Jobs Numbers across Countries since COVID-19*

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Abstract

This note compiles and compares official jobs numbers from seven major countries through April 2020. Post-COVID job losses have varied dramatically across countries. The United States experienced the largest January-to-April rise in unemployment and along with Canada lost over 15% of employment, amounting to 25 million newly jobless U.S. individuals. Germany, Japan, South Korea, Australia, and Israel lost only 0.7%-4.4% of employment – equivalent to 18-24 million fewer jobless individuals on America's population base. Germany and Japan each lost only 0.9% of employment as millions of their workers received assistance while working reduced hours under previously established "short-time" work systems. In contrast, employers in the United States and Canada eliminated jobs altogether as the virus spread. South Korea and Australia share strong travel ties with China but contained their outbreaks quickly, experiencing respective employment declines of only 3.6% and 4.4%. Hence, job losses have been lowest in countries that either contained the virus early or had robust systems for subsidizing jobs at reduced hours.

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1 Introduction

The COVID-19 pandemic has been global, and every country has had to make painful adjustments to slow the spread of the virus. These have caused enormous disruptions to national economies. But countries have varied widely in how they have supported their economies, their businesses, and their workers during the crisis. They have also varied in the strength of their public health responses. The United States relied primarily on enhancements to unemployment insurance and on direct payments to families. In several other countries the government primarily aided businesses, helping them keep workers on payrolls. These choices have enormous implications for employment and unemployment and can also affect how well workers are being supported during the pandemic and how quickly economies recover. This note helps to anchor public discussions by comparing January-through-April 2020 unemployment, employment, and short-time jobs numbers across developed countries.[1] The raw data are available for download here.

2 Data

Our sample frame comprises all Organisation for Economic Co-operation and Development (OECD) countries for which OECD haspublished monthly jobs numbers through April 2020. Those countries are: Australia, Canada, Germany, Israel, Japan, South Korea, and the United States. These countries represent a range of economic policies, health policies, and parts of the globe. For each country, we compile three numbers for January 2020 and April 2020: the unemployment rate, total employment, and (if available) the total number of workers on publicly subsidized short-time work arrangements with their employers.

The OECD compiles the unemployment rate and total employment for countries relatively quickly (links here and here). The OECD database contains January 2020 data points for all seven countries and April 2020 data points for Australia, Canada, Israel, South Korea, and the United States. We supplement those data with April 2020 data points that we are aware have been released by the respective government agencies but have not yet been added to the OECD database: Germany and Japan.[2]

The OECD does not systematically compile data on the number of workers on short-time work arrangements – also known as worksharing arrangements – in which workers remain employed but are involuntarily

[1] In parallel notes, Holzer (2020) and Rothwell (2020) conduct similar exercises focusing on unemployment.

[2] The OECD reports a "harmonized" unemployment rate that attempts to harmonize differences in unemployment definitions across countries. The harmonized numbers are nearly identical to the raw numbers, except for Germany: its official January 2020 unemployment rate is 5.3% while its harmonized rate is 3.2% (the harmonized rate is not yet available for April). Because our focus is the *change* in rates and also for simplicity, we use the raw rates.

working fewer hours and therefore receive partial unemployment assistance. We draw on country-specific sources for short-time work in the United States Germany (links here and here) and Germany (links here and here).

Appendix Table 1 lists the raw data, available for download here.

3 Results

Figure 1 shows that, from January 2020 to April 2020, the unemployment rate rose dramatically in the United States, and to a lesser extent Canada. Panel A plots the raw unemployment rates. Panel B subtracts each country's January rate from its April rate. The U.S. unemployment rate rose by 11.1 percentage points, from 3.6% in January to 14.7% in April. Canadian unemployment rose 7.4 percentage points. Meanwhile, unemployment rates rose by less than one percentage point in Australia, Germany, and Japan and actually fell in South Korea and Israel.

We note that the official unemployment numbers substantially understate U.S. job losses. The United States calculates its jobs numbers using responses to the Bureau of Labor Statistics's Current Population Survey. Millions of workers in the April survey reported that they had jobs but were not at work. The Bureau of Labor Statistics commented in the April jobs report that many of these workers were likely misclassified as employed and estimated that if they had been counted correctly the unemployment rate would have been 19.2% (U.S. Bureau of Labor Statistics , 2020). We are not aware of similar adjustments for other countries. On top of this, many workers have stopped looking for work and are counted as out of the labor force rather than as unemployed.

Another way to understand the employment picture, less affected by search behavior, is to count the number of people working. Figure 2 plots percent changes in employment from January to April. The United States and Canada experienced similar declines in employment: 15.9% in the United States and 15.5% in Canada. In contrast, Australia and South Korea experienced mild declines in employment: 4.4% and 3.6%, respectively. Japan and Germany each experienced only a 0.9% decline. Israel experienced only a 0.7% decline. The employment declines are larger than the unemployment spikes because many job losers reported in April that they were no longer searching for work and were therefore counted as non-participants in the labor force rather than as unemployed.

To give a sense of magnitudes, U.S. employment fell 15.9% from 158.7 million in January to 133.4 million

in April (Appendix Table 1). If U.S. employment had fallen only 0.9% as it did in Germany and Japan, 24 million more Americans would have a job. With Australia's 4.4% decline, 18.3 million more Americans would have a job. With South Korea's 3.6% decline, 19.5 million more Americans would have a job.

Germany has used its longstanding short-time work program called *Kurzarbeit* to to retain workers at firms even when business conditions would otherwise lead to layoffs. *Kurzarbeit* covered 10.1 million workers in April (22% of total employment), up from under 100,000 (0.2%) in January. If only a fraction of the workers being supported by *Kurzarbeit* had instead been laid off, German unemployment would have approached and perhaps even surpassed that in the U.S. Alternatively, if a fraction of workers in the U.S. who were laid off had instead been put on short-time compensation, our unemployment increase would have been much smaller than was observed. Japan has a similar program, *Koyo Chosei Jyoseikin*, as do other developed countries like New Zealand (Rothwell and Van Drie, 2020).

Many U.S. states in the United States also have worksharing programs, known as "short time compensation," but they are much less automatic. They allow employers to apply to be covered, which then allows their workers to receive unemployment benefits while working reduced hours. For example, a worker may be reduced to 40% time and receive unemployment assistance for the other 60% of hours while remaining employed. Twenty-seven U.S. states have such programs, but they are very rarely used. In the week of April 18, only 88,000 workers were covered by short-time compensation, accounting for less than 0.1% of employment.

4 Discussion

We close with a discussion of countries' different public health and economic responses.

As of June 4, COVID-19 deaths per 100,000 residents were 33 in the United States, 20 in Canada, 10 in Germany, 3 in Israel, 0.7 in Japan, 0.5 in South Korea, and 0.4 in Australia (Johns Hopkins University, 2020). It is not surprising that countries that have contained their outbreaks have also experienced smaller employment losses. What is more surprising is that some of those countries – notably Japan, South Korea, and Australia – have strong travel ties to China and experienced virus exposure early but still managed to contain their oubreaks. South Korea, for example, was one of the first countries to experience a large outbreak but contained it, perhaps thanks to lessons learned during earlier outbreaks like MERS (Thompson, 2020).

In response to relatively large outbreaks that have kept customers and workers at home, the United States and Germany provide different economic models for supporting workers. We documented above how Germany, through its longstanding *Kurzarbeit* system of short-time work, avoided millions of layoffs by subsidizing partial hours cuts. The U.S. Paycheck Protection Program subsidizes partial hours cuts as well, through payroll support to small and medium businesses that avoid layoffs. However, this program was newly created in the CARES Act in March and did not begin accepting applications until April 3, after millions of jobs had already been lost.[3] The United States has instead supported its workers through dramatic expansions of unemployment insurance benefits, both through large supplements to weekly benefits and through expansions of benefits to workers not previously eligible, and through direct unconditional payments to all low- and middle-income Americans. Between these supplements, April saw growth in U.S. personal income despite the economic collapse, a result entirely attributable to government transfers.

Nevertheless, there is reason for concern about the U.S. model. Even if unemployed workers are fully supported during non-employment, they are separated from their former employers. In recent decades, the labor economics literature has emphasized the importance of durable matches between workers and employers (e.g., Mortensen and Pissarides 1999), and studies have shown that workers who are displaced from their jobs take a long time to gradually climb the job ladder and obtain a match as good as the one they lost (Davis and Von Wachter, 2011). Germany has much better maintained employer-employee bonds through *Kurzarbeit*, and some credit Germany's relatively fast recovery from the Great Recession to the widespread use of *Kurzarbeit* rather than layoffs (Boeri and Bruecker, 2011; Brenke, Rinne and Zimmermann, 2013). As we control COVID-19, it is possible that employers will recall their laid-off workers en masse or that the U.S. model accelerates needed reallocation of workers across industries and occupations, but it is also possible that our severed employer-employee bonds will slow our recovery, both relative to our potential and to what we will see in other countries.

Moreover, the benefits that the United States provides are explicitly temporary. The largest portion, the Federal Pandemic Unemployment Compensation supplement to regular unemployment benefits, is set to expire at the end of July. If this is allowed to happen, American workers will be *much* worse off than their counterparts in countries that have supported jobs through worksharing programs.

Looking forward, understanding the full impact of economic responses on families will require data beyond

[3]Similarly, the first round of applications to the Canada Emergency Wage Subsidy did not occur until May. Borland (2020), however, estimates that the Australian JobKeeper program reduced the April unemployment rate by 5.5 percentage points.

traditional labor market statistics. Income and financial well-being measures will allow one to measure how well different types of economic policies are supporting individuals and families during what we expect to be a prolonged period of economic weakness. Bankruptcies may communicate which economies are poised to recall workers. U.S. state and local data may reveal reductions in essential services as government budgets are squeezed.

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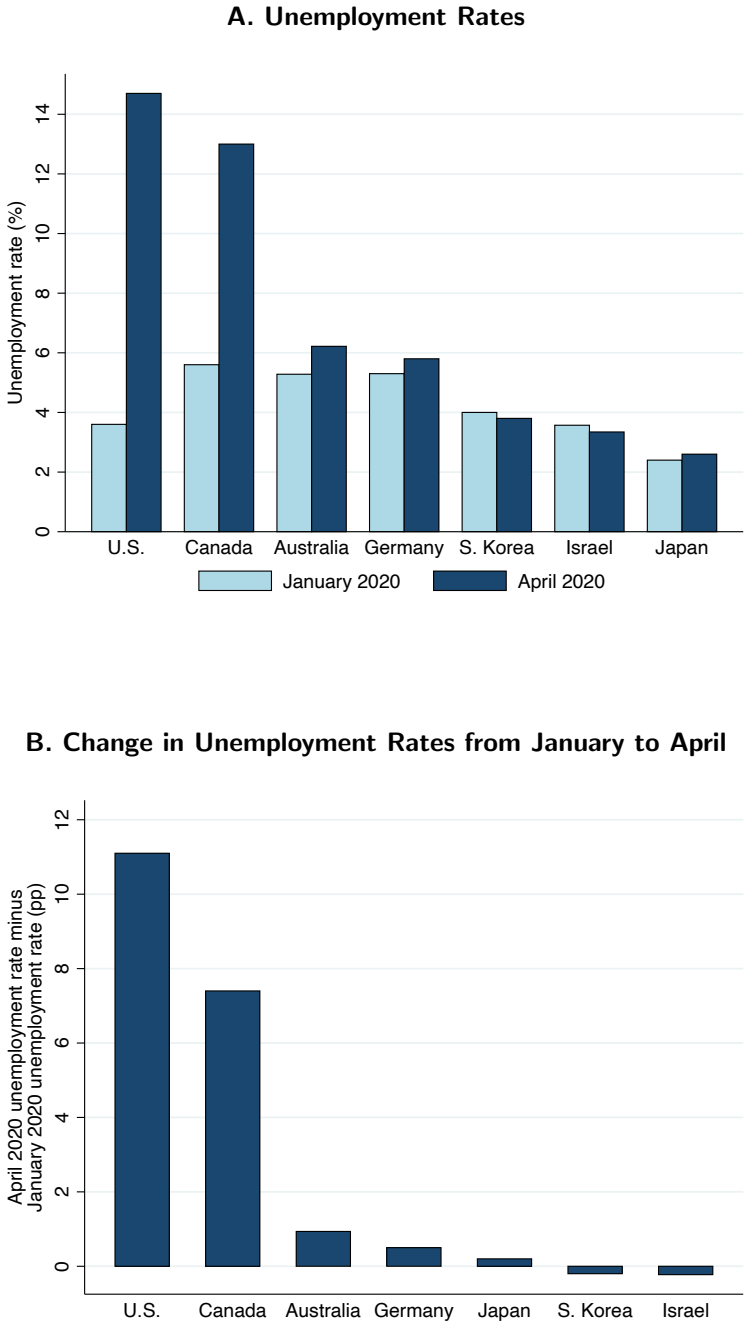
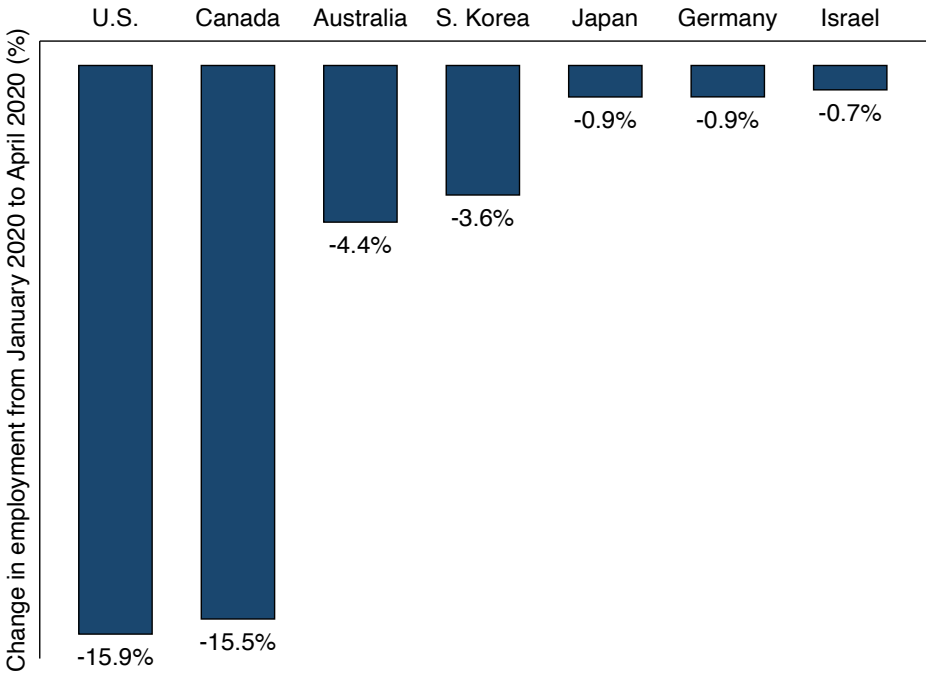
FIGURE 1: Change in Unemployment between January and April 2020



Notes: This figure uses official jobs numbers from the seven OECD countries with available data to plot unemployment rates in January 2020 and April 2020 (Panel A) and the percentage-point change in each country's unemployment rate from January 2020 to April 2020. See Appendix Table 1 for the underlying raw data.

FIGURE 2: Change in Employment between January and April 2020



Notes: This figure uses official jobs numbers from the seven OECD countries with available data to plot the percent change in employment from January 2020 to April 2020. Each country's percent change equals its April 2020 employment divided by its January 2020 employment, minus one. See Appendix Table 1 for the underlying raw data.

APPENDIX TABLE 1
Raw Data

	January			April		
	Unemployment rate (%)	Employment (M)	Short-time employment (M)	Unemployment rate (%)	Employment (M)	Short-time employment (M)
Australia	5.3	13.0		6.2	12.4	
Canada	5.6	19.2		13.0	16.2	
Germany	5.3	45.4	0.09	5.8	45.0	10.1
Israel	3.6	3.98		3.3	3.96	
Japan	2.4	66.9		2.6	66.3	
S. Korea	4.0	27.5		3.8	26.5	
U.S.	3.6	158.7	0.01	14.7	133.4	0.09

Notes: This table lists the raw official jobs numbers that underlie Figures 1-2. The units of the unemployment rate is the standard percentage of the labor force. The units of the employment and short-time employment are millions. The data were downloaded from the OECD except for Germany and Japan's numbers as well as the U.S. short-time employment numbers, which we compiled directly from their statistical agencies, as described in the text.