



Policy



Paper

Revisiting the Minimum Wage in Atlantic Canada

**By Matthew Lau
and Marco Navarro-Génie**

*Halifax, Nova Scotia,
July 2017*



The Atlantic Institute for Market Studies (AIMS)

AIMS is a Canadian non-profit, non-partisan think tank that provides a distinctive Atlantic Canadian perspective on economic, political, and social issues. The Institute sets the benchmark on public policy by drawing together the most innovative thinking available from some of the world's foremost experts and applying that thinking to the challenges facing Canadians.

AIMS was incorporated as a non-profit corporation under Part II of the *Canada Corporations Act* and was granted charitable registration by Revenue Canada as of 3 October 1994. It received US charitable recognition under 501(c)(3), effective the same date.

287 Lacewood Drive, Suite 204,
Halifax, Nova Scotia, Canada B3M 3Y7
Telephone: (902) 429-1143

 aims@AIMS.ca  facebook.com/AtlanticInstituteCA  [@aims_ca](https://twitter.com/aims_ca)

 www.AIMS.ca  [/company/atlantic-institute-for-market-studies](https://LinkedIn.com/company/atlantic-institute-for-market-studies)

Board of Directors

Chairman: John Risley

Former Chairman: John F. Irving

President and CEO: Marco Navarro-Génie

Vice-Chair: Scott McCain (New Brunswick),

Vice-Chair: Don Mills (Nova Scotia)

Vice-Chair: Leo Power (Newfoundland and Labrador)

Secretary: Fae Shaw

Treasurer: Doug Reid, FCA

Directors: Paul Antle, Laura Araneda, Lee Bragg, Dr. Robert Campbell, Stephen Emmerson, Dr. Richard Florizone, Nelson Hagerman, Doug Hall, Dennice Leahey, Todd McDonald, Jonathan Meretsky, Andrew Oland, Bob Owens, Peter Woodward.

Advisory Council

George Bishop, George Cooper, Ivan Duvar, Peter Godsoe, James Gogan, Frederick Hyndman, Bernard Imbeault, Phillip Knoll, Colin Latham, Norman Miller, James Moir, Jr., Gerald L. Pond, Allan C. Shaw, Joseph Shannon.

Board of Research Advisors

Advisors: Ian R. Brodie, Charles Colgan, J. Colin Dodds, Morley Gunderson, Doug May, Jim McNiven, Robert Mundell.

The author(s) of this document worked independently, and is solely responsible for the views presented here. The opinions are not necessarily those of the Atlantic Institute for Market Studies, its directors or supporters or of other organizations with which the author(s) may be affiliated. Any errors or omissions remain the responsibility of the author(s).

Revisiting the Minimum Wage in Atlantic Canada

By Matthew Lau and Marco Navarro-Génie

Table of Contents

Executive Summary	5
Introduction	6
I. Evidence on the Effects of Minimum Wage Legislation	7
The Effects of the Minimum Wage on Employment	7
The Effects of Minimum Wages on Training and Career Development	10
The Effects of Minimum Wages on Poverty	12
II. Common Logical Errors Made by Minimum Wage Supporters	14
III. The Minimum Wage in Practice in Atlantic Canada	19
Employment in Atlantic Canada	19
The Minimum Wage in Atlantic Canada Since 2000	21
The Minimum Wage in the Atlantic Provinces, Compared to Other Provinces	23
Conclusions and Recommendations	25
Endnotes	27
Bibliography	30

Halifax, Nova Scotia,

July 2017

About the Authors



Matthew Lau

Matthew Lau is an independent economics writer with commentaries appearing frequently in the *Financial Post*. He holds a Bachelor of Commerce degree, with a specialization in finance and economics, from the University of Toronto.



Marco Navarro-Génie

Marco Navarro-Génie, BA (Concordia University), MA, PhD (University of Calgary) is the President and CEO of AIMS. He served as vice-president of research at the Frontier Centre for Public Policy following two decades in academe. His areas of interests are fiscal federalism, higher education, immigration and labour, and energy and environment. He comments regularly on Canadian institutions, policy, and politics for various print and broadcast outlets.

Executive Summary

Minimum wage legislation is controversial. Supporters of raising the wage floor argue that such policy would reduce poverty by raising incomes for poor workers. They contend that the effects on employment and economic growth would be negligible, or even positive. In this paper, we show how economic theory and empirical evidence contradict these claims.

A legislated minimum wage — of \$15 per hour, for example — renders unemployable any worker whose skills are insufficient to generate an hourly value to employers of at least \$15. Basic economic theory informs us that a person with only \$10 in her pocket is unable to exchange her money for something priced at \$15. By the same principle, a person poor in skills who can generate for employers only \$10 of value per hour will be unable to exchange her labour for a wage of \$15 per hour, and will soon find she can earn no wage at all.

The higher the minimum wage, the more low-skilled workers will be legally priced out of employment, as confirmed by most empirical evidence. Recent reviews of academic studies on the minimum wage, including two commissioned by the Government of Ontario, conclude that raising the minimum wage by 10 percent reduces youth employment by approximately three to six percent. Raising the minimum wage also tends to reduce non-wage compensation, including training opportunities, for young workers, thus exacerbating negative employment effects.

These consequences help to explain why raising the minimum wage tends not to reduce poverty — and may increase it. Even if these negative consequences are ignored, the minimum wage would still be a poorly targeted anti-poverty device, since only one in eight minimum wage workers belongs to a poor household.

In the context of Atlantic Canada, the data reveal that negative effects of minimum wages are likely a much larger burden in Prince Edward Island, New Brunswick, and Nova Scotia than the rest of Canada. Given Atlantic Canada's chronic problems with unemployment, the effects of minimum wage policy are of great importance.

In sum, the minimum wage laws create a myriad of problems while solving none. Ideally, they should be scrapped. At the very least, governments should resist calls to further harm employment opportunities and economic growth by raising the minimum wage.



Introduction

Minimum wage legislation continues to be a controversial public policy in many Canadian provinces. In May 2017, the Ontario government announced its intention to emulate the Alberta government by raising the minimum wage to \$15 per hour by January 2019.¹ Similarly, in British Columbia, the new coalition government promises to establish a commission that would chart the course to raising the minimum wage to \$15 per hour.² There have been appeals for a \$15 per hour minimum wage in the Atlantic Provinces as well.³

However, many economists have argued against raising the minimum wage, citing, among other concerns, such a policy's negative employment effects. For example, in his 2007 report commissioned by the Ontario Ministry of Finance, economist Morley Gunderson strongly warned against raising the minimum wage.⁴

Ontario raised the minimum wage anyway, prompting Gunderson to state bluntly: "I don't think it was the right thing."⁵ Philip Cross, formerly the chief economic analyst at Statistics Canada, agreed. Cross noted in 2015 that, beyond its obviously negative impact on many businesses, the "steady increase in the minimum wage" in Ontario was one explanation for the "persistently high level of youth unemployment in Ontario over the past decade."⁶

Because Atlantic Canada has struggled with chronically high unemployment, including high youth unemployment, it is important to identify and delineate the effects of increasing the legislated minimum wage. That is the purpose of this report.

We begin in the following section by reviewing the evidence on the effects of minimum wage legislation on employment, training and career development, and poverty. The next section identifies and describes five common arguments made in support of minimum wages that are based on poor logic and a misunderstanding of how markets work. This is followed by an analysis of the minimum wage in the Atlantic context. The data reveal that the negative effects of minimum wages are likely a much larger burden in Prince Edward Island, New Brunswick, and Nova Scotia than in the rest of Canada. The final section summarizes the report and offers some policy recommendations.



1. Evidence on the Effects of Minimum Wage Legislation

The Effects of the Minimum Wage on Employment

Basic laws of economics inform us that increases in the legislated minimum wage reduce employment. Economist Don Boudreaux of George Mason University explains it this way:

This classic economic argument against the minimum wage rests on the central pillar of modern economics: the law of demand.

The law of demand says that if the cost of taking an action rises, people will take that action less frequently. Importantly, this law lies not only at the heart of economics; it's a proposition that every one of us accepts as a practical rule of reality.⁷

Wages are subject to the incontrovertible law of demand. Thus, if the government raises the cost of employing low-skilled workers through minimum wage legislation, then fewer low-skilled workers will be employed.

Moreover, workers whose skills do not enable them to generate more value to an employer than the legislated minimum wage will either continue to be unemployed or they will find themselves unemployed shortly. Put another way, a legislated minimum wage — of \$15 per hour, for example — renders unemployable any worker whose skills are insufficient to generate an hourly value to employers of at least \$15.

Just as a person with only \$10 in her pocket is unable to exchange her money for something priced at \$15, a person poor in skills who can generate for employers only \$10 of value per hour is unable to exchange her labour for a wage of \$15 per hour.

Here is how Boudreaux explains the reality of legislated minimum wages:

“If you are too poor in skills,” says the state to workers, “you may not acquire any income or job experience. If your current wealth of skills falls below what we, the state, deem minimally acceptable, you are too poor in skills to participate in our economy.”⁸

Given that workers who are poor in skills are the ones who are priced out of the labour market by legislated minimum wages, it is unsurprising that the negative employment effects of raising the minimum wage are most pronounced among young workers, who are most likely to be low-skilled.⁹



Empirical evidence substantiates these logical consequences. After surveying 102 minimum wage studies from Canada, the United States, and other countries, David Neumark and William Wascher concluded that “nearly two-thirds give a relatively consistent (although by no means always statistically significant) indication of negative employment effects.” Furthermore, of the 33 studies that they believed to be most credible, 28 indicated that minimum wages reduced employment. Among low-skilled workers who are “most likely to be adversely affected by minimum wages,” wrote Neumark and Wascher, “the evidence for disemployment effects seems especially strong.”¹⁰

In a 2007 report for the Ontario Ministry of Finance about raising the legislated minimum wage, Gunderson noted that “recent Canadian evidence tends consistently to find that a ten percent increase in the minimum wage reduces the employment of teens by three to six percent and slightly less for young adults.” This negative employment effect, he observed, “is generally somewhat larger than in the United States” and is “consistent with that from most other industrialized countries when comparable methodologies are used.”¹¹ The Canadian studies from which this result is drawn used “the most recent data as well as different and more sophisticated methodologies ... The fact that they use different data sets and methodologies suggest that these results are robust.”¹²

A review of 14 Canadian studies by Keith Godin and Niels Veldhuis in 2009 corroborated Gunderson’s findings. They also concluded that a 10 percent increase in the minimum wage was likely to reduce employment among teens and young workers by about three to six percent.¹³

Similarly, a panel established by the Ontario Ministry of Labour in 2013 and chaired by Anil Verma reported that, in Canada, “researchers have generally found an adverse employment effect of raising minimum wages especially for young workers ... Typically those studies find that teen employment would drop by 3%–6% if the minimum wage is raised by 10%.”¹⁴

Estimates for job losses among workers directly affected by minimum wage increases — those who earn between the current minimum wage and the proposed increased minimum wage — are even higher. A study by economists Michele Campolieti, Tony Fang, and Morley Gunderson estimated that a 10 percent increase in the minimum wage would reduce employment among youth by about four percent. However, for youth in the directly affected group (earning between the current minimum wage and the proposed increased minimum wage), the employment losses would be about 15 percent — or even as high as 20 percent.¹⁵

Notwithstanding the above, not all empirical studies show that minimum wages



reduce employment. Recall that the Neumark and Wascher review cited above found only two-thirds agreement on negative employment effects (though stronger agreement of this proposition for the studies that were most credible). This means that one-third did not find negative employment effects.

Of the studies finding no negative employment effects, the most influential was by David Card and Alan Krueger, published in 1994, which examined the effects of a minimum wage increase on fast food restaurants in New Jersey.¹⁶ Paul Krugman wrote that prior to this study, he thought that raising the minimum wage clearly reduced employment — but he now believes that the evidence does not show this to be true.¹⁷

Given the empirical disagreement on the effects of minimum wages on employment, it is important to note a few points. The first is that it is difficult with continuous unquantifiable changes of economic phenomena to identify precisely the effects of a policy change. Changes in employment levels are the result of millions of individuals independently making decisions, which are affected by innumerable different variables, of which the legislated minimum wage is only one. This makes it difficult for researchers to establish a causal relationship between minimum wages and employment.

Second, the negative employment effects of minimum wages take place over time. Therefore, examining only the immediate effects of the minimum wage will lead to an underestimate of negative employment effects since employers adjust to minimum wage increases over time. For example, companies may have initiated projects that they will see through even after a minimum wage hike since the capital costs of a project have already been incurred. But they will not initiate a similar project in the future if the increase in labour costs has now made such a project unprofitable.¹⁸

Third, as previously noted, though some studies fail to detect negative employment effects, the majority do find these effects. Just as the review by Neumark and Wascher found that more credible studies were more likely to find negative employment effects, Gunderson has noted that the Canadian evidence, which is more germane to our purposes than the American evidence, has tended to find larger negative employment effects.¹⁹

Notably, even the results from Card's and Krueger's influential study in 1994 were subsequently overturned. Card's and Krueger's study found, through a survey of 410 fast food restaurants, that employment in those restaurants grew faster in New Jersey (where the minimum wage was raised) than in neighbouring Pennsylvania. But as The Concise Encyclopedia of Economics documents:



Because telephone survey data are notoriously prone to measurement error, Neumark and Wascher repeated Card and Krueger’s analysis using payroll records from a similar sample of restaurants over the same time period. The results from the payroll data showed that “the minimum-wage increase led to a decline in employment in New Jersey fast food restaurants relative to the Pennsylvania control group.”²⁰

In sum, if the objective of public policy is to reduce unemployment, increasing the legislated minimum wage is counterproductive. Evidence in Canada reveals a reduction of youth employment in the neighbourhood of three to six percent when the minimum wage is increased by 10 percent. For youth making between the current minimum wage and its proposed increase, a 10 percent minimum wage hike reduces employment by up to 20 percent.

The Effects of Minimum Wages on Training and Career Development

Lost jobs are not the only negative result of increasing the legislated minimum wage. In addition to reducing employment opportunities, employers often respond to legislated minimum wage increases by reducing working hours and non-wage benefits, including, but not limited to, fringe benefits and on-the-job training.

Robert Murphy, Charles Lammam, and Hugh MacIntyre note in a recent study on consequences of the minimum wage:

There are other independent problems with use of the minimum wage as a means to help low-income workers. For example, employers might cut back on other job benefits besides explicit pay in order to reduce the extra wage expense. To see this, imagine a fast food restaurant where the employees initially could take long breaks during their shifts without the manager objecting and could eat their meals for free. After a minimum wage hike, even if the employees all retained their jobs, management might reduce break times and stop “comping” meals taken during a shift. In this type of example, it would be wrong to look at the gross increase in pay as a pure boon to the workers (who retained their jobs), because the quality of the job would have diminished in other dimensions. Empirical studies have documented various ways in which minimum wage hikes can reduce non-monetary job benefits.²¹

The practical implication is that beyond job losses, negative effects which inexorably exist are difficult to decipher empirically. There are more consequential lost benefits resulting



from minimum wages than just lost free meals and shortened break times. The loss of training opportunities caused by minimum wage legislation is especially problematic.

Many young workers take low-wage jobs (or even unpaid jobs) to increase their skills and gain experience, not to earn a lot of money. But their plans can be thwarted by high minimum wages. As one report commissioned by the Ontario government suggests, high minimum wage levels “inhibit training by inhibiting the ability to accept low wages in return for training.”²²

The negative effects of minimum wages on training can be substantial. For instance, a study by Wascher and Neumark found that a 10 percent increase in the minimum wage reduced the proportion of workers between the ages of 20 and 24 receiving training by two percentage points. They concluded that the “evidence generally supports the hypothesis that minimum wages reduce training aimed at improving skills on the current job, especially formal training.” Their study suggested “sizable deleterious effects of minimum wages” on the training of workers in their early 20s.²³

Losing these training opportunities can have long-term negative consequences on young workers’ incomes. Gunderson writes that if as the result of minimum wages, young workers are prevented “from accepting a low wage in return for training or experience [,] this could inhibit them from moving out of poverty in the longer-run.”²⁴

This point highlights another reason for which minimum wages are counterproductive. The Ontario panel chaired by Anil Verma noted that minimum wage jobs “are often taken as temporary stepping-stones to higher paying jobs.”²⁵ Take these stepping stones away, and long-term career prospects can be severely damaged.

Research shows that most low-wage earners do use these positions as stepping stones, rather than remaining in them for the long term:

Rather than viewing these positions as “dead end jobs” and consequently insisting on a higher wage floor to provide a “decent living” to the workers, people should view minimum wage positions as gateway jobs to a better career. For example, Smith and Vavrichek (1992) document that more than 60% of minimum wage workers experience a raise, typically of about 20%, within a year after being first hired. According to Long (1999), more than 80% of initially minimum wage workers will end up earning more than the minimum wage within the first two years of employment.²⁶

More recent studies on income mobility also show that earning low incomes is not a permanent predicament. Seventy-nine percent of Canadians with incomes in the lowest quintile (the bottom 20 percent) in 1993 had moved to a higher quintile by



1998, just five years later. Extend that time frame to 10 years, and 88 percent of them had moved into a higher quintile.²⁷ This helps explain why the minimum wage is counterproductive:

Policymakers are not doing any favours for the poor when they raise the minimum wage; they are merely removing the bottom rung from the ladder of economic mobility. Minimum wage laws thus prevent less skilled workers from getting the entry-level jobs that provide them the experience and new skills they need to move up the economic ladder.²⁸

In short, the negative effects of minimum wages on workers extend beyond just lost jobs in the near term. By reducing youth employment and training opportunities, they can also have very damaging effects on many workers in the long run.

The Effects of Minimum Wages on Poverty

After reviewing the economic evidence for the minimum wage's negative effects on workers, it is important to consider what minimum wage advocates view as the advantage of raising the minimum wage — that it could reduce poverty by raising the incomes of low-income households.

The evidence tends not to support this view. “While intuitively appealing as an anti-poverty device,” Morley Gunderson has noted, “the minimum wage is, at best, an exceedingly blunt instrument with which to curb poverty — at worst, it might be harmful.”²⁹

There are many reasons for this outcome. The first is the negative effects of the minimum wage on employment and training, which have already been described. As previously noted, in addition to the negative effect on income when jobs are lost, there is a longer-run effect. The minimum wage impedes young and unskilled workers from obtaining entry-level positions from which they can move upwards, thus damaging their long-term career prospects.

Second, even in cases where the minimum wage does end up increasing the incomes of low-wage workers, it remains a poorly targeted device for reducing poverty. In fact, only a small percentage of minimum wage earners in Canada live in poor households. The numbers behind this result were summarized in a recent Fraser Institute study:

Popular support for the minimum wage largely derives from the belief that it is a useful tool for boosting the wages of poor workers. However, the evidence paints a much different picture. For starters, the minimum wage does not effectively target workers in low-income households. In fact, 87.5% of Canadians earning



minimum wage in 2012 lived in households above the Low Income Cut-Off (LICO), a widely used measure of relative poverty. Moreover, the vast majority of workers (83.4%) from households falling below the LICO threshold earned more than the minimum wage.

These counterintuitive results follow from the demographic composition of minimum wage earners. In 2014, 58.4% of those earning minimum wage were youths aged 15 to 24. Furthermore, 56.8% of all minimum wage earners were living with family, while 19.9% were married to a spouse who was also employed. Taken together, the data undercut the popular image of minimum wage earners being single breadwinners supporting a family. In fact, only 2.2% of those earning minimum wage were unmarried heads of household with at least one minor child.³⁰

It is therefore unsurprising that the review undertaken by the panel, struck by the Ontario government in 2013 to investigate the minimum wage's economic impacts, found that the "link between poverty and low wages is weak." The panel also noted that "some studies even find that a higher minimum wage leads to an increase in poverty." One study found a 10 percent minimum wage increase was associated with a four to six percent increase in the percentage of families living in relative poverty in Canada over a span of more than 20 years. The panel explained that the "higher minimum wages trigger higher unemployment, which results in more poverty as household incomes drop among low-income families."³¹

Another negative effect of the minimum wage, which disproportionately affects the poor, is its impact on consumers. Economist Sara Lemos reviewed more than 20 studies and found that a 10 percent increase in the minimum wage resulted in food prices rising by up to four percent.³²

Another study, published in *The Journal of Human Resources* and co-authored by two researchers with the Federal Reserve Bank of Chicago and one at the U.S. Department of Agriculture, found that "restaurant prices unambiguously rise after minimum wage increases are enacted." This effect was strongest at limited-service restaurant outlets, where customers typically pay at the counter before eating. In these restaurant outlets, they found a 22.6-percent likelihood of the price of an item increasing within two months of a minimum wage increase (compared to 11.5 percent when there was no minimum wage change).³³

To better assist the poor in Atlantic Canada, it is first necessary to know who they are, what leads to their socioeconomic circumstance, and why. Raising the minimum wage will impose non-trivial costs and does not reduce poverty in a meaningful way.



II. Common Logical Errors of Minimum Wage Supporters

Despite the evidence suggesting that the minimum wage is counterproductive, making workers worse off without a reduction (and likely even an increase) in poverty, it remains a popular policy. Hence the calls for increasing it.

Some of the major arguments made in support of the minimum wage, however, are based on poor logic and a misunderstanding of how markets work. It is therefore necessary, before moving on to an analysis of the minimum wage in an Atlantic context, to address some of the myths advanced by its supporters.

Myth #1: The minimum wage is needed to protect workers from being “exploited” by businesses.

In a competitive labour market, businesses must compete for workers in the same way that workers must compete for jobs. In the absence of significant monopsony power (i.e., a market where there is only one buyer), businesses cannot sustainably “exploit” or severely underpay their workers. If they try, competing businesses will hire away these underpaid workers by offering slightly higher wages.

For example, if a worker’s productivity is \$16 per hour, a business without monopsony power cannot sustainably “exploit” the worker by paying only \$11 per hour. A competing business would eventually lure the worker away from the “exploiting” employer by offering more than \$11 and less than \$16 per hour.

While markets are never perfectly competitive, it is the general case that businesses must compete with rival companies for workers, preventing businesses from offering unfairly low wages. The absence of significant monopsony power being held by employers is especially true for low-skilled workers. Unlike for workers with highly specialized skills that may be demanded by only one or a handful of employers, many companies in many industries employ low-skilled workers.

What protects workers from exploitation is not a legislated minimum wage, but rather a free and well-functioning labour market where businesses must pay competitive wages to attract and retain workers.



Myth #2: The minimum wage strengthens the bargaining power of low-skilled workers.

The minimum wage severely weakens the bargaining power of workers. As economist Don Boudreaux explains:

A worker's bargaining power is increased only if that worker is made more attractive to employers, which means only if that worker's skills are made less abundantly available to employers ...

What does not increase the bargaining power of workers is for government to strip from them a bargaining chip — and such stripping is exactly what minimum-wage legislation accomplishes for workers with the fewest and least-valuable skills. Just as these workers' bargaining power would fall if government prevented them from, say, working after sundown or from working on Wednesdays, minimum-wage legislation reduces these workers' bargaining power by preventing them from competing for jobs (or for better non-wage terms of employment) by offering to work at hourly wages below the minimum. The minimum wage does nothing at all to make the skills of the lowest-skilled workers less abundantly available to employers while it simultaneously makes these workers less attractive to employers.³⁴

As Boudreaux writes, a bargaining chip is useful only if it can be offered in exchange for something better. As previously noted in this report, workers — and especially young workers — often prefer more non-wage compensation such as training opportunities over increased wages. Yet the minimum wage prevents them from negotiating with their employers for greater training opportunities by confiscating their ability to offer to work for lower wages.

Indeed, applying more broadly the “logic” that governments can improve workers' bargaining power by legislating that their wages must be higher than an arbitrary minimum, it follows that governments can also improve workers' bargaining power by legislating that they must be given more days off every year. Since many workers prefer to have more days off, would workers be strengthened if government legislated that they must all be given every Wednesday off (as suggested in the above quote from Boudreaux)? If not, what reason is there to believe that governments strengthen workers by legislating minimum wages?

By making low-skilled workers become less attractive to employers, the minimum wage forces these workers to negotiate from a weakened, not strengthened, position.



Myth #3: Raising the minimum wage makes businesses more productive.

Claims of this kind tend to fall under two categories. The first is that raising wages boosts employee morale. This could make employees more productive, as well as reduce employee turnover and its associated costs. But advancing this argument as a reason for raising the minimum wage falls flat:

Conceivably, a boost in morale or a reduction in labour turnover could mitigate the cost but, if so, the government would not need to force firms to engage in the policy – the Minister of Labour could simply send a fax to every firm’s HR department, explaining how a pay hike would “pay for itself”.³⁵

Indeed, if raising wages is profitable, businesses will voluntarily raise wages without government coercion. It is unreasonable to believe that those who run businesses have worse information on how their own firms should be run most profitably, than do elected officials imposing a one-size-fits-all solution.

Others alternatively claim that minimum wages make businesses more productive by encouraging automation. As with the previous argument, if businesses could raise profitability by automating rather than hiring labour, they would automate even in the absence of minimum wage legislation.

Indeed, if businesses react to minimum wage legislation by replacing workers with machines (which reduces employment), this by definition makes them less efficient — not more. Consider the following example: suppose a business currently employs a worker at \$10 per hour to produce a certain amount of output, while a machine can produce the same output at a cost to the business of \$11 per hour. If the minimum wage is raised above \$11 and the business automates production, it is now consuming an extra dollar of resources per hour with no increase in output. This means the business has become less productive.

Myth #4: Raising the minimum wage increases economic growth by enabling more consumption by workers who have their wages increased.

There are two enormous fallacies in this claim. First, if some workers have their wages increased by the minimum wage, this corresponds to a decrease by the same amount of the incomes of those who must pay the higher wage. This is not an increase in



income, but merely a transfer. Worse still, due to the negative employment effects of minimum wages, other workers have their incomes reduced. The net result of the minimum wage will therefore be a decrease in income, not an increase. (Notably, even setting aside the income decreases for those who must pay a higher wage, the negative employment consequences of raising the minimum wage may result in a net reduction in the incomes of low-wage workers, as evidence suggests has been the case with Seattle’s recent minimum wage hike).³⁶

The second fallacy in this claim is that economic wealth is created through consumption. This is not the case. Production, rather than consumption, drives economic growth. Whatever is consumed must first be produced.

To understand how production enables consumption (rather than consumption driving production), consider that the world today consumes far more than before the Industrial Revolution. Is it because everybody suddenly decided around 1800 to consume more, leading to an increase in economic output? Or is it because of the productivity gains made during and after the Industrial Revolution that enabled greater consumption? Surely, it is the latter.

Notably, even those who argue in favour of higher minimum wages on the grounds that it would be good for economic growth usually concede that such a policy would put some teenage workers out of a job and cause some businesses to fail.³⁷

The flaw in this logic is that there will supposedly be fewer businesses and fewer workers producing goods — and yet consumption is somehow to rise? This does not make sense.

Myth #5: Raising the minimum wage, by redistributing income to poor households, will not reduce employment. Poor households will spend increased incomes on goods and services that rely on low-wage production.

As economist Stephen Gordon has argued, the case for raising the minimum wage is problematic because “the losses in total income are typically underestimated (when they are not being dismissed out of hand) and the putative reductions in income inequality are almost certainly being overstated.”³⁸

We have already discussed how raising the minimum wage does not do much to raise the incomes of poor households. To review: Most workers who do see wage increases when the minimum wage is raised do not belong to poor households. Indeed, only



one in eight minimum wage earners in Canada lives in a household below the LICO. Furthermore, as noted in the explanation of Myth #4, it is quite possible that raising the minimum wage would result in a net reduction in the incomes of low-wage workers. Last, many of the small business owners who will pay the higher minimum wage are making low wages themselves. Indeed, 29 percent of workers who are incorporated or self-employed earn under \$15 per hour, compared to only 20 percent for workers who are employees.³⁹

Beyond the above issues, Myth #5 relies on extreme and unrealistic assumptions. For the minimum wage not to reduce jobs, the quantity demanded of goods and services which rely on low-wage labour must not fall. Yet at the same time, the entire cost of the minimum wage hike is absorbed into the prices of these goods.⁴⁰

To re-state, Myth #5 claims that despite the prices of these goods rising to fully absorb the cost of the minimum wage hike, the quantity demanded of these goods will not shrink. Yet if the demand for these goods over this price-change range is elastic (which may well be the case, especially in the long run), then to keep the quantity demanded from falling, the minimum wage earners must increase their spending on these goods by more than the entire value of the increase in their incomes (because everybody else is now spending less on these goods).⁴¹

Even if the demand over this price-change range is inelastic, it would be very difficult to imagine — since the minimum wage is far from a clean transfer of income from rich to poor households — that spending on these goods would increase by enough to keep the quantity demanded from falling.

And even ignoring all of the above points, it is worth noting that the “benefits” of raising the minimum wage must not be quite so beneficial if the additional income that poor households receive must be spent on goods whose prices have been inflated by that very same minimum wage hike.

Last, even if somehow the quantity demanded of goods that rely on low-wage labour for production does not fall — who is to say that these goods will continue to be produced by labour? Many minimum wage jobs are in the fast food industry. As it happens, food service is one of the industries where workers are at the highest risk of being replaced by machines.⁴²



III. The Minimum Wage in Practice in Atlantic Canada

Employment in Atlantic Canada

The minimum wage issue is one of particular importance to Atlantic Canada for two reasons. The first is that the minimum wage was raised in all four Atlantic Provinces in April 2017, so it is important that the impacts be well understood. The second is that the unemployment rate in the Atlantic Provinces, including among youth, has been chronically high.

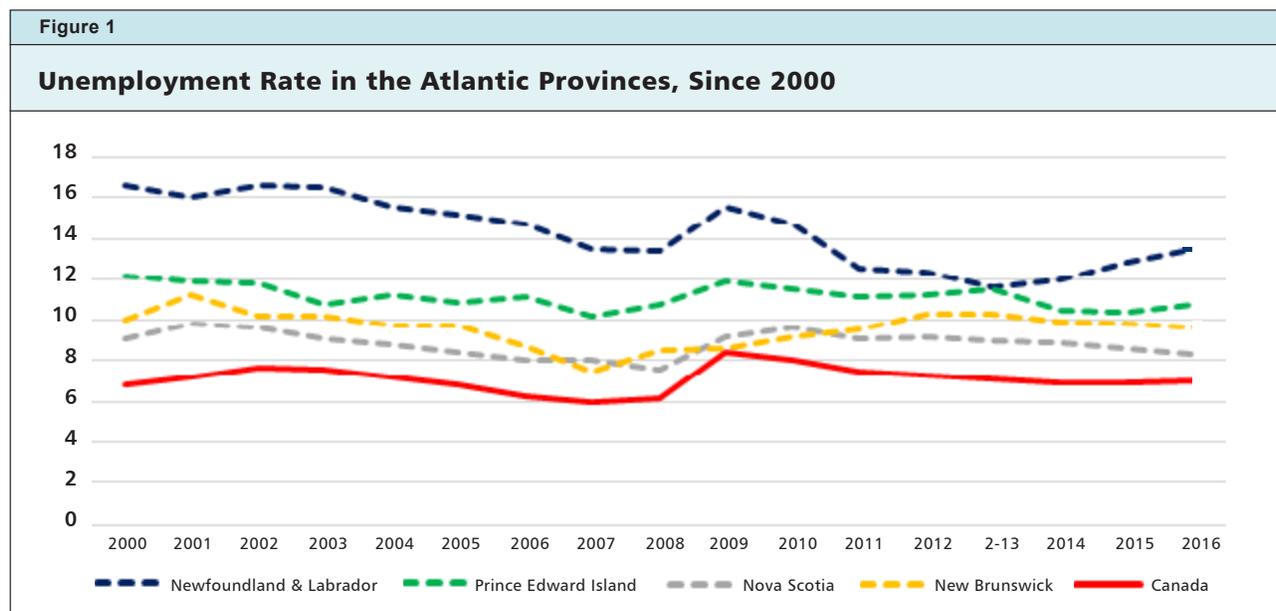


Figure 1 shows the unemployment rate in each of the Atlantic Provinces, along with the national unemployment rate, since 2000. There is a long-standing problem of relatively high levels of unemployment across all four Atlantic Provinces. In 2016, the national unemployment rate was seven percent. However, in Nova Scotia it was 8.3 percent, in New Brunswick it was 9.6 percent, in Prince Edward Island it was 10.8 percent, and in Newfoundland and Labrador it was 13.5 percent.⁴³

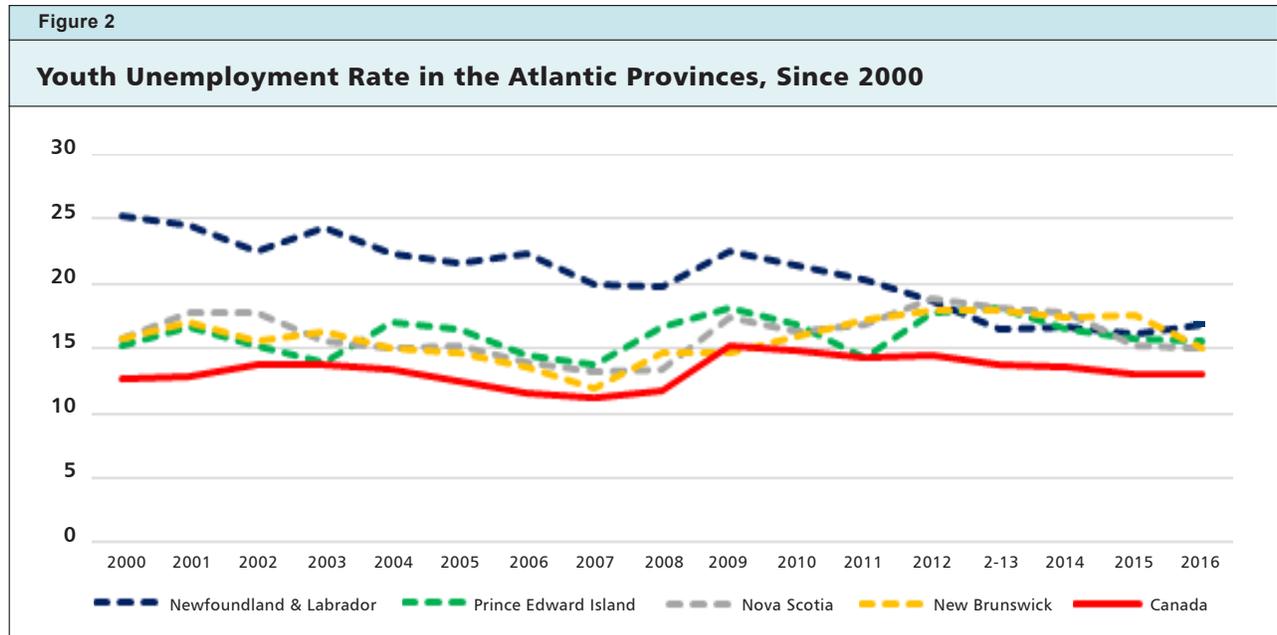


Figure 2 shows trends in youth unemployment since 2000. The level of youth unemployment in the Atlantic Provinces has been consistently higher than elsewhere in Canada.⁴⁴ Since young workers (ages 15-24) are most likely to be low-skilled and most likely to be in low-wage positions, the negative impacts of minimum wage increases on employment and training opportunities disproportionately affect young workers.

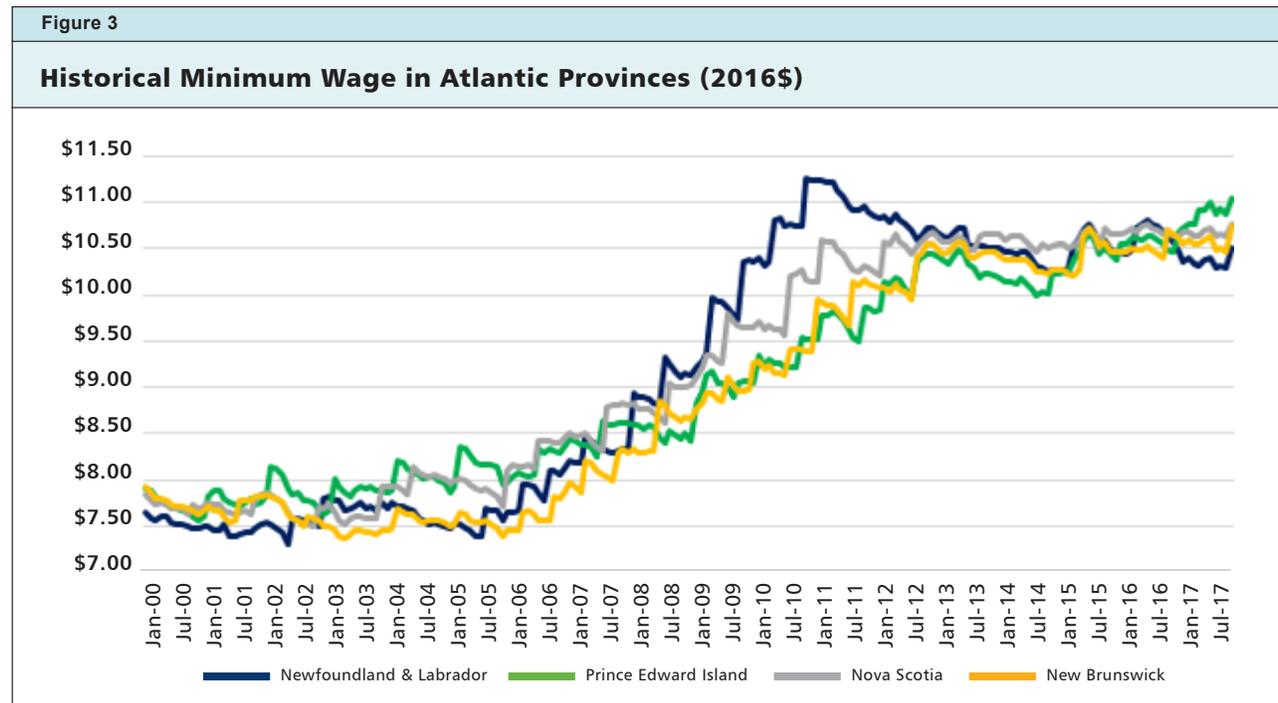
The chronically high rate of unemployment, particularly among the young in Atlantic Canada, suggests that more attention should be given to reducing barriers to employment in these provinces — hence the need to examine the negative employment effects of the minimum wage.

The Minimum Wage in Atlantic Canada Since 2000

The increases to the minimum wage in each Atlantic province since 2000 are documented in Table 1 below.⁴⁵

Table 1				
Minimum Wage Levels in Atlantic Canada Since 2000				
	Newfoundland & Labrador	Prince Edward Island	Nova Scotia	New Brunswick
Before 2000	\$5.50	\$5.40	\$5.60	\$5.50
2000	\$5.60 (January)	\$5.70 (October)	\$5.75 (January)	
2001		\$5.80 (January)	\$5.80 (October)	\$5.90 (July)
2002	\$5.75 (May) \$6.00 (November)	\$6.00 (January)	\$6.00 (October)	\$6.00 (August)
2003		\$6.25 (January)	\$6.25 (October)	
2004		\$6.50 (January)	\$6.50 (April)	\$6.20 (January)
2005	\$6.25 (June)	\$6.80 (January)	\$6.80 (October)	\$6.30 (January)
2006	\$6.50 (January) \$6.75 (June)	\$7.15 (April)	\$7.15 (April)	\$6.50 (January) \$6.70 (July)
2007	\$7.00 (January) \$7.50 (October)	\$7.50 (April)	\$7.60 (May)	\$7.00 (January) \$7.25 (July)
2008	\$8.00 (April)	\$7.75 (May) \$8.00 (October)	\$8.10 (May)	\$7.75 (March)
2009	\$8.50 (January) \$9.00 (July)	\$8.20 (June) \$8.40 (October)	\$8.60 (April)	\$8.00 (April) \$8.25 (September)
2010	\$9.50 (January) \$10.00 (July)	\$8.70 (June) \$9.00 (October)	\$9.20 (April) \$9.65 (October)	\$8.50 (April) \$9.00 (September)
2011		\$9.30 (June) \$9.60 (October)	\$10.00 (October)	\$9.50 (April)
2012		\$10.00 (April)	\$10.15 (April)	\$10.00 (April)
2013			\$10.30 (April)	
2014	\$10.25 (October)	\$10.20 (June) \$10.35 (October)	\$10.40 (April)	\$10.30 (December)
2015	\$10.50 (October)	\$10.50 (July)	\$10.60 (April)	
2016		\$10.75 (June) \$11.00 (October)	\$10.70 (April)	\$10.65 (April)
2017	\$10.75 (April)	\$11.25 (April)	\$10.85 (April)	\$11.00 (April)

Taken together, this rapid increase in the minimum wage since 2000 has far outstripped the increase in the Consumer Price Index (CPI). This is depicted in Figure 3 below.⁴⁶



It is important to note that from January 2000 to April 2017, in each Atlantic province the minimum wage rose faster than the median employee hourly wage. During this period, the CPI-adjusted minimum wage increased 37.2 percent in Newfoundland and Labrador, 39.8 percent in Prince Edward Island, 37.2 percent in Nova Scotia, and 35.6 percent in New Brunswick.⁴⁷ The real increase in the median employee hourly wage from January 2000 to April 2017 was 28.7 percent in Newfoundland and Labrador, 15.6 percent in Prince Edward Island, 14.7 percent in Nova Scotia, and 14.3 percent in New Brunswick.⁴⁸

The rapid rise in the minimum wage in Atlantic Canada since 2000 is an important point. Recall that the minimum wage renders unemployable all those workers whose maximum productive output is exceeded by the legislated minimum. All else being equal, the higher the minimum wage rises, the greater the number of workers who are made unemployable. With Atlantic Canada suffering chronically high unemployment, the last thing provincial governments should do is to price more workers out of the labour market — yet that is what they do with each minimum wage increase.

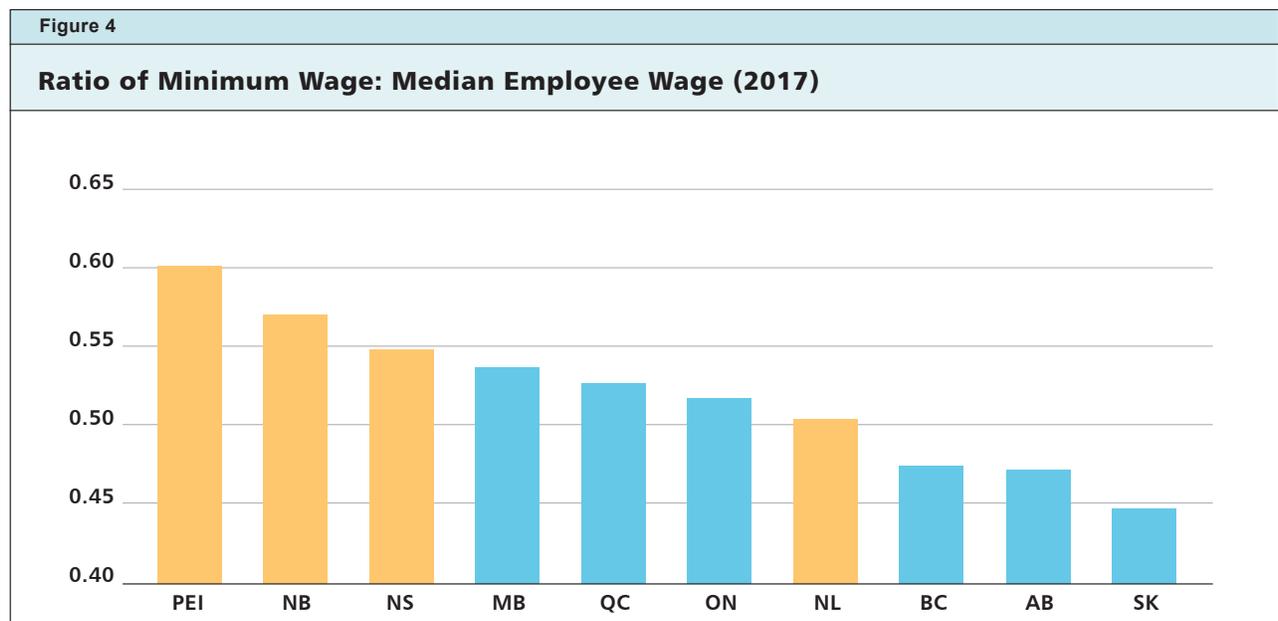
The Minimum Wage in the Atlantic Provinces, Compared to Other Provinces

In addition to comparisons with the past, another important benchmark is how the minimum wage in the Atlantic Provinces compares to those in other provinces. However, a straight comparison of the minimum wage is not by itself informative, since the minimum wage’s effects will differ based on employees’ wages in each province.

We would expect, for instance, that a hypothetical minimum wage increase from \$11 to \$13 would have a much stronger negative impact on employment in a province where many workers make under \$13 than in a province where almost all workers are earning above \$13.

Recall that the empirical studies estimate a 10 percent minimum wage hike reduces youth employment by three to six percent, but for youth making between the current minimum wage and the proposed higher minimum wage, the employment losses would be around 15 percent — or even as high as 20 percent.

One useful measure used by economists to estimate how damaging a minimum wage hike is likely to be to employment, is the ratio of the minimum wage to either the average or the median wage of employees. A higher ratio suggests that raising the minimum wage is likely to produce larger negative employment effects.⁴⁹



Comparing the minimum wage to the median employee wage across all provinces, it is evident that the minimum wage presents a much higher barrier to employment in Prince Edward Island, New Brunswick, and Nova Scotia than in the rest of Canada. Meanwhile, the likely effect of the minimum wage on employment in Newfoundland and Labrador is in the middle of the pack among the remaining seven provinces.⁵⁰

As shown in Figure 4 above, the ratio of the minimum wage to the median employee wage is 0.60 in Prince Edward Island, 0.57 in New Brunswick, 0.55 in Nova Scotia, and 0.50 in Newfoundland and Labrador. The relatively high minimum wage in Prince Edward Island stands in stark contrast to the minimum wage in Saskatchewan, where the data suggest the negative employment effects of the minimum wage are likely to be lowest.



Another worthwhile measure is to compare the minimum wage to the median employee wage of young workers, since they are most vulnerable to the negative employment effects of minimum wages.

When the ratio of the minimum wage to the median employee wage among young workers is compared across provinces, Atlantic Canada again stacks up badly, as Figure 5 indicates. Notably, the ratio of the minimum wage to the median employee wage among youth exceeds 0.90 in Prince Edward Island (0.96), New Brunswick (0.92), and Nova Scotia (0.92).

Conclusions and Recommendations

This report builds upon previous work published by AIMS on minimum wages, most notably the 2008 commentary by Morley Gunderson,⁵¹ who in the previous year submitted a commissioned report to the Ontario Ministry of Finance warning against raising the minimum wage.⁵²

Minimum wage legislation limits gains from interpersonal exchange and reduces output and employment. By having their skills legally overpriced, young unskilled individuals are compelled to forgo both an income stream from working and on-the-job training opportunities. It robs young people of the opportunity to acquire experience and develop basic skills needed to earn higher levels of income later in life.

Canadian studies find that raising the minimum wage by 10 percent reduces youth employment by approximately three to six percent. Examining the minimum wage in an Atlantic context reveals that its negative impacts are likely to be even stronger in the provinces of Prince Edward Island, New Brunswick, and Nova Scotia.

Minimum wage legislation does not help the currently unemployed. Nor does it help young unskilled workers. It clearly damages small businesses. And by reducing employment and adding burdens to businesses, the minimum wage damages economic growth.

Worse still, for all these negative consequences, the minimum wage fails to reduce poverty. Therefore, the minimum wage should ideally be scrapped. At the very least, governments should resist calls to further harm employment opportunities and economic growth by raising the minimum wage.

One reason the minimum wage is such a bad anti-poverty device is not only that it reduces employment and damages career prospects, but it is also poorly targeted. Even those who do see their incomes rise because of a minimum wage increase tend not to be poor — only approximately one in eight minimum wage earners in Canada belongs to a poor household.

It is no wonder that studies find the minimum wage to be an ineffective and likely counterproductive anti-poverty device. The corollary is that eliminating the minimum wage is unlikely to raise poverty and can actually reduce it.

That those concerned about poverty should never advocate a minimum wage is bolstered by the fact that far better policies exist to tackle the poverty problem.



Since poverty often results from unemployment or too few hours of work, rather than hourly wages that are too low, poverty can best be tackled by reducing barriers to employment. The usual mechanisms for reducing unemployment apply, such as increasing the incentive to work and attracting businesses through lower taxes and less burdensome regulations. Raising the basic personal amount, the income threshold at which workers must begin to pay income taxes, could also be effective.

Freer trade, which reduces prices faced by consumers and increases productivity and economic growth, would also help reduce poverty.⁵³ Reducing interprovincial and international barriers to trade is particularly important for the Atlantic Provinces, since they are smaller in size.

One recent study estimated that reducing internal trade costs by 10 percent would increase real GDP in Canada by 0.9 percent. This figure rises to 1.8 percent in New Brunswick, Newfoundland, and Nova Scotia, and to 2.7 percent in Prince Edward Island. The same study estimates that reducing external trade costs by 10 percent would raise real GDP in Canada by 1.8 percent.⁵⁴

Prosperity is created through production, which in turn enables greater consumption. By reducing employment and impeding production that relies on inexpensive labour, minimum wages work towards the opposite end. Supporters of the minimum wage are ultimately advocating a policy that harms those they wish to help.



Endnotes

1. The minimum wage is scheduled to be raised to \$15 per hour in Alberta by October 2018. For details on the minimum wage increase in Ontario, see Government of Ontario (2017, May 30). *Proposed Changes to Ontario's Employment and Labour Law. Ministry of Labour*. <https://news.ontario.ca/mol/en/2017/05/proposed-changes-to-ontarios-employment-and-labour-laws.html>, as of June 9, 2017.
2. *The Globe and Mail* (2015, May 31). "The Road Ahead for B.C. Politics." <https://www.theglobeandmail.com/news/british-columbia/whats-ahead-for-bc-politics-after-the-ndp-green-party-agreement/article35160029/>, as of June 9, 2017.
3. For instance, the Nova Scotia NDP and numerous labour organizations including the Canadian Labour Congress have advocated for such a policy. See: Gorman, Michael (2017, May 4). "NDP Unveils Plan to Raise Minimum Wage to \$15 per Hour." *CBC News*. <http://www.cbc.ca/news/canada/nova-scotia/election-ndp-minimum-wage-raise-gary-burrill-1.4099274>, as of June 9, 2017; Chapin, Laura (2016, June 29). "P.E.I. has the Highest Percentage of Workers Earning \$15/Hr or Less." *CBC News*. <http://www.cbc.ca/news/canada/prince-edward-island/minimum-wage-pe-i-1.3658415>, as of June 9, 2017; Glynn, Tracy (2016, March 24). "\$15/Hour Minimum Wage Campaign Launches in NB." [updated]. *NB Media Co-op*. <http://nbmediacoop.org/2016/03/24/15hour-minimum-wage-campaign-launches-in-nb-2/>, as of June 9, 2017.
4. Gunderson, Morley (2007, February). *Minimum Wages: Issues and Options for Ontario*. Ontario Ministry of Finance. <http://www.fin.gov.on.ca/en/publications/2007/Gunderson/Gunderson.pdf>.
5. Wells, Jennifer (2010, March 27). "McJobs: Is Minimum Wage a Good Idea?" *Toronto Star*. https://www.thestar.com/news/insight/2010/03/27/mcjobs_is_minimum_wage_a_good_idea.html, as of May 28, 2017.
6. Cross, Philip (2015, October). *Ontario — No Longer a Place to Prosper*. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/ontario-no-longer-a-place-to-prosper.pdf>.
7. Boudreaux, Don (2015, November 17). "Dartmouth Remarks On the Minimum Wage." *Cafe Hayek*. <http://cafehayek.com/2015/11/dartmouth-remarks-on-the-minimum-wage.html>, as of May 28, 2017.
8. Boudreaux, Don (2016, October 10). "Pricing the Poorest Out of Opportunity." *Cafe Hayek*. <http://cafehayek.com/2016/10/41502.html>, as of July 9, 2017.
9. Contrary to some claims, young workers are not the only group to suffer job losses as a result of the minimum wage, since they are not the only workers with low wages. For instance, approximately 19 percent of immigrants work for minimum wage. New research by University of Waterloo economists Anindya Sen and Kathleen Ryczynski finds, based on an analysis of 185 minimum wage hikes implemented in Canada from 1981 to 2011, that a 10 percent minimum wage increase "can be linked to an approximately two-per-cent decline in employment rates of immigrants aged 25 to 54 years old." For a summary of this research, see Sen, Anindya (2017, June 29). "Evidence Shows Immigrants will get Fewer Jobs as Ontario Ratchets up Minimum Wage to \$15," *National Post*. <http://business.financialpost.com/opinion/evidence-shows-immigrants-will-get-fewer-jobs-as-ontario-ratchets-up-minimum-wage-to-15>, as of June 29, 2017.
10. Neumark, David and William Wascher (2007). "Minimum Wages and Employment," *Foundations and Trends in Microeconomics* 3, 1-2: 1-182. Quoted from Murphy, Robert P., Charles Lammam, and Hugh MacIntyre (2016, March). *Raising the Minimum Wage: Misguided Policy, Unintended Consequences*. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/raising-the-minimum-wage-misguided-policy-unintended-consequences.pdf>.
11. Gunderson, Morley (2008, December 9). *Minimum Wages: Operating with a Blunt Instrument*. Atlantic Institute for Market Studies. <http://www.aims.ca/site/media/aims/LabourSeries1.pdf>.
12. Gunderson, Morley, *op. cit.* (2007, February).
13. Godin, Keith and Niels Veldhuis (2009, January). *The Economic Effects of Increasing British Columbia's Minimum Wage*. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/EconomicEffectsBCMinimumWage.pdf>, as of May 28, 2017.
14. Government of Ontario, Minimum Wage Advisory Panel (2014, January). *Report and Recommendations to the Minister of Labour*. https://www.labour.gov.on.ca/english/es/pubs/mwap/section_03.php, as of June 24, 2017.



15. Campolieti, Michele, Tony Fang, and Morley Gunderson (2005, February). "Minimum Wage Impacts on Youth Employment Transitions, 1993-1999," *The Canadian Journal of Economics* 38, 1: 81-104.
16. Card, David and Alan B. Krueger (1994). "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania," *American Economic Review* 84, 4: 772-793.
17. Krugman, Paul (2015, July 17). "Liberals and Wages," *The New York Times*. <https://www.nytimes.com/2015/07/17/opinion/paul-krugman-liberals-and-wages.html>, as of June 24, 2017.
18. Henderson, David (2016, February 28). "Why Minimum Wages Can Take Time to Destroy Jobs." *EconLog*. Library of Economics and Liberty. http://econlog.econlib.org/archives/2016/02/why_minimum_wag.html, as of June 24, 2017.
19. The Canadian evidence is better for research purposes because the variation of minimum wages across Canadian provinces and through time better allows researchers to identify the effects of changes in the legislated minimum wage.
20. Gorman, Linda (2008). "Minimum Wages." *The Concise Encyclopedia of Economics*. Library of Economics and Liberty. <http://www.econlib.org/library/Enc/MinimumWages.html>, as of June 30, 2017.
21. Murphy, Robert P., Charles Lammam, and Hugh MacIntyre, *op. cit.* (2016, March).
22. Minimum Wage Advisory Panel, *op. cit.* (2014, January).
23. Neumark, David and William Wascher (2001). "Minimum Wages and Training Revisited," *Journal of Labor Economics* 19, 3: 563-595.
24. Gunderson, Morley, *op. cit.* (2007, February).
25. Minimum Wage Advisory Panel, *op. cit.* (2014, January).
26. Murphy, Robert P., Jason Clemens, Milagros Palacios, and Niels Veldhuis (2014). *Economic Principles for Prosperity*. Fraser Institute. The two studies cited in this quote are: Smith, Ralph, and Bruce Vavrichek (1992). "The Wage Mobility of Minimum Wage Workers," *Industrial and Labor Relations Review* 46, 1: 82-88; and Long, James (1999). "Updated Estimates of the Wage Mobility of Minimum Wage Workers," *Journal of Labor Research* 20, 4 (Fall): 492-503.
27. Lammam, Charles, Niels Veldhuis, Milagros Palacios, and Hugh MacIntyre (2016, April). *Measuring Income Mobility in Canada, 2016*. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/measuring-income-mobility-in-canada-2016.pdf>.
28. Murphy, Robert P., Jason Clemens, Milagros Palacios, and Niels Veldhuis, *op. cit.* (2014).
29. Gunderson, Morley, *op. cit.* (2008, December 9).
30. Murphy, Robert P., Charles Lammam, and Hugh MacIntyre, *op. cit.* (2016, March).
31. Minimum Wage Advisory Panel, *op. cit.* (2014, January).
32. Lemos, Sara (2008). "A Survey of the Effects of the Minimum Wage on Prices," *Journal of Economic Surveys* 22, 1: 187-212.
33. Aaronson, Daniel, Eric French, and James MacDonald (2008). "The Minimum Wage, Restaurant Prices, and Labor Market Structure," *The Journal of Human Resources* 43, 3: 688-720.
34. Boudreaux, Don (2014, April 12). "The Minimum Wage and Bargaining Power." *Cafe Hayek*. <http://cafehayek.com/2014/04/the-minimum-wage-and-bargaining-power.html>, as of June 12, 2017.
35. Murphy, Robert P., Charles Lammam, and Hugh MacIntyre, *op. cit.* (2016, March).
36. A recent study found that increasing the minimum wage to \$13 per hour in Seattle resulted in a 6.6 percent average decline in the incomes of low-wage workers (defined as workers earning less than \$19 per hour). For a summary of this research, see: Lammam, Charles, Hugh MacIntyre, and David Hunt (2017, June 26). *Seattle's Higher Minimum Wage has Lowered Earnings for Low-Wage Workers*. Fraser Institute. <https://www.fraserinstitute.org/blogs/seattle-s-higher-minimum-wage-has-lowered-earnings-for-low-wage-workers>, as of July 11, 2017.
37. For instance, in a recent Maclean's article on Ontario's move to a \$15 minimum wage, Armine Yalnizyan writes: "Of course, there will be some job losses, and some smaller businesses that go under." See: Yalnizyan, Armine (2017, June 2). "Why a \$15 Minimum Wage is Good for Business," *Maclean's*. <http://www.macleans.ca/economy/economicanalysis/why-a-15-minimum-wage-is-good-for-business/>, as of July 9, 2017.



38. Gordon, Stephen (2016, September 16). "The High Cost of Minimum Wage," *National Post*. <http://nationalpost.com/full-comment/stephen-gordon-the-high-cost-of-minimum-wage>, as of July 9, 2017.
39. Mallett, Ted, Simon Gaudreault, and Andreea Bourgeois. Small Business Profile. Canadian Federation of Independent Business. <http://www.cfib-fcei.ca/cfib-documents/rr3396.pdf>.
40. This is because if the profits to be had from supplying these goods shrink, then some firms will stop supplying these goods (reducing the demand for low-skilled workers) and economic resources will be re-deployed to another industry.
41. For a better and more thorough explanation of this point, see: Boudreaux, Don (2016, June 19). "An Increase in Real Spending Requires (It Does Not Cause) an Increase in Real Output." *Cafe Hayek*. <http://cafehayek.com/2016/06/40976.html>, as of July 11, 2017.
42. Oschinski, Matthias and Rosalie Wyonch (2017, March). "Future Shock? The Impact of Automation on Canada's Labour Market". C.D. Howe Institute. https://cdhowe.org/sites/default/files/attachments/research_papers/mixed/Update_Commentary%20472%20web.pdf.
43. CANSIM Table 282-0087.
44. *Ibid.*
45. Government of Canada (2016, August 26). "Hourly Minimum Wages in Canada for Adult Workers." <http://srv116.services.gc.ca/dimt-wid/sm-mw/rpt2.aspx?GoCTemplateCulture=en-CA>, as of June 9, 2017.
46. *Ibid.*
47. Notably, these figures do not take into account the increases in the minimum wage in January 2000 in Prince Edward Island and New Brunswick. Otherwise, the real increase in the minimum wage in these provinces would have been even larger.
48. CANSIM Tables 326-0020 and 282-0073, authors' calculations.
49. Economist Pierre Fortin has suggested that one reason empirical studies disagree on the negative employment effects of minimum wage hikes is that studies finding weak effects examined minimum wage hikes when the existing minimum wage was far below the average wage (and therefore relatively few workers would be affected by such a policy). See: Gordon, Stephen, *op. cit.* (2016, September 16).
50. For the purposes of this analysis, the minimum wage is the minimum wage in April 2017 and the median hourly employee wage is for the 12 months ending in April 2017, CPI-adjusted.
51. Gunderson, Morley, *op. cit.* (2008, December 9).
52. Gunderson, Morley, *op. cit.* (2007, February).
53. For an explanation of the economic argument for free trade in the Canadian context, see Lemieux, Pierre (2017, June). *The Benefits of Trade*. Atlantic Institute for Market Studies. http://www.aims.ca/wp-content/uploads/2017/06/AIMS-17006_BenefitsTrade_JN0517-F1.pdf.
54. Albrecht, Lukas and Tombe, Trevor (2016). "Internal Trade, Productivity and Interconnected Industries: A Quantitative Analysis," *Canadian Journal of Economics* 49, 1: 237-263.

Bibliography

- Aaronson, Daniel; French, Eric; MacDonald, James. "The Minimum Wage, Restaurant Prices, and Labour Market Structure." *The Journal of Human Resources*. 43, 3: 688-720.
- Albrecht, Lukas; Tombe, Trevor. "Internal Trade, Productivity and Interconnected Industries: A Quantitative Analysis." *Canadian Journal of Economics*. 49, 1: 237-263. 2016
- Boudreaux, Don. "An Increase In Real Spending Requires (It Does Not Cause) An Increase in Real Output." *Café Hayek*. 19 June 2016. <http://cafehayek.com/2016/06/40976.html>.
- Boudreaux, Don. "Dartmouth Remarks On the Minimum Wage." *Cafe Hayek*. 17 November 2015. <http://cafehayek.com/2015/11/dartmouth-remarks-on-the-minimum-wage.html>.
- Boudreaux, Don. "Pricing the Poorest Out of Opportunity." *Cafe Hayek*. 10 October 2016. <http://cafehayek.com/2016/10/41502.html>.
- Boudreaux, Don. "The Minimum Wage and Bargaining Power." *Cafe Hayek*. Accessed 12 June 2017. <http://cafehayek.com/2014/04/the-minimum-wage-and-bargaining-power.html>.
- Card, David; Krueger, Alan B. "Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania." *American Economic Review*. 84, 4:772-793. 1994.
- Chapin, Laura. "P.E.I. has the highest percentage of workers earning \$15/hr or less." *CBC News*, 29 June 2016.
- Cross, Philip. "Ontario – No Longer a Place to Prosper." Fraser Institute. October 2015.
- Campolieti, Michele; Fang, Tony; Gunderson, Morley. "Minimum Wage Impacts on Youth Employment Transitions, 1993-1999." *The Canadian Journal of Economics*. 38, 1:81-104. February 2005.
- Godin, Keith; Veldhuis, Niels. "The Economic Effects of Increasing British Columbia's Minimum Wage." Fraser Institute. Accessed 28 May 2017. <https://www.fraserinstitute.org/sites/default/files/EconomicEffectsBCMinimumWage.pdf>.
- Gordon, Stephen. "The high cost of minimum wage." *National Post*. 19 September 2016. <http://nationalpost.com/opinion/stephen-gordon-the-high-cost-of-minimum-wage/wcm/2397c1e7-6a3a-4059-800f-e2abf90dcf5b>.
- Gorman, Linda. "Minimum Wages." *Library of Economics and Liberty*. 2008. <http://www.econlib.org/library/Enc/MinimumWages.html>.
- Gorman, Michael. "NDP Unveils plan to raise minimum wage to \$15 per hour." *CBC News*, 04 May 2017.
- Government of Canada, "Hourly Minimum Wages in CANADA for Adult Workers." 26 August 2016. <http://srv116.services.gc.ca/dimt-wid/sm-mw/rpt2.aspx?GoCTemplateCulture=en-CA%3E,%20as%20of%20June%209,%202017>.
- Glynn, Tracy. "\$15/hour minimum wage campaign launches in NB." *NB Media Co-op*, 24 March 2016.
- Gunderson, Morley. "Minimum Wages: Issues and Options for Ontario." Ontario Ministry of Finance. February 2007. <http://www.fin.gov.on.ca/en/publications/2007/Gunderson/Gunderson.pdf>.
- Gunderson, Morley. "Minimum Wages: Operating with a blunt instrument." Atlantic Institute for Market Studies. 9 December 2008. <http://www.aims.ca/site/media/aims/LabourSeries1.pdf>.
- Henderson, David. "Why Minimum Wages Can Rake Time To Destroy Jobs." *Library of Economics and Liberty*. Accessed 24 June 2017. http://econlog.econlib.org/archives/2016/02/why_minimum_wag.html.
- Krugman, Paul. "Liberals and Wages." *The New York Times*. Accessed 24 June, 2017. <https://www.nytimes.com/2015/07/17/opinion/paul-krugman-liberals-and-wages.html>.
- Lamman, Charles; MacIntyre, Hugh. "Seattle's higher minimum wage has lowered earnings for low-wage workers." *Fraser Forum*. 26 June 2017. <https://www.fraserinstitute.org/blogs/seattle-s-higher-minimum-wage-has-lowered-earnings-for-low-wage-workers>.



- Lamman, Charles; Veldhuis, Niels; Palacios, Milagros; MacIntyre, Hugh. "Measuring Income Mobility in Canada." Fraser Institute. April 2016. <https://www.fraserinstitute.org/sites/default/files/measuring-income-mobility-in-canada-2016.pdf>.
- Lemieux, Pierre. "The Benefits of Trade." Atlantic Institute for Market Studies. June 2017. http://www.aims.ca/wp-content/uploads/2017/06/AIMS-17006_BenefitsTrade_JN0517-F1.pdf.
- Lemos, Sara. "A Survey of the Effects of the Minimum Wage on prices." *Journal of Economic Surveys*. 22, 1:187-212. 2008.
- Long, James. "Updated Estimates of the Wage Mobility of Minimum Wage Workers." *Journal of Labor Research*. 20, 4 (Fall): 492-503. 1999.
- Mallett, Ted; Gaudreault, Simon; Bourgeois, Andreea. "Small Business Profile." Canadian Federation of Independent Business. <http://www.cfib-fcei.ca/cfib-documents/rr3396.pdf>.
- Minimum Wage Advisory Panel. "Section 3: The Economic Impact of Minimum Wage." Ontario Ministry of Labour. January 2014. Online. https://www.labour.gov.on.ca/english/es/pubs/mwap/section_03.php.
- Ministry of Labour, "Proposed Changes to Ontario's Employment Labour Laws." 30 May 2017. <https://news.ontario.ca/mol/en/2017/05/proposed-changes-to-ontarios-employment-and-labour-laws.html>.
- Murphy, Robert P.; Clemens, Jason; Palacios, Milagros; Veldhuis, Niels. "Economic Principles for Prosperity." Fraser Institute. 2014.
- Murphy, Robert P.; Lammam, Charles; MacIntyre, Hugh. "Raising the Minimum Wage: Misguided Policy, Unintended Consequences." Fraser Institute. March 2016. <https://www.fraserinstitute.org/sites/default/files/raising-the-minimum-wage-misguided-policy-unintended-consequences.pdf>.
- Neumark, David; Wascher, William. "Minimum Wages and Training Revisited." *Journal of Labour Economics*, 19, 3: 563-595. 2001.
- Oschinski, Matthias; Wynoch, Rosalie. "Future Shock? The Impact of Automation on Canada's Labour Market." C.D. Howe Institute. 16 March 2017. <https://www.cdhowe.org/public-policy-research/future-shock-impact-automation-canadas-labour-market>.
- Sen, Anindya. "Evidence shows immigrants will get fewer jobs as Ontario ratchets up minimum wage to \$15." *Financial Post*. 29 June 2017. <http://business.financialpost.com/opinion/evidence-shows-immigrants-will-get-fewer-jobs-as-ontario-ratchets-up-minimum-wage-to-15/wcm/ad7ed5d3-5a31-4a31-bc7c-63118b088f3a>.
- Smith, Ralph; Bruce, Vavrichek. "The Wage Mobility of Minimum Wage Workers." *Industrial and Labor Relations Review*. 46, 1: 82-88. 1992.
- Staff. "The road ahead for B.C. politics." *The Globe and Mail*, 31 May 2017. <https://www.theglobeandmail.com/news/british-columbia/whats-ahead-for-bc-politics-after-the-ndp-green-party-agreement/article35160029/>.
- Statistics Canada, "Table 282-0087. Labour force survey estimates (LFS), by sex and age group, seasonally adjusted and unadjusted" CANSIM. <http://www5.statcan.gc.ca/cansim/a26?id=2820087>.
- Statistics Canada, "Table 326-0020. Consumer Price Index." CANSIM. <http://www5.statcan.gc.ca/cansim/a26?id=3260020>.
- Statistics Canada, "Table 282-0073. Labour force survey estimates (LFS), wages of employees by job permanence, union coverage, sex and age group, unadjusted for seasonality." CANSIM. <http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=2820073>.
- Wells, Jennifer. "McJobs: Is minimum wage a good idea?" *The Star*, 27 March 2010. https://www.thestar.com/news/insight/2010/03/27/mcjobs_is_minimum_wage_a_good_idea.ht.
- Yalnizyan, Armine. "Why a \$15 minimum wage is good for business." *Maclean's*. 02 June 2017. <http://www.macleans.ca/economy/economicanalysis/why-a-15-minimum-wage-is-good-for-business/>.





ATLANTIC INSTITUTE FOR MARKET STUDIES

Making a Donation

AIMS is a registered charity that operates with the financial support of foundations, corporations and individuals and offers tax receipts for donations. AIMS does not receive government funding or contract itself for specific research projects. These policies enhance the Institute's ability to think freely, hold decision-makers to account for their choices, and maintain its professional integrity and intellectual independence.

Cost of Research: Each research project has its own parameters with respect to the amount and quality of the information available, the level of expertise required by the researcher and the amount of time that it takes to complete the paper. The total cost tends to range between \$10,000 - \$20,000+ which includes the author's fee, oversight and guidance by our Director of Research, proofreading, time, peer review, formatting, communications, radio ads, and media relations.

AIMS would like to invite you to join our group of valued supporters by filling in the form below. AIMS has been an influential voice in Canada for over 20 years and those who support our mission and believe in moving it forward are integral to AIMS's continued success.

Name:

Organization:

Address:

Telephone:

Email:

Payment Method: Visa Mastercard Cheque
 \$50 \$75 \$100 Other

Card Number:

Expiry Date:

Card Holder:

Signature:

Please mail this form to:

287 Lacewood Drive,
Suite 204, Halifax, NS
B3M 3Y7

Or you may email it to aims@aims.ca

If you wish to donate using our online portal,
go to the Contribute to Atlantic Prosperity page on
our website: aims.ca/donate