

REPORT OF THE MINIMUM WAGE EXPERT PANEL

26 February 2020

EXECUTIVE SUMMARY

Between October 1, 2015 and October 1, 2018, the Government of Alberta raised the province's general minimum wage from \$10.20 per hour to \$15.00 per hour – an increase of 47 per cent, carried out in four increments over three years.¹ It also eliminated Alberta's differential wage for hospitality workers who serve alcohol (i.e. the "liquor server wage") between October 1, 2015 and October 1, 2016, thereby increasing that wage from \$9.20 per hour to \$15.00 per hour by October 1, 2018 – a larger increase of 63 per cent over three years.

This significant policy shift broke from the predictable and formula-driven approach that Alberta had been using, which tied Alberta's minimum wages to increases in inflation in both prices and average weekly earnings. It also led Alberta's economy to absorb sharp increases in labour costs at a time when businesses were most poorly positioned to do so. While the 2015-2018 minimum wage increases and elimination of the liquor server wage occurred, Alberta was struggling with a massive economic downturn, resulting in a pullback in energy sector spending, reduced customer demand and lower average sales. The abrupt hikes in labour costs on top of this amounted to a 'perfect storm'.

The Minister of Labour and Immigration appointed our Minimum Wage Expert Panel ("our Panel") to review, analyze and publish data on the labour market impacts of the 2015-2018 minimum wage increases. Our Panel was also asked to examine whether liquor servers would likely generate higher overall incomes under a liquor server wage.

In examining these issues, our Panel has tried to be as thorough and transparent as possible. For example, wherever possible, we have pointed out where gaps in data exist or where the evidence presented may be stronger or weaker.

It is also important to note that most of the impacts that we present in our report are based on analyses of macro-level labour force data. As such, they paint the overall picture of what happened as a result of the 2015-2018 minimum wage increases and the elimination of the liquor server wage. However, math cannot capture the experience of any single worker or employer. It is recognized that specific individuals and specific employers may have experienced unique impacts that are different from those that we found.

The main challenge facing our Panel was in isolating impacts specifically due to the minimum wage policy from impacts due to other factors, notably from the economic downturn. This required the use of best identification practices. In some cases, the data allowed for this, mainly for the effects of the \$15 minimum wage; in some cases, it did not, as for the liquor server wage.

In respect of the 2015-2018 minimum wage increases, our Panel arrived at the following main conclusions:

- Alberta's workforce has gone from having 2.3 percent of its workforce earning the minimum wage (in 2014) to 11.5 percent of its workforce earning minimum wage (in 2018). The proportion of minimum wage earners in our economy has gone from being the lowest in Canada to the second highest in Canada.

¹ The first and last increases came into effect on October 1, 2015 and October 1, 2018, respectively.

- The composition of minimum wage earners has remained consistent in terms of gender, full-time versus part-time employees, permanent versus temporary employees, and in terms of the industries and occupations in which the highest proportions of minimum wage earners are employed.
- Using conventional regression techniques, we estimate that the 2015-2018 minimum wage increases were responsible for approximately 21,000 jobs lost amongst those aged 15-24.
- Using a synthetic control technique, we estimate that the 2015-2018 minimum wage increases were responsible for job losses of between 23,000 and 26,000.
- The results of the synthetic control technique indicate that younger Albertans (i.e., those 15 to 24 years old) and those in regions outside of Alberta's major urban centres (meaning the five economic regions outside Edmonton and Calgary) bore the brunt of these job losses.
- Both conventional regression techniques and the synthetic control technique indicate no statistically significant relationships between the 2015-2018 minimum wage increase and employment amongst Albertans aged 25 and older. While it is well established that tens of thousands of additional Albertans lost their jobs, including among those aged 25 and older, these losses were influenced by other factors, including the economic downturn.
- Survey data from Alberta businesses indicates that businesses experienced severe escalations in labour costs, leading to major employment impacts. The responses included: reducing the number of employees, reducing or eliminating plans to hire new or additional workers, reducing or eliminating plans to hire young workers, postponing renovation and expansion plans and raising prices.
- Survey data from Alberta businesses indicates that businesses outside of the two major urban areas were especially impacted. Markedly higher proportions of businesses located outside of Edmonton and Calgary reported taking the most commonly cited responses to the 2015-2018 minimum wage increases.

In respect of the elimination of the liquor server wage and its relationship to liquor servers' overall earnings, our Panel arrived at the following main conclusions:

- Because their income from tips is far more important to their overall earnings than an hourly wage, liquor servers are fundamentally different than typical minimum wage earners. Evidence indicates that between their hourly wages and tip income, liquor servers can take home earnings that, calculated on an hourly basis, can be up to \$50 per hour (and sometimes even higher). Recognition of this has led legislators in Canada and the United States to establish different policy responses for these employees.
- When it existed, Alberta's liquor server wage was not an anomaly. Differentiated wages for tipped employees have been around in various forms since the 1960s, and they are employed in most of the United States and several Canadian provinces.
- Because it lowered the amount of direct labour costs that restaurants had to incur for liquor servers, the liquor server wage gave restaurateurs flexibility to competitively

compensate back-of-the-house staff and avoid increases in menu prices. This enabled restaurants to make investments in enhancing the guest experience which, in turn, arguably helped liquor servers earn more in tips and realize higher overall earnings.

- Survey and payroll data from businesses indicates the elimination of the liquor server wage likely led to reduced hours for liquor servers in Alberta. In turn, this resulted in liquor servers having less opportunity to earn tip income, negatively impacting their overall earnings.
- When the liquor server wage was eliminated, restaurateurs lost the labour cost flexibility it had provided, leading them to layoff and reduce hours for front-of the house and back-of-the-house service staff. This put new pressures on liquor servers and may have impacted guest experiences, in turn resulting in lower tip income for liquor servers.
- The elimination of the liquor server wage also led to tip-out rates being increased at some licensed restaurants. In restaurants where this occurred, liquor servers now take home a lower fraction of their tips than they did previously. To the extent these lower amounts are not made-up for by the additional hourly pay liquor servers now receive, it can be said that elimination of the liquor server wage has resulted in lower overall earnings for these liquor servers.
- Based on the results of industry surveys, the vast majority of Alberta restaurants signal that they would increase shifts and hours for liquor servers if a liquor server wage was re-established in Alberta. In turn, this would mean liquor servers have more opportunities to earn tip income, which would then support them realizing higher overall earnings.

Our Panel greatly appreciates the opportunity to have served the Government of Alberta in this task. We hope that our findings help Albertans to better understand the implications of the 2015-2018 minimum wage increases and elimination of the liquor server wage, and that this data is constructively used by the Government of Alberta to inform future policy in these areas.

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INTRODUCTION

ASSESSING MINIMUM WAGES IN ALBERTA

Between October 1, 2015 and October 1, 2018, minimum wages in Alberta garnered prominent attention, as they experienced significant escalation. In a break from the previous formula-based approach, the government at the time put minimum wage increases on an aggressive track to reach \$15.00 per hour. In only three years,² Alberta's economy had to adapt to a 47 per cent increase in the minimum wage, and a 63 per cent increase in the minimum wage for hospitality workers who serve alcohol (the "liquor server wage").

At the same time, Alberta's economy experienced a significant downturn. Having massive structural consequences, the headwinds of this downturn presented significant challenges to many industries. Coming at this time, the increases in the minimum wage helped form a 'perfect storm' which contributed to job losses across the province.

There are many questions among Albertans about the impacts resulting from the minimum wage increases between 2015 and 2018. To address these questions, and to help inform future policy direction around minimum wages in Alberta, the Minister of Labour and Immigration appointed the Minimum Wage Expert Panel.

About the Minimum Wage Expert Panel

Appointed in August 2019, our Minimum Wage Expert Panel (our "Panel") was mandated to undertake two key areas of work:

- Review, analyze and publish data on the labour market impacts of the changes in Alberta's minimum wage; and
- Assess whether hospitality workers who serve alcohol ("liquor servers") would likely generate higher net incomes under a wage differential similar to those that exist in other provinces.

The membership of our Panel featured representation from the academic and research community, business and industry, and the hospitality sector. This included individuals who are currently employed as hospitality workers serving alcohol at restaurants in Alberta.

It is important to note that our Panel was not tasked with recommending whether the level of Alberta's current minimum wages should change. Similarly, we were not mandated to examine or comment upon other wage differentials (such as those for students or youth) beyond that which might apply to liquor servers.

Our report is also confined to assessing labour market impacts. We did not explore how changes in wages, nor the labour market impacts from those changes, had significance for indicators in relation to health, housing, education or other social values.

Members of the Minimum Wage Expert Panel

- Joseph Marchand, Chair – Associate Professor of Economics, University of Alberta
- Anindya Sen – Professor of Economics, University of Waterloo
- Mark von Schellwitz – Vice President (Western Canada), Restaurants Canada
- Marilyn Braun-Pollon – Vice-President (Western Canada & Agri-business), Canadian Federation of Independent Business
- Jason Stanton – Owner, Running Room
- Branko Culo – Owner, Express Employment; Member – Alberta Enterprise Group
- Delphine Borger – Server, Blink Restaurant
- Rachel Donnelly – Server, Chop Steakhouse
- Nicole Lycklama – Server, Blink Restaurant

² The first and last increases came into effect on October 1, 2015 and October 1, 2018, respectively.

How We Undertook Our Work

We commenced our work by examining background pertaining to the minimum wage in Alberta and minimum wages in other Canadian provinces. This included previous reports published by other governments regarding minimum wages.³

We also undertook a literature review that included many previous academic and research papers on minimum wages, changes to minimum wages and related impacts. A key finding from this review was that the results from previous studies are not consistently conclusive when it comes to certain matters, such as employment impacts. In many respects, the impacts experienced by a particular jurisdiction from adjusting its minimum wage are unique based on factors such as the jurisdiction's demographics, current economic health and industrial profile.

This made it all the more important for our Panel to assess Alberta's unique experience, not by referencing other provincial studies, but through an examination and analysis of data related to Alberta and Albertans.

During our first in-person meeting in September 2019, our Panel reviewed available data and considered what additional information to source and what types of analyses should be undertaken. Data gathering and analysis work took place between each of our subsequent monthly meetings, at which we came together to review results, discuss conclusions and consider additional data and analysis needs to inform further discussions. We undertook this iterative process throughout our mandate, culminating in the crafting of this final report.

Members of our Panel leveraged and drew on their unique skills, networks and experiences to support our work process. Throughout the process, our Panel reviewed and considered a variety of quantitative and qualitative data, including:

- Alberta labour market data from the Government of Alberta and Statistics Canada, including Labour Force Survey data;
- Labour market data from other provinces to support statistical and economic modelling efforts;
- Information gathered through surveys of members of the business community, including the hospitality industry;
- Payroll and point-of-sale data covering 351 restaurants in Alberta;
- First-person perspectives and accounts from hospitality workers who serve alcohol;
- Literature on minimum wages, including studies and policy reports; and
- Written comments submitted by Albertans to the Minister of Labour and Immigration.

³ Mitchell, C.M. and Murray, J.C. (2017). *The Changing Workplaces Review: An Agenda for Workplace Rights*. Ontario; BC Fair Wages Commission. (2018). *The Transition to a \$15 Minimum Wage and Subsequent Increases*. BC.

Presenting Our Findings

The increases in Alberta's minimum wages occurred against the backdrop of challenging conditions as a result of an economic downturn. For industries that employ larger proportions of minimum wage earners – such as retail trade and accommodation and food services – the minimum wage increases compounded difficulties they were already facing in terms of reduced customer demand and lower average sales.

A key part of our Panel's work has been determining the extent to which labour market impacts were due to the minimum wage increases, versus the effects of the downturn overall. We have done this to the best of our ability using both statistical and mathematical analysis. Both forms of analysis are important; although powerful, numbers alone cannot explain everything.

Our Panel was tasked with what, essentially, were two separate prongs of inquiry. Accordingly, in this report we have presented our findings in two separate parts:

- Part One summarizes analyses and findings regarding the labour market impacts resulting from the 47 per cent increase in Alberta's general minimum wage.
- Part Two summarizes the analysis and findings regarding the elimination of the liquor server wage (i.e., the 63 per cent increase in the differentiated wage paid to hospitality workers who serve alcohol) and impacts on the overall earnings of liquor servers.

PART ONE: IMPACTS FROM MINIMUM WAGE INCREASES

SETTING THE CONTEXT

The Concept of Minimum Wages

Minimum wages in Western societies have their origins in Commonwealth countries. The Australian colony of Victoria's *Factories and Shops Act* of 1896 established minimum wages for four trades. Later, the application of minimum wages spread throughout the Commonwealth of Australia and the Dominion of New Zealand.

Minimum wages in Alberta can be traced back as far as the early 20th century, when the Alberta Legislature passed the *Factories Act* of 1917. This introduced a minimum wage of \$1.50 per shift for all persons, and \$1.00 per shift for apprentices, in factories and other establishments covered under the statute.

Within a few years, the concept of a minimum wage had spread across multiple provinces – including all four western provinces, Ontario and Quebec.

Numerous objectives have been cited over time when it comes to the rationale for a minimum wage – such as reducing income inequality, enabling workers to afford a basic standard of living, addressing poverty and protecting workers. While the relative levels of emphasis placed on these different objectives have varied between governments and provinces, the public policy of having minimum wages has so far withstood the test of time.

Today, Alberta's minimum wage requirements are rooted in the *Employment Standards Code*,⁴ section 8.1 of which requires that, "An employer must pay an employee at a wage rate that is at least the minimum wage established by regulation."

The *Employment Standards Code* empowers the Lieutenant Governor in Council (i.e., Cabinet) to make regulations "respecting the establishment of one or more minimum wages to be paid by employers to employees..."⁵ Those minimum wages are set out in the Employment Standards Regulation.⁶

Minimum Wages Across Canada

Since October 1, 2018, Alberta's minimum wages have been the highest in the country – outpacing the larger provinces of Ontario, Quebec and British Columbia, and are markedly higher than the other prairie provinces. Table 1 contains a summary of minimum wage rates in Canadian provinces and territories.

The increases in Alberta's minimum wages effectively served to make our province an outlier, rather than put us in line with other provinces.

As of January 2020, the next-highest general minimum wages in Canada are in Ontario (\$14.00 per hour), British Columbia (\$13.85 per hour) and the Northwest Territories (\$13.46 per hour).

⁴ *Employment Standards Code*, RSA 2000, c. E-9.

⁵ *Ibid.*, s.138(1)(f).

⁶ Employment Standards Regulation, AR 14/97.

Table 1: Current and Forthcoming Minimum Wages in Canada (as of January 2020)

Jurisdiction	Current hourly minimum wage rates	Announced changes to minimum wage (as of January 2020)	Effective date of announced changes
Alberta	\$15.00 Students under 18 ⁷ \$13.00	No changes announced to date	
British Columbia	\$13.85 Liquor servers \$12.70	\$14.60 Liquor servers \$13.95 \$15.20 Liquor servers \$15.20 (differential eliminated)	June 1, 2020 June 1, 2021
Saskatchewan	\$11.32	Scheduled to annually increase by CPI and AHW (average hourly wages) – next announcement before June 30, 2020	October 1, 2020
Manitoba	\$11.65 Licensed security guards \$12.50	Scheduled to annually increase by CPI – next announcement by April 1, 2020	October 1, 2020
Ontario	\$14.00 Liquor servers \$12.20 Students under 18 ⁸ \$13.15 Homeworkers \$15.40	Scheduled to annually increase beginning October 1, 2020 – next announcement by April 1, 2020	October 1, 2020
Quebec	\$12.50 Employees receiving tips \$10.05	\$13.10 Employees receiving tips \$10.45	May 1, 2020
New Brunswick	\$11.50	Scheduled to annually increase by CPI	April 1, 2020
Nova Scotia	\$11.55 Inexperienced employees ⁹ \$11.05	\$12.55 Inexperienced employees \$12.55 (differential eliminated) \$13.10 (approximately) Scheduled to annually increase by inflation beginning April 1, 2022	April 1, 2020 April 1, 2021 April 21, 2022

⁷ This minimum wage rate applies to students under the age of 18 for the first 28 hours a week while school is in session, and during a school break or summer holidays.

⁸ This minimum wage rate applies to students under the age of 18 who work 28 hours a week or less when school is in session, or work during a school break or summer holidays.

⁹ This minimum wage rate applies to employees who have done the kind of work they're doing for less than 3 months, and who have worked for their current employer for less than 3 months.

Newfoundland & Labrador	\$11.40	Must be reviewed every two years – no changes announced to date	April 1, 2020
Prince Edward Island	\$12.25	\$12.85	April 1, 2020
Northwest Territories	\$13.46	No changes announced to date	
Nunavut	\$13.00	No changes announced to date	
Yukon	\$12.71	Scheduled to annually increase by CPI	April 1, 2020

Source: Alberta Labour and Immigration

The lowest general minimum wages in Canada, meanwhile, are in Saskatchewan (\$11.32 per hour) and a handful of other provinces (Manitoba, Nova Scotia, New Brunswick, Newfoundland & Labrador) where rates are in a tight range between \$11.40 and \$11.65 per hour.

Looking ahead, Alberta’s minimum wages are expected to remain one of the highest for the foreseeable future.

British Columbia is expected to increase its minimum wage to \$14.60 per hour on June 1, 2020, and to \$15.20 on June 1, 2021 (at which time that province is also scheduled to eliminate the differentiated wage it currently has in place for hospitality workers who serve alcohol).

Ontario’s minimum wage is scheduled to increase on October 1, 2020, but the amount has not yet been announced. (An announcement about Ontario’s increase is expected on April 1, 2020.)

Each province employs its own cycle for reviewing and announcing its minimum wage rate changes. However, as reflected in Table 1, several jurisdictions in Canada have regularly scheduled annual increases in their minimum wages. Most of these jurisdictions index increases in their minimum wages to objective formulae or economic variables – such as the Consumer Price Index (CPI), or changes in average hourly wages.

The Recent Alberta Experience

Previously, changes in Alberta’s minimum wages were formula-based. For example, the increases in 2008 and 2009 were linked to changes in Alberta’s Average Weekly Earnings. Similarly, increases made to the minimum wage from 2011 to 2014 were linked to changes in Alberta’s Weekly Earnings and the Consumer Price Index (CPI).

The increases made between 2015 and 2018 represented a major break from this predictable, formula-driven policy. Instead, Alberta’s minimum wage and liquor server wage were increased aggressively to reach \$15.00 per hour. The rationale widely stated by the government at the time was to honour a commitment in its election platform.¹⁰

¹⁰ Alberta NDP. (2015). *Leadership for What Matters: Election Platform 2015*.

Under the new policy, the economy had to absorb an increase of 47 per cent in the general minimum wage (and an increase of 63 per cent in the liquor server wage) in only three years.

To put this in perspective, had Alberta instead tied increases in the minimum wage to growth in the Consumer Price Index and Average Weekly Earnings over the same period, then Alberta's minimum wage and liquor server wages would have reached \$10.62 per hour and \$9.58 per hour, respectively, by October 1, 2018. (This would have represented an overall increase of 4.1% to both wages, as shown in Appendix Table A10.)

Table 2 summarizes the increases made to Alberta's minimum wage and liquor server wage over a 10-year period. In percentage terms, the increases between 2015 and 2018 were extremely steep relative to historical increases.

Table 2: Changes in Alberta's General Minimum Wage, 2008-2018

Year	General Minimum Wage	% increase
April 1, 2008	\$8.40	5.00
April 1, 2009	\$8.80	4.76
2010	\$8.80	-
September 1, 2011	\$9.40	6.82
September 1, 2012	\$9.75	3.72
September 1, 2013	\$9.95	2.05
September 1, 2014	\$10.20	2.51
October 1, 2015	\$11.20	9.80
October 1, 2016	\$12.20	8.93
October 1, 2017	\$13.60	11.48
October 1, 2018	\$15.00	10.29
2014 to 2018	\$10.20 to \$15.00	47.06

Source: Alberta Labour and Immigration

On the face of it, the increases from 2015 to 2018 did not present mere step-changes for businesses, but rather, introduced major consequences for their labour costs. Moreover, these increases occurred during a period that was already very challenging for businesses.

In the midst of a downturn, Alberta was experiencing effects from low resources prices, reduced capital spending in the energy sector, and layoffs across the economy. This translated into lower customer demand and lower average sales for many businesses. For those in sectors with large proportions of minimum wage earners – such as retail trade and accommodation and food services – the 2015-2018 minimum wage increases came at a time when they were least able to adapt to higher labour costs.

As we explore in the next two chapters, this had serious impacts on individuals and businesses.

IMPACTS ON INDIVIDUALS

Examining the Profile of Minimum Wage Earners

As a first step in exploring the impacts of minimum wage increases, our Panel examined the profile of minimum wage earners in Alberta. (Notable data from this profile is provided in Appendix A.) In several respects, the profile did not change significantly before and after the 2015-2018 increases. For example, the following remained relatively consistent:

- In terms of the gender distribution, females represented approximately 60 per cent of minimum wage earners and males represented approximately 40 per cent.
- Roughly equal shares of minimum wage earners were working full-time versus part-time. Approximately three-quarters were in permanent positions, while roughly one quarter were in temporary positions.
- The economic sectors employing the three largest proportions of minimum wage earners were retail trade, accommodation and food services, and other services (except public administration).

There were, however, some notable shifts in the profile of minimum wage earners before and after the 2015-2018 minimum wage increases.

The overall share of Albertans earning minimum wage went up sharply

Before the 2015-2018 increases occurred, only 2.3 per cent of all employees in Alberta earned the minimum wage – the lowest proportion among Canadian provinces. By the time Alberta's minimum wage reached \$15.00 per hour, however, minimum wage earners represented 11.5 per cent of all employees in the province.

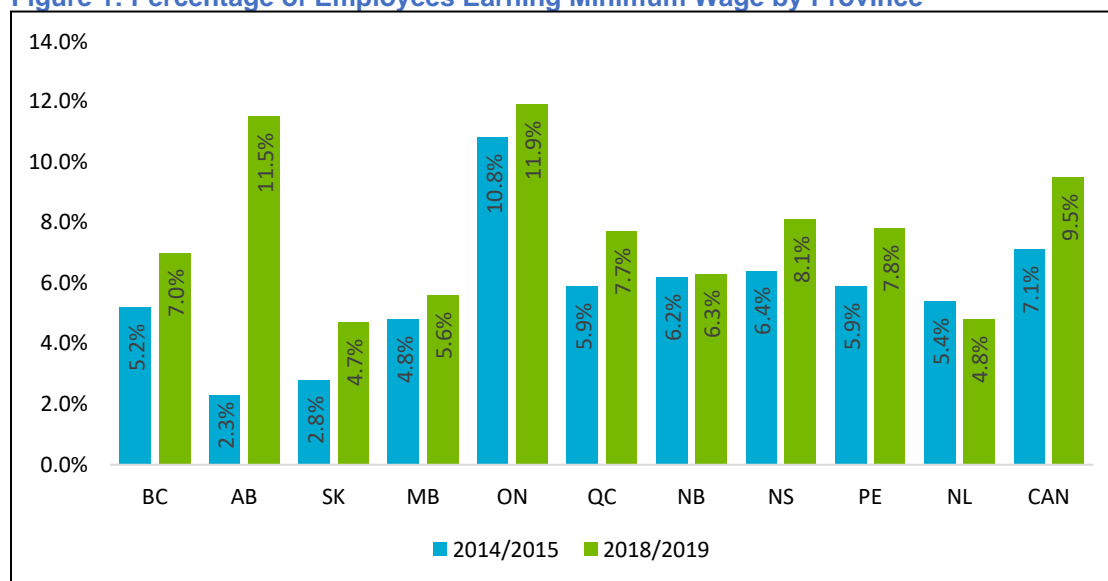
As displayed in Figure 1, the share of minimum wage earners in our province's workforce is now the second highest amongst Canadian provinces.

A look at changes within certain economic sectors strikingly illustrates this shift. In retail trade, for example, only 4.3 per cent of all the sector's employees earned the minimum wage in 2014-2015 (before the 2015-2018 increases). That fraction grew to almost one third (32.7%), despite the overall number of jobs in the sector remaining relatively stable over the same time.

In accommodation and food services, the number of minimum wage employees grew fivefold between 2014-15 and 2018-19. After the 2015-2018 increases, 42.2 per cent of employees in accommodation and food services were earning the minimum wage.¹¹

¹¹ This includes liquor servers who earn the minimum wage of \$15.00 per hour as of October 1, 2018 (not including tip income). While they are captured in this statistic due to the hourly wage they are paid, liquor servers are fundamentally different than typical minimum wage earners, as we discuss later in our report.

Figure 1: Percentage of Employees Earning Minimum Wage by Province



Source: Alberta Labour and Immigration

Younger Albertans were disproportionately impacted

The age distribution of minimum wage earners changed noticeably in relation to Alberta's young people. Both before and after the 2015-2018 increases, Albertans aged 15-24 accounted for approximately 46 per cent of all minimum wage earners in Alberta.

Within the age cohort, however, major shifts occurred over the time of the 2015-2018 increases. As shown in Table 3, the proportion of minimum wage earners aged 15-17 was cut almost in half, while the proportion aged 20-24 grew from 14 per cent to 20 per cent.

Table 3: Proportion of Alberta Minimum Wage Earners by Age (years)

Age	2014/2015		2015/2016		2016/2017		2017/2018		2018/2019	
	Employees	Share	Employees	Share	Employees	Share	Employees	Share	Employees	Share
15-19	14,900	33.4%	23,800	32.4%	35,200	32.3%	36,000	26.1%	57,200	25.1%
15-17	8,700	19.5%	15,400	21.0%	18,900	17.3%	17,200	12.5%	24,800	10.9%
18-19	6,200	13.9%	8,400	11.4%	17,000	15.5%	18,800	13.7%	32,300	14.2%
20-24	6,400	14.3%	15,000	20.4%	20,800	19.1%	29,200	21.2%	45,700	20.1%
25-29	3,500	7.9%	7,700	10.5%	9,400	8.6%	15,400	11.2%	20,800	9.1%
30-34	3,100	7.0%	5,600	7.6%	8,600	7.9%	11,900	8.7%	15,000	6.6%
35-39	3,400	7.6%	4,500	6.1%	5,500	5.0%	9,700	7.0%	15,700	6.9%
40-44	3,800	8.6%	2,700	3.6%	6,100	5.6%	7,200	5.2%	14,300	6.3%
45-49	1,900	4.2%	2,300	3.2%	4,800	4.4%	6,200	4.5%	14,300	6.3%
50-54	1,700	3.7%	2,500	3.4%	4,700	4.3%	6,200	4.5%	13,200	5.8%
55+	5,900	13.3%	9,400	12.9%	13,900	12.8%	15,900	11.5%	31,200	13.7%
Total	44,700	100%	73,500	100%	109,400	100%	137,700	100%	227,300	100%

Source: Statistics Canada Labour Force Survey (LFS) Microdata

Note: Sum of category sub-totals may not equal to overall total due to rounding

Alberta's labour force experienced "wage compression"

The changes in the profile of Alberta's minimum wage earners suggest that a degree of "wage compression" occurred within the province's labour force.

By "wage compression", we mean that a number of employees who had previously earned a wage above the minimum, and remained employed throughout the 2015-2018 minimum wage increases, appear to now be among the large group of workers exactly at the new minimum wage of \$15.00 per hour.

Typically, an increase in the minimum wage has a 'ripple effect' on other wage-earning jobs; an employee whose rate of pay is already higher than the minimum wage will often receive a corresponding bump in pay, such that they continue to earn above the minimum wage.¹² Theoretically, if this ripple effect is consistent and widespread then the proportion of employees earning the minimum wage should not grow markedly. In this case, however, the proportion of employees earning the minimum wage grew substantially.

Isolating Impacts Due to the Policy

While the profile of minimum wage earners offers some interesting insights, these sit in a more complex context. As noted, the 2015-2018 minimum wage increases occurred against the backdrop of a major economic downturn.

In an effort to assess the labour market impacts attributable to the minimum wage increases (versus the overall economic downturn), academic members of the Panel undertook advanced analysis of the available labour market data. This was accomplished through the use of conventional regression analysis and the use of a synthetic control technique.

Analysis Through Conventional Regression Techniques

To undertake the statistical analysis, our Panel relied on conventional econometric models that have been employed by economists and are consistent with empirical specifications in academic literature.¹³ Results in this section are obtained from double-log models in which coefficient estimates can be interpreted as elasticities.

The use of these models enables one to determine the impacts of changes in the minimum wage, while controlling for the effects of other potentially confounding factors. For the sake of

¹² Campolieti (2015) found the distributional reach to be the 5th percentile for men and the 10th percentile for women in Canada. Campolieti, M. (2015). "Minimum Wages and Wage Spillovers in Canada." *Canadian Public Policy*. 41(1): 15-24.

¹³ A number of studies based on Canadian data find minimum wage hikes to be significantly associated with reductions in teenage employment, with elasticities ranging from -0.1 to -0.4. In other words, on average, a 10 per cent increase in the minimum wage has found to be correlated with between a 1%-4% drop in teen employment. On the other hand, minimum wage effects with respect to older age groups are much smaller. Please refer to Rybczynski and Sen (2017) for a review of the literature.

ease, only statistically significant results have been presented in our report. More details regarding the analysis are provided in Appendix A.¹⁴

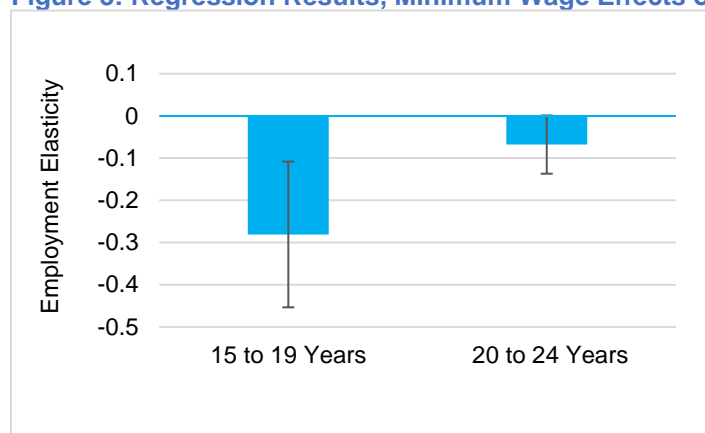
Minimum wage increases caused employment loss among those aged 15-24

The results of the regression analysis reveal that changes to the minimum wage are significantly associated with negative employment outcomes for youth and young adults. On average, a 10 per cent increase in the minimum wage is correlated with an almost 3 per cent drop in the employment of those aged 15-19.

The analysis also reveals that, although notable, the impacts are much smaller with respect to young adults. Specifically, a 10 per cent increase in the minimum wage is correlated with a 0.7% decline in employment for those 20-24 years old.

Figure 3 shows the regression results for minimum wage impacts on employment for the age cohorts. The confidence levels are also provided and based on the 90% confidence interval.

Figure 3: Regression Results, Minimum Wage Effects on Youth Employment



Source: Professor Anindya Sen, University of Waterloo

These estimates can be used to determine the loss of employment in Alberta that can be attributed to the 2015-2018 minimum wage increases.

The 2015-2018 increases saw Alberta's general minimum wage rise by 47 per cent. According to the analysis, this caused a 13 per cent decrease in employment amongst those aged 15-19, and a 3.3 per cent decrease amongst those aged 20-24. This translates into approximately 14,230 jobs lost by those aged 15-19 and 6,993 jobs lost by those aged 20-24.

In summary, using this method our Panel estimates that the 2015-2018 minimum wage increases caused **employment losses of 21,224** amongst those 15 to 24 years old.

Other employment impacts were not statistically significant

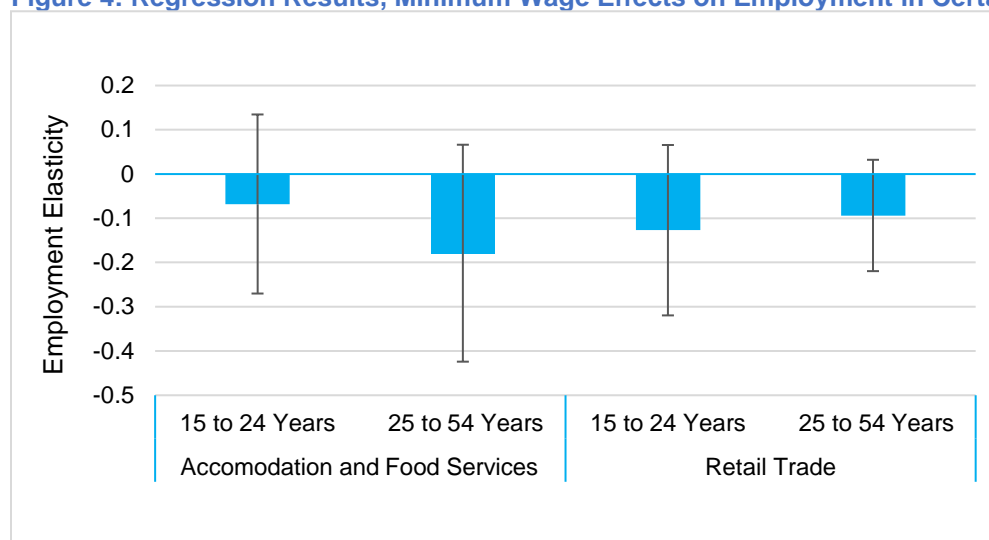
¹⁴ The calculations in this section were carried out by Professor Anindya Sen of the University of Waterloo.

The regression analysis indicates that employment impacts for older adults were statistically insignificant with respect to the minimum wage.

There is no doubt that large numbers of Albertans aged 25 and older experienced job losses between 2015 and 2018. However, this particular statistical analysis indicates that those job losses were not solely due to the 2015-2018 minimum wage increases.

A lack of statistically significant employment changes was also found for two of the economic sectors that employ large proportions of minimum wage employees: accommodation and food services, and retail trade. Figure 4 shows the regression results for minimum wage impacts on these industries. The confidence levels are also provided and based on the 90% confidence interval. These results suggest that employment losses in these sectors were more likely due to the general economic downturn than the 2015-2018 minimum wage increases.

Figure 4: Regression Results, Minimum Wage Effects on Employment in Certain Sectors



Source: Professor Anindya Sen, University of Waterloo

The increases led to higher average weekly earnings for some workers

In theory, increases in minimum wages should result in higher earnings for workers who are employed in sectors that have high proportions of minimum wage employees.

With this in mind, regression analysis was undertaken to examine the effects of minimum wage increases on the average weekly earnings of employees in Alberta's retail trade sector and Alberta's accommodation and food services sector. As noted earlier, these sectors employ the two highest proportions of minimum wage earners.¹⁵

¹⁵ Immediately before the 2015-2018 minimum wage increases, these two sectors collectively employed 46.6 per cent of all minimum wage earners in Alberta. By September 30, 2019, these two sectors together employed 57.6 per cent of all minimum wage earners.

Figure 5 shows the regression results for minimum wage impacts on average weekly earnings in the two economic sectors. The confidence levels are also provided and based on the 90% confidence interval.

Figure 5: Regression Results, Minimum Wage Effects on Average Weekly Earnings



Source: Professor Anindya Sen, University of Waterloo

The results reveal that increases in the minimum wage are significantly associated with increases in average weekly earnings for workers in the accommodation and food services sector. Specifically, a 10 per cent increase in the minimum wage is correlated with a 2 per cent increase in average weekly earnings for employees in this sector.

However, one needs to appreciate that this dynamic would have occurred in tandem with the employment effects outlined earlier, which indicate that tens of thousands of jobs were lost amongst those aged 15-24 as a result of the 2015-2018 minimum wage increases.

Put another way, these results say that:

- **if** you were a minimum wage earner between 15 and 24 years old who worked in accommodation and food services during the 2015-2018 minimum wage increases;
- **then** you likely experienced some increase in your average weekly earnings as a direct result of the 2015-2018 minimum wage increases;
- **but only if** you managed to stay employed.

When it comes to retail trade, the results indicate that the average weekly earnings of workers in that sector were not influenced by the minimum wage increases in a statistically significant way. Again, this dynamic would have occurred within the context of other employment effects.

Put another way, these results say that:

- **if** you were a minimum wage earner between 15 and 24 years old who worked in the retail trade sector during the 2015-2018 minimum wage increases;
- **then** any increases you experienced in your average weekly earnings during that time cannot be solely attributed to the 2015-2018 minimum wage increases;
- **but again, only if** you managed to stay employed.

Analysis Through Synthetic Control Techniques

As a second form of advanced statistical analysis, our report presents research work undertaken by Sebastian Fossati and Joseph Marchand, both Associate Professors in the Department of Economics at the University of Alberta. While this research began prior to the commencement of our Panel, it continued to be carried out during and after its duration.¹⁶

Their work involves the application of a synthetic control technique, in which labour force changes that occurred in Alberta (which experienced the 2015-2018 minimum wage increases) were compared with labour force changes that occurred in a “counterfactual Alberta” (which did not experience the 2015-2018 increases). This “counterfactual Alberta” was, essentially, a composite model of Alberta that was constructed using weighted data from other western Canadian provinces.

This effectively allows for an ‘apples to apples’ comparison, with the only difference between the trends of Alberta and the synthetic control being the 2015-2018 policy change. In this way, the impacts due to the 2015-2018 minimum wage increases could be isolated and identified from the general downturn and subsequent partial upturn in Alberta’s economy over the period. Again, for the sake of ease, only some of the statistically significant results have been presented, while statistically insignificant results are discussed but not shown.

The application of the synthetic control technique to study minimum wages is relatively new, but this is not the first of its kind. In fact, it has been recently applied to examine the effects of another \$15 minimum wage policy, namely that of the city of Seattle.¹⁷ While the counterfactual in that case was built using other counties within the state of Washington, the approach used in our case was based on various combinations of ages, wages and regions across other provinces of Western Canada, although most of the weight was typically put on Saskatchewan.

¹⁶ The calculations in this section were carried out by Sebastian Fossati and Joseph Marchand, Associate Professors at the University of Alberta. For more detail, see “First to \$15: Alberta’s minimum wage policy on employment by wages, ages, and places”, University of Alberta, Department of Economics, Working Paper.

¹⁷ Jardim, E., Long, M., Plotnick, R., van Inwegen, E., Vigdor, J., and Wething, H. 2018. Minimum wage increases, wages, and low-wage employment: Evidence from Seattle. NBER Working Paper No. 23532.

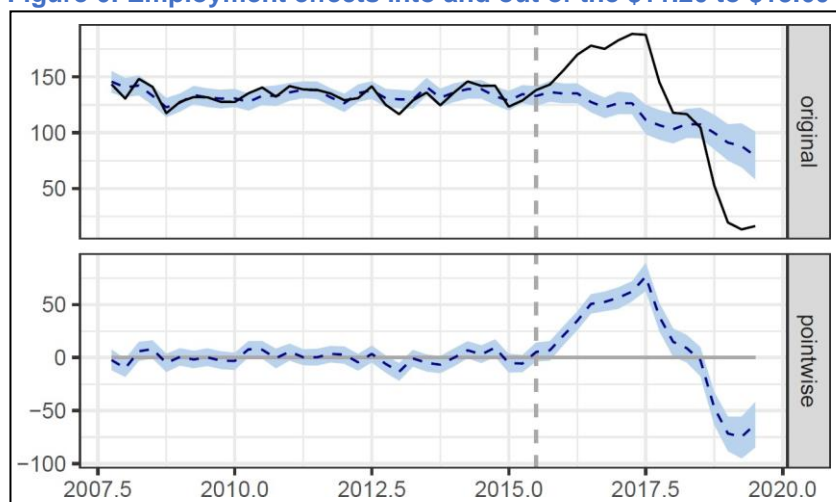
Employers complied with the policy and workers moved up in wage bins

As part of the modelling, the researchers examined employees in the context of a series of “wage bins” that corresponded with the 2015-2018 increases in the minimum wage. That is:

- from \$10.20 to \$11.20 per hour, on October 1, 2015;
- from \$11.20 to \$12.20 per hour, on October 1, 2016;
- from \$12.20 to \$13.60 per hour, on October 1, 2017; and
- from \$13.60 to \$15.00 per hour, on October 1, 2018.

In theory, as the minimum wage increased each year, earners in the applicable wage bin should have ‘departed’ that wage bin and entered the next. As depicted in Figure 6, the researchers were able to track the numbers of employees moving into and out of the middle two of these wage bins, as their rates of pay changed over time. In the presented case, a lot more workers suddenly appeared in these middle wage bins in Alberta relative to the counterfactual during the first two minimum wage increases, and then a lot more workers moved out of those wage bins during the last two increases.

Figure 6: Employment effects into and out of the \$11.20 to \$13.60 wage bin



Source: Fossati, S. and Marchand, J., University of Alberta

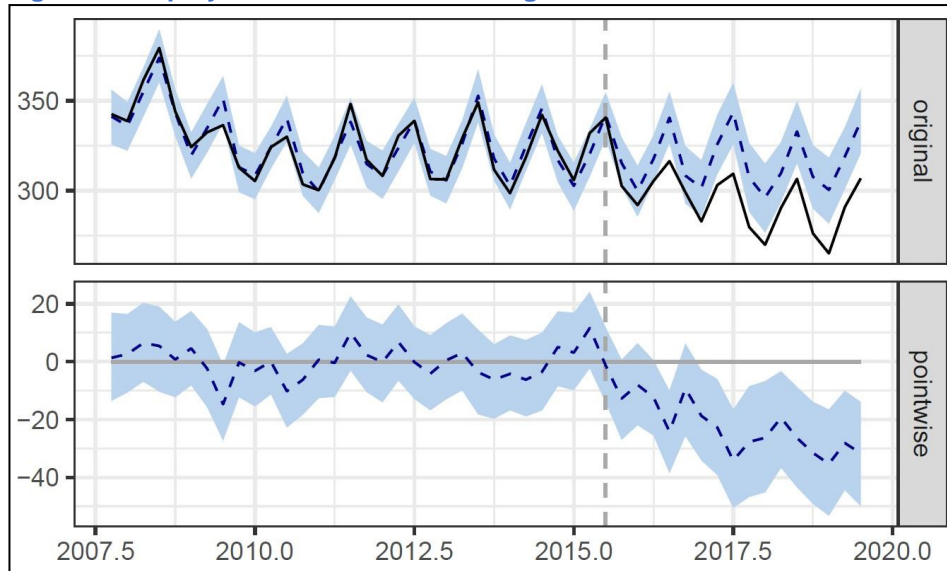
Given that these movements are what would be predicted by the policy, this stands as proof that the technique is working as intended. More importantly, this wage bin analysis reveals that employers in Alberta complied with the 2015-2018 minimum wage increases, increment by increment, and that a significant number of employees moved up the wage distribution, bin by bin. That said, not all employment was preserved during these movements.

Any job losses were entirely experienced by younger Albertans

Given the earlier findings about the effects of the minimum wage on youth employment, the researchers undertook similar analyses that focused on the employment of workers aged 15-24. As depicted in Figure 7, that analysis reveals a statistically significant average **employment loss of approximately 23,039 jobs** due to the 2015-2018 minimum wage increases.

The 90 percent confidence intervals appearing in shaded blue (in Figure 7) display the statistical range of this estimated job loss.

Figure 7: Employment effects for those aged 15-24



Source: Fossati, S. and Marchand, J., University of Alberta

Notably, the results of the wage bin analyses indicate there were no statistically significant employment changes for Albertans aged 25 and over, due to the minimum wage increases. That said, our Panel recognizes that tens of thousands of Albertans aged 25 and older experienced job losses and hardship between 2015 and 2018. However, those job losses cannot be solely attributed to the 2015-2018 minimum wage increases, but instead to other factors such as the overall economic downturn.

On the other hand, these analyses consistently indicate that the job losses caused by the 2015-2018 minimum wage increases were experienced by Albertans aged 15-24.

The job losses were disproportionately experienced outside of the major cities

Modelling was also undertaken to examine any employment impacts on a regional basis. There are seven economic regions of Alberta: two are urban regions (Calgary, Edmonton) and five are non-urban regions (Banff, Jasper, and Rocky Mountain House; Camrose and Drumheller; Lethbridge; Red Deer; Wood Buffalo and Cold Lake).

Previous studies in the literature have suggested that large urban areas are better able to absorb the employment impacts of significant minimum wage increases, compared to non-urban areas, due to their higher price levels. This appears to have been in the case in our province as well.

The analysis reveals that employment in the major urban regions of Calgary and Edmonton appear to have not been affected by the 2015-2018 minimum wage increase (not shown). Even when Calgary and Edmonton are analysed separately, no statistically significant change in employment is found for either urban centre due to the policy.

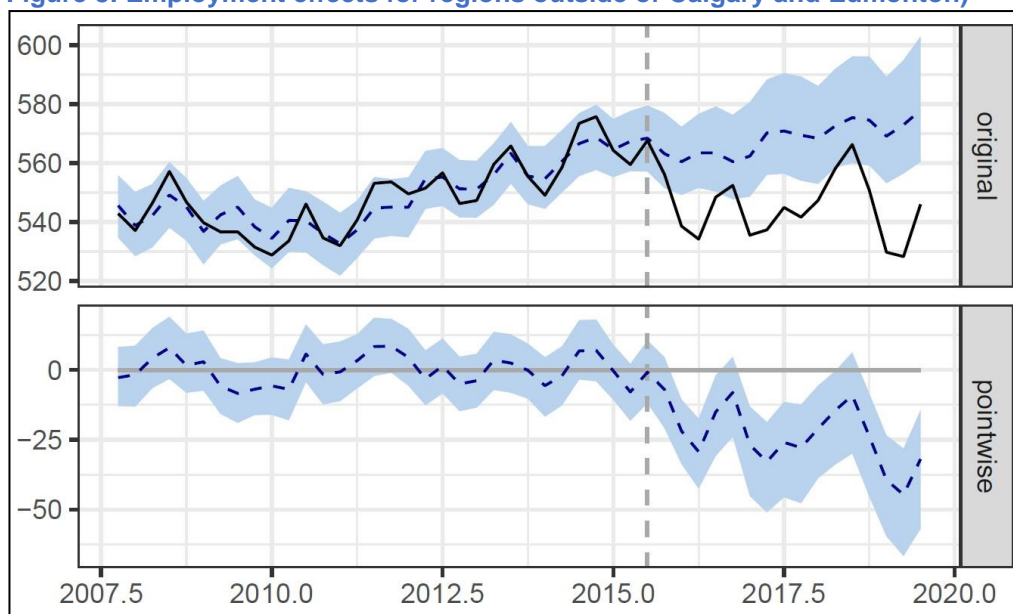
Again, this does not mean that employment loss did not happen in Calgary and Edmonton over the period of analysis. What this instead shows is that, whatever employment changes occurred in the urban regions of Alberta over the period, they were not due to the minimum wage policy.

On the other hand, as depicted in Figure 8, the analysis shows that job losses were concentrated in the other economic regions. Under this analysis, it is estimated that **between approximately 23,705 and 25,971 jobs were lost** on average outside of Edmonton and Calgary specifically due to the 2015-2018 minimum wage increases. Again, the blue shaded area displays the 90 percent confidence bounds of the estimates.

When each of the five non-urban regions were analysed separately, they all independently showed statistically significant employment losses as well.

Of course, tens of thousands of additional jobs were also lost in areas outside of Edmonton and Calgary between 2015 and 2018. However, these other job losses would have been due to factors aside from the 2015-2018 minimum wage increases, including the economic downturn.

Figure 8: Employment effects for regions outside of Calgary and Edmonton)



Source: Fossati, S. and Marchand, J., University of Alberta

IMPACTS ON BUSINESSES

Our Panel also reviewed data collected by the Canadian Federation of Independent Business (CFIB) and Restaurants Canada through surveys of their members’ businesses. These surveys gathered information from business owners about how the 2015-2018 minimum wage increases impacted their businesses.¹⁸

CFIB Survey Data

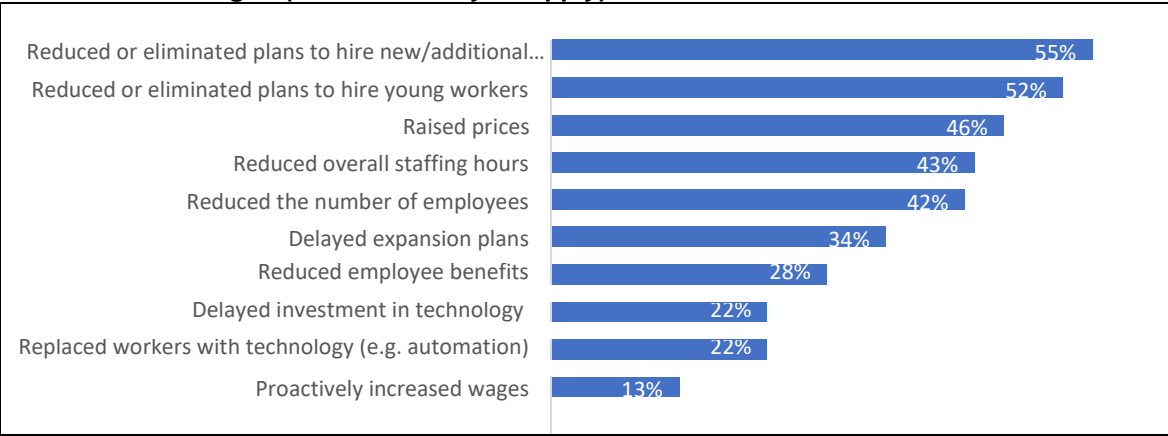
CFIB surveyed its members from various industries in February 2018, asking them to identify changes their businesses had already made as Alberta moved to a \$15.00 per hour minimum wage. (Interestingly, many of the reported responses were originally predicted by Alberta business owners when the CFIB surveyed them in 2015 – before the 2015-2018 minimum wage increases occurred.)

Alberta businesses reduced their staffing and avoided hiring workers

As shown in Figure 9, the results of this survey reflect a number of key employment impacts. In particular, a majority of respondents indicated that they reduced or eliminated their plans to hire new workers (55%). A majority also reported they had to reduce or eliminate plans to hire young workers (52%).

A significant number of businesses indicated they had to raise prices (46%), reduce overall staffing hours (43%) and delay expansion plans (34%). Over one-fifth of Alberta businesses said they responded to the policy change by replacing workers with automation (22%).

Figure 9: CFIB Survey Results Regarding Impacts to Business
Which of the following changes has your business already made as Alberta moves to a \$15 an hour minimum wage? (Select as many as apply)



Source: CFIB Alberta 2018 Pre-Budget Survey, February 1-22, 2018, n=850.

¹⁸ In contrast to the findings in the previous section obtained from econometric models, the data from these surveys have not been analyzed with comparable regression models.

Larger businesses were more likely to experience employment impacts

When analyzed by business size, the CFIB survey results show some interesting trends. Larger businesses were generally more likely to reduce overall staffing hours and reduce employees. Larger businesses were also more likely to reduce or eliminate youth workers. Almost half (46%) of businesses reported raising prices.

Notably, approximately one-third delayed plans to expand their businesses, which otherwise could have brought more economic activity and job opportunities to the province.

Businesses in rural municipalities were hit harder than those in urban centres

When examined on a regional basis, the CFIB survey data indicates that businesses in rural municipalities were more greatly impacted than those in urban municipalities. As illustrated in Figure 10, a greater percentage of rural businesses had to reduce their numbers of employees, eliminate plans to hire new workers, and reduce overall staffing hours (as compared to businesses in urban areas).

Figure 10: CFIB Survey Results, By Location of Business

Which of the following changes has your business already made as Alberta moves to a \$15 an hour minimum wage? – ASKED DURING THE MINIMUM WAGE INCREASE

	Calgary	Edmonton	Rural	Total
Reduced overall staffing hours	45%	38%	58%	43%
Reduced the number of employees	46%	41%	58%	42%
Reduced or eliminated plans to hire new/additional workers	53%	48%	77%	55%
Reduced or eliminated plans to hire young workers	51%	46%	71%	42%
Raised prices	41%	37%	80%	46%
Replaced workers with technology (e.g. automation)	21%	20%	30%	22%
Proactively increased wages	13%	20%	16%	13%
Delayed expansion plans	32%	32%	47%	34%
Reduced employee benefits	32%	27%	40%	28%
Delayed investment in technology that would help improve productivity in my business	22%	18%	29%	22%
	n=165	n=122	n=161	n=852

Source: CFIB Alberta 2018 Pre-Budget Survey, February 1-22, 2018, n=852 (sample size varies by geographical region). Note: The rural category includes: Brooks, Canmore, Grande Prairie, Leduc, Lethbridge, Medicine Hat, Red Deer, St. Albert, and Strathcona County.

Restaurants Canada Survey Data

The food service industry is a highly competitive, labour intensive, low-margin industry. The average pre-tax profitability of restaurants is only 4.3%.¹⁹ The industry has many fixed costs, including food, liquor and lease costs. Consequently, the only flexibility restaurateurs have in absorbing any cost increase is to either raise menu prices, reduce labour, or some combination of both. This is an important context for understanding how restaurants were impacted by the sharp escalation in labour costs brought about by the 2015-2018 minimum wage increases.

¹⁹ 2018 Alberta Foodservice Operating Ratios: Statistics Canada and Restaurants Canada.

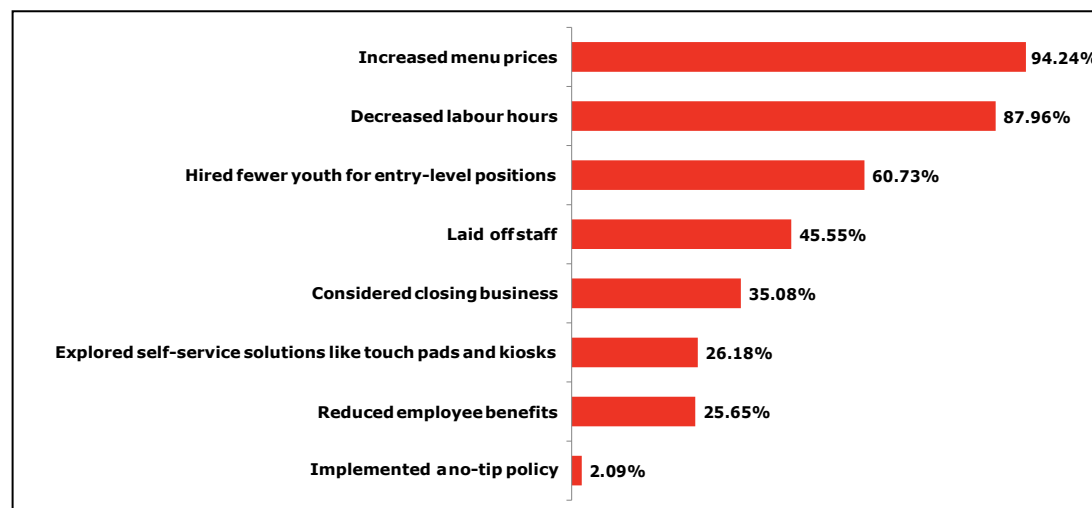
To discern these impacts, Restaurants Canada surveyed its members about the impact of the \$15.00 minimum wage policy between February 12, 2019 and March 9, 2019. (Interestingly, as with the CFIB survey, many of the reported responses were originally predicted by Alberta restaurant owners when Restaurants Canada surveyed them before the 2015-2018 minimum wage increases occurred.)

Reduced labour hours and higher menu prices were widespread

Reflecting the lack of flexibility that restaurants have in adjusting to cost increases, 94 per cent of survey respondents indicated they had to increase prices, while 88 per cent reported they had to reduce labour hours. As shown in Figure 11, 61 per cent of respondents indicated they could no longer hire entry-level youth and nearly half (46%) had to lay off existing staff.

Figure 11: Restaurants Canada Survey on Business Impacts

How has your business responded to the minimum wage increases from \$10.20/hr in 2015 to \$15.00/hr in 2018?



Source:

Restaurants Canada 2019 Member Survey, February 12-March 9, 2019, 1350 establishments.

It is also important to note that just over one-third (35%) considered closing their businesses as a result of the policy. Approximately one quarter (26%) of respondents adjusted to the cost increases by reducing staff benefits. This was much more common in chain restaurants.

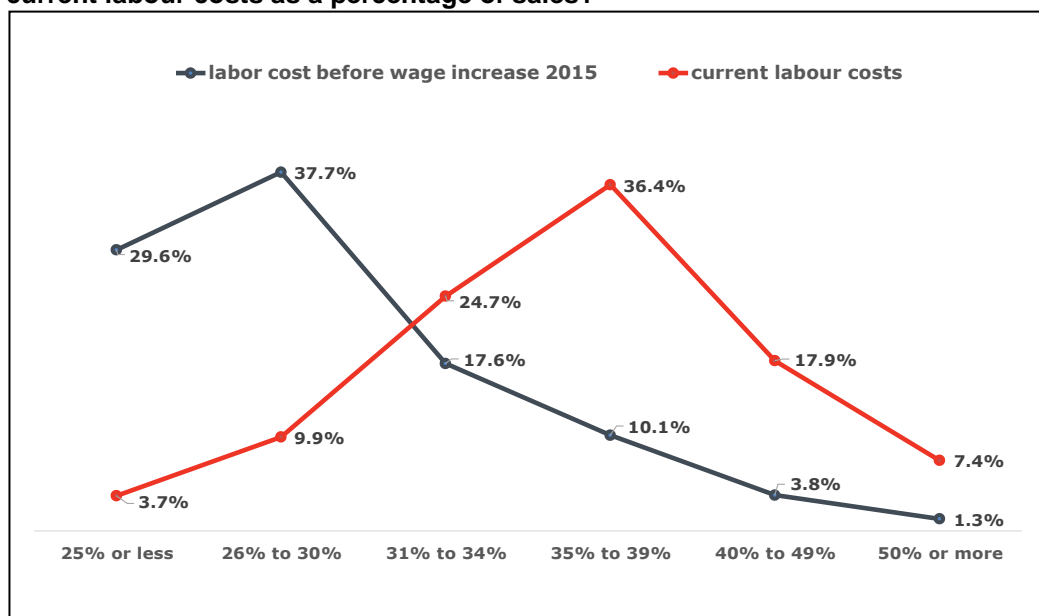
Labour costs went up sharply

Businesses absorbed a 47 per cent increase in Alberta’s general minimum wage (and a 63 per cent increase in the liquor sever wage) over a period of only three years. As Figure 12 illustrates, this had a dramatic impact on industry labour costs, which were already much higher than most industries.

Prior to the 2015-2018 minimum wage increases, two-thirds (67%) of respondents managed to keep their labour costs to under 30 percent of their total sales. After the 2015-2018 increases, only 10 per cent of respondents were able to do this. Most restauranteurs are now dealing with labour costs that are 35 per cent or more of their total sales. One-quarter of restaurants indicate that their labour costs are now more than 40 per cent of sales.

Figure 12: Restaurant Labour Costs as a Percentage of Sales

What were your labour costs prior to the minimum wage increases that began in 2015 and your current labour costs as a percentage of sales?



Source: Restaurants Canada 2019 Member Survey, February 12-March 9, 2019, 1,350 establishments.

Payroll Data from Alberta Restaurants

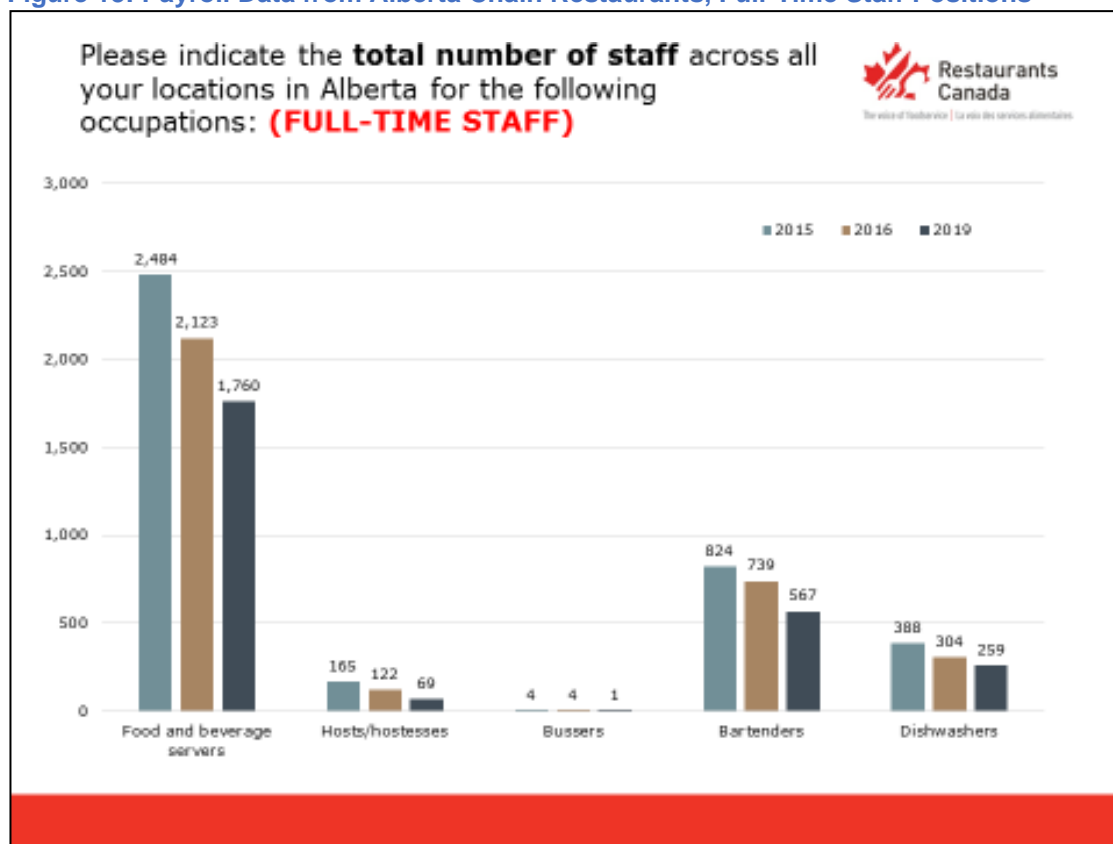
Restaurants Canada also asked a cross-section of licensed chain members, representing 351 Alberta restaurants, to provide actual payroll data to determine the impacts on full-time and part-time employment between 2015 and 2019.²⁰ This payroll data reveals that there were significant impacts on staffing levels.

Full-time positions were eliminated, especially servers and bartenders

As set out in Figure 13, the payroll data shows that across these 351 restaurants, there were reductions in the number of full-time employees across all positions. Most notably, 724 full-time server positions and 257 full-time bartender positions were eliminated over the course of the 2015-2018 minimum wage increases. There were marked reductions in full-time dishwasher and host positions as well.

²⁰ The payroll data included data covering all meal segments, including breakfast, lunch, dinner and late-night period of each day.

Figure 13: Payroll Data from Alberta Chain Restaurants, Full-Time Staff Positions

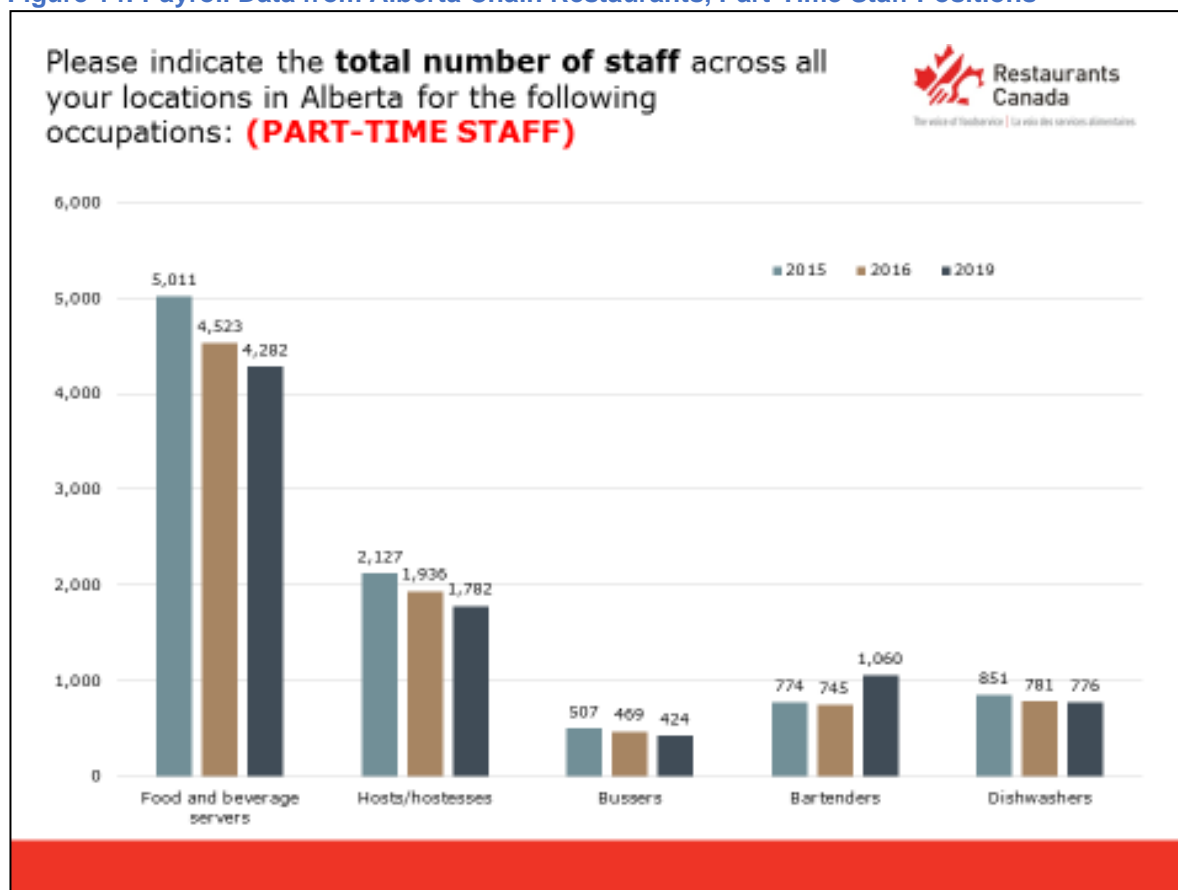


Source: Restaurants Canada Licensed Chain Payroll Data Survey, November 8-25, 2019, 351 establishments.

Part-time positions were eliminated, especially servers and hosts

The payroll records indicate part-time positions were also eliminated across the 351 restaurants, particularly server positions (729 lost) and host positions (345 lost). The elimination of part-time host positions would have compounded disemployment among young Albertans, as these are typically entry-level positions for young people who wish to obtain work experience and enter the industry. As shown in Figure 14, an exception to the staff reductions was part-time bartender positions, which increased after 2016. The restaurants report that this jump occurred in response to the elimination of the liquor server wage on October 1, 2016. (We discuss impacts of the liquor server wage in further detail in Part Two of our report.)

Figure 14: Payroll Data from Alberta Chain Restaurants, Part-Time Staff Positions



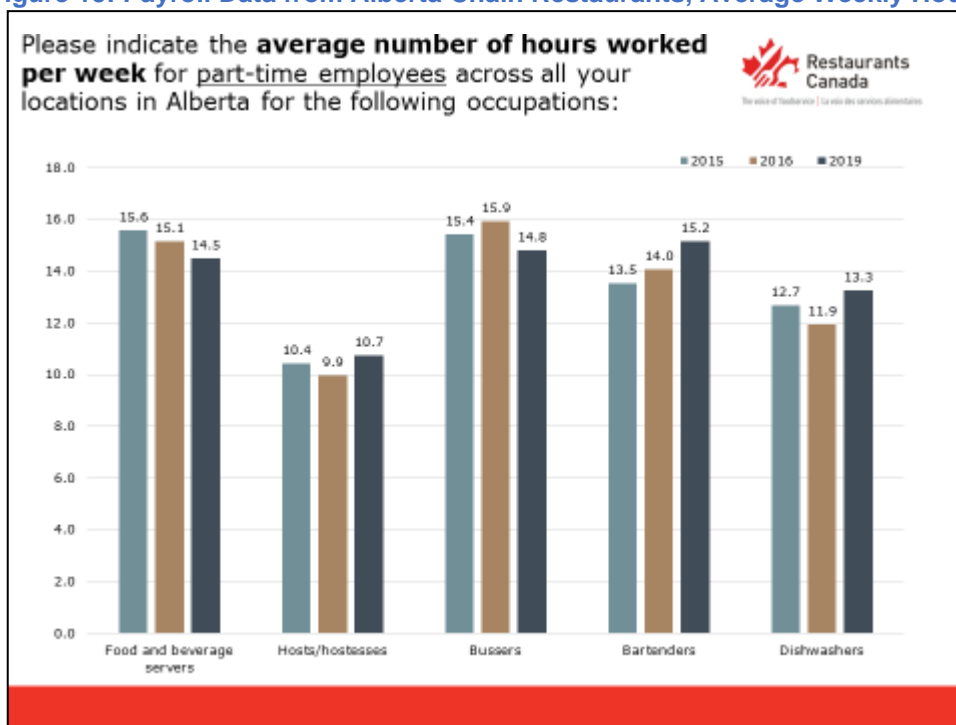
Source: Restaurants Canada Licensed Chain Payroll Data Survey, November 8-25, 2019, 351 establishments.

Servers experienced reductions in average weekly hours

The payroll data also offers insight into how employees' average hours were impacted over the course of the 2015-2018 minimum wage increases. As illustrated in Figure 15, across the 351 restaurants, liquor servers experienced a 1.2 per cent reduction in their average weekly hours, while bussers experienced a 0.6 per cent reduction. Other positions experienced mild increases in their average weekly hours.

While these changes may not appear drastic, they of course need to be read in concert with the other findings in the payroll data. Together the data reflect that, across these 351 restaurants, staff continued to have relatively consistent average weekly hours – but only if they managed to keep their jobs. According to the payroll data, hundreds of workers at these establishments did not.

Figure 15: Payroll Data from Alberta Chain Restaurants, Average Weekly Hours



Source: Restaurants Canada Licensed Chain Payroll Data Survey, November 8-25, 2019, 351 establishments.

Wage compression effects occurred as minimum wages increased

Interestingly, the payroll survey data from these 351 restaurants confirm the observations made earlier in this report concerning “wage compression” effects in response to the 2015-2018 minimum wage increases.

Prior to October 1, 2018 (when Alberta’s minimum wage was increased to \$15.00 per hour), a certain number of employees at these restaurants were earning more than the prevailing minimum wage of \$13.60 per hour. As discussed earlier, an increase in the minimum wage typically comes with a ‘ripple effect’, wherein these employees would receive a corresponding bump in pay so as to keep their relative wages above the minimum threshold.

When Alberta’s minimum wage was raised to \$15.00, only 14 per cent of restaurants gave these ‘higher-than-minimum employees’ the same increase in pay as their minimum-wage earning counterparts. Instead, the vast majority gave these ‘higher-than-minimum employees’ pay increases of lesser dollar amounts. Given how the restaurant industry works, in most cases these would have been back-of-the-house employees.

Similarly, employees at these restaurants who were earning between \$15.00 and \$17.00 per hour prior to October 1, 2018, did not experience a perfect ripple effect when the minimum wage increased to \$15.00 per hour. All of the restaurants that had employees in this wage bracket reported that these employees received increases in dollar amounts less their minimum-wage-earning counterparts.

These data illustrate how restaurant owners, and indeed all businesses, were challenged to absorb the aggressive escalation in Alberta's minimum wages over a short time horizon. As the general minimum wage grew by 47 per cent and liquor server wage grew by 63 per cent, they faced very sharp increases in their labour costs in only three years. This curtailed their flexibility to maintain the relative wage levels of higher-earning employees, resulting in wage compression in the labour force.

KEY CONCLUSIONS REGARDING IMPACTS OF MINIMUM WAGE INCREASES

Our Panel makes the following key conclusions in respect of the impacts of the 2015-2018 minimum wage increases:

- **Alberta's businesses have experienced lurches in minimum wage policy.** Within the past decade, Alberta's minimum wage policy has been turbulent, going from formulaic, predictable increases and having among the lowest rates in Canada, to a non-formulaic and aggressive set of increases that made Alberta's minimum wage the highest in Canada.
- **The proportion of minimum wage earners has gone up sharply.** Alberta went from having 2.3 percent of its workforce earning the minimum wage in 2014 to 11.5 percent of the workforce earning minimum wage in 2018. This took our province from having the lowest proportion of minimum wage earners in Canada in 2014 to having the second-highest proportion in 2018, just behind Ontario.
- **Much about the profile of minimum wage earners in Alberta has remained relatively unchanged.** The composition of minimum wage earners remained consistent in terms of gender, full-time versus part-time employees, and permanent versus temporary employees; as well as in terms of the industries and occupations in which the highest proportions of minimum wage earners are employed.
- **The composition of minimum wage workers has changed drastically with respect to age.** The proportion of minimum wage earners who are teenagers fell significantly between 2014 and 2018, from a third to a quarter. The percentage of 15-17 was halved from roughly 20 to 10 percent.
- **Analysis techniques enabled us to isolate the impacts of the 2015-2018 minimum wage increases.** The aggregate Labour Force Survey data from Statistics Canada allowed for the use of techniques to isolate the labour force effects of the 2015-2018 increases, versus effects due to other factors such as the economic downturn. This was done in two ways: through conventional techniques of elasticity estimation; and through synthetic control techniques previously used to analyze Seattle's \$15 minimum wage.
- **Conventional regression analysis finds significant employment impacts of approximately 21,000 lost jobs.** Using conventional techniques, it is estimated that the 2015-2018 minimum wage increases were responsible for employment losses of roughly 21,000 among those aged 15-24. This relationship was not found for those aged 25 or older, in line with the literature.
- **Conventional regression analysis finds impacts to average weekly earnings.** Using conventional techniques, it is estimated the 2015-2018 increases led to higher average weekly earnings for some workers who remained employed, as a 10 percent increase in the minimum is correlated with a two percent increase in earnings for those in accommodation and food services. However, this relationship did not exist for those who remained employed in the retail trade sector.

- **The synthetic control technique demonstrates employer compliance and wage compression across the economy.** Using the synthetic control technique, it was found that employers complied with the minimum wage policy, as workers incrementally moved up the wage distribution, wage bin by wage bin. Taken together with previous summary statistics, the truncation of the wage distribution implies that wage compression occurred.
- **The synthetic control technique reveals significant job losses of between 23,000 and 26,000.** That said, not all employees remained employed as the minimum wage was incrementally increased, as some people lost their employment altogether. This overall employment loss ranges roughly somewhere between 23,000 to 26,000 people, depending on the method used. These employment losses were in line with previous predictions and literature and the result of conventional techniques.
- **The synthetic control technique shows that younger Albertans and those in areas outside of the major urban centres bore the brunt of these job losses.** Employment losses directly due to the 2015-2018 minimum wage increases were found to have occurred amongst younger Albertans (i.e., those aged 15 to 24 years old) and those located outside of Alberta's two major urban areas (meaning the five economic regions of Alberta outside of Calgary and Edmonton).
- **Businesses experienced severe escalations in labour costs, leading to major employment impacts.** Alberta businesses reported several common responses to dealing with increased labour costs caused by the 2015-2018 minimum wage increases. These responses included: reducing the number of employees, reducing or eliminating plans to hire new or additional workers, reducing or eliminating plans to hire young workers, and raising prices.
- **Business responses differed depending on their size (in terms of number of employees).** Larger businesses were more likely to reduce employees and overall staffing hours, relative to smaller-sized businesses. They were also more likely to raise prices, delay expansions and reduce benefits, as well as more likely to proactively increase wages.
- **Businesses outside of the two major urban areas were especially impacted.** Markedly higher proportions of businesses located outside of Edmonton and Calgary reported taking the most commonly cited responses to the 2015-2018 minimum wage increases.
- **Restaurants reduced their total staff and weekly hours worked across positions.** All five positions suffered reduced full-time staff, which was also true for part-time staff, with the exception of bartenders. The average hours worked per week declined for part-time servers and bussers, but increased slightly for hosts, bartenders, and dishwashers.

PART TWO: IMPACTS REGARDING THE LIQUOR SERVER WAGE

SETTING THE CONTEXT

Our Panel was asked to assess whether liquor servers would likely realize higher overall earnings with a re-introduction of a differential wage, such as the liquor server wage.

To consider this, one needs to understand the history and concept of liquor server wages, the unique earning position of liquor servers, and how these relate to restaurant operations.

The Concept of Liquor Server Wages

Beginning soon after the Civil War in the United States, tipping grew to become a very standard practice in the hospitality industry in North America by the early 1900s. Increasingly, tip income emerged as an important component of income for servers and other service staff in the hospitality industry.

Recognizing this, legislators in a number of North American jurisdictions came to regard employees who earned a substantial portion of their total income from tips as being different from other entry-level and minimum wage workers. Since their tip income enabled them to earn significantly more than the minimum wage, these tip-earning employees could be addressed through a different policy response.

Over time, both federal and state legislators in the United States have implemented “tip credit” minimum wages. In 1966, amendments to the U.S. federal *Fair Labour Standards Act* provided for a 50 per cent “tip credit” for employers of tipped workers. Employers can use this tip credit to count toward half of the regular minimum wage for tipped employees, providing that the tip income earned by these employees brings their total compensation to equal or more than the federal minimum wage rate. Under the tip credit, if a server does not make enough in tips to reach the minimum wage, then the employer is required to make up the difference.

Today, 43 of the 50 U.S. states follow the federal tip credit or have implemented their own state versions of the federal tip credit wage. In 1996, the U.S. federal *Minimum Wage Increases Act* set the tip credit wage at a \$2.13 flat rate, as opposed to a percentage of the general minimum wage rate. Tip wages continue to be in place in Canada’s two largest provinces (Ontario and Quebec) and in 86 per cent of all U.S. states.

In 1936, Quebec became the first province in Canada to introduce legislation creating a tip wage that reflected the increasing importance of tip income for tip-earning employees. That legislation was amended in 1986 and Quebec’s current tip wage policy has been maintained by different Quebec governments ever since. Instead of the “tip credit” approach used in the U.S., Quebec established a differentiated wage for all employees earning gratuities.

As outlined in Table 1, Quebec’s general minimum wage is currently \$12.50 per hour, while the wage for those employees earning gratuities is \$10.05 per hour. **This represents a \$2.45 per hour differential between the two wages.**

In 1976, Ontario amended its labour legislation to create a separate wage for liquor servers, recognizing that these employees earned a considerable portion of their total compensation through tip income.

The last comprehensive study in Canada on tipping practices and liquor server wages was undertaken by Ontario in 1993.²¹ In addition to confirming that tip income was significant in the restaurant sector, the study included focus group sessions with employers and employees to gather views about the differential wage for liquor servers. Concern was raised in these sessions about the impacts on hours and jobs that would result from eliminating the differential wage. Participants in the focus groups noted that liquor servers "...work primarily for the tips they earn; wages are a secondary consideration..."

The report from the focus groups went on to say, "If the tip differential were reduced or eliminated, both employers and employees tend to agree that the implications would be hard on the restaurant business. The most likely scenario is that this would put pressure on owners/managers to control their labour costs. No one seems to think that cost increases could simply be passed on to customers in the form of higher menu prices."

The results of the Ontario study convinced the Government of Ontario to retain the differential wage. Provincial governments of all political stripes in Ontario have maintained the liquor server wage to this day. As outlined in Table 1, Ontario's general minimum wage currently stands at \$14.00 per hour and its liquor server wage stands at \$12.20 per hour. **This represents a \$1.80 per hour differential between the two wages.**

In 2011, the Governments of Alberta and British Columbia both introduced liquor server wages based on Ontario's model.

In March of 2011, British Columbia announced the creation of a liquor server wage effective May 2011, at \$8.50 per hour, as part of its announcement to increase the minimum wage by \$2.25 in stages by May 2012. In May 2012, BC's liquor server wage increased to \$9.00 per hour when BC's general minimum wage was increased to \$10.25 per hour.

The differential between BC's minimum wage and liquor server wage remained at \$1.25 per hour until 2017, when the BC government decided to phase out its liquor server wage over four years. Starting in 2018, the phase-out forms part of the BC government's plans to increase BC's minimum wage to \$15.20 by 2021. Under the phase-out, BC's liquor server wage is increasing by a higher amount than the general minimum wage each year, until both reach the same level of \$15.20 per hour in 2021.

As outlined in Table 1, BC's liquor server wage is currently \$12.70 per hour and its general minimum wage is \$13.85 per hour. On June 1, 2020, BC's liquor server wage is scheduled to climb to \$13.95 per hour and its minimum wage is scheduled to rise to \$14.60 per hour. Those adjustments will represent year-over-year increases of 9.8% and 5.4%, respectively – far lower than those which occurred in Alberta under its 2015-2018 minimum wage increases.

Changes to Liquor Server Wages in Alberta

Effective September 1, 2011, the Government of Alberta amended the Employment Standards Regulation to introduce a differentiated wage "for an employee who, as part of his or her employment, serves liquor, other than on an infrequent or occasional basis, directly to

²¹ Economics and Labour Market Research, Policy Division, Ontario Ministry of Labour. (1993). *Study of Tipping Practices in Licensed Establishments in Ontario*. This study was sponsored by the Ontario Ministry of Labour, the Ontario Ministry of Tourism and Recreation and the Ontario Women's Directorate, as well as two trade associations and two unions.

customers, guests, members or patrons in premises for which a liquor licence has been issued under the *Gaming and Liquor Act...*²²

The liquor wage was initially established at \$9.05 per hour – forty cents lower than the minimum wage at the time. **Over time, as both wages changed, the differential between them reached \$1.00 per hour**, where it remained until the liquor server wage was eliminated. Immediately prior to October 1, 2015, Alberta’s liquor server wage was \$9.20 per hour and its general minimum wage was \$10.20 per hour.

As part of the 2015-2018 minimum wage increases, the government at the time eliminated the liquor server wage. This was done on an aggressive track, whereby the liquor server wage grew by \$1.50 per hour on October 1, 2015, and another \$1.50 per hour on October 1, 2016. As outlined in Table 4, these sharp moves represented an increase of more than 30 per cent in just two years.

To put this in perspective, had Alberta instead tied increases in the minimum wage to growth in the Consumer Price Index and Average Weekly Earnings over the same period, then Alberta’s liquor server wage would have reached \$9.58 per hour by October 1, 2018. (This would have represented an overall increase of 4.1%, as shown in Appendix Table A11.)

Table 4: Changes in Alberta’s Liquor Server Wage, 2008-2018

Year	Liquor Server Minimum Wage	% increase
April 1, 2008	\$8.40	5.00
April 1, 2009	\$8.80	4.76
2010	\$8.80	-
September 1, 2011	\$9.05	2.84
September 1, 2012	\$9.05	-
September 1, 2013	\$9.05	-
September 1, 2014	\$9.20	1.66
October 1, 2015	\$10.70	16.30
October 1, 2016	\$12.20	14.02
October 1, 2017	\$13.60	11.48
October 1, 2018	\$15.00	10.29
2014 to 2018	\$9.20 to \$15.00	63.04

Source: Alberta Labour and Immigration

The Unique Earning Position of Liquor Servers

The concept of a liquor server wage is premised on a recognition that, for these employees, tips have an outsized importance for their overall compensation. Members of our Panel who work as servers, full-time and part-time, offered valuable perspectives on this front. Our Panel heard that servers can regularly realize take-home earnings that, when converted into hourly rates, are much higher than the minimum wage. Data points support this assertion.

²² AR 102/2011.

In 2016, a study by Bruce McAdams and Michael von Massow at the University of Guelph found that the average Canadian server, at that time, earned \$30.00 per hour or more, including tips.²³ Accounting for the hourly wage that liquor servers earned in Alberta during 2016,²⁴ this study would suggest the average liquor server earned \$19.30 per hour or more in tip income alone.

Actual recorded gratuity data from point-of-sale system credit card tips at 351 liquor-licensed Alberta restaurant establishments indicates that the average tip income earned by servers is \$23.22 per hour. This average includes data covering all parts of day, including breakfast, lunch, dinner, and late-night periods.²⁵ After accounting for the hourly wage currently earned by liquor servers in Alberta, this point-of-sale system data suggests the average liquor server has overall earnings of at least \$38.22 per hour including tips.

The numbers yielded from these data points are remarkably consistent and support the widespread belief that liquor servers earn far more than the minimum wage.

Not surprisingly, servers by and large do not see themselves as minimum wage earners. Instead, servers are generally seen within the industry as being similar to commissioned salespeople. As the individuals working on the front lines of the restaurant, servers fulfill the role of marketing, showcasing and selling products to customers, as a sales representative might in the automobile or business services industry.

The majority of their earnings come from their 'commissions' on those sales – i.e. the tips provided by guests. Their base pay – in this case, the minimum wage or liquor server wage – is relatively far less consequential in terms of their overall earnings. This stands in contrast to non-tipped employees who work in the 'back-of-the-house', for whom an hourly wage is the far most important (if not sole) component of their overall take-home pay.

While the unique position of liquor servers enables them to earn more than minimum wage, it comes with some risks and instabilities. For example, there is considerable ambiguity and uncertainty in their scheduled work hours; they may suddenly see their shifts reduced or lengthened depending upon business fluctuations. Similarly, tip income can change markedly depending on business conditions and, as discussed later, sudden changes in tip-out arrangements can have significant impacts on their overall earnings.

Introducing Labour Cost Flexibility

Given the unique earning potential of liquor servers, one can understand how legislators in many North American jurisdictions have come to establish differentiated wages for these employees. Fundamentally, liquor servers are different than typical minimum wage earners.

A liquor server wage also has the advantage of providing labour cost flexibility to restaurant owners and operators.

²³ Bruce McAdam & Michael von Massau. (2016). "Tipped Out: How gratuities affect restaurant operations." *Journal of Foodservice Business Research*.

²⁴ Between January 1, 2016 and October 1, 2016 (when it was eliminated), the liquor server wage in Alberta was \$10.70 per hour.

²⁵ Restaurants Canada- POS system credit card gratuity records from 351 liquor licensed establishments.

For liquor servers, a lower hourly wage (in the form of a tip credit wage or liquor server wage) has generally been regarded as inconsequential to their overall earnings, given the outsized importance that tips have for their earnings.

For restaurant owners and operators, on the other hand, the existence of a liquor server wage has been very consequential for their operations. By lowering the amount of direct labour costs that restaurateurs need to incur to employ liquor servers, a liquor server wage gives restaurateurs greater flexibility to competitively compensate back-of-the-house employees and keep menu prices in check for consumers.

Server representatives on our Panel explained this can have positive impacts for liquor servers' overall earnings. For one thing, a restaurant can offer a liquor server more hours per week than they would otherwise receive (i.e., for the same amount of labour cost). This translates into more opportunities to earn tips and, consequently, higher overall earnings.

Also, being able to competitively compensate back-of-the-house employees helps restaurateurs maintain and enrich the consistency and quality of the overall guest experience. This supports liquor servers to be successful in their roles and, it is argued, earn more in tips. (Arguably, a guest who feels they had a sub-par experience in a restaurant is more likely to leave a lower tip, as compared to a guest who feels they had a superb experience.)

Server representatives on our Panel explained that investments made in both service and back-of-the-house employees can be instrumental for their ability to excel as servers. For example, if a restaurant employs additional personnel as dedicated food runners or bussers, the server is alleviated of these ancillary functions. This better enables the server to concentrate on providing an excellent guest experience. Restaurants can also choose to invest in additional servers during a shift, so that each server can concentrate on a smaller number of tables, helping them to provide higher-quality experiences to each table.

The liquor server wage thus has interplay with the operations of a restaurant as a whole – the dynamics of which can have direct and indirect effects on the overall earnings of liquor servers. Our Panel heard that the elimination of Alberta's liquor server wage had consequences for these dynamics.

Examining the Liquor Server Wage

The type of evidence we present in this report differs between Parts One and Two. Unfortunately, the summary statistics, conventional regression analysis and synthetic control techniques, which were carried out on the Labour Force Survey data in Part One, could not be carried out on the available data in Part Two. This is due to the nature of the data that defines liquor servers, by industry and by occupation; there are insufficient numbers of representative individuals among the Labour Force Survey data in order to undertake the analyses.²⁶

²⁶ Industry would need to be limited to “food services and drinking places” (NAICS 722) and occupation would need to include “bartenders” (NOC 6512) and “food and beverage servers” (NOC 6513).

IMPACTS ON BUSINESSES

Our Panel reviewed data collected by the Canadian Federation of Independent Business (CFIB) and Restaurants Canada through surveys of their member businesses. These surveys gathered information about impacts relating to the elimination of Alberta’s liquor server wage.

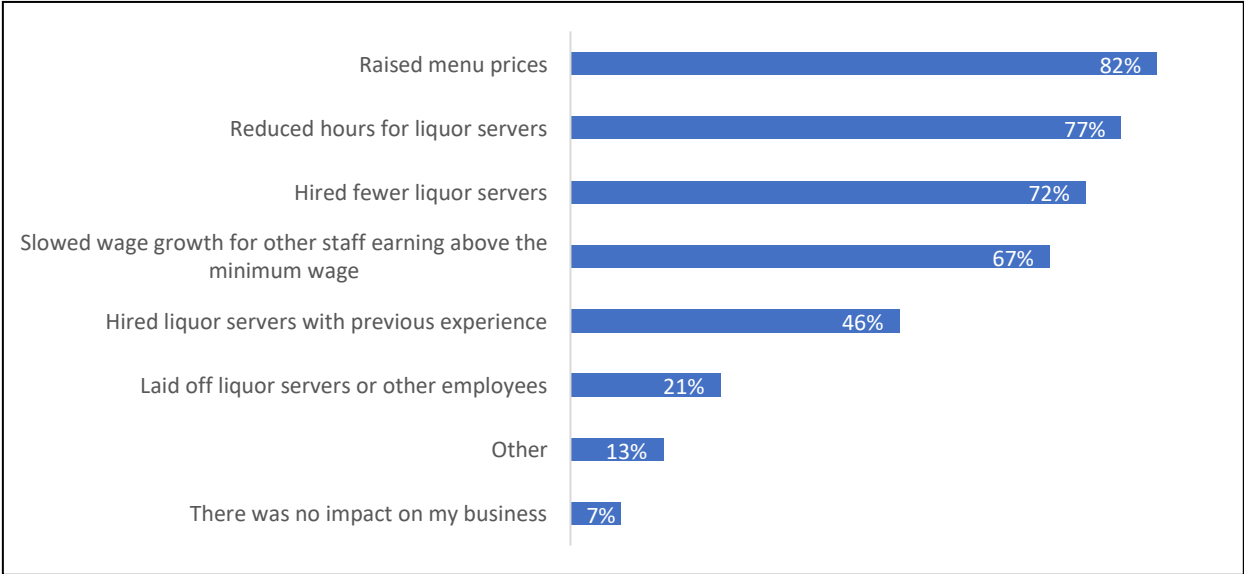
CFIB Survey Data

Between November and December 2019, CFIB surveyed its members that employ liquor servers, asking them to identify how elimination of the liquor server wage affected their businesses.

Hours for liquor servers were reduced, thereby cutting into earnings

Alberta’s businesses adjusted in different ways to the elimination of the liquor server wage, with those reactions varying by business size. As illustrated in Figure 16, vast majorities of respondents indicated they had to raise menu prices (82%), reduce hours for their liquor server employees (77%) and hire fewer liquor servers (72%). These latter two actions would have directly resulted in fewer opportunities for liquor servers to earn tips, having a negative impact on their overall earnings.

Figure 16: CFIB Survey Data, Effects of Liquor Server Wage Elimination
When the liquor server wage was eliminated in 2016, please indicate what effect, if any, it had on your business.



Source: CFIB Alberta Post-Budget Survey, November 18 - December 2, 2019, n=61 (sample size varies by business size).

Medium-sized and larger businesses were more likely to lay off liquor servers

As illustrated in Figure 17, businesses reacted differently depending upon their size. Some trends that were noticeable in the results include the following:

- Small- (5 to 19 employees) and medium-sized (20+ employees) businesses were more likely to raise menu prices than micro (0 to 4 employees) businesses.
- Micro and small businesses were significantly less likely to lay off liquor servers and/or other employees compared to medium-sized businesses. This reflects the fact that smaller businesses have less flexibility to hire or layoff their employees as compared to their larger counterparts.
- Small and medium sized businesses were more likely to slow wage growth for other staff earning above the minimum wage, as a means of adjusting to the sharp escalation in labour costs. Only one-third of micro businesses, by contrast, reported taking this action.

Figure 17: CFIB Survey Data, Effects of Liquor Server Wage Elimination, By Business Size
When the liquor server wage was eliminated in 2016, please indicate what effect, if any, it had on your business – by business size.

	Number of employees			
	0 to 4	5 to 19	20 +	Average
Reduced hours for liquor servers	80%	77%	75%	77%
Raised menu prices	60%	91%	92%	82%
Hired fewer liquor servers	53%	82%	75%	72%
Laid off liquor servers or other employees	7%	5%	46%	21%
Slowed wage growth for other staff earning above the minimum wage	33%	82%	75%	67%
Hired liquor servers with previous experience	20%	64%	46%	46%
Other (Please specify):	13%	9%	17%	13%
There was no impact on my business	0%	9%	8%	7%
	n= 15	n= 22	n= 24	n= 61

Source: CFIB Alberta Post-Budget Survey, November 18 - December 2, 2019, n=61 (sample size varies by business size).

Notably, businesses of all sizes reported that they had to increase prices in responding to the liquor server wage elimination.

Businesses in rural areas were even more likely to reduce liquor servers’ hours

Consistent with findings about the impacts of the general minimum wage increases, it appears that businesses outside of Edmonton and Calgary were disproportionately impacted by the elimination of the liquor server wage.

When impacts are examined by business location, some regional differences emerge. One is that businesses in rural areas were significantly more likely to hire fewer liquor servers than those located in the large urban centres. This suggests fewer liquor serving jobs were available in rural Alberta once the liquor server wage was eliminated.

As shown in Figure 18, businesses in rural areas were more likely to reduce liquor servers’ hours and slow the wage growth of other staff earning above the minimum wage.

Figure 18: CFIB Survey Data, Effects of Liquor Server Wage Elimination, By Business Location
When the liquor server wage was eliminated in 2016, please indicate what effect, if any, it had on your business – by geographical region.

	Greater Calgary	Greater Edmonton	Rural	Average
Reduced hours for liquor servers	73%	75%	80%	77%
Raised menu prices	80%	75%	87%	82%
Hired fewer liquor servers	67%	63%	80%	72%
Laid off liquor servers or other employees	27%	6%	27%	21%
Slowed wage growth for other staff earning above the minimum wage	67%	56%	73%	67%
Hired liquor servers with previous experience	60%	38%	43%	46%
Other (Please specify):	2%	6%	0%	13%
There was no impact on my business	13%	13%	0%	7%
	n=15	n= 16	n= 30	n= 61

Source: CFIB Alberta Post-Budget Survey, November 18 - December 2, 2019, n=61 (sample size varies by geographical region).

Restaurants Canada Survey Data

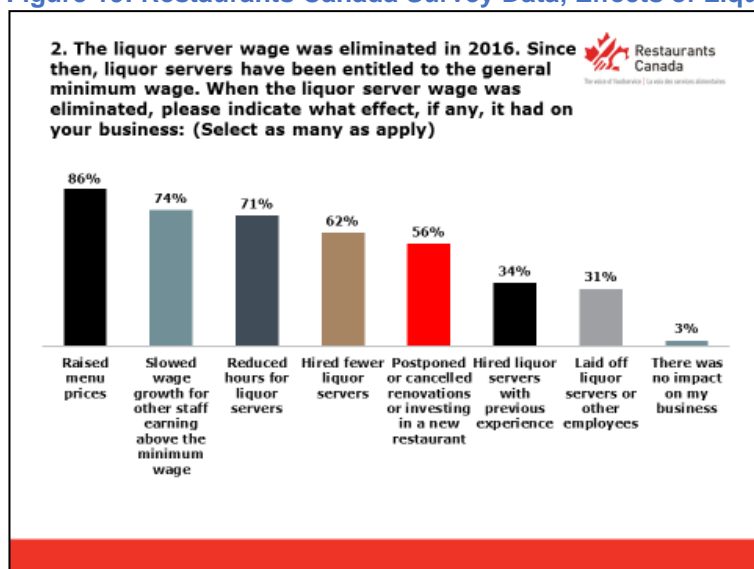
In its most recent member survey, Restaurants Canada specifically asked its liquor licensed members what impacts the elimination of the liquor server wage had on their businesses.

Restaurants reduced hours of liquor servers, which would have reduced earnings

As shown in Figure 19, the vast majority of respondents (86%) indicated they had to raise menu prices and almost three-quarters (74%) slowed wage growth for other staff who were earning above minimum wage. A large majority (71%) reported reducing hours for their liquor servers, which would have reduced liquor servers' overall earnings by reducing their opportunities to earn tips.

These results are remarkably consistent with those of CFIB's survey regarding the impacts of the liquor server wage elimination.

Figure 19: Restaurants Canada Survey Data, Effects of Liquor Server Wage Elimination

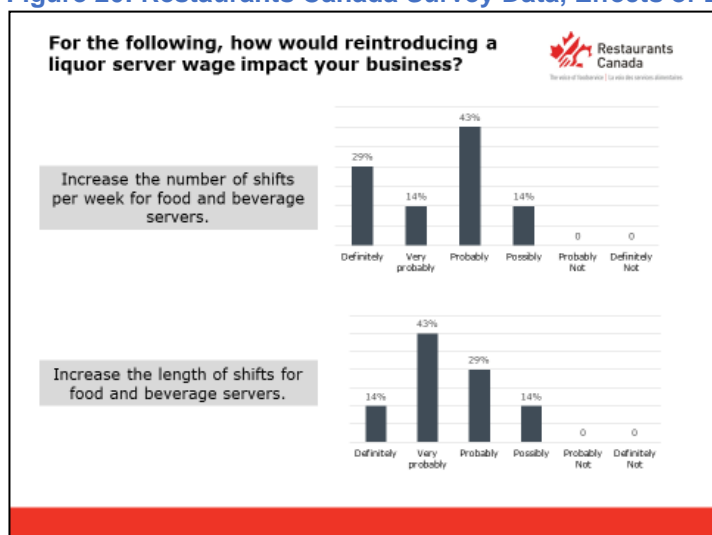


Source: Restaurants Canada Liquor Server Member Survey, November 8-25, 2019, 465 establishments.

Reintroduction of a liquor server wage could mean more hours for liquor servers

Restaurants Canada members who provided detailed payroll and point-of-sale system data also responded on how the re-introduction of a liquor server wage would impact their businesses. As shown in Figure 20, the vast majority (86%) indicated they “definitely”, “probably” or “very probably” would increase both the number and length of liquor server shifts. Another 14 per cent would “possibly” increase the number and length of liquor server shifts. With more and longer hours of work available to them, liquor servers would thereby have more opportunities to earn tips. This would, in turn, support higher overall earnings for liquor servers, given the outsized importance that tips have for their total take-home pay.

Figure 20: Restaurants Canada Survey Data, Effects of Liquor Server Wage Elimination



Source: Restaurants Canada Licensed Chain Payroll Data Survey, November 8-25, 2019, 351 establishments.

IMPACTS RELAYED BY LIQUOR SERVERS

As outlined in the previous chapter, the elimination of Alberta’s liquor server wage led restaurateurs to rationalize their labour forces by reducing staff, decreasing hours provided to liquor servers, and laying off other staff.

These responses would have had impacts on liquor servers’ overall earnings. Fewer hours worked translates into fewer opportunities to earn tips. Reductions in other restaurant staff can translate into less ideal guest experiences, which can also result in lower tips. Server representatives on our Panel confirmed these impacts.

Server representatives on our Panel, however, pointed to an additional factor that eroded their earnings when the liquor server wage was eliminated: changes to tip-out arrangements.

To understand the dynamics of this factor, one needs to understand the practice of “tipping out”.

Understanding Tip-Outs

At the completion of an experience at a restaurant, the time comes to pay the bill. In Alberta, and indeed across all of North America, this brings into play a very well-established tipping culture. The bill given to the guest is best seen as the cost of the food and beverages that they ordered. The tip customarily provided by the guest (typically between 15 per cent and 20 per cent of the bill) is best seen as a tip for the service they received.

Many Albertans would understandably assume that the tip they provide goes to the individual who acted as their server. Much of it does. However, that is not the whole story.

From the perspective of the industry, when a guest provides a tip, they are not doing so to recognize the server’s work alone, but rather in appreciation of the entire guest experience. This experience is facilitated not only by the server (who is the front and most visible face), but also a broader cast of (largely unseen) players – notably cooks and dishwashers, and others such as bartenders, bussers, food runners, and hosts.

Recognizing this, most restaurants employ a practice known as tipping-out. (Not all restaurants do this.) Specific tip-out practices vary from establishment to establishment, but the basic function of tipping-out remains the same.

In tipping-out, a portion of the tips received from guests are distributed between the server and a designated pool of other employees in the establishment. The people who are included in this pool will vary from establishment to establishment. The server remits a portion of collected tips (called the “tip-out”) to this pool.

Tippping-out impacts earnings.

The practice of tipping-out can erode a server’s earnings if they do not receive enough in tips. This is because the tip-out is sometimes based on the restaurant’s sales.

For example, suppose the tip-out at a restaurant is 7% of sales. If a guest’s total bill is \$200, then the server must tip-out \$14 on that bill, regardless of whatever tip is left by the guest. So, if that guest leaves a tip of less than \$14, the server must pay the difference out of their own pocket.

The tip-out can be calculated in different ways. Some establishments calculate it on the basis of the actual tips collected by each server. (For example, a server must tip-out a fixed percentage

of the tips received during their shift.) Other establishments calculate it based on the total or net sales receipts taken in by the restaurant. Generally speaking, tip-out rates can range from zero to ten per cent. That said, some restaurants do not have a tip-out at all.

The server remits the calculated tip-out to the pool, from which it is distributed to the other employees who are designated participants in the pool.

Tippling-out therefore has significant implications for the overall earnings of liquor servers, especially when tip-out rates are increased.

British Columbia, Ontario, New Brunswick, Newfoundland & Labrador, and PEI have legislation in place that restricts the participation of owners and employers in a tip-out pool. Currently, Alberta does not have any legislation regarding tip ownership or the participation of owners and employers in tip-out pools.

The Impacts on Liquor Server Earnings

While in place, Alberta's liquor server wage provided labour cost flexibility to restaurateurs, enabling them to avoid menu price increases and competitively compensate back-of-the-house staff. When the liquor server wage was eliminated, so too was this labour cost flexibility – but the need to competitively compensate back-of-the-house staff continued to exist.

As one means of adapting to this, some restaurants made changes to their tip-out practices. While these changes varied from establishment to establishment, they generally involved increasing tip-out rates, altering which employees receive tip-outs, or some combination of both.

Server representatives on our Panel indicated that such changes to tip-outs have eroded the overall earnings of liquor servers. One can understand how this might occur, particularly if a restaurant's tip-out was changed such that the additional amount of money a server is now required to tip-out is larger than the additional amount of pay they now receive from earning the general minimum wage instead of the liquor server wage.

In an attempt to quantify any potential effects, server representatives on our Panel collected actual data from a restaurant of sales receipts, tip receipts, and server hours worked, over a period of 11 days. These data points were used to assess server earnings under two scenarios:

- A "current state", in which liquor servers are paid the minimum wage of \$15.00 per hour, and are required to tip-out at a rate of 7% of sales before tax and tip (i.e., the sub-total that appears on a guest's bill without GST, and without any gratuity added).
- A "reinstated liquor server wage" case, using a tip-out rate of 5% of sales before tax and tip. (This was the tip-out rate previously used by the restaurant before it made changes to tip-outs in 2016.) For this case, an hourly wage of \$13.00 per hour was used for a hypothetically reinstated liquor server wage. This amount was selected as it is equivalent to a differential wage that currently exists in Alberta (i.e., the job creation student wage).

In both scenarios, the data was used to calculate the average hourly wages and average tips earned per server during each day's shift. These were added together to arrive at an average total earnings per server for each day. Appendix C contains details regarding the actual data collected and the calculations made in the assessment.

The results of the assessment are set out in Table 5. They show that the overall earnings of a server in this restaurant, over this particular 11-day period, would have been higher in the reinstated liquor server wage scenario than under the current scenario.

This assessment understandably has some limitations and assumptions. It is a snapshot of a single restaurant during a portion of a single month. It also assumes that this restaurant would move its mandatory tip-out rate back to its previous level (i.e., from 7% to 5%) if a liquor server wage was brought in at a differential of \$2.00 per hour lower than the current minimum wage. However, the assessment is helpful in illustrating the basic mathematics that are at play.

Table 5: Comparison of Overall Earnings in Current State and Reinstated Liquor Wage Scenarios

Day	Overall average earnings per server		Additional earnings
	Wage \$15/hr Tip out 7% Column (A)	Wage \$13/hr Tip out 5% Column (B)	Columns (B) - (A)
1	283.41	313.86	30.45
2	233.31	253.66	20.35
3	267.66	303.17	35.51
4	287.67	310.97	23.30
5	310.76	334.54	23.78
6	397.79	446.41	48.62
7	211.67	228.81	17.14
8	560.95	609.91	48.97
9	258.47	281.20	22.72
10	335.40	367.14	31.74
11	239.86	263.16	23.30

Indeed, the math holds up even if the reinstated liquor server wage scenario is recalculated using a hypothetical liquor server wage at a smaller differential and a tip-out rate that is not as low. As outlined in Appendix C (Table C.3), a liquor server working at this restaurant, over this particular 11-day period, would still realize higher overall earnings under a liquor server wage of \$14.00 per hour and a tip-out rate of 6% versus the current state.

KEY CONCLUSIONS REGARDING LIQUOR SERVER WAGES AND EARNINGS

Our Panel makes the following key conclusions in respect of the 2016 elimination of Alberta's liquor server wage and its impacts for liquor servers' overall earnings:

- **While a significant employer, the food service industry has little room for cost increases.** With roughly 150,500 jobs, Alberta's restaurant industry represents the third-largest employer in the province by industry. It is a highly competitive, labour intensive, low-margin industry with many fixed costs. Consequently, the only flexibility restauranteurs have to absorb any cost increase is by raising menu prices, reducing labour, or some combination of both.
- **Liquor servers sit in a unique context.** The nature of the occupation is such that liquor servers have a unique position in the food service industry. For example, they are subject to unexpected changes in their work shifts and other business fluctuations.
- **Liquor servers are different than minimum wage earners.** This is because their income from tips is far more important to their overall earnings than an hourly wage. One study indicates the average Canadian server in 2016 earned \$30.00 or more per hour, including tips. (This works out to \$19.30 or more per hour in tips alone, when accounting for the prevailing hourly wage.) Actual point-of-sale system data of credit card tips in 351 Alberta restaurants indicates the average tips earned by servers is \$23.22 per hour. (This works out to overall average earnings of \$38.22 per hour, when accounting for the prevailing hourly wage.)
- **Differentiated wages for liquor servers have existed since the 1960s.** Legislators in many Canadian and U.S. jurisdictions have established these wages in recognition that tipped employees are fundamentally different from minimum wage earners. Today, these wages continue to be in place in Canada's two largest provinces (Ontario and Quebec) and in 86 per cent of all U.S. states.
- **Alberta's liquor server wage provided restauranteurs with much-needed labour cost flexibility.** Because it lowered the amount of direct labour costs that restaurants had to incur to employ liquor servers, the liquor server wage gave restauranteurs flexibility to avoid increases in menu prices and competitively compensate other staff (such as bartenders, hosts, cooks and dishwashers). This enabled restaurants to make investments in maintaining and enhancing the guest experience which, in turn, arguably helped liquor servers earn more in tips and realize higher overall earnings.
- **Alberta's liquor server wage enabled restauranteurs to provide additional hours to liquor servers.** Since the liquor server wage was lower than the prevailing minimum wage, restauranteurs had the flexibility to provide additional work hours to liquor servers. (Assuming a certain amount of labour cost is spent on a liquor server, more hours can be given to them under the liquor server wage than under the general minimum wage.) More work hours translates into more opportunities to earn more tip income.
- **The elimination of the liquor server wage directly led to reduced hours for liquor servers in Alberta.** Survey data indicate that 71 per cent of restaurants responded to

the elimination of the liquor server wage by reducing hours for liquor servers. Payroll data from liquor licensed chain restaurants in Alberta indicates that liquor servers have experienced a 1.2% reduction in their average weekly hours between 2015 and 2019. In turn, this resulted in liquor servers having less opportunity to earn tip income, which then negatively impacted their overall earnings.

- **The elimination of the liquor server wage led to changes in human resources that may have harmed liquor servers' overall earnings.** When the liquor server wage was eliminated, restaurateurs lost the labour cost flexibility it had provided. This caused them to layoff and reduce hours for front-of-the-house and back-of-the-house staff. This put new pressures on liquor servers and may have impacted guest experiences, in turn resulting in lower tip income for liquor servers. The roles of staff were also impacted. For example, bartenders are increasingly performing both bartending and liquor service duties during slower periods, resulting in fewer shifts and hours for liquor servers. Liquor servers also saw their responsibilities change due to the reduction of other service support, such as hosts, food runners, and bussers.
- **Tip-outs can influence the overall earnings of liquor servers.** At most (but not all) Alberta restaurants, liquor servers are required to “tip-out” a portion of tips to other staff in the restaurant. Tip-out rates can range from zero to ten per cent. Some restaurants do not have a tip-out at all. Tipping-out has implications for the overall earnings of a liquor server, since the tip-out rate impacts the amount in tips a server actually takes home. Some jurisdictions with liquor server wages have legislation restricting the ability of owners and employers to receive tip-outs. Alberta does not have any such legislation.
- **Changes to tip-out rates may have negatively impacted liquor servers' overall earnings.** Some restaurants may have directly responded to the elimination of the liquor server wage by changing their tipping-out requirements for liquor servers. Where these changes included higher tip-out rates, it resulted in liquor servers taking home less tip income than they had previously. Scenarios run by our Panel using actual tip and sales data from an Alberta restaurant enable us to conclude that:
 - To the extent that the elimination of the liquor server wage directly led a restaurant to raise the required tip-out rate of its liquor servers; and
 - That new tip-out rate caused a liquor server to take home a lower amount in tips than they would have prior to the change in tip-out rate (i.e., the “difference”); and
 - The difference is larger than the additional hourly earnings the liquor server receives for the period during which they earn those tips, as a result of being paid the minimum wage rather than the liquor server wage; then
 - It follows that the elimination of the liquor server wage has resulted in lower overall earnings for that liquor server in that restaurant.It must be stressed that not all restaurants require liquor servers to tip-out. Furthermore, not all restaurants changed tip-out rates when the liquor server wage was eliminated.
- **Survey data indicates the restoration of a liquor server wage would lead to more hours for liquor servers, supporting their overall earnings.** The results of industry surveys indicate that if a liquor server wage were re-established, more than 80% of Alberta restaurants would “probably”, “very probably” or “definitely” increase the number and length of shifts for food and beverage servers. This would mean liquor servers would have more opportunities to earn tip income, which would in turn support them realizing higher overall earnings.

PART THREE: MOVING FORWARD ON MINIMUM WAGES

A PREFACE TO OUR ADVICE

One of the limitations that our Panel has faced is the lack of certain data to inform future decisions about minimum wages, especially regarding the wages of liquor servers. Existing literature, including previous studies on minimum wages and their impacts, were informative, but their results were somewhat inconsistent. Further, our analyses could only go so far before the data were no longer adequate to use particular techniques, resulting in the presented evidence differing between Part One and Part Two of the Report.

In the future, we therefore suggest that labor market policies be examined before, during, and after they are implemented, rather than only in hindsight. There is obviously a difference between analyzing a policy *a priori* (i.e., before the policy is in place) versus *posteriori* (i.e., after the policy is fully in place and all of the data are available). Studying the policy beforehand and in real time, however, can help ensure that the data gaps we now find apparent would be spotted early enough to address.

In addition, each jurisdiction experiences unique impacts when it raises its minimum wage, depending upon the nature of its labour force and overall economy. Hence, the choices that make sense for one jurisdiction do not necessarily make sense for another. Policy choices made elsewhere do not always lend themselves to seamless import to Alberta. For these reasons, the Government of Alberta should ideally collect other relevant Alberta data along the way, to inform the development of minimum wage policy that is tailored for Alberta's unique context.

We also caution about the inferences that are drawn from our findings. Our analyses have demonstrated the unintended labour market impacts that resulted from the 2015-2018 minimum wage increases and the elimination of the liquor server wage. Certain conclusions will follow from this. However, it does not automatically mean that simply reversing these wage increases in their entirety will generate the opposite impacts. For one thing, wages tend to be "sticky", and any lowering of the general minimum wage or the liquor server wage may very well apply only to new employees, and not any current workers.

Along the same lines, to help ensure Alberta's minimum wage policies keep pace with societal evolution, our Panel suggests that a review of the minimum wage is undertaken on a periodic basis. (For example, every five years.) The goal of such a review would be to examine the impacts of the minimum wage and ensure the principles and objectives guiding and underlying minimum wage policies continue to be relevant. Our Panel would strongly suggest that an independent body be established to undertake each review, with a mandate to publish its report and recommendations to Albertans.

ADVICE REGARDING THE LIQUOR SERVER WAGE

As part of our mandate, our Panel was asked to provide advice on whether hospitality servers who serve alcohol would likely generate higher incomes if a wage differential was in place.

For the purposes of our advice concerning this occupation, we refer to the definition that was in place in the Employment Standards Regulation effective September 1, 2011, namely:

“an employee who, as part of his or her employment, serves liquor, other than on an infrequent or occasional basis, directly to customers, guests, members or patrons in premises for which a liquor licence has been issued under the *Gaming and Liquor Act*...”²⁷

We refer to an employee falling under this definition as a “liquor server”.

In respect of a hypothetical differentiated wage that might be paid to such an employee, we envision a construct similar to the differentiated wage for a liquor server that existed in Alberta between September 1, 2011 and September 30, 2016.²⁸ We refer to this construct as a “liquor server wage”.

It is clear that re-establishing a liquor server wage in Alberta would provide restauranters with labour cost flexibility. We draw this conclusion based on the simple calculation that such a liquor server wage would be lower than the current minimum wage of \$15.00 per hour. By reducing the amount of direct labour costs that a restaurateur must incur to employ liquor servers, a liquor server wage gives the restaurateur labour cost flexibility they would not otherwise have.

Indeed, this effect is one of the basic premises that have underlain the establishment of tip credit wages and differential wages in the United States and Canada since the 1960s. The creation of these wages has been based on a recognition that liquor servers are fundamentally different than minimum wage earners – and, as such, should be addressed through a unique policy response that reflects their unique earnings potential and unique earnings dynamics in the hospitality industry.

With labour cost flexibility re-introduced, one can expect that Alberta restauranters will take actions that will directly and indirectly contribute to the realization of higher tip incomes amongst liquor servers in the province.

The most notable direct action would be increasing the number of work hours for liquor servers. Results of industry surveys indicate that a significant majority of Alberta restauranters would do this in response to the re-establishment of a liquor server wage.

For example, 86 per cent of respondents to a Restaurants Canada payroll survey indicated they “definitely”, “probably” or “very probably” would increase the number of shifts per week for food and beverage servers in response to the re-introduction of a liquor server wage. Almost three-in-ten (29%) indicated they “definitely” would do this. Similarly, over eight-in-ten (83%) of respondents indicated they would “probably”, “very probably” or “definitely” would increase the length of shifts for food and beverage servers.

²⁷ AR 102/2011.

²⁸ As provided for under the Employment Standards Regulation at the time, pursuant to AR 102/2011.

All other things being equal, more work hours for liquor servers would translate into more opportunities for liquor servers to earn tip income. Given the outsized importance that tip income has for their take-home pay, this would likely generate higher overall earnings for liquor servers.

One can also expect that Alberta restauranteurs would also use the new labour cost flexibility to hire more liquor servers, hire additional service staff, and/or competitively compensate their 'back-of-the-house' employees.

Almost half (46%) of respondents to a CFIB survey (among businesses that employ liquor servers) indicated they would hire other service staff in response to a re-introduction of a liquor server wage. Similarly, 44 per cent indicated they would hire more liquor servers in response to a new liquor server wage.

While more indirect, the impacts of these actions could also yield higher overall earnings for liquor servers. For example, the presence of additional service staff such as hosts, bussers and food runners would better enable liquor servers to concentrate on their core functions and provide even better guest experiences. This could contribute to the realization of higher tip income, translating into higher overall earnings for liquor servers.

Finally, it stands to reason that the re-introduction of a liquor server wage would lead to the re-lowering of tip-outs at some restaurants. This would have the mathematical effect of enabling liquor servers at those restaurants to take home larger shares of tip income (since less of it would be 'tipped out' to other staff). All other things being equal, the net result would be higher overall earnings for those liquor servers. (At the very least, by providing labour cost flexibility to restauranteurs, the re-introduction of a liquor server wage would help avoid further hikes to tip-out rates, which might otherwise further erode the overall earnings of liquor servers.)

In this context, it is also the view of the Panel that, with any re-introduction of a liquor server wage, the government may want to consider accompanying legislation which restricts the ability of employers to share revenues generated through tip-outs. This is the strategy that has been adapted by other provinces that have separate liquor server wages.

Unquestionably, there are other factors which influence the amount of tip income that liquor servers generate – such as prevailing economic conditions, customer demand levels, and the capabilities of an individual server –which are also hard to control for. However, these factors exist regardless of whether Alberta has a liquor server wage in place. In this way, they neither serve to argue in favour nor argue against the case.

On balance, our Panel takes a view that, all other things being equal, hospitality workers who serve alcohol (i.e., liquor servers) would likely generate higher overall incomes under a wage differential similar to those that exist in other provinces and similar to that which existed in Alberta between September 1, 2011 and September 30, 2016.

ADVICE REGARDING MINIMUM WAGES GENERALLY

Our Panel is aware that both the Premier and the Minister of Labour and Immigration have previously stated that there is no intention to lower Alberta's general minimum wage from its current rate of \$15.00 per hour.

That said, the lessons we learned in the course of our work lead our Panel to provide some advice about minimum wages in Alberta more generally.

First, given that it was younger workers who disproportionately bore the brunt of job losses due to the 2015-2018 minimum wage increases, it may make sense for the Government of Alberta to explore extensions to the "job creation student wage" that came into effect in June 2019.

One suggestion, for example, would be to expand this differentiated wage beyond the current age cut-off (of 18 years old) and/or loosen restrictions to schooling or hours worked.

Another potential policy approach would be to establish an "entry" or "training" wage differential for inexperienced workers, which could then be rolled into the general minimum wage once their experience crosses a certain threshold.

Of course, even if the age effects are countered by future policy changes, there might be a lingering cohort effect for those who have aged out of the currently helped group.

Second, had Alberta continued to use previously existing formulae for adjusting the minimum wage and liquor server wage (rather than moving aggressively to \$15.00 per hour), a very different picture would exist today.

Consistent with being data-driven and evidence-informed, Alberta's minimum wage should be rooted in a quantifiable formula, such as what Alberta had between 2011 and 2014 and which continues in Saskatchewan today. This would take the politics out of minimum wage policy and instead put these wages on an economically sensible track.

In establishing a formula, consideration could be given to linking changes in the minimum wage to the Consumer Price Index (CPI) or changes in Alberta's average annual weekly earnings. (In respect of the latter, for example, some studies suggest that minimum wages are optimally set at between 40 percent and 45 percent of average annual wages.)

Moving to a formulaic approach would help ensure Alberta's minimum wage remains reasonable within the context of the overall provincial economy. It would also provide better predictability and transparency to employers, investors and workers.

That said, such a formula should only be introduced once the minimum wage of Alberta is no longer an outlier when compared to the minimum wages of all other provinces. Once the other provinces have moved closer to Alberta, making Alberta the average or median case, then the implementation of a formula would make more sense.

In addition, in order to aid those that suffered employment losses outside of Calgary and Edmonton due to the 2015-2018 minimum wage increases, a formulaic approach could also include tailoring for local price prices and earnings. (For example, by using data at the economic region or Employment Insurance region level.) A drawback of such an approach is that Alberta

would effectively have more than one minimum wage. That said, when the state of New York opted to raise its minimum wage to \$15.00 per hour by 2021, it did so by first implementing the policy in the higher-price areas of the state and gradually rolling it out to the lower-priced areas. This kind of approach may have merit, where multiple minimum wages would only be periodic.

Third, our Panel would suggest the establishment of a “downturn clause”, whereby future increases to Alberta’s minimum wage (and any other differential wages that exist) are periodically halted if the economy moves into a recession. This is similar to an approach adopted by the state of California.

While diversification of the economy remains a key goal of the Government of Alberta, the fact remains that Alberta’s economy is still quite resource-based and, as such, is vulnerable to boom and bust cycles. As Albertans, we have witnessed that economic conditions in the province can change very quickly. The existence of a downturn clause would help ensure changes in Alberta’s minimum wages remain tied to and reflect the evolution of the broader economy.

That said, if Alberta returns to an indexed minimum wage, that will make a recession clause unnecessary, because inflation would be non-existent or low during a recession, so no to a low minimum wage increase would automatically follow as a result.

Finally, an additional way to achieve predictability for employers and transparency for all parties involved would be to have a legal notice period for any future changes in minimum wage policy.

A mandatory notice period would give all stakeholders time to plan for and adapt to expected changes to the minimum wage, enabling such changes to be more smoothly integrated across the economy. Our Panel suggests a notice period of at least four months. This would be consistent with notice period approaches that have been implemented in other jurisdictions.

ACKNOWLEDGEMENTS

Our Panel wishes to thank the Government of Alberta for the opportunity to examine the impacts of the 2015-2018 minimum wage increases and the elimination of the liquor server wage. We hope that our findings will help Albertans better understand the implications of these policies and that this data is constructively used by the Government of Alberta to inform future choices in these areas.

We also wish to thank staff of Alberta Labour and Immigration for their assistance in gathering information and providing logistical support to our Panel.

APPENDIX A: COMPOSITION OF MINIMUM WAGE WORKERS

Table A.1: Proportion of Alberta Minimum Wage Earners by Type of Work

	2014/2015		2015/2016		2016/2017		2017/2018		2018/2019	
	Employees	Share	Employees	Share	Employees	Share	Employees	Share	Employees	Share
Full-Time	23,300	52.1%	29,700	40.4%	48,400	44.4%	67,900	49.3%	113,700	50.0%
Part-Time	21,400	47.9%	43,800	59.6%	60,600	55.6%	69,800	50.7%	113,700	50.0%
Total	44,700	100.0%	73,500	100.0%	109,400	100.0%	137,700	100.0%	227,300	100.0%

Table A.2: Proportion of Alberta Minimum Wage Earners by Nature of Job

	2014/2015		2015/2016		2016/2017		2017/2018		2018/2019	
	Employees	Share	Employees	Share	Employees	Share	Employees	Share	Employees	Share
Permanent	33,800	75.6%	55,700	75.7%	78,600	72.1%	103,100	74.9%	170,000	74.8%
Temporary	10,900	24.4%	17,800	24.3%	30,400	27.9%	34,600	25.1%	57,300	25.2%
Total	44,700	100.0%	73,500	100.0%	109,400	100.0%	137,700	100.0%	227,300	100.0%

Table A.3: Proportion of Alberta Minimum Wage Earners by Job Tenure

	2014/2015		2015/2016		2016/2017		2017/2018		2018/2019	
	Employees	Share	Employees	Share	Employees	Share	Employees	Share	Employees	Share
Less than One Year	19,000	42.5%	31,300	42.7%	43,100	39.5%	57,000	41.4%	93,100	41.0%
One to Five Years	17,200	38.4%	32,800	44.6%	49,200	45.1%	59,100	42.9%	95,700	42.1%
More than Five Years	8,500	19.1%	9,300	12.7%	16,700	15.3%	21,600	15.7%	38,500	16.9%
Total	44,700	100.0%	73,500	100.0%	109,400	100.0%	137,700	100.0%	227,300	100.0%

Table A.4: Proportion of Alberta Minimum Wage Earners by Highest Educational Attainment

	2014/2015		2015/2016		2016/2017		2017/2018		2018/2019	
	Employees	Share	Employees	Share	Employees	Share	Employees	Share	Employees	Share
0-8 Years (Elementary)	3,300	7.3%	1,700	2.3%	2,700	2.5%	4,200	3.0%	7,700	3.4%
Some High School	11,700	26.1%	19,900	27.0%	29,600	27.2%	27,300	19.9%	40,900	18.0%
High School Graduate	13,000	29.0%	20,800	28.3%	28,300	26.0%	42,300	30.7%	72,700	32.0%
Some Post-Secondary	2,600	5.9%	6,700	9.2%	10,900	10.0%	13,900	10.1%	24,300	10.7%
Post-Secondary Certificate or Diploma	8,100	18.0%	13,000	17.8%	19,000	17.4%	28,700	20.9%	47,500	20.9%
University Degree	6,100	13.6%	11,300	15.4%	18,500	17.0%	21,300	15.4%	34,300	15.1%
Total	44,700	100.0%	73,500	100.0%	109,400	100.0%	137,700	100.0%	227,300	100.0%

Table A.5: Proportion of Alberta Minimum Wage Earners by Gender

	2014/2015		2015/2016		2016/2017		2017/2018		2018/2019	
	Employees	Share	Employees	Share	Employees	Share	Employees	Share	Employees	Share
Female	27,300	61.1%	44,800	61.0%	62,700	57.5%	85,200	61.9%	137,500	60.5%
Male	17,400	38.9%	28,700	39.0%	46,300	42.5%	52,400	38.1%	89,800	39.5%
Total	44,700	100.0%	73,500	100.0%	109,400	100.0%	137,700	100.0%	227,300	100.0%

Table A.6: Proportion of Alberta Minimum Wage Earners by Family Type

	2014/2015		2015/2016		2016/2017		2017/2018		2018/2019	
	Employees	Share	Employees	Share	Employees	Share	Employees	Share	Employees	Share
Employee with Children under 18	18,300	40.9%	31,800	43.3%	45,900	42.0%	54,400	39.5%	94,200	41.4%
Married, dual earners with children under 18	11,600	26.0%	20,300	27.6%	29,200	26.7%	37,600	27.3%	65,500	28.8%
Married, single earner with children under 18	3,600	8.1%	6,300	8.6%	10,300	9.4%	9,200	6.7%	13,800	6.1%
Single parent, employed with children under 18	3,100	6.9%	5,200	7.1%	6,500	5.9%	7,600	5.5%	14,900	6.6%
Married, Dual earners, no children under 18	10,500	23.5%	14,700	20.0%	24,900	22.8%	29,500	21.4%	49,500	21.8%
Married, Single earner, no children under 18	3,200	7.2%	5,300	7.2%	7,500	6.9%	10,800	7.8%	16,800	7.4%
Unattached individual	6,200	13.9%	9,200	12.5%	13,000	11.9%	19,300	14.0%	28,400	12.5%
Other	6,500	14.5%	12,500	17.0%	18,100	16.5%	23,600	17.1%	38,500	16.9%
Total	44,700	100.0%	73,500	100.0%	109,400	100.0%	137,700	100.0%	227,300	100.0%

Note: Children are only considered if under 18

Table A.7: Proportion of Alberta Minimum Wage Earners by Main Income Source

	2014/2015		2015/2016		2016/2017		2017/2018		2018/2019	
	Employees	Share	Employees	Share	Employees	Share	Employees	Share	Employees	Share
Main income earner	13,900	31.1%	23,000	31.3%	31,100	28.4%	50,300	36.5%	80,800	35.5%
With children	2,300	5.1%	5,500	7.5%	6,400	5.9%	13,700	9.9%	24,400	10.7%
Without children	11,600	26.0%	17,500	23.8%	24,700	22.6%	36,600	26.6%	56,400	24.8%
Spouse	7,900	17.7%	10,900	14.8%	18,100	16.5%	23,600	17.1%	41,300	18.2%
Son or daughter (or Son or daughter in law)	18,400	41.2%	32,300	43.9%	49,100	44.9%	51,600	37.5%	83,500	36.7%
Parent (or parent in law)	*	*	2,600	3.5%	4,200	3.8%	3,200	2.3%	6,600	2.9%
Other	3,200	7.2%	4,700	6.4%	6,900	6.3%	9,100	6.6%	15,100	6.6%
Total	44,700	100.0%	73,500	100.0%	109,400	100.0%	137,700	100.0%	227,300	100.0%

Table A.8: Proportion of Alberta Minimum Wage Earners by Student/Non-Student Status

	2014/2015		2015/2016		2016/2017		2017/2018		2018/2019	
	Employees	Share	Employees	Share	Employees	Share	Employees	Share	Employees	Share
Student	8,800	19.6%	15,500	21.1%	28,400	26.7%	36,700	26.7%	54,000	23.7%
Non-Student	35,900	80.4%	58,000	78.9%	80,600	73.3%	101,000	73.3%	173,400	76.3%
Total	44,700	100.0%	73,500	100.0%	109,400	100.0%	137,700	100.0%	227,300	100.0%

Note: School attendance in the Labour Force Survey (LFS) establishes whether or not a respondent is attending an educational establishment. For those who are students, information is collected on the type of school, and whether enrolment is full- or part-time, as designated by the educational establishment.

Table A.9: Minimum Wage Indexing

Reference Period Used: October to September

	14/15	15/16	16/17	17/18	18/19	% Change 14/15 to 18/19
General Minimum Wage - Policy Platform Increases	\$10.20	\$11.20	\$12.20	\$13.60	\$15.00	47.1%
Liquor Minimum Wage - Policy Platform Increases	\$9.20	\$10.70	\$12.20	\$13.60	\$15.00	63.0%
	Potential Minimum Wage Options					
General Minimum Wage	14/15	15/16	16/17	17/18	18/19	% Change 14/15 to 18/19
Wage Changes - Indexed to CPI and Average Weekly Earnings	\$10.20	\$10.31	\$10.25	\$10.31	\$10.55	3.5%
<i>Due to a drop in Index, wage for 2016/17 are kept at 15/16 level</i>	\$10.20	\$10.31	\$10.31	\$10.37	\$10.62	4.1%
Wage Changes - Indexed to CPI All Items	\$10.20	\$10.33	\$10.47	\$10.60	\$10.85	6.4%
Wage Changes - Indexed to Average Weekly Earnings	\$10.20	\$10.28	\$10.02	\$10.02	\$10.26	0.6%
<i>Due to a drop in Index, wage for 2016/17 are kept at 15/16 level</i>	\$10.20	\$10.28	\$10.28	\$10.29	\$10.53	3.2%
Liquor Minimum Wage						
Wage Changes - Indexed to CPI and Average Weekly Earnings	\$9.20	\$9.30	\$9.24	\$9.30	\$9.52	3.5%
<i>Due to a drop in Index, wage for 2016/17 are kept at 15/16 level</i>	\$9.20	\$9.30	\$9.30	\$9.36	\$9.58	4.1%
Wage Changes - Indexed to CPI	\$9.20	\$9.32	\$9.45	\$9.56	\$9.79	6.4%
Wage Changes - Indexed to Average Weekly Earnings	\$9.20	\$9.27	\$9.04	\$9.04	\$9.25	0.6%
<i>Due to a drop in Index, wage for 2016/17 are kept at 15/16 level</i>	\$9.20	\$9.27	\$9.27	\$9.28	\$9.50	3.2%
Wage Changes - CPI-Alcoholic Beverages and Average Weekly Earnings	\$9.20	\$9.32	\$9.33	\$9.43	\$9.65	4.9%
Wage Changes - CPI-Alcoholic Beverages	\$9.20	\$9.36	\$9.62	\$9.84	\$10.07	9.4%

Table A.10: Changes in Alberta's Minimum Wage when Indexed to CPI and AWE, 2008-2018

Year	General Minimum Wage	% increase
April 1, 2008	\$8.40	5.00
April 1, 2009	\$8.80	4.76
2010	\$8.80	-
September 1, 2011	\$9.40	6.82
September 1, 2012	\$9.75	3.72
September 1, 2013	\$9.95	2.05
September 1, 2014	\$10.20	2.51
2015	\$10.31	1.08
2016	\$10.31 ²⁹	-
2017	\$10.37	0.58
2018	\$10.62	2.41
2014 to 2018	\$10.20 to \$10.62	4.12

Table A.11: Changes in Alberta's Liquor Server Wage when Indexed to CPI and AWE, 2008-2018

Year	Liquor Server Minimum Wage	% increase
April 1, 2008	\$8.40	5.00
April 1, 2009	\$8.80	4.76
2010	\$8.80	-
September 1, 2011	\$9.05	2.84
September 1, 2012	\$9.05	-
September 1, 2013	\$9.05	-
September 1, 2014	\$9.20	1.66
2015	\$9.30	1.09
2016	\$9.30 ³⁰	-
2017	\$9.36	0.65
2018	\$9.58	2.35
2014 to 2018	\$9.20 to \$9.58	4.13

²⁹ Due to drop in index, wage for 2016 maintained at 2015 levels.

³⁰ Due to drop in index, wage for 2016 maintained at 2015 levels.

APPENDIX B: CONVENTIONAL REGRESSION ANALYSIS

All results that are reported are from double log models, in which the coefficient estimates represent the percentage change in an outcome variable associated with a one per cent change in an explanatory variable. Such estimates are only reliable if they are statistically significant at the 1%, 5%, or 10% levels. Also reported are Adjusted R-Squares, which explain how well the chosen models explain trends in specific labour market outcomes that are used as dependent variables.

In most cases, the analysis has been conducted employing annual data from 2004-2018 and for four provinces – Ontario, British Columbia, Alberta, and Saskatchewan. While the focus of this research is Alberta, in order to contrast changes and identify the effects of different variables, it is important to use data from other provinces as well. Adding data over time from other provinces allows a researcher to identify the effects of the minimum wage on a variety of labour market outcomes, while controlling for the impacts of other factors. Using data from multiple provinces also boosts the sample size of the study, which allows statistical inference with some confidence.

All economic data used in the analysis were obtained from CANSIM, which is the public data repository of Statistics Canada. Information on provincial minimum wages are available from Canada's Minimum Wage Database (<http://srv116.services.gc.ca/dimt-wid/sm-mw/menu.aspx?GoCTemplateCulture=en-CA>).

We rely on conventional multivariate regression models in order to credibly identify the effects of minimum wage increases across provinces on a variety of labour market outcomes. Apart from the minimum wage and the employment-to-population ratio for the entire economy, we use other controls that have been employed in academic studies.

Specifically, we use average weekly earnings (in nominal dollars), the provincial consumer price index, provincial specific dummies, and a linear trend. Higher average earnings might result in lower employment (through lower labour demand) or higher employment (through increased labour supply), independent of changes to the minimum wage. The Consumer Price Index is used to account for inflation. Provincial 'dummies' are relied upon to account for unobserved province-specific characteristics, while the linear trend controls for factors that have changed significantly over time and might impact employment-to-population ratios. (A good example of such a factor is the significant drop in crude oil prices.) All models are based on log-log specifications, allowing the coefficient estimates to be interpreted as elasticities.

Table B.1: Effects of the Minimum Wage on Employment Ratios

	15 to 19 years		20 to 24 years	
	Coefficient Estimate	Standard Error	Coefficient Estimate	Standard Error
Intercept	-3.555	1.888	-1.756	0.729 ^a
Min Wage	-0.281	0.105 ^a	-0.068	0.042 ^c
General Employment Ratio	4.125	0.426 ^a	1.626	0.164 ^a
Average Earnings	-0.024	0.147	0.041	0.057
Consumer Price Index	0.917	0.496 ^c	0.339	0.191 ^c
Saskatchewan dummy	0.015	0.027	0.025	0.0106 ^b
Alberta Dummy	0.011	0.032	0.048	0.012 ^a
British Columbia	0.106	0.019 ^a	0.0679	0.0075 ^a
Linear Trend	-0.013	0.007 ^b	-0.007	0.0026 ^a
Adjusted R Square	0.895		0.926	
Observations	60		60	

Superscripts "a", "b" and "c" denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table B.2: Minimum Wage Effects on Employment in Food and Accommodation and Retail Trade

	Accommodation and Hospitality				Retail Trade			
	15 to 24		25 to 54		15 to 24		25 to 54	
	Coefficient Estimate	Standard Error	Coefficient Estimate	Standard Error	Coefficient Estimate	Standard Error	Coefficient Estimate	Standard Error
Intercept	1.99	2.21	-13.17	2.674	-3.535	2.105	-0.734	1.374
Min Wage	-0.068	0.123	-0.179	0.149	-0.127	0.117	-0.094	0.0765
General Employment Ratio	1.457	0.498 ^a	-2.342	0.603 ^a	1.146	0.4746 ^b	0.259	0.31
Average Earnings	-0.932	0.172	0.558	0.208 ^a	0.097	0.1635	-0.332	0.107 ^a
Saskatchewan dummy	-0.029	0.032	0.164	0.0388 ^a	0.0160	0.0306	0.075	0.0199 ^a
Alberta Dummy	0.129	0.037 ^a	0.045	0.0451	-0.023	0.0355	0.0338	0.023
British Columbia	0.219	0.023 ^a	0.316	0.0276 ^a	0.046	0.022 ^b	0.0832	0.0142 ^a
Linear Trend	0.022	0.008 ^a	-0.012	0.0095 ^b	-0.010	0.0075	0.0037	0.0049
Consumer Price Index	0.425	0.580	1.316	0.702 ^c	0.315	0.555	0.1065	0.361
Adjusted R Square	0.799		0.807		0.517		0.779	
Observations	60		60		60		60	

Superscripts "a", "b" and "c" denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table B.3: Effects of the Minimum Wage on Average Weekly Earnings for Employees in Food and Accommodation & Retail Trade

	Food and Accommodation		Retail Trade	
	Coefficient Estimate	Standard Error	Coefficient Estimate	Standard Error
Intercept	-3.038	1.751 ^c	4.98	0.275 ^a
Min Wage	0.205	0.105 ^b	0.018	0.059
General Employment Ratio	0.445	0.402	-0.0896	0.072
Employment Ratio for Industry	-0.075	0.134	-0.228	0.105 ^b
Consumer Price Index	1.707	0.379	0.004	0.002 ^c
Saskatchewan dummy	-0.024	0.027	0.062	0.015 ^a
Alberta Dummy	0.063	0.031 ^b	0.066	0.0155 ^a
British Columbia	0.119	0.038 ^a	0.08	0.0148 ^a
Linear Trend	-0.0098	0.006 ^c	0.014	0.004 ^a
Adjusted R Square	0.937		0.957	
Observations	50		60	

APPENDIX C: LIQUOR SERVER TIP AND WAGE DATA

In an attempt to quantify how changes in tip-out rates potentially impact liquor servers' total earnings, server representatives on our Panel collected actual data from a restaurant of sales receipts, tip receipts, and server hours worked, over a period of 11 days. These data points, presented in Table C.1, were used to assess server earnings under two scenarios:

- A “current state”, in which liquor servers are paid the minimum wage of \$15.00 per hour, and are required to tip-out at a rate of 7% of sales before tax and tip (i.e., the sub-total that appears on a guest’s bill without GST, and without any gratuity added).
- A “reinstated liquor server wage” case, using a tip-out rate of 5% of sales before tax and tip. (This was the tip-out rate previously used by the restaurant before it made changes to tip-outs in 2016.) For this case, an hourly wage of \$13.00 per hour was used for a hypothetically reinstated liquor server wage.

Table C.1: Raw Data Collected at Restaurant

Day	Sales before	Total tips received	Hours Worked by Servers on Shift				Avg hrs per server
	tax & tip		Server 1	Server 2	Server 3	Total	
1	4170.00	689.97	6.5	4.75		11.25	5.63
2	3110.25	523.08	6.75	4		10.75	5.38
3	4650.51	695.86	5	6		11	5.50
4	5095.55	979.69	5.5	5.5	5	16	5.33
5	5217.25	1049.98	5.5	6	5	16.5	5.50
6	6061.75	1039.90	5	7		12	6.00
7	3568.80	684.39	5.5	5.5	5	16	5.33
8	8845.00	2076.99	5	5.5	4.5	15	5.00
9	5033.25	884.00	7	5	4.25	16.25	5.42
10	6435.75	1205.45	6.5	5.25	5	16.75	5.58
11	5095.00	836.22	5.5	5.5	5	16	5.33

The results of the analysis are displayed in Table C.2.

As an example of the calculations performed in this analysis, the data on “Day 5” in Table C.2 indicates that total sales (before tax and tip) were \$5,217.25. This number is used to calculate the required tip-outs in both scenarios.

- Under the “current state” scenario (using a 7 per cent tip-out rate), the required tip-out works out to \$365.21 (i.e., \$5,217.25 x 0.07).

- Under the “reinstated liquor server wage” scenario (using a 5 per cent tip-out rate), the required tip-out works out to \$260.86 (i.e., $\$5,217.25 \times 0.05$).

The data on “Day 5” also shows that total tips received by servers were \$1,049.98. From this number, the required tip-outs under the two scenarios are deducted to yield the net tips. Those net tips are then divided by three to calculate the average “net tips per server” (since there were three servers working during that shift).

- Under the “current state” scenario, the net tips for each server are \$228.26 (i.e., $\$1,049.98 - \$365.21 = 684.77$; $\$684.77 / 3 = \228.26).
- Under the “reinstated liquor server wage” scenario, the net tips are \$263.04 (i.e., $\$1,049.98 - \$260.86 = \$789.12$; $\$789.12 / 3 = \263.04).

The data on “Day 5” also shows that an average of 5.5 hours was worked by each server during the shift. This number is used to calculate the “hourly wages per server” under both scenarios.

- Under the “current state” scenario (using an hourly wage of \$15.00 per hour), the hourly pay per server is \$82.50 (i.e., $5.5 \text{ hrs} \times \$15/\text{hr} = \82.50).
- Under the “reinstated liquor server wage” scenario (using an hourly wage of \$13.00 per hour), the hourly pay per server is \$71.50 (i.e., $5.5 \text{ hrs} \times \$13/\text{hr} = \71.50).

For each scenario in “Day 5”, the calculated “net tips for each server” are added to the calculated “hourly wages per server” to yield the “total earnings per server” in both scenarios.

- Under the “current state” scenario, the total earnings per server are \$310.76 (i.e., $\$228.26 \text{ in tips} + \$82.50 \text{ in hourly pay} = \310.76).
- Under the “reinstated liquor server wage” scenario, the total earnings per server are \$334.54 (i.e., $\$263.04 \text{ in tips} + \$71.50 \text{ in hourly pay} = \334.54).

The difference is then calculated between the “total earnings per server” found under the current state” scenario and the “total earnings per server” found under the “reinstated liquor server wage” scenario. The difference on “Day 5” indicates that a server would have earned an additional \$35.67 under the “reinstated liquor server wage” scenario compared to the “current state” scenario (i.e., $\$334.54 - \$310.76 = \$23.78$).

Similar calculations were also performed comparing the same “current state” scenario with a different “reinstated liquor server wage” scenario involving a hypothetical hourly wage of \$14.00 per hour and a tip-out rate 6% of sales before tax and tip. The results of those calculations, presented in Table C.3, demonstrate that for the same “Day 5” data, a server would have earned an additional \$11.89 under the “reinstated liquor server wage” scenario compared to the “current state” scenario.

Table C.2: Total Earnings Calculations for Current State Scenario and Reinstated Liquor Wage Scenario (\$13/hr wage and 5% tip out)

Day	Sales before tax & tip	Servers working on shift	Avg hours worked per server	Total tips received on shift	Current State Hourly wage of \$15/hr and tip out of 7%				Reinstated Liquor Server Wage Hourly wage of \$13/hr and tip out of 5%				Additional earnings per server Columns (B) - (A)
					Total tip-out required (7% of sales)	Net tip per server (avg)	Hr wages per server (\$15/hr)	Total earnings per server (Column A)	Total tip-out required (5% of sales)	Net tip per server (avg)	Hr wages per server (\$13/hr)	Total earnings per server (Column B)	
1	4170.00	2	5.63	689.97	291.90	199.04	84.38	283.41	208.50	240.74	73.13	313.86	30.45
2	3110.25	2	5.38	523.08	217.72	152.68	80.63	233.31	155.51	183.78	69.88	253.66	20.35
3	4650.51	2	5.50	695.86	325.54	185.16	82.50	267.66	232.53	231.67	71.50	303.17	35.51
4	5095.55	3	5.33	979.69	356.69	207.67	80.00	287.67	254.78	241.64	69.33	310.97	23.30
5	5217.25	3	5.50	1049.98	365.21	228.26	82.50	310.76	260.86	263.04	71.50	334.54	23.78
6	6061.75	2	6.00	1039.90	424.32	307.79	90.00	397.79	303.09	368.41	78.00	446.41	48.62
7	4170.75	3	5.33	686.97	291.95	131.67	80.00	211.67	208.54	159.48	69.33	228.81	17.14
8	8845.00	3	5.00	2076.99	619.15	485.95	75.00	560.95	442.25	544.91	65.00	609.91	48.97
9	5033.25	3	5.42	884.00	352.33	177.22	81.25	258.47	251.66	210.78	70.42	281.20	22.72
10	6435.75	3	5.58	1205.45	450.50	251.65	83.75	335.40	321.79	294.55	72.58	367.14	31.74
11	5095.00	3	5.33	836.22	356.65	159.86	80.00	239.86	254.75	193.82	69.33	263.16	23.30

Table C.3: Total Earnings Calculations for Current State Scenario and Reinstated Liquor Wage Scenario (\$14/hr wage and 6% tip out)

Day	Sales before tax & tip	Servers working on shift	Avg hours worked per server	Total tips received on shift	Current State Hourly wage of \$15/hr and tip out of 7%				Reinstated Liquor Server Wage Hourly wage of \$14/hr and tip out of 6%				Additional earnings per server Columns (B) - (A)
					Total tip-out required (7% of sales)	Net tip per server (avg)	Hr wages per server (\$15/hr)	Total earnings per server (Column A)	Total tip-out required (6% of sales)	Net tip per server (avg)	Hr wages per server (\$14/hr)	Total earnings per server (Column B)	
1	4170.00	2	5.63	689.97	291.90	199.04	84.38	283.41	250.20	219.89	78.75	298.64	15.23
2	3110.25	2	5.38	523.08	217.72	152.68	80.63	233.31	186.62	168.23	75.25	243.48	10.18
3	4650.51	2	5.50	695.86	325.54	185.16	82.50	267.66	279.03	208.41	77.00	285.41	17.75
4	5095.55	3	5.33	979.69	356.69	207.67	80.00	287.67	305.73	224.65	74.67	299.32	11.65
5	5217.25	3	5.50	1049.98	365.21	228.26	82.50	310.76	313.04	245.65	77.00	322.65	11.89
6	6061.75	2	6.00	1039.90	424.32	307.79	90.00	397.79	363.71	338.10	84.00	422.10	24.31
7	4170.75	3	5.33	686.97	291.95	131.67	80.00	211.67	250.25	145.58	74.67	220.24	8.57
8	8845.00	3	5.00	2076.99	619.15	485.95	75.00	560.95	530.70	515.43	70.00	585.43	24.48
9	5033.25	3	5.42	884.00	352.33	177.22	81.25	258.47	302.00	194.00	75.83	269.84	11.36
10	6435.75	3	5.58	1205.45	450.50	251.65	83.75	335.40	386.15	273.10	78.17	351.27	15.87
11	5095.00	3	5.33	836.22	356.65	159.86	80.00	239.86	305.70	176.84	74.67	251.51	11.65