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The Fraser Institute's vision is a free and prosperous world where individuals benefit from greater choice, competitive markets, and personal responsibility. Our mission is to measure, study, and communicate the impact of competitive markets and government interventions on the welfare of individuals. Founded in 1974, we are an independent research and educational organization with locations throughout North America, and international partners in over 80 countries. Our work is financed by tax-deductible contributions from thousands of individuals, organizations, and foundations. In order to protect its independence, the Institute does not accept grants from government or contracts for research.





### Welcome!

Dear Readers,

Throughout the year, the Fraser Institute hires student interns to work with our policy analysts, development department, and education programs. In this issue, some of our fall research interns have submitted articles based on the work they have been doing while at the Institute, as well as articles based on their own policy interests.



In Canada's Student Associations divert university money, Nicolas Fleet discusses where the money that students pay to their universities goes, and finds that not all of it is used for education. In an article on mining in Bolivia, Roberto Roca Paz looks at small mining cooperatives and the effects they have on Bolivian politics and Canada's mining interests in South America. In How market forces can be applied to environmental regulations, Ekaterina Daviel explains how air and water pollution can be dealt with while still supporting business endeavours.

You will also find an article on the economics of gift giving which we dug out of our archives for the holiday season. In this article, *The inefficiency of Christmas presents*, Marc Law and Jason Clemens explain how gift giving can lead to deadweight losses.

Don't forget that our deadline for our video contest is fast approaching. This year's topic is "Why good politics is bad economics." For your chance to win up to \$10,000, visit our website at www.studentvideocontest.org.

We hope you enjoy the issue!

Best,

### **Lindsay Mitchell**

Editor, Canadian Student Review



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# Canada's student associations divert university tuition money

### **Nicolas Fleet**

or high school students, the decision regarding university education—for instance, the type and location of their post-secondary studies—is one of the largest financial decisions of their lives. Recently, political groups, such as the Canadian Federation of Students (CFS), have been highlighting the supposedly unaffordable cost of university tuition. There's no denying that some of Canada's university students struggle to fund their university education; however, data show that these students are in the minority. According to Statistics Canada, over 50% of university students come from families in the upper quartile of income<sup>1</sup> share (Statistics Canada, 2007).

Yet the struggle is worthwhile. Taken over a lifetime, the decision to pursue higher education can add up to hundreds of thousands of extra dollars. By paying for a high quality education, university students have an extra earning



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capacity—they learn skills that allow them to be more productive workers, than those who did not obtain a degree.

However, not all of the tuition paid to Canada's public universities goes towards funding academic resources. One such entity that detracts students from their ability to fund their studies is student associations (informally known as "student unions").

In order to better understand what student associations are, it is easier to begin with what they are not. Student associations are not clubs, nor charities, nor labour unions—though student associations often refer to themselves as unions. Furthermore, student associations do not represent any public universities, nor are they a form of government. Legally, student associations are structured as not-for-profit corporations.

A corporation has to take in money to survive; to do this, it creates products and services that enrich the lives of customers. The voluntary nature of the relationship between buyers (customers) and sellers (businesses) fosters a creative dynamic where firms must out-compete one another in order to stay profitable, leading to new or improved products and services. In contrast to the countless voluntary business transactions that take place in Canada, university students have no choice whether to pay into student associations. In British Columbia, this is because student associations have iron-clad contracts with their host university that requires fees to be collected up front from any person who wishes to undertake studies. And since the CFS and BC's student associations operate under a mandatory fee regime, these groups are part of the reason why tuition is at its current price. For this reason, some post-secondary students find it difficult to take the pleas for lower tuition from such organizations seriously. In fact, non-academic compulsory fees collected by universities ones that include student association fees—increased by 6.8% in Canada from 2008-2009 (Statistics Canada, 2009a), exceeding the Consumer Price Index (CPI) measure of inflation for that year.

In further contrast to ordinary, private businesses, student associations have no profitable products to sell. Their primary funding source is the mandatory fees they impose on students without their consent. These funds are then used for executive salaries and benefits, administration, advertising, and so-called "free" merchandise and services available to members. In some cases, the money is used to fund partisan political protests; in other cases, the money is used to contravene their own members' charter rights

to freedom of expression (Carpay, 2012). For example, by a set of metrics to measure free speech on Canadian University campuses, researchers at the Justice Centre for Constitutional Freedoms found that out of 35 Canadian student associations, only one earned an "A" grade, while 16 earned "F"s (Carpay, 2012).

The mandatory relationship means that student associations have no incentive to innovate or create products and services that a majority of students want. In fact, in-person voter turnout to turn over executives in student associations is often quite low; seldom higher than 20% of the student population, and often much lower (Dehaas, 2012). While the low participation rates might, at first glance, indicate agreement with the consensus, students who prefer lower (or no) student association fees have no candidates to support their views because the student association candidate platforms only differ with respect to spending association money, never to change the amount collected.

To make matters worse, members of student associations are often obligated to purchase a variety of products and services that may not be useful or beneficial to them. According to a recent paper by the Frontier Centre for Public Policy, these goods and services are products that are typically already available in the private marketplace (e.g., bars, cafes, counselling, and entertainment events). In other words, the collective buying powers of student unions are unnecessary in fulfilling any public-good funding argument (Wensveen, 2011).

One example of a negative consequence that arose as a result of lack of free choice is the case of the Student Federation of the University of Ottawa (SFUO) and



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mandatory bus passes. Following a controversial referendum, students at the University of Ottawa—located in downtown Ottawa—were forced to purchase a bus pass costing \$290 for eight months. Following the imposition of the bus pass, students who walked and cycled to campus fell by 50%, while car use remained the same (OC Transpo, 2011). This shows that in light of the mandatory bus pass's interference in their budget, students who previously used pollution-free modes of transportation made the switch to a fossil-fuel based mode (i.e., City of Ottawa buses, which consume diesel fuel).

The fundamental right to *not* belong to an association is equally as important as the fundamental right to choose

to belong to an association. Student associations, therefore, will always feel threatened by discussion of creating a regime of voluntary exchange between university student and student association. For instance, the CFS has fought against individual student associations that wish to leave the umbrella national organization; this is because when students make the choice to not become members, the CFS represents fewer students. And when the CFS represents the needs of fewer students, they have less money, and, in turn,

BC's student associations charge students a total of \$73 million per academic year Because student associations are private businesses, their financial records are not available for public viewing. However, fees that are individually charged to each student are made available by BC's public universities. By multiplying the number of students per university with the amount each student is charged,

less political power.

the aggregate budget of all student associations can be accurately estimated. According to our research, BC's student associations charge students a total of \$73 million dollars, or approximately \$545 per student per academic year (author's calculations).

Students need a choice, and with rates of student association membership increasing every year, they need it as soon as possible. The majority of students were never asked if they consented to funding their student associations. Student associations may align themselves in a certain political direction by referring to themselves as "student unions" and using a plethora of vocabulary from the labour movement (e.g., student "strikes"); yet just because student associations are false unions doesn't mean that ordinary students should be any less deserving of protection from them. One method would be to give university students similar protections to those found in "right-to-work law" states in the US. Following a regime of free choice, student associations would be forced to become more innovative, more inclusive, and more responsible in how they spend funds, which would significantly benefit all students.

#### Note

1 The term upper quartile refers to Canadian families with the top 25% of income.

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# The role of mining cooperatives in Bolivia's recent mining conflicts

### **Roberto Roca Paz**

The recent nationalizations in Bolivia of Switzerland's Glencore and Canada's South American Silver mining projects have prompted a great deal of international media attention in the past few months. These events are not merely caused by the government's inclination towards resource nationalism,<sup>1</sup> but have more to do with President Morales's administration giving in to the demands of a particular pressure group: the mining cooperatives.

Mining has always been a very important sector for Bolivia's economy, sustaining the country since it gained its independence from Spain in 1825. In 1826, exports of silver, gold, and tin represented 97% of total exports (Pentland, 1975) and, until the 1960s, mining exports represented more than 90% of total exports (Esponoza, 2010). In 2010,



Padmana ba01

the share of mining exports was around 34% of total exports (IBCE, 2012), and mining production amounted to around 6% of Bolivia's Gross Domestic Product (UDAPE, 2011).

Mining cooperatives are part of the artisanal and small-scale mining sector, characterized by informal, labour intensive,<sup>2</sup> minimally mechanized, and low-technology mining operations (Espinoza, 2012a). Although some mining cooperatives can be traced back to the first half of the 20<sup>th</sup> century,<sup>3</sup> the most significant event occurred in 1985 when COMIBOL (the state owned mine company) decided to close most of its mines and lay off around 23,000 workers due to the plummeting international price of tin<sup>4</sup> and a government issue decree for a series of market reforms. This was



significant for the expansion of mining cooperatives since, having lost their jobs, many of workers decided to partner in mining cooperatives and "signed leasing contracts to exploit, in a semi-mechanized or even manual way, the veins left by COMIBOL" (Espinoza, 2010). Over the past 25 years, the number of miners working with the cooperatives has been increasing gradually, going from 32,700 (1987) to 42,641 (1997) to 48,500 (2007) (Ministerio de Minería y Metalurgia, 2009). This growth, as well as an increasing electoral relevance, allowed mining cooperatives to increase their power to pressure various administrations and to obtain favourable policies<sup>5</sup> by using activist tactics such as "blockades and demonstrations" (Espinoza, 2010).

In recent years, the rising prices of minerals have triggered a rapid increase in the number of mining cooperatives and have, therefore, increased their political power. According to the vice ministry of mining cooperatives, in September 2011 there were 1,304 mining cooperatives in Bolivia; by the end of July 2012 that number had grown to 1,417. This translates into approximately 110,000 cooperative miners. Albino



# The rising price of minerals has led to the increased power of mining cooperatives

Szymon Kochanski

García, the president of FENCOMIN (the national federation of mining cooperatives) points out that higher mineral prices encourage local villagers near mine sites to shift away from agriculture to form new mining cooperatives<sup>6</sup> (Peralta, 2012). This is because the cooperative sector in Bolivia "can start or shut down operations fairly easily, according to the price of minerals, because [...] their equipment investments are low, [...] and they do not incur costs for environmental prevention or mitigation expenses. Also, they do not pay mining patents and are exempt from paying the tax on company profits" (Espinoza, 2012b). Espinoza points out that "if [in the 1980s] low prices [of minerals] caused the formation of new cooperatives then; highly rising prices are doing the same now" (2012a).

Gary Becker states that "pressure groups [...] have an incentive to be more rather than less active under democratic and other forms of socialism, because a larger fraction of resources is controlled by the State" (1983). It appears that Morales's previous nationalistic measures, which led to a greater direct involvement in the economy



President Morales
has made it easier
for unlawful takeovers
and nationalization

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by the state, along with the rising number of cooperative miners, have greatly increased the power of mining cooperatives allowing them to not only demand more beneficial policies from the government but also to push for unlawful takeovers of established mining rights.

In recent years, local villagers and/or cooperative miners have taken over around 200 mines. In October 2006, the miners of four cooperatives tried to take over the Huanuni mine, operated by the state mine company. This led to clashes with state miners in what has been called a "fratricidal confrontation" that caused the deaths of more than 12 people. The conflict was finally resolved by the incorporation of the miners into the state company and the dissolution of the four cooperatives (Espinoza, 2012c).

In May 2012, a group of cooperative miners took over Glencore's Colquiri lead-tin-zinc mine, which eventually led to its nationalization in June. This time, the cooperative miners were not absorbed by the state company, but instead, after a series of demonstrations, pressured the government to pass a decree which allows them to exploit some parts of the Rosario vein.

A similar situation occurred with South American Silver's Mallku Khota silver-indium project after a group of local

villagers started to illegally exploit gold, causing the surrounding lakes to become polluted, and then blaming the Canadian company for the environmental damage (Ministerio de Minería y Metalurgia, 2012). As recently as May 2012, the Mines Minister Mario Virreira described this gold exploitation as "illegal" and accused the first protesters of trying to "prevent the state from carrying out a project that is of national interest" (Ministerio de Minería y Metalurgia, 2012). On May 28, the government signed a document with four ayllus—local villages of the region stating that the company "must continue its exploration activities" and that its existing concessions must be respected (ANF, 2012). However, the government officially announced its nationalization plan in August after conflict, which included hostage takings, escalated between local villages for and against the Canadian company's presence in the region (Decreto Supremo No 1308, 2012). The area still remains tense due to the presence of groups that demand more benefits from the mine.

Bolivia's legislative assembly continues to debate a draft for a new mining code. However, it seems that regardless of its provisions, pressure groups will use their revitalized economic capacity and strong mobilization power to demand more from the government.

### **Notes**

- 1 Morales nationalized Bolivia's natural gas industry in 2006, a telecommunications company in 2008, a hydroelectric company in 2010, and a power company earlier this year.
- 2 This has helped to alleviate some unemployment in the Andean region of Bolivia, and also has enabled the exploitation of low grade veins that otherwise would not be exploited.

- 3 The first legally established mining cooperative was formed in 1939 in Potosi.
- 4 In October 1985 prices of tin dropped from £10,000 to £3,400 per tonne.
- 5 Espinoza (2010) lists at least 10 laws or decrees favouring mining cooperatives, passed by five different administrations in the 1990s and 2000s.
- 6 Around 30% of mining cooperatives are formed by local villagers of the mine sites.

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# How market forces can be applied to environmental regulations

### **Ekaterina Daviel**

he allocation of property rights is often heralded as a solution for the "tragedy of the commons" —the overexploitation of resources that occurs when those resources are considered to be public property, such as shared grazing pasture (Anderson and Huggins, 2003). Where property rights are well-defined, secure, and transferable, people tend to take better care of the resources they own, and are more likely to invest in them and preserve their value for the future (Benjamin, 2006). However, there are some cases where it may not be feasible or practical to assign property rights, and common pool resources such as air and water are classic examples. Rivers and streams cross national and international borders, oceans have very little in the way of boundaries, and air moves around globally to such an extent that dust from a windstorm in China can drop onto Canada in as little as two weeks after the storm happened (NOAA, 2001).

Gord McKenna

Besides being essential to our life and health, air and water are also useful for a number of applications, including uses in manufacturing and agriculture, as raw materials in industrial processes, and as a means of taking away waste materials. Unfortunately, the pollution of air and water with a number of contaminants. both natural and humanrelated, imposes costs on other uses of those resources. Third-party costs of air and water pollution



take the form of more expensive treatment for drinking water, decreased visibility, property damage in the case of ground-level ozone, fewer and smaller fish and game, or reduced quality of life and health. While these costs can be said to be borne by society at large, the benefits from not investing in environmental control technologies are often amassed individually by individuals or companies in the form of capital savings. Because of this internalization of benefits and externalization of costs, the protection of the environment is an example of market failure. As a result, some form of government intervention is necessary in order to reduce or maintain pollution at an acceptable level.

Regulations have traditionally been the weapon of choice for governments to limit the amount of pollution released



NashvilleCorps

## Prescriptive regulations give detailed instructions for protecting the environment

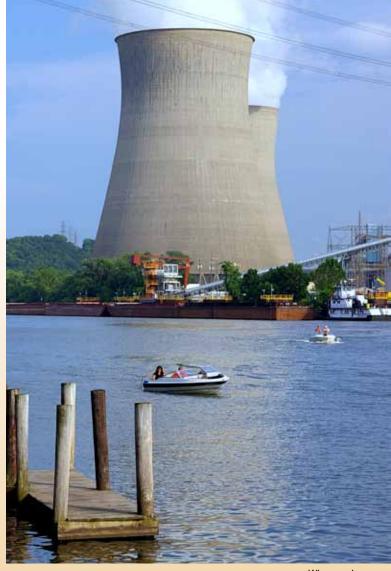
Government monitors use an environmentally safe green dye to measure infractions of prescribed regulations for drilling seepage.

by various enterprises. While there have been a number of cases where profits have increased while pollution has been reduced through

increased efficiencies in industrial processes, these "winwin" situations are not guaranteed, and the reality is that the capital investment required for environmental pollution reduction, such as the purchase and operation of scrubbers and water treatment plants, often does not see an economic return. Although the majority of industries accept and work towards commonly accepted values or outcomes, environmental protection included, there are usually a number of stragglers who are only likely to comply if there is enforcement or a threat of sanctions. For example, Kagan et al. (2003) found that regulations were directly responsible for large reductions in pollution from pulp mills resulting from capital investment in very costly pollution control technologies.

Choosing to burn low-sulphur coal, coupled with scrubber installation has been a cost-effective way for coal-burning power plants to comply with performance-based regulations.

A competent regulatory system can spur progress in pollution reduction by reassuring corporate environmental leaders that their less-motivated competitors will also be required to spend money on environmental controls, thus evening



Wigwam Jones

out the playing field. However, not all regulations are identical, and perhaps the two most prominent types of regulations are prescriptive regulations and performance-based regulations.

Prescriptive regulations are generally composed of detailed instructions on exactly what an organization needs to do in order to comply with specific regulatory requirements (Queensland, no date). For instance, prescriptive regulations may require a landfill to have a certain thickness of clay as a liner in order to prevent groundwater contamination. On the other hand, performance-based regulations

## Performance-based regulations describe outcomes rather than spelling out how the outcome is to be achieved

describe outcomes rather than spelling out how the outcome is to be achieved (Queensland, no date). Where prescriptive regulations require a certain thickness of clay, the equivalent performance-based regulations would leave it up to the landfill operator to demonstrate that the landfill was not leaking using whatever means they found to be most efficient. The upshot is that performance-based regulations are able to harness private initiative and innovation in pursuit of a desired outcome, and can achieve that same outcome at a lower cost (Sugarman and Sandman, 2008).

Performance-based regulations have been particularly powerful where they make use of tradable permits to provide financial incentives for environmental responsibility. For example, when a cap-and-trade system was introduced in the United States to reduce sulphur emissions from coal-powered electric plants, Burtraw (2000) found that the responsibility for compliance that had traditionally rested with environmental engineers was now being transferred to top executives trained to treat the sulphur dioxide emission allowances as financial assets. In other words, the allowable permits were serving as surrogates for property rights to the air. Reductions in sulphur dioxide emissions were made not only from investments in scrubber technologies to remove sulphur at the end of the pipe, but about half of the

reductions came from switching to coal with a lower sulphur content (Burtraw, 2000). In addition, the costs for both low-sulphur coal and scrubber technology decreased because the suppliers were being put in direct competition with each other (Burtraw, 2000).

Many people are of the opinion that the environment can only be protected through the use of rigid regulations and strict enforcement. However, this does not seem to be the case. For instance, the prescriptive environmental regulations for pulp mills in the US did not make for better performers on average than those in Canada, Australia, or New Zealand, which all have more flexible, performance-based regulations (Kagan et al., 2003). However, it should be noted that both prescriptive and performance-based regulations require a credible enforcement and penalization program in order to ensure compliance.

Although privatization is not always a feasible solution for the prevention of environmental degradation, fundamental market forces may still be used to provide incentives and encourage innovations in reducing pollution of air and water. By introducing a method by which companies are required to internalize their environmental costs, innovations in reducing these costs can be encouraged, resulting in net benefits to industry, the public, and the environment.

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Alan Cleaver

### The inefficiency of

# Amistmas Dresents

### **Marc Law and Jason Clemens**

ntroducing the Brelands

The Breland family has two working parents and two children under 18 years old. Jillian and Bob both work fulltime, while both children attend secondary school; John, the elder child, is completing his final year while Mary, the younger, has just started high school. Like most average Canadian families, the Brelands work hard, play

by the rules, and try to provide a better life for their children. Within this familial situation we examine the concept of "deadweight loss."

ifts in kind versus cash:
The deadweight loss of Christmas presents<sup>1</sup>

An important assumption in economics is that people "maximize their utility" subject to the constraints they face. This means that they attempt to gain the most satisfying results they can given their resources, such as time and money. It is important to understand that utility, in this context, is not the same thing as usefulness. Rather, it is an individual, subjective evaluation about what best satisfies the wants and needs of the person.

Because individual preferences are largely private, it is generally not possible to make "utility maximizing" choices for someone else. One interesting implication of this is that gifts in kind are likely to be less "utility maximizing" (or less "efficient") than cash gifts of an equivalent value. This inefficiency is what economists call a "deadweight loss."

For instance, suppose Jillian and Bob want to purchase Christmas presents for their children. They are prepared to spend \$50 on gifts for each child. In order for their gifts to be "efficient" (i.e., the best possible choices for their kids), Jillian and Bob would have to purchase the same items that John and Mary would buy for themselves if they each had \$50.



Because Jillian and Bob are both busy working and trying to maintain a reasonable household, neither can be fully aware of John's or Mary's preferences. It is likely that they won't be able to make "efficient" gift choices.

In other words, the value to John and Mary of the gifts from their parents will be less than the value to John and Mary of the gifts they would have bought for themselves had they each been given \$50 in cash. The difference between these two values is called the "deadweight loss." Empirical estimates by Joel Waldfogel of Yale University suggest that as much as one third of the purchase price value of



If the deadweight losses of gift giving are so large, then why aren't Christmas presents replaced by envelopes stuffed with cash in stockings?

Christmas gifts may be lost in value as a result of this mismatch (1993). This deadweight loss could have been avoided if the Breland parents had simply transferred \$50 in cash to John and Mary.

If the deadweight losses of gift giving are so large, then why aren't Christmas presents replaced by envelopes stuffed with cash in stockings? One possibility is that gift givers are interested in maximizing their own utility, rather than the utility of the gift receiver. For instance, Jillian and Bob may decide against giving John a \$50 home chemistry set which he values highly simply because they are worried he will use it to brew a concoction that will blow up the carport, so it does not maximize *their* utility to do so. In this case, the deadweight loss to John is partly mitigated by a gain to Jillian and Bob, who feel that they have acted in their own best interests.

Another explanation is that gift giving is motivated by a desire to acquaint the recipient with an unfamiliar good. Suppose a new \$50 book on creating lifesize papier maché farm animals from scratch is published which Mr. and Mrs. Breland know about but Mary does not. Suppose also that Mary would value this book at least as highly as any other gift she would purchase for herself with \$50. By giving her the book as opposed to a \$50 cash subsidy, Mr. and Ms. Breland may be making an "efficient" choice since Mary cannot purchase a good she does not know about. In this case, there is no deadweight loss.

A third possibility is that giftgiving serves as a "signal." The reason we give gifts rather than cash is to signal that we

know the preferences of the recipient. The smaller the value of the deadweight loss, the stronger our knowledge is of the other person's preferences. In this regard, it is interesting to note that, among extended families, cash gifts are more likely to be given by uncles, aunts, and grandparents—by more "distant" relatives—than by siblings and parents (Waldfogel, 1993). Grandpa Breland is more likely to give John and Mary money than are Jillian and Bob. This is the case because closer relatives are more likely to know the recipient's preferences than more distant relatives. Apparently individuals do try to minimize the deadweight losses which arise from Christmas giving, albeit imperfectly.

Deadweight losses arise in many other instances. For example, when the government decides to give low income individuals free medical care (a "gift-in-kind" of sorts) instead of a cash subsidy, a deadweight loss is introduced because some lower income individuals may prefer cash to medical services (Friedman, 1962).

As in our Christmas example, the deadweight loss arises because there is a mismatch between the "gifts" given and the preferences of the consumer who must ultimately consume them. This is why economists will often recommend voucher systems or income subsidies over government run social programs.

#### Note

1 The idea for this article comes from J. Waldfogel (1993), The deadweight loss of Christmas, *American Economic Review* 83: 1328-1336.

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This article was originally published in the December 1997 issue of Fraser Forum. At that time, Marc Law was a research economist and Jason Clemens was a policy analyst at the Fraser Institute. Marc Law is now an Associate Professor of Economics at the University of Vermont and Jason Clemens is the Executive Vice-President of the Fraser Institute.

### HOT TOPICS!

### Measuring income mobility in Canada

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(1990-2000 and 1990-2009). By dividing Canadians into five groups based on their initial income (earned through wages and salaries before taxes), the study tracks how income changed over time.

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Waiting your turn:
Wait times for health
care in Canada

Waiting Your Turn is based on a national survey of physicians and measures the wait times between referral by a general practitioner and consultation with a specialist, the times between seeing the specialist and receiving elective treatment, and the total wait times from GP referral to elective treatment.



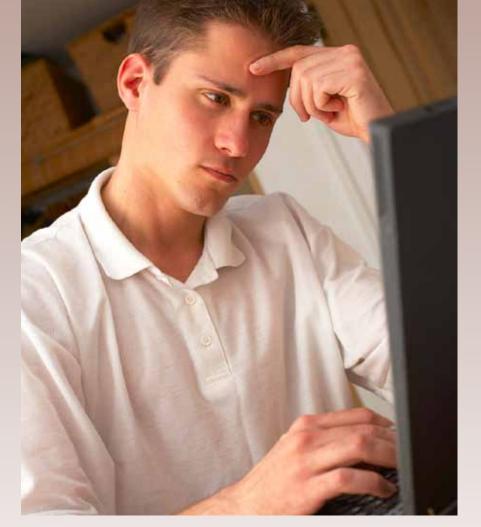
In the 22nd annual edition of the report, Fraser Institute researchers found that the median wait times for surgical and other therapeutic treatments in Canada is 17.7 weeks. This is an improvement from last year, but Canadians are still waiting more than four months, on average, for medically necessary treatment.

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