

Initial Impacts of the COVID-19 Pandemic on the Canadian Labour Market

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Les auteurs examinent les premiers impacts de la pandémie de la COVID-19 sur le marché du travail canadien. Ils se concentrent sur les changements en matière d'emploi et de nombre total d'heures travaillées entre février 2020 et avril 2020, en tenant compte des variations mensuelles normales de ces indicateurs. Ils constatent que la crise économique liée à la COVID-19 a entraîné une diminution de 32 pour cent du nombre total d'heures de travail hebdomadaires et de 15 pour cent des emplois chez les personnes âgées de 20 à 64 ans. Ils analysent la répartition des emplois perdus, constatant que près de la moitié des pertes d'emploi sont attribuées aux travailleurs du quartile inférieur des gains. Les baisses d'emploi les plus marquées ont été enregistrées dans les industries les plus touchées par les fermetures, dans lesquelles la proximité physique est importante (services d'hébergement et de restauration), de même que parmi les jeunes travailleurs et les personnes occupant des emplois rémunérés à l'heure et non syndiqués. Les résultats de l'étude fournissent un contexte pour l'élaboration de politiques publiques assurant la prise en compte des changements tant du côté de l'offre que de celui de la demande de travail.

Mots clés : chômage, COVID-19, emploi, heures de travail, salaires

In this study, we review the initial impacts of the coronavirus disease 2019 (COVID-19) pandemic on the Canadian labour market. We focus on changes in employment and aggregate hours worked between February 2020 and April 2020 while accounting for normal monthly changes in these indicators. We find that COVID-19 induced a 32 percent decline in aggregate weekly work hours among workers aged 20–64 years, alongside a 15 percent decline in employment. We characterize the distribution of work lost, finding that nearly half of job losses are attributed to workers in the bottom earnings quartile. Those most affected by COVID-19 are in public-facing jobs in industries most affected by shutdowns (accommodation and food services), younger workers, paid hourly, and non-union. The results provide context for policy development, with both supply and demand sides of the labour market to consider.

Keywords: COVID-19, employment, unemployment, wages, work hours

Introduction

The coronavirus disease 2019 (COVID-19) pandemic forced the Canadian economy into a “medically induced coma” in March 2020. Businesses were shuttered, schools were closed, and employees were pushed to work from home to manage the spread of the disease. It was

immediately clear that the economic impact would be unlike any recession Canada has experienced in the past. The 2008–2009 recession was triggered by a financial crisis, and recessions in the early 1980s and 1990s were similarly sparked by shocks to global markets that manifested over several months. Although every recession is unique

in some way, the sharp drop-off in economic activity in the COVID-19-induced recession is unprecedented in recorded economic history.

The labour market impact of the crisis is central to the changes at the macro level in gross domestic product (GDP) and also in the incomes of Canadian families. To give an immediate sense of the scale, the quickly implemented Canada Emergency Response Benefit intended for those who lost work saw 6.73 million unique applications by 19 April, representing about one-third of the workforce.¹ We aim with our analysis here to document and explain the patterns of this initial labour market decline.

In this article, we review the initial impacts of the COVID-19 pandemic on the Canadian labour force using the April Labour Force Survey (LFS). The LFS offers a description of the impact on jobs and aggregate hours worked, both overall and within various segments of the workforce. We use the April LFS for two reasons. First, it contained the most recent data available while this article was being prepared. Second, the May LFS has now revealed that—on a national level—the April results likely reflect the worst of the crisis.² So, using April allows us to characterize the bottom as a starting place for understanding the path to recovery.

We find that COVID-19 induced a 32 percent decline in aggregate weekly hours worked between February and April 2020 and a 15 percent decline in employment. Close to half the job losses can be attributed to workers with earnings in the bottom quartile. The largest losses can be attributed to industries and occupations most affected by closures (such as public-facing occupations in accommodation and food services) and to workers who are younger, paid hourly, and non-union.

We proceed as follows. We begin with a description of the LFS and the measures used to describe labour market impacts, emphasizing the limitations and challenges in this crisis situation of using traditional unemployment measures. We then offer our main results in the form of a descriptive analysis of the April LFS compared with the pre-crisis February LFS. We conclude with a discussion of the relevance of our findings to policy development and the implications for recovery of the initial impacts documented here.

Measuring COVID-19 Impacts in the Labour Force Survey

The LFS is a monthly survey administered by Statistics Canada, sampling about 54,000 households across Canada. The survey is longitudinal in nature, with respondents staying in the sample for six months. The overall sample is refreshed each month by dropping one-sixth of the sample and adding a new group of Canadians. Sampling is non-random to ensure reliable estimates of labour market activity can be developed at a fairly small regional level.

The LFS represents the highest-frequency survey that can be reliably and consistently used to track changes in the Canadian labour market. We focus our attention on the months of February, March, and April 2020. We rely primarily on the public use microdata files but have also created some special tabulations using Statistics Canada's Real Time Remote Access system.

The LFS for each month measures outcomes for a single week in the labour market, typically the week that includes the 15th of the month. In our analysis, the timing of the LFS reference weeks is important to contextualize the results. Our results rely mostly on February-to-April comparisons, but we start here with the context for March to document the complete timing of how the COVID pandemic affected the Canadian labour market.

The March LFS represents the week of 15–21 March, a week of transition into shutdown and related policy responses. For example, in Ontario the week was preceded by announcements to close public schools (12 March), an expansion of job-protected leaves (16 March), and declaration of a state of emergency (17 March) that resulted in the cancellation of events and the closure of non-essential businesses and public buildings. At the same time, there was a general push to work from home when possible, cancel travel plans, and self-isolate when potential exposure to the virus was a concern.

The April LFS represents the week of 12–18 April. By this time, further business closures and restrictions across provinces had been fully implemented. The end of the LFS reference week represents the period of the strictest COVID-19 restrictions on business operations and general movements of the population. Saskatchewan was the first province to announce re-opening plans on 23 April, and into May provinces moved cautiously toward a phased re-opening of the economy as health risks appeared more manageable. The timing and details of these plans varied substantially by province, but none were in place by the April LFS. This is the basis for our expectation—subsequently confirmed by the May LFS release—that April represented the initial bottom of the national labour market decline.

We focus on two indicators of labour supply—employment and hours at work—rather than more traditional indicators such as unemployment. The LFS is well designed to capture transitions from employment to unemployment and non-participation in the labour force in non-pandemic times. In a COVID-19 context, however, many of the people who lost work were not necessarily moved out of employment. Instead, many moved from being employed and at work to being employed but absent from work for at least part of the week (whether furloughed, on sick leave, using vacation time, or having their work hours substantially reduced). Workers who lost employment entirely would be placed in the categories of unemployment or non-participation.

To be unemployed in the LFS, a person needs to report having been temporarily laid off, having a job to start in the future, or having searched for work in recent weeks. In the context of this pandemic, it is not obvious how people would describe their COVID-related reasons for not searching or how their reason would be captured in the LFS questionnaire. With COVID-19 closures, many of the individuals who are laid off would be unable to search for work because their entire profession or industry was shut down. For those reporting temporary layoffs, it is not clear whether respondents' views of "temporary" match with their employers' because the future path of the pandemic was very much in doubt at the time of job separations. These considerations affect not only the standard definition of unemployment but also broader measures that include people not currently searching. As such, comparing measures of unemployment across months before and after the onset of COVID-19 will not offer a clearly interpretable result.

Many who lose work will find themselves in the residual category of non-participation. As Jones and Riddell (2019, 2006, 1999) have demonstrated, the distinction between unemployed persons and non-participants is generally quite blurred. Many non-participants are marginally attached to the labour force, and their behaviour (in terms of transitions into employment) appears to mimic more closely that of unemployed persons than that of many other non-participants who lack attachment to the labour force. When investigating the impacts of COVID-19, we expect this distinction between the unemployed and non-participants to be even more blurred.

In focusing attention on labour market impacts, we think it is particularly important to characterize the total amount of work done by participants, which is captured best in measures of aggregate weekly work hours. Work-sharing, furloughs, or reduced hours as a result of child care responsibilities and other issues associated with work-from-home arrangements will be picked up by hours measures but missed by head counts of employment or unemployment. Moreover, aggregate hours is a more useful macroeconomic measure as an input to aggregate production functions.

In our February–April comparisons, we account for differences between the months that would not be COVID-19 related. Several issues for these adjustments arise. First, when examining employment levels, typical monthly increases partly reflect a general increase in population over time. If we do not account for the population increase, we risk understating the loss in employment due to COVID-19. Second, the precise timing of holidays matters. The April LFS reference week in 2020 includes Easter Monday but not Good Friday. Looking through recent years as candidates for a benchmark February–April difference in aggregate hours, the placement of Good Friday was clearly important for reported differences between

usual and actual hours at work during the reference week. As a statutory holiday, Good Friday normally results in reduced hours at work. The April reference week in 2019 included Good Friday, such that using 2019 as a benchmark would result in understating the negative impacts of COVID-19 on hours worked. The April reference week for 2018 is preferred because in 2018 the reference week did not include Good Friday. We considered other options that combined multiple years of data but decided a simple and transparent comparator was best.

With this in mind, the main estimates we provide for a COVID-19 impact on outcomes (Y) represent a difference-in-differences estimate, measured as

$$\text{COVID-19 Impact} = \left(Y_{\text{April2020}} - Y_{\text{Feb2020}} \right) / Y_{\text{Feb2020}} - \left(Y_{\text{April2018}} - Y_{\text{Feb2018}} \right) / Y_{\text{Feb2018}}.$$

The difference is generally presented as a percentage difference in outcome Y . The double differences represent the changes in 2020 over and above February–April changes that we would expect to normally occur over those months as proxied by the 2018 realizations.

Our sample represents individuals aged 20–64 years, residing in the Canadian provinces but not the territories. The results presented show the COVID-19 impact across a variety of interesting splits of the data. We consider how losses in hours and employment are distributed across individuals by socio-economic characteristics such as age, gender, age of children in the home, and education. We also consider job characteristics, such as occupation and industry, job tenure, and whether a person is paid hourly or is salaried. Finally, we consider the earnings quartile from which workers are laid off.

Results

The simplest way to summarize the overall impact of COVID-19 on the labour market is to examine the impact on aggregate weekly hours. In Figure 1, we present aggregate weekly hours of individuals aged 20–64 years for each month since January 1976.³ We can see large reductions in weekly hours in previous recessions (1981–1982, 1990–1992, and 2008–2009). However, the magnitude of losses in previous recessions is dwarfed by the losses in 2020. Comparing February and April 2020 directly (see Table 1), aggregate hours dropped 29 percent between February and April 2020. In Table 1, we also provide estimates that adjust this loss in hours for normal February–April changes based on 2018 aggregate hours. Once adjusted, we find the overall COVID-19 impact was a 32 percent decline in aggregate hours.

The loss in work hours is made up of two components: significant losses of jobs on the extensive margin and reductions in hours worked on the intensive margin. (In Table 2, we present the overall loss in employment

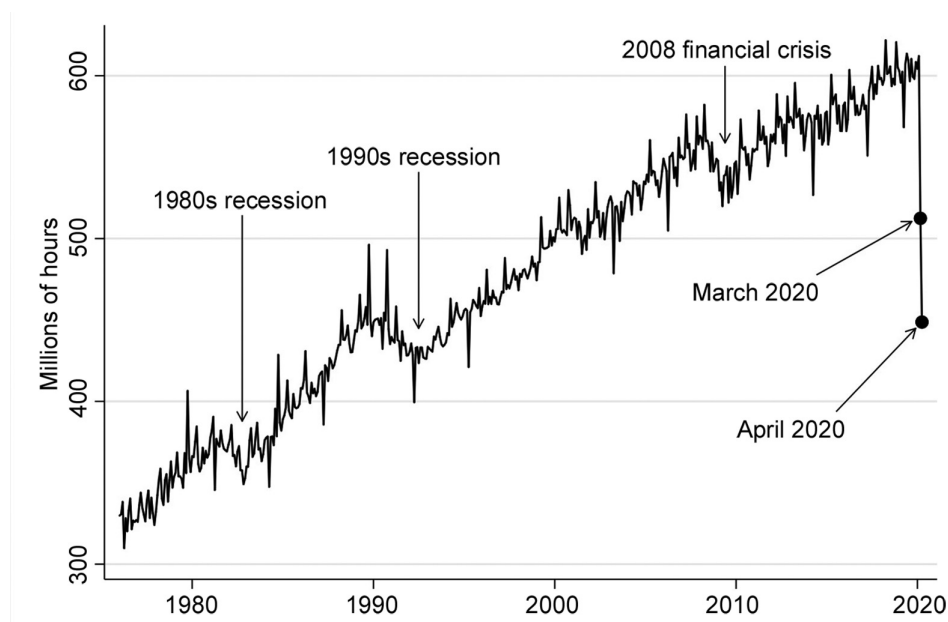


Figure 1: Aggregate Weekly Hours Worked

Notes: Actual weekly hours worked on all jobs among workers aged 20–64 years in each month. Hours are seasonally adjusted by removing month fixed effects.

Source: Authors' tabulations using the Labour Force Survey public use microdata files, 1976–2020.

Table 1: Aggregate Weekly Hours Worked and Demographics

Group	2020				2018 % Change	COVID-19 Effect, %
	February (millions)	April (millions)	Difference (Apr–Feb)	% Change		
All (aged 20–64 y)	591.0	421.1	–169.9	–28.8	3.6	–32.3
Gender						
Women	257.7	180.1	–77.7	–30.1	3.6	–33.7
Men	333.2	241.0	–92.2	–27.7	3.3	–31.0
Age, y						
20–29	116.7	76.5	–40.2	–34.5	5.5	–40.0
30–39	150.2	106.5	–43.6	–29.0	2.7	–31.7
40–49	142.8	106.0	–36.7	–25.7	2.9	–28.6
≥50	181.4	132.0	–49.3	–27.2	3.1	–30.3
Women, by age of youngest child, y						
<6	83.3	59.8	–23.5	–28.2	0.8	–29.0
6–12	74.8	55.1	–19.7	–26.3	4.1	–30.4
13–17	47.6	35.2	–12.4	–26.0	–1.1	–24.9
18–24	46.1	35.3	–10.8	–23.4	5.6	–29.1
No kids, age <40	180.5	123.8	–56.8	–31.4	4.5	–35.9
No kids, age ≥40	158.7	111.8	–46.8	–29.5	3.9	–33.4
Province						
NL	6.9	4.6	–2.3	–32.9	2.1	–35.1
PE	2.4	1.8	–0.6	–24.9	2.3	–27.2
NS	14.0	10.5	–3.5	–25.1	5.2	–30.3
NB	11.2	8.5	–2.7	–24.4	3.1	–27.5

(Continued)

Table 1: (Continued)

Group	2020				2018 % Change	COVID-19 Effect, %
	February (millions)	April (millions)	Difference (Apr–Feb)	% Change		
QC	132.7	84.4	–48.3	–36.4	0.9	–37.3
ON	234.2	167.5	–66.6	–28.5	3.4	–31.8
MB	20.4	16.6	–3.8	–18.5	4.5	–23.0
SK	17.7	13.7	–4.0	–22.7	4.3	–27.1
AB	75.0	56.0	–19.0	–25.3	2.1	–27.4
BC	76.5	57.5	–19.0	–24.9	8.6	–33.5

Note: COVID-19 = coronavirus disease 2019.

Source: Authors' tabulations using the Labour Force Survey.

Table 2: Employment (at Work or Absent) and Demographics

Group	2020				2018 % Change	COVID-19 Effect, %
	February (millions)	April (millions)	Difference (Apr–Feb)	% Change		
All (age 20–64 y)	17.21	14.76	–2.45	–14.3	0.8	–15.0
Gender						
Women	8.29	7.02	–1.26	–15.3	0.9	–16.1
Men	8.93	7.74	–1.19	–13.3	0.7	–14.0
Age, y						
20–29	3.69	2.83	–0.86	–23.4	1.5	–24.9
30–39	4.30	3.77	–0.54	–12.4	0.9	–13.3
40–49	3.98	3.54	–0.43	–10.9	0.8	–11.7
≥ 50	5.24	4.62	–0.62	–11.9	0.2	–12.1
Women, by age of youngest child, y						
< 6	2.53	2.30	–0.24	–9.3	–1.3	–8.0
6–12	2.10	1.87	–0.22	–10.6	1.8	–12.4
13–17	1.28	1.18	–0.10	–8.1	–3.4	–4.7
18–24	1.29	1.18	–0.11	–8.2	3.3	–11.5
No kids, age < 40	5.36	4.27	–1.08	–20.2	1.3	–21.6
No kids, age ≥ 40	4.65	3.95	–0.70	–15.1	1.2	–16.3
Province						
NL	0.20	0.17	–0.03	–14.2	3.0	–17.2
PE	0.07	0.06	–0.01	–13.1	0.4	–13.5
NS	0.41	0.35	–0.06	–14.2	2.0	–16.2
NB	0.32	0.27	–0.04	–13.2	1.6	–14.8
QC	3.93	3.26	–0.67	–17.1	0.6	–17.8
ON	6.80	5.91	–0.89	–13.0	0.8	–13.8
MB	0.59	0.52	–0.07	–11.6	0.8	–12.5
SK	0.51	0.45	–0.06	–11.9	0.6	–12.5
AB	2.12	1.82	–0.30	–14.2	0.8	–15.0
BC	2.26	1.94	–0.33	–14.4	0.4	–14.8

Note: COVID-19 = coronavirus disease 2019.

Source: Authors' tabulations using the Labour Force Survey.

representing those at work or absent.) Between February and April 2020, nearly 2.5 million individuals aged between 20 and 64 years lost their jobs, representing a 14 percent decline in employment. However, recognizing that population growth and seasonality will generally drive some part of the month-to-month change in employment, we also provide adjusted estimates based on 2018 changes. With this adjustment, we see that the COVID-19 impact represents a 15 percent decline in employment.

In [Tables 1](#) and [2](#), we further characterize the distribution of lost work by considering the loss of hours and employment within demographic groups. First, we see that men and women experienced similar job losses between February and April. Overall, aggregate hours fell by 34 percent for women and 31 percent for men. This contrasts with the initial impact of COVID-19 on jobs in March 2020, whereby women were clearly facing larger losses than men (see [Milligan, Schirle, and Skuterud 2020](#)). In later sections of this article, we return to the gendered nature of jobs affected when considering the longer-run impacts of the COVID-19 shutdowns and the occupations most affected. Second, we see that the largest impact is on younger workers, aged 20–29 years, whose aggregate hours fell 40 percent and whose employment fell 25 percent as a result of the shutdowns. Hours and employment losses were smallest among those aged 40–49 years, who experienced a 12 percent drop in employment as a result of COVID-19.

With respect to other characteristics in [Tables 1](#) and [2](#), the patterns are similar. For women with children, the loss in aggregate weekly hours and employment is larger for those with children aged younger than 12 years than for those with kids aged 13–17 years, potentially signalling the importance of caregiving responsibilities among mothers with younger children. The impact of COVID-19 on women without children appears larger, consistent with women without children at home being concentrated in relatively low-wage jobs, which were most affected by shutdowns.⁴

With respect to regional differences, we see that Quebec's loss of hours (37 percent) and employment (18 percent) exceeded that of other provinces. Manitoba's losses were the smallest, with a 23 percent reduction in hours and 13 percent loss in employment. However, there are no obvious patterns across regions.

The job losses we highlight in [Table 2](#), however, are distributed unequally across the wage distribution. To examine impacts across wage groups, we first divide workers observed in February 2020 into four equal-sized groups, ranked on the basis of weekly earnings. To gauge the magnitudes, the bottom quartile threshold is \$646 per week. This bottom quartile includes individuals who work full time for minimum wage.⁵ The February 2020 thresholds are used when measuring employment in April, and February 2018 thresholds are used for 2018.

In [Figure 2](#), we present how the employment and hours losses were distributed across the weekly earnings quartile. Here we see that nearly half of job losses were attributed to workers with earnings in the bottom quartile. Those with earnings in the bottom half of the weekly earnings distribution (in the bottom or second quartile) account for almost 80 percent of job losses. Employment losses in the top quartile of weekly earnings represent only 4 percent of all losses. In [Figure 2](#) we also present results for workers who moved from being employed and at work to being employed but absent with a substantial reduction in hours. Similar to employment losses, nearly half (47 percent) of those affected by the loss of work were in the bottom quartile of weekly earnings.

We also summarize the overall impact of COVID-19 by showing the decline in hours worked by quartile (last set of bars in [Figure 2](#)). Hours losses are not as concentrated in the bottom quartile because top quartile workers had their hours substantially reduced even when they kept their jobs. Workers in the bottom two quartiles were, nonetheless, most adversely affected. They account for 37 and 34 percent, respectively, of hours losses, compared with 10 percent for workers in the top quartile.

The employment losses in the lowest quartiles, illustrated in [Figure 2](#), reflect heavy closures within some industries. We break down the losses for the bottom two earnings quartiles by industry in [Table 3](#). For those in the lowest earnings quartiles, job losses in retail trade and accommodation and food services account for nearly half the job losses (presented in the top panel of [Table 3](#)). The large loss of jobs in health care and social assistance, as well as in education, largely reflects home care providers and education support. These five industries combined represent nearly three-quarters of the losses for workers in the lowest quartile.

When we look at job losses in the second quartile (in the second panel of [Table 3](#)), we see a substantial but smaller proportion of job losses attributed to some of the same industries. However, workers in this part of the earnings distribution were also affected by losses in construction and durable goods manufacturing, together accounting for 20 percent of job losses in this quartile.

A more comprehensive representation of the types of work lost as a result of COVID-19 is provided in [Tables 4](#) and [5](#), where we present the loss in aggregate weekly hours and employment (respectively) by job characteristics. Given the industries facing large job losses (presented in [Table 3](#)), it is not surprising to see large declines in employment and hours in the most public-facing occupations. For example, sales and services occupations experienced a 45 percent decline in hours and a 27 percent decline in employment (representing the largest loss in employment among occupation categories).

In [Tables 4](#) and [5](#), we see a smaller but substantial reduction in aggregate hours lost in management

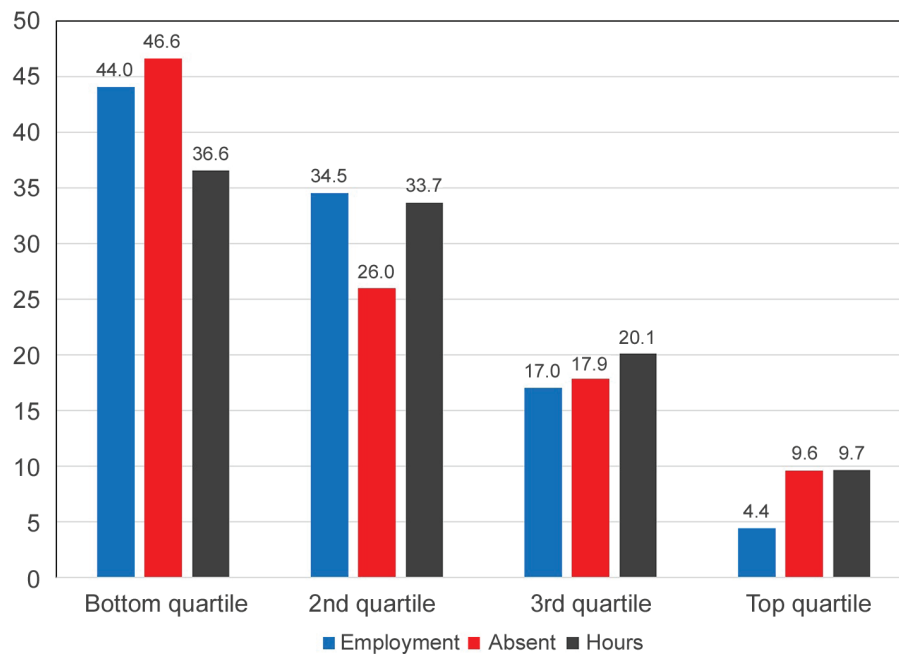


Figure 2: Distribution of Employment and Hours Losses Across Earnings Quartiles

Note: Earnings quartiles are based on the February distribution of weekly earnings, tabulated using usual hourly earnings and usual hours of work.

Source: Authors' tabulations using the Labour Force Survey.

Table 3: Distribution of Lost Jobs in the Lower Quartiles, by Employment Sector

Losses in	Distribution, %
Bottom quartile	
Retail trade	20.0
Educational services	10.2
Health care and social assistance	8.8
Information, culture and recreation	6.0
Accommodation and food services	28.5
All other sectors	26.6
Second quartile	
Construction	8.8
Manufacturing, durable goods	10.9
Retail trade	13.2
Health care and social assistance	16.0
Accommodation and food services	9.5
All other sectors	41.7

Note: Percentages total more than 100 because of rounding.

Source: Authors' tabulations using the Labour Force Survey.

occupations (of 19 percent) that is not matched by a loss in employment (at only 2 percent). We believe this is related to the significantly different experience of those who are paid hourly and those who are salaried (also presented in Tables 4 and 5). Among women paid hourly, there was a 39 percent reduction in hours due to COVID-19 and a

25 percent reduction in employment. Salaried women's hours, however, dropped only 14 percent, and employment fell by only 5 percent. Whether individuals are unionized also appears to be associated with whether hours losses are also job losses. Although the aggregate hours lost by union and non-union employees are similar in magnitude (26 and 29 percent, respectively), their employment losses are not – non-union workers experience a 20 percent decline in employment, whereas unionized workers experience only a 12 percent decline. The experience of non-union workers is worsened when combined with other characteristics. For example, we found that women who were non-union and paid hourly experienced a 44 percent reduction in work hours and a 32 percent reduction in employment.

We expect that differences across occupations and industries explain a substantial part of the differentials in COVID-19 impacts across various job characteristics, reflecting the shutdown of many non-essential activities. To examine this further, we estimate industry and occupation shares in the employed population in February 2020 and the COVID-19 effects within each industry-occupation category and use this information to construct counterfactual losses that illustrate how much of the differential across quartiles reflects COVID-19 effects across industry-occupation groups and how much is within industry and occupation.⁶ The results are presented in Table 6. We find that 60 percent of the relative decline in employment

Table 4: Aggregate Weekly Hours Worked by Job Characteristics

Group	2020				2018 % Change	COVID-19 Effect, %
	February (millions)	April (millions)	Difference	% Change		
All (age 20–64 y)	591.0	421.1	–169.9	–28.8	3.6	–32.3
Occupation						
Management	61.8	52.0	–9.8	–15.9	3.3	–19.2
Business, finance and administration	95.0	79.1	–15.9	–16.7	6.1	–22.8
Natural and applied sciences	56.2	49.2	–7.0	–12.4	–1.9	–10.5
Health	42.0	33.4	–8.6	–20.4	0.3	–20.7
Education; law; social, community, government services	65.9	49.0	–16.9	–25.6	4.7	–30.3
Art, culture, recreation and sport	12.7	7.0	–5.7	–44.9	–0.3	–44.6
Sales and services	114.0	65.4	–48.6	–42.6	2.0	–44.7
Trades, transport and equipment operators	91.8	55.5	–36.3	–39.5	6.7	–46.2
Natural resources and agriculture	10.7	7.7	–2.9	–27.6	12.9	–40.6
Manufacturing and utilities	28.3	17.7	–10.6	–37.4	–0.9	–36.5
Hourly and salaried workers						
Men, hourly paid	158.5	105.0	–53.5	–33.8	3.5	–37.3
Men, salaried	109.2	101.1	–8.0	–7.4	2.8	–10.2
Women, hourly paid	129.6	83.9	–45.7	–35.3	3.7	–39.0
Women, salaried	91.5	82.5	–9.0	–9.8	4.0	–13.8
Union status						
Non-union	339.1	249.1	–90.0	–26.5	2.4	–28.9
Unionized or covered	154.9	119.9	–35.0	–22.6	3.8	–26.4
Class of worker						
Public sector	119.6	102.5	–17.1	–14.3	1.3	–15.7
Private sector	374.4	266.6	–107.9	–28.8	3.3	–32.1
Self-employed	84.0	46.8	–37.3	–44.4	6.8	–51.1

Note: COVID-19 = coronavirus disease 2019.

Source: Authors' tabulations using the Labour Force Survey.

Table 5: Employment (at Work or Absent) by Job Characteristics

Group	2020				2018 % Change	COVID-19 Effect, %
	February	April	Difference	% Change		
All (age 20–64 y)	17.2	14.8	–2.5	–14.3	0.8	–15.0
Occupation						
Management	1.6	1.5	–0.1	–4.7	–2.8	–1.9
Business, finance and administration	2.9	2.6	–0.3	–9.0	1.2	–10.2
Natural and applied sciences	1.5	1.5	–0.1	–4.2	–3.5	–0.7
Health	1.4	1.3	–0.1	–5.8	–0.6	–5.2
Education; law; social, community, government services	2.1	1.9	–0.2	–9.5	3.1	–12.7
Art, culture, recreation and sport	0.4	0.4	–0.1	–16.8	–0.6	–16.3
Sales and services	3.8	2.7	–1.0	–27.4	–0.3	–27.1
Trades, transport and equipment operators	2.4	2.0	–0.5	–19.6	5.1	–24.8
Natural resources and agriculture	0.3	0.3	0.0	–8.6	10.3	–18.9
Manufacturing and utilities	0.8	0.6	–0.2	–21.6	–1.1	–20.5
Hourly and salaried workers						
Men, hourly paid	4.5	3.5	–1.0	–22.7	0.8	–23.5
Men, salaried	2.9	2.7	–0.1	–4.8	0.3	–5.2

(Continued)

Table 5: (Continued)

Group	2020				2018 % Change	COVID-19 Effect, %
	February	April	Difference	% Change		
Women, hourly paid	4.6	3.5	-1.1	-24.5	0.3	-24.8
Women, salaried	2.7	2.6	-0.1	-4.2	1.2	-5.4
Union status						
Non-union	10.0	8.1	-1.9	-19.5	0.0	-19.5
Unionized or covered	4.7	4.3	-0.5	-9.9	1.9	-11.8
Class of worker						
Public sector	3.8	3.6	-0.2	-5.1	-0.3	-4.8
Private sector	11.0	8.7	-2.2	-20.3	0.9	-21.2
Self-employed	2.5	2.4	0.0	-1.7	1.6	-3.3

Note: COVID-19 = coronavirus disease 2019.

Source: Authors' tabulations using the Labour Force Survey.

Table 6: Role of Industry and Occupation in Changes in Employment and Hours by Earnings Quartile

Quartile	% Change in Employment		% Change in Hours	
	Actual	Explained by Industry and Occupation	Actual	Explained by Industry and Occupation
First (Q1)	-29.9	-25.4	-48.8	-41.0
Second (Q2)	-23.5	-18.9	-38.8	-32.9
Third (Q3)	-11.7	-14.8	-23.9	-27.2
Fourth (Q4)	-3.0	-9.4	-11.3	-19.3
% of Q1/Q4 difference explained by industry and occupation		59.7		57.7

Source: Authors' tabulations using the Labour Force Survey.

for the bottom quartile (compared with the top quartile) is accounted for by COVID-19 effects at the industry-occupation level (so that 40 percent of the difference between quartiles reflects within-industry-occupation employment losses). Similarly, 58 percent of the relative decline in hours for the bottom quartile is accounted for by COVID-19 effects at the industry-occupation level.

Finally, looking at classes of workers, Tables 4 and 5 show similar interesting differences. Those working in the public sector saw the smallest decline in hours worked (at 16 percent) and employment (5 percent). We see a 32 percent loss in hours and a 21 percent loss in employment for those in the private sector. Aggregate hours lost were greatest among the self-employed (at 51 percent), but this results in a loss of only 3 percent of employment. Examining the self-employed reinforces our view that it is important to examine the losses in both aggregate weekly hours worked and employment.

Policy Discussion

Our results describing the initial impact of the COVID-19 pandemic on the Canadian labour market provide context for the active policy discussions underway now and into the future about how to design policy to support economic

recovery. To organize our thoughts, we separate our discussion into supply and demand considerations.

On the supply side of the labour market, three important factors arise. First, and most obvious, is the health implications of the pandemic. Concern for one's own health or for those living with heightened risk factors (e.g., age or immune deficiencies) will change the labour market decisions of some. Our results show that the labour market impact of the COVID-19 pandemic has been harsher on those workers who hold the least bargaining power—non-union, low wage, paid hourly. The policy implication is that these affected workers rely most heavily on government regulation to keep their workplaces safe, so provincial and federal labour market regulations about safe work will become paramount to ensure workers are safe and feel safe when providing labour.

Second, our results indicate that the hours worked and employment of mothers with pre-school and younger school-aged kids dropped substantially. As the economy moves to recovery, the lack of regular child care and schooling will make it much harder for families to supply labour, and this is most likely to hit mothers with young kids much harder. As firms partially reopen, it is particularly important to consider which of their employees are

called back. Without policy that addresses care needs, any partial recovery will leave some workers behind. The detrimental impact on work experience and human capital of being left behind can have long-run implications for career paths and earnings.

Third, our results show that the largest impact across weekly earnings was on those in the lowest earnings quartile. For many of these low earners, the value of government income relief measures will come close to or exceed the wages from work. For example, the Canada Emergency Response Benefit provides \$500 per week, whereas the earnings cut-off for the bottom quartile was \$646. This suggests that a substantial portion of the bottom quartile has potential earnings in the range of the \$500-per-week benefit. Finding the balance between needed income support and economic incentives to work will again emerge as a difficult policy question.

In addition to these supply factors, there are three main impacts to consider from the labour demand side of the labour market. First, we expect that with dropping GDP, the standard business cycle impacts on aggregate demand will come to bear on the demand for labour. With lower national income, less labour will be demanded. On this front, the COVID-19 pandemic will restart the usual macroeconomic debates about how to swing the business cycle back to an upward trajectory and regenerate aggregate labour demand.

Second, within industries we expect there will be shifts in production inputs. For example, the push to automatic checkouts and online shopping may decrease the demand for front-line retail workers. However, there may be increased demand for workers to do cleaning and create a more extensive online retail infrastructure. For other industries such as restaurants, the mix of inputs may not change, but the scale of operation will shrink because of seating area restrictions.

Third, we expect there will be large shifts across industries. Because of public health restrictions against international travel and large gatherings, those working in hospitality, large event planning, or live arts and entertainment will see a dramatic decrease in labour demand that may last years. This cross-industry labour reallocation can be facilitated with labour market policy that supports search, retraining, and efficient labour market matching.

Conclusions and Future Research

This article has documented the initial impacts of the COVID-19 pandemic on the Canadian labour market, using data available through April 2020. We find that COVID-19 drove a 32 percent reduction in aggregate weekly hours worked between February and April 2020, along with a 15 percent reduction in employment. More than one-half of job losses are attributed to workers in the bottom quartile of weekly earnings, and these losses largely represent public-facing jobs in industries hardest hit by COVID-19

shutdowns such as accommodation and food services and retail services. Moreover, those who lost work are overrepresented among workers paid hourly (as oppose to salaried), younger workers, and non-union workers.

Going forward, the impact of the pandemic on both labour supply and demand will be large, and labour market policy that responds appropriately can assist the recovery by facilitating fast and efficient matches in the changed labour market. Future research using the longitudinal aspect of the LFS, linked with the supplementary questions about the impacts of COVID-19 (collected 17–26 May 2020), will be useful for getting the hindsight 20/20 review of how the labour market responded and where policy may have left gaps.

Acknowledgements

We thank Chuanmo Jin for excellent research assistance. Some of the data used in this study were accessed using Statistics Canada's Real Time Remote Access system in May 2020. This does not constitute an endorsement by Statistics Canada of this study, and the authors take full responsibility for how the data are used and interpreted.

Notes

- 1 This was the number of total unique applicants as of 19 April 2020, as reported on the Government of Canada website on 21 April 2020. The archived webpage is found using the Wayback Machine at <https://web.archive.org/web/20200421131223/https://www.canada.ca/en/services/benefits/ei/claims-report.html>.
- 2 The analysis appearing in this article was prepared in May 2020. The May LFS was released on 5 June 2020. The May numbers revealed a national bounce-back in hours compared with April of 13.7 percent and a 290,000 increase in employment. Aggregate hours across provinces were either slightly up or flat. Quebec had a large increase, and Ontario continued a decline. Jones et al. (forthcoming) examine changes in employment, as well as job vacancies, up to May 2020.
- 3 Note that in Figure 1, we present aggregate weekly hours that are seasonally adjusted for expositional purposes, whereas other monthly aggregates presented in this article are not seasonally adjusted.
- 4 For example, although the average hourly earnings of mothers sampled here was higher than \$30 per hour in February 2020, the average hourly earnings of women aged younger than 40 years without kids was only \$24 per hour.
- 5 As of 14 May 2020, the provincial minimum wage ranged from \$11.15 in Newfoundland and Labrador to \$15 in Alberta.
- 6 We use 21 industry categories and interact the larger 18 of the industry categories with categories for high-, middle-, and low-wage occupations.

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