Canadian STUDENT REVIEW



FALL 2017

QUARTERLY STUDENT MAGAZINE

Marijuana Growth in British Columbia

Why Prohibition Cannot be Sustained

What's Inside

Community Revival in the Wake of Disaster: Lessons in local entrepreneurship Game of Thrones with little economic competition, growth found only in conquest Canada's surprising comparative advantage—selling sand to the Sahara



Editor: Ryan Hill

Layout and design: Foothills Graphics Production Editor: Kristin McCahon

Cover image: iStock Photo

Photo credits: Reproduction rights for the cover images and other photos were purchased from iStock Photo, Dreamstime Photos, and Shutterstock Photo. Public domain and shared images provided by Wikimedia Commons, Wikipedia and Flickr.

FREE

Canadian Student Review is offered free of charge to students.

To receive a subscription, or to write to us about articles you read in this publication, contact us at:

Canadian Student Review 1770 Burrard Street, 4th Floor Vancouver, British Columbia V6J 3G7

Tel: (604) 688-0221 ext. 538

Fax: (604) 688-8539

E-mail: ryan.hill@fraserinstitute.org

Copyright © 2017, the Fraser Institute

Date of Issue: Fall 2017

ISSN 1707-116X (online edition)

Canadian Student Review is sponsored by the Lotte & John Hecht Memorial Foundation

Canadian Student Review is published by the Fraser Institute. The views contained within are strictly those of the authors.



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.

WELCOME!



We hope that you had a wonderful summer and that you are enjoying the start of your school year.

This issue of Canadian Student Review revisits an interesting and revealing discussion from 2004 on marijuana growth in British Columbia, and highlights the effects of minimum wages on Canadian youth and new immigrants.

Additionally, this issue includes a recent infographic, a short video highlighting key findings from the Canadian Consumer Tax Index, discussions around equalization payments in Canada, and many more engaging articles.

In the wake of recent disasters such as Hurricanes Harvey and Irma, our book recommendation, *Community Revival in the Wake of Disaster:* Lessons in Local Entrepreneurship, paints a timely picture of the role entrepreneurship plays in rebuilding communities stricken by disaster.

I sincerely hope that you enjoy this issue and I encourage you to participate in one of our upcoming *Explore Public Policy Issues* (www.freestudentseminars.org) student seminars this fall!

Ryan Hill Editor, *Canadian Student Review*



Contents

5



BLOG POST

Canada's Surprising Comparative Advantage—Selling Sand to the Sahara

by William Watson

Senior Fellow Prof. William Watson discusses the Canadian sand industry and its somewhat surprising customers.

8



THE QUOTE WALL

Steven D. Levitt

A quote by Steven D. Levitt, co-author of the best-selling book **Freakonomics**.

9



THE BOOK CORNER

Community Revival in the Wake of Disaster

by Virgil Henry Storr, Stefanie Haeffele-Balch, and Laura E. Grube

Community Revival in the Wake of Disaster highlights the important role entrepreneurs play in rebuilding communities following a disaster

13



GAME OF THRONES: WITH LITTLE ECONOMIC COMPETITION, GROWTH FOUND ONLY IN CONQUEST

by Aeon J. Skoble

Aeon Skoble explains how the world of the hit television show *Game of Thrones* is lacking the necessary characteristics for technological innovation

14



INFOGRAPHIC

The Price of Public Health Care Insurance, 2017

A recent infographic that highlights what the typical Canadian family of four will pay for health care this year.

15



FROM THE ARCHIVES

Marijuana Growth in British Columbia: Why the Prohibition Cannot be Sustained

Revisit a revealing discussion from 2004 on the state of the underground marijuana industry in British Columbia.

19



VIDEO

Canadian Consumer Tax Index 2017

A brief comparison of the amount an average Canadian family pays in taxes and what they pay on basic necessities.

20



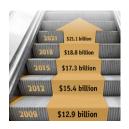
BLOG POST

Minimum Wage Hikes Will Hurt Young People, Immigrants

by Charles Lammam, Hugh MacIntyre, and David Hunt

A look at the consequences of raising the minimum wage, particularly for young Canadians and immigrants.

23



HOT TOPICS

What's New From the Institute

A brief look into household debt compared to government debt in Canada.

by Livio Di Matteo

A review of the Canadian equalization program and its shortcomings.

by Ben Eisen, Joel Emes, and Steve Lafleur

Explore

Public Policy

Issues

FREE STUDENT SEMINARS

Interactive presentations about the most critical issues of the day

Opportunity available for all students





UPCOMING SEMINARS

2017

Saskatoon, SK - OCT. 14

Complimentary bus from Regina

Vancouver, BC - OCT. 21

Victoria, BC - OCT. 27

Complimentary bus from Nanaimo

Ottawa, ON - NOV. 4

Complimentary bus from Kingston



2018

Vancouver, BC - JAN. 27

Toronto, ON - FEB. 3

Complimentary bus from Hamilton



Montreal, QC - FEB. 10

Complimentary bus from Quebec City

French and English presentations with simultaneous translation



Calgary, AB - MAR. 10

Complimentary bus from Edmonton

To read posts on other interesting policy issues from leading policy experts, please visit www.fraserforum.org

Freiser Forum THE FRASER INSTITUTE BLOG

Canada's Surprising Comparative Advantage— Selling Sand to the Sahara

by William Watson



ell, not exactly the Sahara.
More like the Arabian
Desert. But the
alliteration sounded better than
selling sand to Dubai. "Coals to
Newcastle" doesn't have alliteration,
strictly, but it has two hard Cs and
is memorable—and it's true, we
Canadians have been selling sand
to people who live in or at least just
beside the Arabian Desert.

I learned this from the current issue of *The New Yorker* magazine in an article ("The World is Running out of Sand") by one of my favourite writers, David Owen. Owen has what to scribblers of a certain age seems the perfect career; he is both a staff writer at *The New Yorker*, which is top of the pops in magazine journalism, and a contributing editor at *Golf Digest*, where he often goes on golfing trips that he then writes about in a perfectly charming way.

We as Canadians have been selling sand to people who live in or at least just beside the Arabian Desert.

Owen's story is not about his enviable life, however, but about the emerging shortage of sand. Sand, it turns out, is used for many purposes, including making both silicon chips and cement. Emerging countries, some of which are emerging very quickly, are doing lots of building and as a result using up lots of sand. By 2030 China intends to have a road network in

place larger than the US interstate highway system. The competition for sand has reached such a pitch in India that there's a sand mafia.

The competition for sand has reached such a pitch in India that there's a sand mafia.

The United States is also using up sand in vast amounts, in particular to help shore up its eroding eastern coastline, which has been hit hard in recent years by hurricanes including the aptly named (for Owen's story) Hurricane Sandy. You might think the lesson of such devastating experiences would be to stay away from the water's edge but, thanks to extensive underwriting by Congress, Americans are going back to the shore like lemmings—there to suffer the inevitable repetition of Sandy-like disasters. What was it Einstein said about insanity? One geologist Owen spoke to said that when people tell him folks are crazy to rebuild he replies, "No, they're making a perfectly rational economic decision. We're the crazy ones, because we're paying for it."

And that's a geologist saying that, not an economist.

But the parts of the story that really caught my eye were Owen's passages about Hutcheson Sand & Mixes of Huntsville, Ontario. It's the company that, about 10 years ago, exported custom-processed sand to Dubai to be used in the sand traps



on a new Greg Norman course. They've got a lot of sand in Dubai, of course, and it turns out sand is generally helpful when building golf courses—it can be pushed around and moulded fairly easily. But desert sand is no good for sand traps. Down at the particulate level, it's too smooth. The hot desert winds have, as it were, sandblasted it too much. All the little bits are round and slide together too easily so golf balls sink into the traps too readily, which is not something golfers enjoy. Ontario sand, among other sands, is more angular and receives balls better. Who knew?

In the political and social world, expertise is under attack. In the economic world, it still rules.

Exactly. Who knew? Knowledge is the key to Hutcheson's sand advantage, as it is to more and

more things in the economic world. Since the 1996 Olympics in Atlanta, where Canadian volleyballers had trouble with the sand, Hutcheson has provided specialty sands to different major sporting events, as well as helping the international volleyball federation first devise and then enforce its sand standards. Because sand is heavy, in most cases sand for special events is sourced from closer than Huntsville, though the people from Hutcheson still have to figure out what local sands are suitable. In the political and social world, expertise is under attack. In the economic world, it still rules.

Read the blog post here >>

William Watson is a Professor of Economics at McGill University and Senior Fellow with the Fraser Institute. He holds degrees in economics from McGill and Yale Universities. His latest book, currently in press with University of Toronto Press is The Inequality

Trap: Fighting Capitalism instead of Poverty.



"An incentive is a bullet, a key:

an often tiny object with astonishing power

to change a situation."

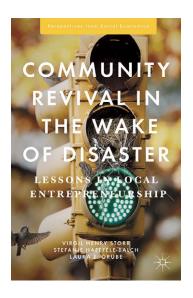
Steven D. Levit

Freakonomics: A Rogue Economist Explores the Hidden Side of Everything



COMMUNITY REVIVAL IN THE WAKE OF DISASTER: LESSONS IN LOCAL ENTREPRENEURSHIP

by Virgil Henry Storr, Stefanie Haeffele-Balch, and Laura E. Grube



t can be daunting to try to recover from disasters like tsunamis, hurricanes, earthquakes, and floods. *Community Revival in the Wake of Disaster* argues that entrepreneurs, conceived broadly as individuals who recognize and act on opportunities to promote social change, fill this critical role. Using examples of recovery efforts following Hurricane Katrina in New Orleans, Louisiana, and Hurricane Sandy on the Rockaway Peninsula in New York, the authors demonstrate how entrepreneurs promote community recovery by providing necessary goods and services, restoring and replacing disrupted social networks, and signaling that community

rebound is likely and, in fact, underway. They argue that creating space for entrepreneurs to act after disasters is essential for promoting recovery and fostering resilient communities. •

To learn more about Community Revival in the Wake of Disaster: Lessons in Local Entrepreneurship, and to get your own copy of the book, click here

Fraser Forum

THE FRASER

GAME OF THRONES: WITH LITTLE ECONOMIC COMPETITION, GROWTH FOUND ONLY IN CONQUEST

by Aeon J. Skoble

or those of you not in the know, the *Game of Thrones* series is based on a collection of fantasy novels set in an alternate world that resembles the Middle Ages, but in which dragons, zombies, and other magical things exist, and in which the seasons do not follow

regular patterns. Besides the magic and the swordplay, there is also plenty of political intrigue as various ruling factions work to undermine each other and everyone seems to be scheming.

A friend of mine started bingeing through the first season in an attempt



to catch up, and after two episodes, expressed incredulity that their civilization could be several thousand years old yet still be technologically retrograde. I replied that that wasn't a fair criticism, since this is a staple of the genre—it's important to the plot that there be ancient lore and artifacts, so a long history is usually central to the backstory.

Our own civilization has seen tremendous growth technologically in the last few hundred years, although it was pretty much Game of thrones for the previous 3,000.

Yet it's worth considering why this is a problem. Our own civilization has seen tremendous growth technologically in the last few hundred years, although it was pretty much Game of Thrones for the previous 3,000. But grow we did, so one might wonder about my friend's question.

One answer is that in their world, political leaders tend to be so consumed by their love of power that they fail to consider what is best for the whole country. But since that's true in the real world as well, that can't be the answer. Indeed, many features of their world are reminiscent of ours—conflict between competing religious worldviews, exploitation of the peasantry by powerful elites, power struggles, class conflict, and women's unequal status.

None of this prevented us from developing steam engines, electricity,

nuclear power, antibiotics, and microprocessors. Of course, we didn't have to contend with wizards, zombie hordes, and fire-breathing dragons. There are hints dropped that higher levels of technology have been lost in their world due to these fantasy elements. Is it possible that someone was close to discovering electricity but then was thwarted by magic? That doesn't seem like the right way to think about this.

The reason you get technological breakthroughs is that you're trying to solve a problem, often a problem found in the previous technology. You don't invent a supersonic jet plane until after someone has already invented airplanes. It's only then that you start to wonder how to make a faster one.

But how would you get a plane in the first place?

You would, first of all, have to have the idea that it's possible to fly. If your planet had no birds, this might not ever occur to anyone, but in our world, speculation about human flight is literally as old as civilization itself. Even Da Vinci couldn't quite make it work, but once ballooning allowed people to go up into the sky, it wasn't long (comparatively speaking) until we had planes. Besides the idea of flight, you would also need the idea of scientific method—a reliable way to figure out what works and what doesn't. It would be helpful, too, to have an easy system for preserving and transmitting knowledge: the printing press. The books and scrolls in Game of Thrones are hand-scribed,



as in our world prior to the invention of the press.

What do we need in order for ideas to be explored, shared, and experimented on?

Minimally, we need cultural norms in which this is seen as beneficial and not harmful. Better still, we need cultural norms in which this is rewarded.

In the real world, as societies developed enough to trade with others, they could easily see the role of innovation in fostering progress. A society that was too insular remained stagnant; one that was open—even just a little bit—to innovation and change saw progress. If there's no trade, no economic competition, then the only route to growth is conquest. Game of Thrones seems to take place in a world of conquest. It's not so

much that they haven't discovered electricity yet, it's that they haven't discovered commerce.

To be sure, people buy and sell things there, but the only people who think in innovative or entrepreneurial ways are either devoted to conquest, or to sorcery. That, I think, is why they're stagnant.

Read the blog post here 22

Aeon J. S. Senior in Philosofthe Ph. at Bridd Universe He is the

Aeon J. Skoble, Fraser Institute
Senior Fellow, is a Professor of
Philosophy and Chairman of
the Philosophy Department
at Bridgewater State
University in Massachusetts.
He is the author of The
Simpsons and Philosophy and

Deleting the State: An Argument

about Government.





THE PRICE OF PUBLIC HEALTH CARE INSURANCE, 2017





MARIJUANA GROWTH IN BRITISH COLUMBIA

Why the Prohibition Cannot be Sustained

by Stephen T. Easton

he cultivation and production of marijuana in British Columbia highlights the problems inherent in the enforcement of laws that are generally ignored by broad sectors of the populace. Some 7.5 percent of all Canadians report they use marijuana currently, and over their lifetimes 23 percent report themselves as having used marijuana at least once.

My paper, Marijuana Growth in British Columbia, raises several issues that have the cumulative effect of suggesting that in the long term, the prohibition on marijuana cannot be sustained with the present technology of production and enforcement. To anyone with even a passing acquaintance with modern history, it is apparent that we are reliving the experience of alcohol prohibition of the early years of the twentieth century.

In Canada, and more specifically British Columbia today, as with alcohol nearly a century ago, marijuana is too easily produced and exported to be controlled with the tools available to law enforcement in a free society. The return on investment is sufficiently great so that for each marijuana growing operation demolished, another takes its place.

It is apparent that we are reliving the experience of alcohol prohibition of the early years of the twentieth century.

For a modest marijuana growing operation of 100 plants, harvest revenue is from 13 kilograms of marijuana sold in pound blocks out the back door valued at \$2,600 per pound. This amounts to slightly less than \$20,000 per harvest. With four

harvests per year, gross revenue is nearly \$80,000. A conservatively high estimate of production cost is about \$25,000. The return on invested money is potentially high: around 55 percent.

number of "grow-ups" in British Columbia may be as high as 17,500.

The underlying characterization of

the marijuana grow operation

is that it functions as a

profit-maximizing activity

For the year 2000, the estimated

output and costs yield a market equilibrium rate of return.

Such an assumption permits an estimate of the total number of grow-ops. The range of estimates depends upon the value of the crop, the costs of production, the risk-adjusted rate of return to other small businesses, and the likelihood of discovery by the police. For the vear 2000, the estimated number of "grow-ops" in British Columbia may be as high as 17,500. Combined with domestic consumption, numbers

> of this magnitude suggest that exports from British Columbia are worth nearly \$2 billion.





Why is it that indoor marijuana cultivation and consumption appear to take place more openly in BC than elsewhere in Canada? The most striking difference between BC and the rest of Canada lies in the rate at which offences are settled by charging the offender (or "cleared"). Only 13 percent of possession

offences in BC are cleared by charge. Elsewhere in Canada over 60 percent of possession offences are cleared by charge. In addition, the penalties for conviction appear to be low.

In a sample of Vancouver marijuana growing operations "busted" by the police, most of those who were convicted received no jail time: 55 percent. Five more percent were sentenced to a single day or less, and another 8 percent received sentences of between one day and 31 days, while still another 8 percent received 60 days. Some 11 percent were sentenced to 90 days. Of those who are repeat offenders, half are reconvicted within the year. Of the 35 percent who were fined, the average fine amounted to less than \$1,200: a small amount considering the size of most marijuana operations. While police resources are spent to destroy nearly 3,000 marijuana growing operations a year, the consequences are relatively small for those convicted.

Exports from British Columbia are worth nearly \$2 billion.

Current public policy proposals emphasize decriminalization. Suppose, however, that marijuana were treated like any other product and were to be sold at retail cigarette value rather than in bulk. At current prices, a marijuana cigarette costs about \$1.50 to produce and sells for around \$8.60. Since the consumer currently is willing to pay \$8.60, imagine a tax on marijuana cigarettes equal to the difference between the local production cost and the street price. This would transfer the revenue from the current producers and middle men. many of whom are associated with organized crime, to the government.

Crudely, government would have revenue of about \$7 per cigarette. Using conservative assumptions about Canadian consumption, this comes to revenue of over \$2 billion, and should marijuana be taxed on the same basis for export (leaving aside obvious problems of international diplomacy with the United States), additional revenue could be generated. Further, policing assets currently involved in enforcing marijuana-related statutes could be deployed elsewhere.

What the analysis reveals is how widespread marijuana use is in Canada and how extensive production is in British Columbia. As a consequence, the broader social question becomes less about whether we approve or disapprove of local production, but rather who shall enjoy the spoils. As it stands now, growers and distributors pay some of the costs and reap all of the benefits of the multi-billion dollar marijuana industry, while the non-marijuana-smoking taxpayer sees only costs. ©

Stephen T. Easton is professor of Economics at Simon Fraser University and a Fraser Institute senior research fellow. He has published extensively in the areas of crime, economic freedom, and education.





CANADIAN CONSUMER TAX INDEX 2017

The Canadian Consumer Tax Index 2017 finds that last year the average Canadian family paid twice as much of its income in taxes (42.5 percent) as it did for housing (22.1 percent). The annual Fraser Institute study tracks the total tax bill of the average Canadian household from 1961 to 2016, and looks at both visible and hidden taxes that families pay to the federal, provincial, and local governments, including income, payroll, sales, property, health, fuel and alcohol taxes, and more.

See the video here >>>

Freiser Forum

THE FRASER

MINIMUM WAGE HIKES WILL HURT YOUNG PEOPLE, IMMIGRANTS

by Charles Lammam, Hugh MacIntyre, and David Hunt

ith many of Canada's largest provinces (Ontario, Alberta, British Columbia) either committing to or considering a minimum wage of \$15 per hour, many analysts—including us—note that this policy will hurt many vulnerable workers by reducing job opportunities.

But in an open letter to Ontario Premier Kathleen Wynne, 53 "economic experts" dismissed this concern as "fear-mongering" and "out of line with the latest economic research."

That is simply false. The academic evidence in Canada, including the latest research, consistently finds that raising the minimum wage leads to lower employment for vulnerable, low-skilled workers (often young people ages 15 to 24).

Consider the very latest research published this month. In a

comprehensive academic study,
University of Waterloo professors
Kate Rybczynski and Anindya Sen
measure the employment effects of
185 changes to the minimum wage in
Canada's 10 provinces from 1981 to
2011. The study controls for a host of
factors that could affect employment
including changing labour market
conditions and the economic
business cycle.

A 10 percent increase in the minimum wage leads to up to a 4 percent drop in teenage employment.

Perhaps unsurprising to those familiar with the existing body of Canadian research, the study finds minimum wage hikes reduce job prospects for vulnerable workers. Specifically, it finds a 10 percent increase in the minimum wage leads to up to a 4 percent drop in teenage



employment. For perspective, the Ontario government is proposing a 32 percent hike in the minimum wage over the next 18 months.

Just as consumers tend to buy less if the price of a product increases, employers will hire fewer workers.

The effect on teen employment is entirely predictable. Despite what the "economic experts" of the open letter claim, the 20 Canadian studies published in academic journals dating back to 1979 have produced a clear consensus—minimum wage hikes reduce employment opportunities for young workers. Not one of these studies contradicts this conclusion.

That shouldn't surprise anyone familiar with basic economics. Just as consumers tend to buy less if the price of a product increases, employers will hire fewer workers and/or reduce labour costs if government regulations make it more expensive to employ workers without corresponding improvements to

workplace productivity. It's the least-skilled workers—often those aged 15 to 24—who lose out on employment opportunities because they tend to be the least productive due to their lack of experience and skills.

Canadian evidence clearly shows that hikes to the minimum wage reduce employment opportunities for low-skilled workers

A second and novel finding of the study by the University of Waterloo professors is that immigrants aged 25 to 54 are also adversely affected by minimum wage hikes. As a group, recent immigrants can be vulnerable as they attempt to integrate into the Canadian labour market with unrecognized education credentials. struggles with language differences, and other problems. According to the study, a growing share of minimum wage workers are recent immigrants (arriving in the last 10 years), and the group comprised 19 percent of Ontario minimum wage workers in 2011.

Far from fear-mongering, the Canadian evidence clearly shows that hikes to the minimum wage reduce employment opportunities for low-skilled workers. Saying otherwise does a disservice to the public debate and those Canadians adversely affected by the policy. ©



Charles Lammam is Director of Fiscal Studies at the Fraser Institute. He holds an MA in public policy and a BA in economics with a minor in business administration from Simon Fraser University.



Hugh MacIntyre is a Senior
Policy Analyst at the Fraser
Institute. He holds an
MSc in Political Science
from the University of
Edinburgh, an Honours
BA from the University
of Toronto, and a post-

baccalaureate degree in economics from Simon Fraser University.

David Hunt is a researcher at the Fraser Institute. He has a Bachelor's of Business Administration (with distinction) from Kwantlen Polytechnic University where he was the Dean's Medal recipient and is currently working towards a Masters of Public Policy at Simon Fraser University.



HOUSEHOLD DEBT AND GOVERNMENT DEBT IN CANADA

by Livio Di Matteo

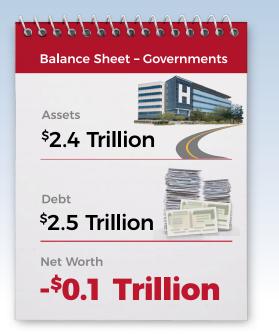
ousehold Debt and
Government Debt in Canada
finds that although household
debt in Canada increased to more
than \$2 trillion in 2016—up from \$357
billion in 1990—Canadian household
assets (real estate, pensions, financial
investments and equity in businesses,

for example) also increased in value over the same time period to \$12.3 trillion last year. But whereas recent increases in Canadian household debt have been accompanied by increases in net worth, the same cannot be said about government debt. C

Read the study here >>>

HOUSEHOLDS IN CANADA HAVE POSITIVE NET WORTH WHILE CANADIAN GOVERNMENTS DO NOT







SHOULD EQUALIZATION KEEP ON GROWING IN AN ERA OF CONVERGING FISCAL CAPACITY?

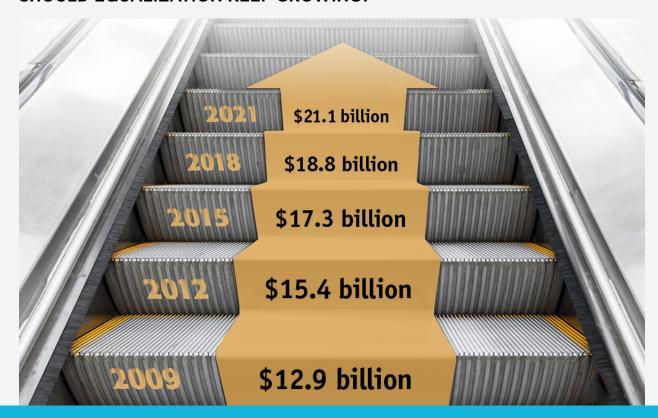
by Ben Eisen, Joel Emes, and Steve Lafleur

he study Should Equalization
Keep on Growing in an Era of
Converging Fiscal Capacity?
finds that as traditional "have"
provinces struggle economically,
Canada's equalization program is not
equipped to adapt to the country's

new economic landscape. In fact, a rule introduced to cap equalization increases to ensure program affordability could actually add as much as \$2.7 billion to program costs over the next two years.

Read the study here >>>

SHOULD EQUALIZATION KEEP GROWING?



Check us out...

Canadian Student Review is offered FREE to students across Canada.

To receive a subscription, or to write to us about articles you read in this publication, **E-mail**: student@fraserinstitute.org



Get daily updates from @FraserInstitute

EducationPrograms



Like us on Facebook through our website or visit: facebook.com/

CLICK HERE TO RECEIVE A SUBSCRIPTION TO OR INFORMATION ABOUT:

- Canadian Student Review: A collection of articles from both economists and students.
- **Events:** Attend our policy briefings across Canada.
- **Fraser Insight:** A Fraser Institute review of public policy in the United States.
- Fraser Update: The No. 1 source for Fraser Institute news; convenient and concise.
- **Volunteering:** Email student@ fraserinstitute.org for further information about volunteer opportunities



www.fraserinstitute.org