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The CARES Act Unemployment Insurance Program during the COVID-19 Pandemic

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Summary:

The outbreak of COVID-19 led to widespread shutdowns in March and April 2020 and an historically unprecedented increase in the generosity of unemployment insurance (UI) through the CARES Act. This article summarizes the key policy-relevant results from Fang, Nie, and Xie (2020), whose research examines the interactions of virus infection risk, shutdown policy, and increased UI generosity.

Key findings:

1. Generous UI policies create disincentives and reduce employment, but implemented during a pandemic, the policies potentially reduce infections by encouraging people to stay at home.

2. The CARES Act in the United States substantially increases the UI replacement ratio for individual unemployed workers and raises the UI coverage ratio. We find that both aspects contribute to an increase in the average unemployment rate of 3.8 percentage points and a potential reduction in cumulative COVID-related deaths by 4.9 percent.

3. Further extensions of the CARES Act component would potentially have an even larger impact, especially after the economy has reopened.

JEL classification: J64, J65, E24

Key words: COVID-19, CARES Act, unemployment insurance

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1. Introduction

The outbreak of COVID-19 led to widely implemented shutdown policies across the United States in April and May 2020 that dramatically curtailed economic activity during March and April of this year. As a consequence, the official U.S. unemployment rate spiked from 3.5 percent in February to 14.7 percent in April. In response to the pandemic, Congress passed the Coronavirus Aid, Relief, and Economic Security Act (CARES Act). Among the provisions of the CARES Act was an expansion of the unemployment insurance (UI) program. Specifically, it extended the UI benefit duration for 13 weeks beyond regular state limits ("Pandemic Emergency Unemployment Compensation," or PEUC), increased the weekly UI benefit by $600 ("Federal Pandemic Unemployment Compensation," or FPUC), and expanded eligibility of UI benefits to a larger group of unemployed workers ("Pandemic Unemployment Assistance," or PUA). Although it is not unusual for the federal government to extend the duration of UI benefits during an economic downturn, the expansion of the UI eligibility and the extra $600 weekly payment are unprecedented. A more generous UI policy reduces workers' incentives to work and in turn keeps unemployment higher than it would otherwise be. At the same time, by discouraging work by workers in contact-intensive industries, it also reduces the rate of COVID-19 infection and helps save lives.[1]

With the $600 top-up payments expiring at the end of July, Congress is currently debating an extension of CARES Act UI provisions amid concerns that continued generous UI benefits will dissuade people from working. Especially, the extra $600 generates higher income for many workers than they could earn at their old job, contributing to an elevated unemployment rate.[2] Our recent paper Fang, Nie, and Xie (2020) attempts to quantify the effects of the CARES UI program by taking into account both the effects of shutdown policies on the labor market as well as the risk of infection from working. In this article, we provide a nontechnical summary of some of the paper's key findings.

One of the important aspects of the employment loss associated with COVID-19 is that it has a disproportionate impact on workers in a subset of industries that we call the contact sector. The infection probability in these industries is relatively high because workers have to perform their jobs at the workplace, often interacting directly with coworkers and customers. They cannot work remotely. The contact sector includes industries such as accommodation and food services and entertainment, which had an employment loss of roughly 50 percent between February and April.

This article presents three policy-relevant results of our research. First, the CARES Act $600 weekly UI top-up and eligibility expansion made UI benefits a relatively attractive option for many unemployed workers. As shown in Fang, Nie, and Xie (2020), these enhanced benefits could have the effect of raising

[1] Braun and Ikeda (2020) found that government cash transfers during the pandemic in the United States and Japan help bridge consumption inequality and could potentially reduce contact-intensive activities by encouraging individuals with low savings to work less and stay home.

[2] For example, a *New York Times* article on May 28, 2020 (https://www.nytimes.com/2020/05/28/business/economy/coronavirus-stimulus-unemployment.html), stated that "some Republican lawmakers" were concerned that "as the economy reopens, they say, the benefits could impede the recovery by providing an incentive not to return to work."

the U.S. unemployment rate by an average of 3.8 percentage points over the period April–December 2020 while also reducing cumulative COVID-19 deaths by 4.9 percent, or about 27,000 lives.

Second, most of the effect comes via the eligibility expansion and the $600 top-up provisions of the CARES Act. Together, these account for more than 90 percent of the total effects on unemployment and deaths, while the 13-week duration extension accounts for less than 10 percent of the total effects.

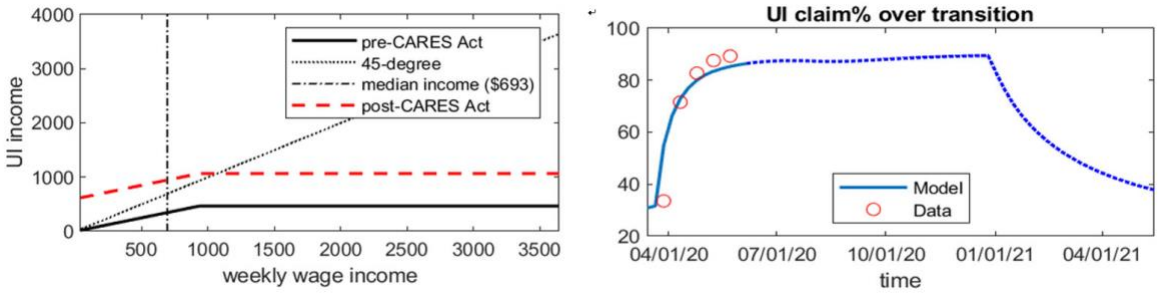
Lastly, we show that an extension of the $600 top-up through the end of year would have potentially resulted in a 6.7 percentage point higher unemployment rate, on average, from August to December and reduced total COVID-19 related deaths by 4.2 percent, with less impact on unemployment and fatalities if the top-up amount is smaller.

2. Increases in UI Replacement and Claim Rates

Providing a $600 weekly UI top-up and expanding UI eligibility to almost all unemployed workers are unprecedented policy actions. The top-up directly increases the UI replacement rate (the ratio between UI income and wage income), and the eligibility expansion directly increases the UI claim rate (the ratio between UI claimants and all unemployed workers). Standard economic logic suggests the larger the increase in these two rates is, the bigger the impact of UI policy changes on unemployment will be.

Figure 1 shows the estimated UI income (in dollar amount) for the entire wage distribution, with and without the $600 top-up. The region above the 45-degree line represents the part of the wage distribution where UI income would be higher than wage income or, equivalently, the replacement rate would be greater than one. The figure shows that without the $600 top-up, no one would have a replacement rate greater than one, and with the $600 top-up, a large range of the wage distribution has a replacement rate greater than one, including the median wage earner. We estimate that, because of the $600 top-up, the average UI replacement rate goes up from 0.45 to 1.66, with a median replacement rate of 1.4, and close to 70 percent of workers have a replacement rate greater than 1. In other words, 70 percent of workers would receive more in UI benefits than their wages prior to unemployment. [3]

Figure 1: UI Income and Claim Rate



Source: U.S. Department of Labor, Bick and Blandin (2020), Current Population Survey, state UI laws, and authors' calculations

[3] These patterns of replacement rate with the CARES Act UI program are also consistent with findings of other studies such as Ganong, Noel, and Vavra (2020).

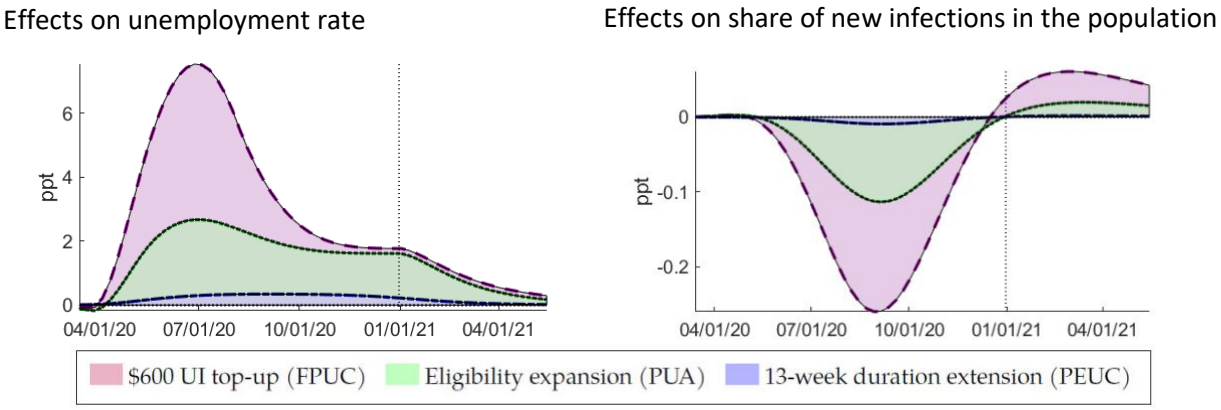
The right panel of figure 1 plots the UI claim rate from our study against the data. With the UI eligibility expansion, the UI claim rate increases sharply from 30 percent to over 80 percent in only two months (March to May). In comparison, during the Great Recession, the UI claim rate never went above 65 percent, even as UI benefit duration was extended from 26 weeks to 99 weeks.

3. Decomposition of CARES Act UI

All three components of the CARES UI reduce workers' incentive to work and increase unemployment. Given the high risk of on-the-job infection—especially in the contact-intensive sector—by encouraging workers to stay home, the UI programs actually reduce new COVID-19 infections. By modeling the potential effect of UI incentives on both unemployment and infection rates, we are able to separate the total effects of the CARES Act UI provisions into its three components.[4] The shaded region in figure 2 illustrates the contribution of each policy on unemployment and new infection. The $600 top-up and eligibility expansion both substantially increase unemployment. The effect of the $600 top-up is mostly concentrated early on as that component was scheduled to expire at the end of July, while the eligibility expansion expires only at the end of 2020, and so its effect lasts much longer. In comparison, the effect of the 13-week duration extension is much smaller. By raising unemployment, these policies substantially reduce the peak of new infection and delay the peak by one month. Again, most of the effect is attributable to the UI top-up and eligibility-expansion policies.

[4] We model the spread of the virus using a standard SIR model, widely used in epidemiological modeling (see, for example, Atkeson 2020; Glover et al. 2020), and we assume that shutdown policies went into effect from March 21 and phased out in mid-July.

Figure 2: Decomposition of CARES Act UI Policies



Note: We evaluate program effects with the shutdown policy but net out the shutdown effects. The three lines plot (a) the difference between shutdown with all UI policies and shutdown alone, (b) the difference between shutdown with PUA and PEUC and shutdown alone, and (c) the difference between shutdown with PEUC and shutdown alone. The effect of FPUC is, then, the (purple) shaded region between (a) and (b), and the effect of PUA is the (green) shaded region between (b) and (c). Finally, the effect of PEUC is the (blue) shaded region between (c) and the zero horizontal line.
Source: Authors' calculations based on model simulations

Table 1 reports the policy effects on the average unemployment rate and the cumulative COVID-19 deaths. Out of the 3.8 percentage points increase in the average unemployment between April and December 2020, the $600 top-up potentially accounts for 2 percentage points, eligibility expansion for 1.5 percentage points, and duration extension for only 0.3 percentage point. Similarly, the $600 top-up and the eligibility expansion account for almost all of the 4.9 percent reduction in total deaths.

Table 1: Contribution of Components

Components of CARES Act UI	Effect on unemployment (ppt)	Effect on cum. deaths (%)
$600 UI top-up (FPUC)	2.0	–2.4
Eligibility expansion (PUA)	1.5	–2.4
13-week duration extension (PEUC)	0.3	–0.2
All three UI programs	3.8	–4.9

Note: We evaluate program effects with the shutdown policy but net out the shutdown effects. The policy effect on unemployment rate is the effect on the average unemployment rate between April and December 2020, expressed in percentage points. The policy effect on cumulative death is the effect on eventual total COVID-19 related deaths, expressed as a percentage.
Source: Authors' calculations based on model simulations.

4. Experiment: Extension of $600 UI Top-Up (FPUC)

Whether to extend the $600 additional weekly payment past its July 31 deadline or to replace it with a reduced amount has been a hotly debated topic among policymakers. Table 2 reports the findings from our study of extending the $600 top-up until the end of 2020 or reducing it to either $400 or $200. The potential effects increase in the size of the top-up, with the unemployment rate between August and December 2020 up to 2.7 percentage points higher under a $200 UI top-up policy and 6.7 percentage points higher with a $600 top-up policy. At the same time, a $200 top-up could potentially reduce cumulative deaths by 1.9 percent and by 4.2 percent under a $600 top-up.

Table 2: Effects of FPUC Program Extension (Relative to No FPUC Program Extension Past July 31)

Scenario	Effect on unemployment (ppt)	Effect on cum. death (%)
$200 top-up until December 31	2.7	–1.9
$400 top-up until December 31	4.9	–3.2
$600 top-up until December 31	6.7	–4.2

Note: Experiments assume no further mandated shutdowns are implemented from August to December 2020. Each scenario extends the FPUC program with a dollar amount UI top-up from Aug 1 to Dec 31, with change in the expectation of policy path built in from the week of July 4 onward. Numbers shown are additional effects on unemployment and death relative to no program extension. The policy effect on unemployment rate is the effect on average unemployment rate between August and December 2020, expressed in percentage points. The policy effect on cumulative death is the effect on eventual total COVID-19 related deaths, expressed as a percentage.
Source: Authors' calculations based on model simulations.

5. Conclusion

The expanded UI program under the CARES Act substantially increased the value of UI benefits to unemployed workers and made more workers eligible to claim UI benefits. The unprecedented increases in UI generosity raised concerns among policymakers about the disincentive effects of UI on regaining employment, especially as the economy reopens. In our paper Fang, Nie, and Xie (2020), we find that even though the program contributed to an increase in the unemployment rate relative to the absence of the CARES Act, it has also helped reduce infection and lowered the COVID-19 death toll. We also show that an extension until the end of the year of the $600 UI top-up potentially would have put additional upward pressure on the unemployment rate while further decreasing deaths related to COVID-19. The policy trade-off between risk to life and the economy that we highlight in this article makes the choice among policy options quite difficult.

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