taken a significant toll on each province’s financial position. In 2010/11, the total net debt for all provinces amounted to $436 billion. By 2019/20 it had ballooned to $693 billion—an increase of roughly 59 percent. The rapid increase in provincial deficits and the related run-up in provincial net debt in 2020/21 exacerbated existing challenges, but these challenges predated the recession; the provinces face significant long-
Two recent analyses have independently confirmed that provincial finances are currently unsustainable. This means that in the absence of policy change provincial-level debt-to-GDP will increase over the long-term.

The deterioration of provincial finance is concerning as it means, all else equal, interest costs will represent a growing burden on taxpayers across the country.

The extent of the fiscal challenges varies from province to province, but all face long-term fiscal pressure. One of the most important reasons for these challenges is growth in health care spending and the expectation of future pressure on health care costs from the aging population. Health care is the largest expense for every provincial government in the country and spending on it has significantly outstripped provincial spending growth in other budget areas in recent years. As a result, the share of provincial budgets dedicated to health care is on the rise. Figure 3 shows health care spending as a percentage of total program spending in each province in 2019/20. We use 2019/20 for this analysis because of the distorting

---

Figure 2: Aggregate Provincial Net Debt, 2010/11 to 2019/20


---

See Parliamentary Budget Officer (2021) and Finances of the Nation Simulator (2021).
As figure 3 shows, health spending consumed well over a third of program spending in every province in 2019/20. That ranged from a low of 36.7 percent in Quebec to a high of 46.6 percent in Nova Scotia. Primarily due to population aging, health care expenses are forecasted to consume an increasingly larger share of provincial budgets. The anticipated growth in health spending is the most important cause of the unsustainability of provincial finances described above (PBO, 2021).

Without reform, this could lead to less spending on other policy priorities, greater debt, and/or higher taxes in the future. Given that health care budgets already consume such a large share of provincial budgets, reforming health care spending will be crucial to ensuring the fiscal health of Canada’s provincial and federal governments.
The State of Canadian Health Care

Forecasts of population aging and related increases in health care spending by provincial governments will continue to put pressure on finances in Canada, and is the most important contributing factor responsible for the unsustainability of provincial government finances. These facts raise important questions about the sustainability of our current approach, and suggest the need for policy reform to make Canadian health care spending more sustainable in the medium and long term. However, the pressure that rising health care spending is placing on provincial budgets is not the only evidence that points to the need for meaningful reform. Also important is the fact that, despite what by international standards are high levels of spending on health care, Canada's health care system underperforms relative to several other countries with universal health care systems. This section examines the current state of health care performance in Canada in relation to high and growing health spending.

When attempting to measure the performance of our health care system, it is essential to consider the costs of maintaining that system. It is not meaningful to either “define higher national levels of spending on health as negative without considering the benefits” (Rovere and Skinner, 2012: 15) or, conversely, to define a health system with higher levels of benefits as positive without considering the costs. Two measures that can help explain the relative differences in the amounts of money spent by different countries on health care. The first is health care expenditure as a percentage of GDP. As Esmail and Walker note, this indicator “controls for the level of income in a given country and shows what share of total production is committed to health care expenditures” (2008: 17). Such a measure also helps avoid potentially “flawed comparisons with low spending in less developed OECD countries... while also not overvaluing high expenditures in relatively rich countries” (2008: 17). As figure 4 shows, out of 28 countries Canada ranks third highest in terms of age-adjusted health care expenditure as a percentage of GDP.

A second measure of the relative differences between the amount of money spent by countries on health care is the health care expenditure per capita adjusted for comparison using purchasing power parity (PPP). While there are some important theoretical concerns about the reliability
of international comparisons using data reliant on PPP, there are a number of benefits as well. Apart from being conceptually more straightforward, how countries rank on this indicator is far less susceptible to short-term fluctuations in GDP. According to table 3, Canada ranks fifth highest of the 28 universal health care countries examined in terms of age-adjusted health care expenditures per capita. Clearly, the indicators examined above show that Canada spends more on health care than the majority of high-income OECD countries with universal health care.\(^8\)

Also of great importance is the fact that, despite what are high levels of spending on health care by international standards, Canada’s health care underperforms across a number of indicators relative to most other universal health care systems around the world.\(^9\)

This section provides an overview of recent comparative international research on health care performance to demonstrate the weakness of the Canadian system in a number of important areas and, therefore, the need for policy reform. It is useful to compare the performance of different countries’ health care systems, as well as the amount of money they spend on health care. Using this “value for money” approach, Barua and Moir (2020) compare the cost and performance of 28 universal health care systems in high-income countries using 42 indicators measuring 1) the expenditure on health care (the cost) and 2) the availability of health care resources, their use, access to those resources, and clinical performance and quality. A summary of their findings is presented below.\(^10\)

**Availability of resources**

Human resources are often considered “the most important of the health system’s inputs [and] usually the biggest single item in the recurrent budget for health” (WHO, 2000: 77). At the same time, services cannot be effectively delivered without physical capital such as hospitals, beds, and equipment.

---

\(^8\) This analysis focuses on countries with universal health care systems. The United States is excluded for this reason.

\(^9\) When speaking of the Canadian health care “system,” it is important to note that delivery of health care is a provincial responsibility, and there are some differences among provincial health care systems, both in how programs are delivered and outcomes.

\(^10\) The text and tables presented in this section are, with the permission of the authors, drawn directly from or slightly modified from the text and figures shown in (Barua and Moir, 2020).
Table 3: Health Care Spending, 2019, Age-Adjusted

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage of GDP</th>
<th>Rank</th>
<th>Per Capita</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>10.27481</td>
<td>9</td>
<td>5366.771</td>
<td>11</td>
</tr>
<tr>
<td>Austria</td>
<td>10.41923</td>
<td>8</td>
<td>5697.025</td>
<td>6</td>
</tr>
<tr>
<td>Belgium</td>
<td>10.64391</td>
<td>6</td>
<td>5450.674</td>
<td>9</td>
</tr>
<tr>
<td>Canada</td>
<td>11.26683</td>
<td>2</td>
<td>5579.845</td>
<td>8</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>7.635233</td>
<td>24</td>
<td>3330.352</td>
<td>22</td>
</tr>
<tr>
<td>Denmark</td>
<td>9.731804</td>
<td>14</td>
<td>5354.219</td>
<td>12</td>
</tr>
<tr>
<td>Finland</td>
<td>8.34598</td>
<td>19</td>
<td>4156.561</td>
<td>17</td>
</tr>
<tr>
<td>France</td>
<td>10.69731</td>
<td>5</td>
<td>5077.432</td>
<td>14</td>
</tr>
<tr>
<td>Germany</td>
<td>10.75671</td>
<td>4</td>
<td>5994.037</td>
<td>4</td>
</tr>
<tr>
<td>Greece</td>
<td>7.098787</td>
<td>25</td>
<td>2100.259</td>
<td>27</td>
</tr>
<tr>
<td>Iceland</td>
<td>9.872937</td>
<td>13</td>
<td>5233.558</td>
<td>13</td>
</tr>
<tr>
<td>Ireland</td>
<td>7.721558</td>
<td>22</td>
<td>5876.677</td>
<td>5</td>
</tr>
<tr>
<td>Israel</td>
<td>9.196432</td>
<td>15</td>
<td>3578.747</td>
<td>19</td>
</tr>
<tr>
<td>Italy</td>
<td>7.638732</td>
<td>23</td>
<td>3219.212</td>
<td>23</td>
</tr>
<tr>
<td>Japan</td>
<td>8.222773</td>
<td>21</td>
<td>3495.228</td>
<td>21</td>
</tr>
<tr>
<td>Korea</td>
<td>9.182688</td>
<td>16</td>
<td>3831.282</td>
<td>18</td>
</tr>
<tr>
<td>Latvia</td>
<td>6.381652</td>
<td>27</td>
<td>1978.414</td>
<td>28</td>
</tr>
<tr>
<td>Lithuania</td>
<td>6.785831</td>
<td>26</td>
<td>2641.485</td>
<td>26</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>6.171607</td>
<td>28</td>
<td>6221.571</td>
<td>3</td>
</tr>
<tr>
<td>Netherlands</td>
<td>10.05811</td>
<td>12</td>
<td>5678.853</td>
<td>7</td>
</tr>
<tr>
<td>New Zealand</td>
<td>10.07687</td>
<td>11</td>
<td>4679.931</td>
<td>15</td>
</tr>
<tr>
<td>Norway</td>
<td>11.03176</td>
<td>3</td>
<td>7072.05</td>
<td>2</td>
</tr>
<tr>
<td>Portugal</td>
<td>8.684958</td>
<td>18</td>
<td>3050.287</td>
<td>25</td>
</tr>
<tr>
<td>Slovenia</td>
<td>8.256127</td>
<td>20</td>
<td>3199.657</td>
<td>24</td>
</tr>
<tr>
<td>Spain</td>
<td>8.981001</td>
<td>17</td>
<td>3540.746</td>
<td>20</td>
</tr>
<tr>
<td>Sweden</td>
<td>10.5778</td>
<td>7</td>
<td>5377.463</td>
<td>10</td>
</tr>
<tr>
<td>Switzerland</td>
<td>11.41347</td>
<td>1</td>
<td>7215.491</td>
<td>1</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>10.23287</td>
<td>10</td>
<td>4535.095</td>
<td>16</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>9.191349</td>
<td></td>
<td>4590.461</td>
<td></td>
</tr>
</tbody>
</table>

Source: Barua and Moir, 2020; OECD, 2021; calculations by authors
As table 4 shows, out of 28 countries, Canada ranks 26th for physicians, 14th for nurses, 25th for curative (acute) care beds (out of 26), and 24th for psychiatric care beds per thousand population on an age-adjusted basis.

Research also suggests that medical technology plays a significant role in improving the efficiency of medical services, ultimately benefiting patients while reducing health care expenditures over time (Or et al., 2005). For example, medical technologies such as new diagnostic equipment and innovative surgical and laboratory procedures improve the efficiency of hospitals and increase the comfort and safety of patients (Esmail and Wrona, 2009).

Table 4 indicates that Canada ranks 21st (out of 24) for MRI units, 22nd (out of 26) for CT scanners, 17th (out of 24) for PET scanners, 3rd (out of 23) for gamma cameras and 14th (out of 21) for mammographs, on an age-adjusted basis.

Taken together, these data demonstrate that Canada has substantially fewer human and capital medical resources than many peer jurisdictions that spend comparable amounts of money on health care.

### Use of resources

While measuring the availability of medical resources is valuable, it does not provide us with information about their use. In order to get a better
idea of the quantity of health-related goods and services provided by different countries (in the context of health care expenditures), we examine indicators measuring the number of doctors’ consultations per capita, hospital discharge rates\footnote{The OECD (2015b: 106) defines hospital discharge rates as “... the number of patients who leave a hospital after staying at least one night” including “… deaths in hospital following inpatient care.” The OECD (2015b) notes a number of methodological differences between countries for this indicator (for example, same-day surgeries are included in Chile and the Slovak Republic, while healthy babies born in hospitals are excluded in several countries like Australia, Austria, Canada, Chile, Estonia, Finland, Greece, Ireland, Luxembourg, Mexico, Spain).} per hundred thousand population, MRI exams per thousand population, and CT scans per thousand population.

Table 5 shows that Canada ranks 12th (out of 26) for doctor consultations per 100 population, 27th (out of 27) for hospital discharge rates per 100,000 population, 17th (out of 22) for MRI exams per thousand population, and 13th (out of 22) for CT scans per thousand population, on an age-adjusted basis.

While Canada ranks close to the average of high-income OECD countries with universal health care for the rate of doctor consultations and CT scans, it performs poorly on other indicators. In particular, Canada reports the least degree of hospital activity (as measured by curative-care discharges)\footnote{The OECD (2015b) notes that “[h]ospital activities are affected by a number of factors, including the capacity of hospitals to treat patients, the ability of the primary care sector to prevent avoidable hospital admissions, and the availability of post-acute care settings to provide rehabilitative and long-term care services.” It is useful to reiterate that they are examined here simply as an indicator of the use/provision of health care services in the context of health care spending.} per hundred thousand population.

\begin{table}[h]
\centering
\caption{Use of Health Care Resources (Age-Adjusted), 2019 or Most Recent}
\begin{tabular}{lcc}
\hline
 & Data & Rank \\
\hline
Doctor consultations (per capita) & 6.857346 & 12 (out of 26) \\
Curative care discharge rates (per 100,000) & 8514.641 & 27 (out of 27) \\
MRI exams (per 1,000) & 64.41749 & 17 (out of 22) \\
CT exams (per 1,000) & 149.8226 & 13 (out of 22) \\
\hline
\end{tabular}
\end{table}

Source: Barua and Moir, 2020; OECD, 2021; calculations by authors.
Quality and clinical performance

When assessing indicators of availability of, access to, and use of resources, it is critical to also include some measure of quality and clinical performance.\(^\text{13}\) Canada’s rank on indicators measuring quality and performance in the areas of primary care, acute care, mental health care, cancer care, and patient safety are presented in table 6 and discussed below. While lower rates are preferable for certain indicators, the performance of countries on each indicator are ordered such that a rank of 1 indicates superior performance on all indicators.

Primary care

Canada is tied for last place (ranking 19th out of 24) for performance on the indicator measuring the rate of diabetes-related lower extremity amputation, which is statistically worse than the average range for the OECD countries included for comparison.

Acute care

Canada ranks 6th (out of 22) for the rate of hip-fracture surgery initiated within 48 hours after admission to the hospital. Canada ranks 17th (out of 27) for performance on the indicator measuring 30-day mortality after admission to hospital for a hemorrhagic stroke (not statistically different than the average), and 17th (out of 27) for performance on the indicator measuring 30-day mortality after admission to hospital for an ischemic stroke (not statistically different than the average).

Mental health care

The OECD reports a rate of 0.06 percent for in-patient suicides among patients diagnosed with a mental disorder in Canada. This performance ranks Canada 12th (out of 18). However, the rate is not statistically significantly different than the average.

\(^\text{13}\) These indicators are different from those that measure the health status of the population (like life expectancy) which can be influenced to a large degree by non-medical determinants of health (lifestyle choices, environmental factors, genetic features, etc.) that lie outside the purview of a country’s health care system and policies. See Barua (2013) for more explanation.
### Table 6: Quality and clinical performance

<table>
<thead>
<tr>
<th>Condition</th>
<th>Data</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes lower extremity amputation (Age-sex standardized rate per 100,000 population; 15 years old and over)</td>
<td>6.9 w</td>
<td>19 (out of 24)</td>
</tr>
<tr>
<td>Hip-fracture surgery initiated within 48 hours after admission to the hospital (Crude rate per 100 patients; 65 years old and over)</td>
<td>93.1</td>
<td>6 (out of 22)</td>
</tr>
<tr>
<td>Admission-based AMI 30 day in-hospital mortality (Age-sex standardized rate per 100 patients; 45 years old and over)</td>
<td>4.6 b</td>
<td>9 (out of 27)</td>
</tr>
<tr>
<td>Admission-based Hemorrhagic stroke 30 day in-hospital mortality (Age-sex standardized rate per 100 patients; 45 years old and over)</td>
<td>23.6 a</td>
<td>17 (out of 27)</td>
</tr>
<tr>
<td>Admission-based Ischemic stroke 30 day in-hospital mortality (Age-sex standardized rate per 100 patients; 45 years old and over)</td>
<td>7.5 a</td>
<td>17 (out of 27)</td>
</tr>
<tr>
<td>In-patient suicide among patients diagnosed with a mental disorder (Age-sex standardized rate per 100 patients; 15 years old and over)</td>
<td>0.06 a</td>
<td>12 (out of 18)</td>
</tr>
<tr>
<td>Breast cancer (five year net survival, 2010-2014, female, 15 years old and over, age-standardized survival %)</td>
<td>88.6 b</td>
<td>5 (out of 26)</td>
</tr>
<tr>
<td>Cervical cancer (five year net survival, 2010-2014, female, 15 years old and over, age-standardized survival %)</td>
<td>67.3 a</td>
<td>11 (out of 26)</td>
</tr>
<tr>
<td>Colon cancer (five year net survival, 2010-2014, 15 years old and over, age-standardized survival %)</td>
<td>67 b</td>
<td>8 (out of 26)</td>
</tr>
<tr>
<td>Rectal cancer (five year net survival, 2010-2014, 15 years old and over, age-standardized survival %)</td>
<td>67.1 b</td>
<td>6 (out of 26)</td>
</tr>
<tr>
<td>Obstetric trauma vaginal delivery with instrument, 2019 (Crude rate per 100 vaginal deliveries, female, 15 years old and over)</td>
<td>16.3</td>
<td>20 (out of 20)</td>
</tr>
<tr>
<td>Obstetric trauma vaginal delivery without instrument, 2019 (Crude rate per 100 vaginal deliveries, female, 15 years old and over)</td>
<td>3.4</td>
<td>20 (out of 20)</td>
</tr>
</tbody>
</table>

**Notes:**
- **w** = statistically worse than average,
- **b** = statistically better than average,
- **a** = not statistically different than average.

Calculations by authors based on the upper and lower confidence intervals of each country in relation to the average upper and lower confidence intervals of all countries in each group.

**Source:** Barua and Moir, 2020; OECD, 2021; Commonwealth Fund, 2021; calculations by authors.
**Cancer care**

Canada ranks 5th (out of 26) on the indicator measuring the rate of 5-year breast cancer survival (statistically better than average), 11th (out of 26) for the rate of 5-year cervical cancer survival (not statistically different than the average), 8th (out of 26) for the rate of 5-year colon cancer survival (statistically better than average) and 6th (out of 26) for the rate of 5-year rectal cancer survival (statistically better than average).

**Patient safety**

Canada ranks 20th (out of 20) for its performance on the indicator measuring obstetric trauma during a vaginal delivery with an instrument, and 20th (out of 20) for its performance on the indicator measuring obstetric trauma during a vaginal delivery without an instrument.

While Canada does well on five indicators of quality (like rates of breast and colorectal cancer survival), its performance on the seven others are either no different from the average or in some cases worse (particularly for obstetric trauma and diabetes-related amputations).

**Summary**

Canada has one of the most expensive universal-access health care systems in the OECD. However, its performance in terms of availability and access to resources is generally worse than the average OECD country, while its comparative ranking in terms of use of resources and quality and clinical performance is mixed. The data presented above are supported by separate analyses from the Commonwealth Fund, which show that in several areas of health system performance Canada underperforms peer countries despite its high expenditure levels.

Clearly, there is an imbalance in the performance of our health care system given the relatively high amount spent on provincial health care systems. The question is how can we improve our health system performance and outcomes without spending more money to do so.
What We Can Learn from Welfare Reform in the 1990s

During the 1990s, Canada suffered a severe and growing dependency on welfare.14 In the wake of the recession of the early 1990s, by 1994, 10.7 percent of Canadians—a staggering 3.1 million people—were dependent on welfare (Eisen et al., 2016). Part of the challenge in changing this situation arose from the incentives created by federal fiscal transfers. Two major fiscal transfers funded provincial social programs at the time. The first was Established Program Financing (EPF), a block grant to provinces intended to fund post-secondary education and health care. The second, the Canada Assistance Plan (CAP), was a cost-shared program that paid up to half of the amount for provincial social programs. This created an incentive to spend more, since reducing expenditures would cost provincial governments matching funds. Allowing provinces to effectively get one dollar’s worth of social assistance spending for fifty cents of provincial tax revenue was a recipe for ever-increasing welfare spending and, indeed, this was the result.

Figure 4 shows the rapid increase in the number of social assistance beneficiaries in Canada—from nearly 1.3 million in 1975 to over 3 million in 1994, an increase of more than 100 percent over the course of two decades. During this period, the percentage of the population on social assistance nearly doubled from 5.5 percent to 10.7 percent. Crucially, fluctuations in social assistance rates due to the business cycle were not symmetrical. In other words, during economic downturns, the base of dependency—the number of Canadians living on social assistance—regularly increased but the increase was not temporary and failed to drop commensurately when the economy recovered. As a result, social assistance rates remained elevated beyond pre-recession levels in subsequent years.

The increase in social assistance rates took a significant toll on provincial finances. In 1981, social assistance absorbed 5 percent of provincial expenditures. That increased to 7 percent by 1994 (figure 5). The increased strain on provincial finances provided momentum for reform. As part of

---

14 The following two sections on welfare reform are based in large part, with the permission of the authors, on research presented in (Eisen et al., 2016). In several instances, text and various charts and figures are drawn directly from that paper.
the federal government’s plan to reduce its deficit, the 1995 budget restructured and reduced federal transfers to provincial governments for funding social programs. This unleashed a wave of innovation that allowed provincial governments to significantly reduce welfare dependency.

The most significant reform was the replacement of CAP and EPF with the Canada Health and Social Transfer (CHST). Under CAP, the federal government stipulated that provincial governments had to provide social assistance to all who demonstrated need while also prohibiting any requirements for recipients to work in order to receive welfare payments (Clemens, 2011). The CHST, on the other hand, was a block grant that did not contain cost-sharing provisions (Clemens, 2011), thus eliminating the perverse financial incentive tempting the provinces, but also had fewer “strings” attached. This led to reduced transfers to the provinces, but also

---

**Figure 4: Number of Welfare Beneficiaries, Including Dependents, and as Percentage of Population, 1975 to 1994**

Sources: Kneebone and White, 2014; Statistics Canada, 2016a.

---

15 These were perhaps the most important “strings” attached to federal transfers provided through the CAP but there were others, including requirements surrounding formal appeals processes for beneficiaries, specific accounting procedures, and residency requirements (Clemens, 2011).
more autonomy over use of the funds transferred, freeing the provinces to experiment with policy reforms at the provincial level.

Figure 6 shows that excluding the health component, EPF/CAP funding declined after 1995/96 as the federal government reduced the cash portion of the CHST block grant by approximately one third. When the CHST officially replaced EPF in 1997/98, the total was $4.1 billion lower than the combined EPF/CAP in the previous fiscal year. The result was an incentive for effective welfare reform across the provinces. Some examples follow.

**Examples of welfare reform**

Despite the autonomy given to provinces, some reforms were common: tighter eligibility rules, benefit reductions, administrative reforms, and an increased emphasis on diverting people able to work from welfare to employment. Crucially, the removal of the “strings” attached to funding under cost-sharing allowed provinces to set work requirements for welfare that were previously prohibited (Clemens, 2011). Eliminating national standards gave provinces the flexibility to experiment and arrive at best
practices. The reforms allowed provinces to tailor their welfare policies to meet their own specific challenges. Moreover, decentralizing revenue-generating responsibility for welfare programs also created better incentives for provinces to spend money more wisely. The results have been impressive. While there were common elements to the welfare reforms during this period, there were also significant variations as provinces experimented with new approaches. Alberta, Ontario, and British Columbia provide some of the most interesting case studies.

Alberta

Alberta was a welfare reform pioneer in Canada; as part of its efforts to reduce the province’s debt and deficit after the 1993 election, it actually began reforms before the 1995 budget introduced the CHST. Alberta’s government moved aggressively to channel prospective welfare recipients into employment, and worked to reduce fraud and abuse of the system. The province curtailed benefit rates and eliminated some supplemental benefits; it also turned to nongovernmental agencies to deliver some social services.\(^{16}\)

\[^{16}\text{See Kneebone and White (2009) for a detailed description of the results of welfare reform in Alberta and other provinces.}\]
Ontario
In 1998, the government of Ontario introduced its Ontario Works program, which both reduced welfare benefits and increased work requirements. The addition of work requirements was known to some as “workfare.” Welfare recipients were given three options: employment support, mandatory public-sector employment placements, and private-sector employment placements based on wage subsidies. Failure to participate in the program resulted in denial of benefits for three months. The province also pursued administrative reforms and the use of non-governmental agencies to assist in delivering some services (Clemens, 2011).

British Columbia
British Columbia was one of the last provinces to undertake large-scale welfare reform, which it began to do in 2001. Despite starting late, the province was the first to limit access to welfare, ending welfare as an entitlement and reverting to welfare structured as an insurance program (Clemens, 2011). The province limited welfare use to 24 months in a 60-month period for employable individuals. The limitation was not applied to several groups including single parents and those with disabilities. The province also placed a greater focus on diverting people from welfare into the workforce. It provided job assistance and training programs, and those deemed able to work were required to do so or face penalties. One particular example of the province’s diversion approach was Job Wave BC, a joint effort between the government and the Chamber of Commerce to “provide work placement, training, and assistance to those seeking employment” (Clemens, 2011: 42).

Results of welfare reform
Moving away from cost-sharing and reducing the value of transfers to provinces fundamentally changed the incentives of provinces in delivering social services. The move away from cost-sharing cut the strings that had allowed the federal government to impose national standards, which allowed for greater experimentation. The CHST gave the provinces the freedom to innovate and establish best practices for welfare policies. The results have been impressive.

Figure 7 shows that the number of Canadians receiving welfare declined from a peak of 3.1 million in 1994 to a low of 1.6 million in 2008 before increasing slightly to 1.9 million in 2012. The percentage of the population receiving welfare benefits declined from a high of 10.7 percent

17 This reform was later undone.
in 1994 to a low of 4.9 percent in 2008, and for the last available year of data (2014) was 5.2 percent—less than half the rate in 1994.

To be sure, improvements in the economy after 1995, including a booming export sector, contributed to the falling welfare caseloads. However, welfare reform initiatives were the most important factor in driving the results shown in figure 7. Kneebone and White (2009) have analyzed the causes of the reduction in welfare caseloads in several provinces and have shown that policy reforms significantly exceeded changing economic circumstances as the primary cause of falling welfare caseloads.

The drop in the number of welfare beneficiaries provided substantial relief to provincial treasuries even as the federal transfers they received had been decreased. Social assistance spending consumed 7 percent of all provincial spending in 1994, but that fell steadily beginning in 1996 until

---

**Figure 7: Number of Welfare Beneficiaries, Including Dependents, and as a Percentage of the Population, 1994 to 2014**

Notes:
“Beneficiaries” for 1975 through 2008 are from Kneebone and White, 2014; 2009 through 2012 are from Kneebone and White, 2014, with data for Prince Edward Island from Caledon Institute of Social Policy, 2015; 2013 and 2014 are from Caledon Institute of Social Policy, 2015; 2014 includes 2013 values for Saskatchewan and Alberta.

Sources: Kneebone and White, 2014; Caledon Institute of Social Policy, 2015; Statistics Canada, 2016a.
it reached a low of 3.9 percent in 2008, increasing slightly to 4.1 percent in 2009, the last year for which this data has been compiled.

While the reduction in welfare recipients is an important metric, it would be problematic if it had not been accompanied by an increase in employment. But that was not the case: welfare reform coincided with both an increase in employment and a decreased reliance on public benefits. The evidence suggests that the reforms of the 1990s achieved many of their objectives (Clemens, 2011).

**Policy option: Reforming the CHT and CHA**

Canada’s federal and provincial governments face significant fiscal pressures that will increase as health care costs consume an increasingly greater proportion of program spending. Moreover, poor performance relative to other universal health care systems suggests there are ways to improve our lagging health care system while reducing expenditures. In light of the fiscal challenges facing Canadian provinces, some analysts have recommended that the federal government should increase the annual growth in the CHT (Behro and Tombe, 2021). This approach, however, would not

---

**Figure 8: Welfare Spending as a Share (%) of Total Provincial Spending, 1981 to 2009**

Sources: Statistics Canada, 2016b, 2016c.
change the provinces’ inability to pursue policy innovations. An alternative approach would be to reform the system of health care finance to enable the provinces to pursue innovation.

Canada’s own history with welfare reform in the 1990s offers an alternative approach, which is to go in the opposite direction by significantly reducing per capita transfers to the provinces while also loosening the “strings attached” to transfers to allow greater scope for policy innovation and reform at the provincial level.

To make this option fiscally viable at the provincial level, it would have to be accompanied by federal tax reductions to create tax room into which the provinces could step in order to raise own-source revenues to cover more of the cost of their health services. To minimize possible disruption to Canada’s complex health system, the federal government may wish to vacate enough tax room that the provinces can replace reduced transfers dollar for dollar, thus allowing the provinces to fill the previous tax room without a net reduction in resources. This permanent transfer of income tax room from the federal government to the provinces is sometimes referred to as the transference of a “tax point.”

There is much to be learned from the welfare-reform policies that Canada enacted during the 1990s. When the federal government of the day decentralized decision-making about welfare and the responsibility for funding by reducing transfer payments and removing most conditions for receiving transfers, the provinces had an incentive to improve welfare.

Some elements of the transfer reform that took place for welfare have already been implemented for health care transfers. For example, the Canada Health Transfer (CHT) is already a block grant and not subject to cost-sharing provisions. However, other crucial dimensions of the welfare-transfer reforms of the 1990s have not yet been applied to health care. Specifically, the federal government has not created the conditions that would allow provincial innovation in health care policy by removing the “strings” attached to health care transfers. Indeed, this distinction between the two policy areas was made explicit in the federal 1995 Budget, which rolled the EPF and CAP into the CHST block grant:

Provinces will no longer be subject to rules stipulating that certain expenditures are eligible for cost-sharing and others are not. Provinces will thereby be free to pursue innovative approaches to social security reform without having to consider whether such approaches meet requirements for cost sharing ... Although provinces will be able to spend the transferred resources on priorities of their own choosing, the transfer will not be totally unconditional. No change will be made to the Canada Health Act. The government will continue to enforce
it by withholding funds, if necessary. (Canada, Department of Finance, 1995a: 53)

While the 1995 Budget removed harmful cost-sharing provisions and reduced the size of transfers, creating strong financial incentives for policy reform, it failed by not removing the “strings” attached to health care funding, to permit the provinces to actually pursue health care reform. This critical difference helps explain why Canada experienced a wave of policy innovation around welfare during the 1990s but no comparable wave of innovation around health care.

For this reason, the transfer reform process undertaken in the 1990s remains unfinished with respect to health care policy. This work can be completed by reforming the CHT and CHA by following the blueprint of welfare reform from the 1990s.

If, in exchange for taking on this greater responsibility for raising the funds for health care services, the provinces were granted more latitude under the Canada Health Act to administer their health care systems as they see fit—so long as the key commitments of universality and portability are maintained—they could engage in greater experimentation with institutional arrangements to find the best way to improve health care performance. In other words, the provinces would be granted more autonomy and flexibility in the regulation, financing, and delivery of health care in their respective jurisdictions. In concert, these changes would decentralize both decision-making authority and greater responsibility for financing health care services from the federal government to the provinces.

In 2019/20 for example, the CHT totaled $40.4 billion. The federal government could follow the blueprint of health care reform in the 1990s by reducing these payments and commensurately reducing income taxes and inviting the provinces to fill the vacated tax room while simultaneously affording them more latitude to pursue health policy reforms.

With such an arrangement in place, provinces would be well positioned to examine the introduction of cost-sharing arrangements (co-insurance, deductibles, and co-payments) used in most other universal

---

18 For a detailed analysis of how various reforms to the CHA could achieve this objective, see Clemens and Esmail (2012) and Eisen et al. (2016).

19 We do not in this paper provide a detailed prescription for how this could be achieved. For illustrative purposes, we note that total federal PIT revenue in 2019/20 was $176.51 billion. As such, creating adequate tax room to offset 100 percent of the CHT and transfer the tax room to the provinces would require reducing total PIT revenue by approximately 22.9 percent. A 50 percent CHT reduction would require reducing the PIT by 11.5 percent to allow a dollar-for-dollar tax point transfer for the change to be neutral for the provinces.
health care countries to ensure more efficient use of the health care system by patients (Globerman, 2016). Provinces might also look at removing regulations that currently prevent a greater supply of needed health care professionals and investment within the health care sector. While it is uncertain exactly what reforms different provinces would choose, the crucial change would be the decentralization of decision-making powers to the provinces, with the federal government permitting each province maximum flexibility (within a portable and universal system) to provide and regulate health care provision as they see fit.
Conclusion

As Canada emerges from the pandemic and looks to the future, we will need to deal with significant fiscal challenges. Those challenges mean that we must seek policy options to improve the performance of our provincial health care systems while working within the constraints created by these fiscal challenges. This comes in the context of high health care spending that is expected to only increase due to pressures from an ageing population. Further, despite high spending levels, Canada’s health care performance is worse than that of many peer countries.

In addressing the dual problems of fiscal and underwhelming health challenges, Canada should look to lessons from the 1990s, specifically, welfare reform, which led to not only budgetary savings but also higher employment levels. This paper argues that further devolving health care financing and decision-making to the provinces could produce similarly positive outcomes.
References


Parliamentary Budget Office (2021). *Fiscal Sustainability Report, 2021*. Office of the Parliamentary Budget Officer. <https://distribution-a617274656661637473.pbo-dpb.ca/93a1e3bc1b4432c0b2ead192241b866d36c048b5efc1aa8224e15364551f0c8e>, as of September 14, 2021.


About the authors

Steve Lafleur

Steve Lafleur is Senior Policy Analyst at the Fraser Institute. He holds an M.A. in Political Science from Wilfrid Laurier University and a B.A. from Laurentian University where he studied Political Science and Economics. He was previously a Senior Policy Analyst with the Frontier Centre for Public Policy in Winnipeg, and is a Contributing Editor to *New Geography*. His current work focuses on economic competitiveness of jurisdictions in the Prairie provinces. His writing has appeared in every major national and regional Canadian newspaper and his work has been cited by many sources including the Partnership for a New American Economy and the Reason Foundation.

Nathaniel Li

Nathaniel Li is an Economist at the Fraser Institute. He holds a B.A. from the Fudan University in China and a Ph.D. in Food, Agricultural and Resource Economics from the University of Guelph. Prior to joining the Fraser Institute, he worked for the University of Toronto as a postdoctoral fellow and the University of Guelph as a research associate. His past research work has been published in many high-quality, peer-reviewed academic journals, including the *Applied Economic Perspectives and Policy*, *Agricultural Economics*, *Preventive Medicine*, and *Canadian Public Policy*. His current research covers a wide range of issues in fiscal, education, and labour-market policies.

Ben Eisen

Ben Eisen is a Senior Fellow in Fiscal and Provincial Prosperity Studies and former Director of Provincial Prosperity Studies at the Fraser Institute. He holds a BA from the University of Toronto and an MPP from the University of Toronto's School of Public Policy and Governance. Prior to joining the Fraser Institute Mr. Eisen was the Director of Research and Programmes at the Atlantic Institute for Market Studies in Halifax. He also worked for the Citizens Budget Commission in New York City, and in Winnipeg as the Assistant Research Director for the Frontier Centre for Public Policy. Mr. Eisen has published influential studies on several policy topics, including intergovernmental relations, public finance, and higher education policy.
Acknowledgments

The authors thank the anonymous reviewers for very helpful comments on an earlier draft. Any remaining errors are the sole responsibility of the authors. As the researchers have worked independently, the views and conclusions expressed in this paper do not necessarily reflect those of the Board of Directors of the Fraser Institute, the staff, or supporters.
Publishing information

Distribution

These publications are available from <http://www.fraserinstitute.org> in Portable Document Format (PDF) and can be read with Adobe Acrobat® or Adobe Reader®, versions 8 or later. Adobe Reader® DC, the most recent version, is available free of charge from Adobe Systems Inc. at <http://get.adobe.com/reader/>. Readers having trouble viewing or printing our PDF files using applications from other manufacturers (e.g., Apple's Preview) should use Reader® or Acrobat®.

Ordering publications

To order printed publications from the Fraser Institute, please contact:

- e-mail: sales@fraserinstitute.org
- telephone: 604.688.0221 ext. 580 or, toll free, 1.800.665.3558 ext. 580
- fax: 604.688.8539.

Media

For media enquiries, please contact our Communications Department:

- 604.714.4582
- e-mail: communications@fraserinstitute.org.

Copyright

Copyright © 2021 by the Fraser Institute. All rights reserved. No part of this publication may be reproduced in any manner whatsoever without written permission except in the case of brief passages quoted in critical articles and reviews.

Date of issue

October 2021

ISBN

978-0-88975-665-6

Citation

Supporting the Fraser Institute

To learn how to support the Fraser Institute, please contact

- Development Department, Fraser Institute
  Fourth Floor, 1770 Burrard Street
  Vancouver, British Columbia, V6J 3G7  Canada

- telephone, toll-free: 1.800.665.3558 ext. 548

- e-mail: development@fraserinstitute.org

- website: <http://www.fraserinstitute.org/donate>

Purpose, funding, and independence

The Fraser Institute provides a useful public service. We report objective information about the economic and social effects of current public policies, and we offer evidence-based research and education about policy options that can improve the quality of life.

The Institute is a non-profit organization. Our activities are funded by charitable donations, unrestricted grants, ticket sales, and sponsorships from events, the licensing of products for public distribution, and the sale of publications.

All research is subject to rigorous review by external experts, and is conducted and published separately from the Institute’s Board of Trustees and its donors.

The opinions expressed by authors are their own, and do not necessarily reflect those of the Institute, its Board of Trustees, its donors and supporters, or its staff. This publication in no way implies that the Fraser Institute, its trustees, or staff are in favour of, or oppose the passage of, any bill; or that they support or oppose any particular political party or candidate.

As a healthy part of public discussion among fellow citizens who desire to improve the lives of people through better public policy, the Institute welcomes evidence-focused scrutiny of the research we publish, including verification of data sources, replication of analytical methods, and intelligent debate about the practical effects of policy recommendations.
About the Fraser Institute

Our mission is to improve the quality of life for Canadians, their families, and future generations by studying, measuring, and broadly communicating the effects of government policies, entrepreneurship, and choice on their well-being.

Notre mission consiste à améliorer la qualité de vie des Canadiens et des générations à venir en étudiant, en mesurant et en diffusant les effets des politiques gouvernementales, de l'entrepreneuriat et des choix sur leur bien-être.

Peer review—validating the accuracy of our research

The Fraser Institute maintains a rigorous peer review process for its research. New research, major research projects, and substantively modified research conducted by the Fraser Institute are reviewed by experts with a recognized expertise in the topic area being addressed. Whenever possible, external review is a blind process. Updates to previously reviewed research or new editions of previously reviewed research are not reviewed unless the update includes substantive or material changes in the methodology.

The review process is overseen by the directors of the Institute’s research departments who are responsible for ensuring all research published by the Institute passes through the appropriate peer review. If a dispute about the recommendations of the reviewers should arise during the Institute’s peer review process, the Institute has an Editorial Advisory Board, a panel of scholars from Canada, the United States, and Europe to whom it can turn for help in resolving the dispute.
## Editorial Advisory Board

### Members

<table>
<thead>
<tr>
<th>Prof. Terry L. Anderson</th>
<th>Prof. Herbert G. Grubel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. Robert Barro</td>
<td>Prof. James Gwartney</td>
</tr>
<tr>
<td>Prof. Jean-Pierre Centi</td>
<td>Prof. Ronald W. Jones</td>
</tr>
<tr>
<td>Prof. John Chant</td>
<td>Dr. Jerry Jordan</td>
</tr>
<tr>
<td>Prof. Bev Dahlby</td>
<td>Prof. Ross McKitrick</td>
</tr>
<tr>
<td>Prof. Erwin Diewert</td>
<td>Prof. Michael Parkin</td>
</tr>
<tr>
<td>Prof. Stephen Easton</td>
<td>Prof. Friedrich Schneider</td>
</tr>
<tr>
<td>Prof. J.C. Herbert Emery</td>
<td>Prof. Lawrence B. Smith</td>
</tr>
<tr>
<td>Prof. Jack L. Granatstein</td>
<td>Dr. Vito Tanzi</td>
</tr>
</tbody>
</table>

### Past members

<table>
<thead>
<tr>
<th>Prof. Armen Alchian*</th>
<th>Prof. F.G. Pennance*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. Michael Bliss*</td>
<td>Prof. George Stigler*†</td>
</tr>
<tr>
<td>Prof. James M. Buchanan*†</td>
<td>Sir Alan Walters*</td>
</tr>
<tr>
<td>Prof. Friedrich A. Hayek*†</td>
<td>Prof. Edwin G. West*</td>
</tr>
<tr>
<td>Prof. H.G. Johnson*</td>
<td></td>
</tr>
</tbody>
</table>

* deceased; † Nobel Laureate