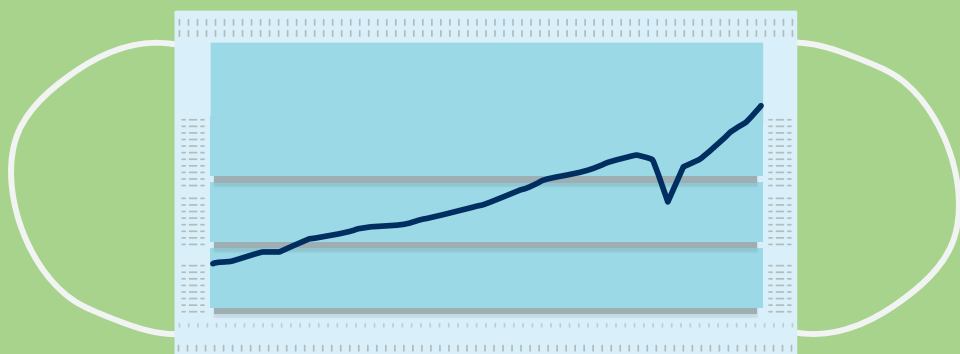


RECESSION REMEDIES

Lessons Learned from the
U.S. Economic Policy Response to
COVID-19



Edited by

**Wendy Edelberg, Louise Sheiner,
and David Wessel**

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Lessons Learned from Expanded Unemployment Insurance during COVID-19

Peter Ganong, Fiona Greig, Pascal Noel, Daniel M. Sullivan, and Joseph Vavra¹

Introduction

In response to the COVID-19 pandemic, the U.S. government implemented the largest expansion in federal unemployment insurance (UI) benefits in U.S. history: First, it increased the level of benefits through weekly supplements. Next, it expanded eligibility of UI through the Pandemic Unemployment Assistance (PUA) program to independent workers and those unable to work for a variety of COVID-related reasons. Finally, as is typical with recessions, it extended the duration of federal UI benefits, in this case by 53 weeks.²

As a result of swift and widespread job losses and these UI expansions, weekly continued UI claims increased from 2 million in February 2020 to 30 million in May and June 2020, costing close to \$120 billion per month (Figure 2.1). At its peak in the second quarter of 2020, UI represented 9 percent of employee compensation, fourfold more than ever before on record.³ Federal UI expansions expired in September 2021, with 26 states terminating them in June or July 2021. Claims did not fall below 6 million until September 2021,

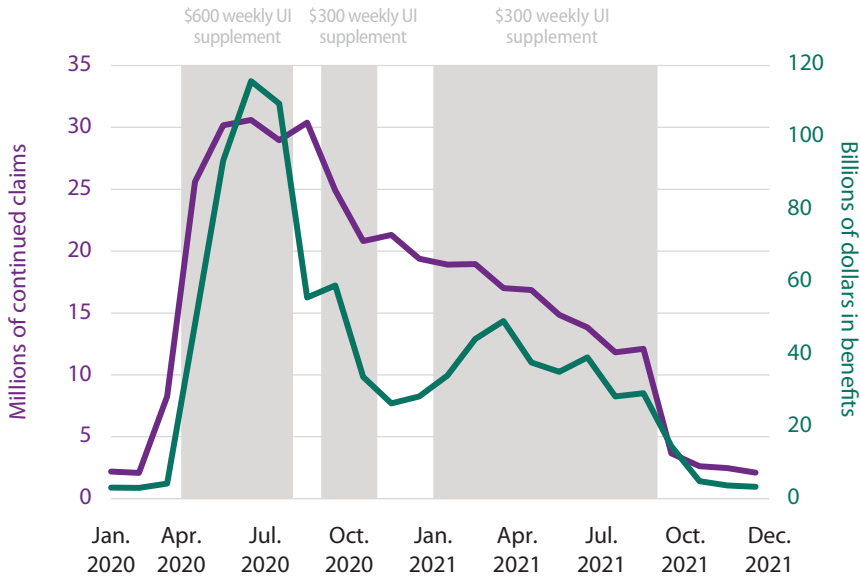
1. The authors thank Arindrajit Dube, Michele Evermore, Ryan Nunn, Jesse Rothstein, Till von Wachter, participants in the October authors' conference, and the editors of this volume for their insightful feedback. The authors are grateful to Samantha Anderson, Mitchell Barnes, Guillaume Kasten-Sportes, Melissa O'Brien, Liam Purkey, Natalie Tomeh, and Katie Zhang for providing excellent research assistance.

2. For recent historical context, UI expansions during the Great Recession included extending extra weeks of benefits to up to 47 weeks from mid-2008 through 2013 through Emergency Unemployment Compensation, full federal funding of Extended Benefits, and a \$25 weekly UI supplement between February 2009 and December 2010.

3. Estimated from Bureau of Economic Analysis (BEA; 2022b) quarterly data on personal income.

FIGURE 2.1

Continuing Unemployment Insurance Claims and Cost



Source: U.S. Department of Labor n.d.a.

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18 months into the pandemic. By the end of 2021, they were roughly back to pre-pandemic levels.

This chapter summarizes five key empirical findings on the role of expanded UI during the COVID-19 pandemic. First, UI policy expansions were highly progressive in that they offset income losses and delivered the most benefit to lower-income workers. Second, the spending impacts of UI were large: UI benefits provided a powerful stimulus to the macroeconomy by boosting consumption. Third, work disincentive effects from UI benefits were small during the pandemic, especially when compared to historical standards. Fourth, the PUA program was successful in increasing access to benefits and insuring income losses for workers on the margins of the labor market without clear evidence of greater work disincentive effects. Finally, administrative shortcomings and red tape in serving the surge in UI demand were costly in terms of consumer welfare and government expense.

From these empirical findings we draw two key conclusions for policy. The first conclusion is that UI benefit expansions covered labor income risk not

insured by regular UI, warranting consideration of adopting these more permanently or as automatic countercyclical stabilizers. Specifically, with a typical replacement rate of 50 percent, regular UI benefits cannot sustain families over extended periods of time; as a result, temporary supplements might be appropriate, especially during recessions when the risk of long-term unemployment is high. Although flat-dollar-amount supplements were highly progressive, flexible supplements that target a replacement rate likely create fewer inefficiencies in terms of work disincentives. Flexible supplements require a stronger IT and administrative back end, however; IT and administrative shortcomings were a critical barrier to implementing such a policy during the pandemic.

More permanently broadening eligibility for UI also warrants consideration. A key challenge that states faced during the pandemic was establishing an entirely new program amid peak claims volume. Thus, keeping a permanent version of PUA has the important benefit of allowing states time to establish protocols and enhance systems to accommodate other populations of uncovered workers during non-peak times.

The second conclusion for policy from empirical findings is that stronger administrative systems are necessary for delivering timely and accurate UI benefits at scale in a worker-centered, recession-ready way. In UI administration there is always a trade-off between speed and accuracy. Given that UI plays a key fiscal stimulus role to mitigate a recession, its ability to deliver vast sums of relief quickly is critical. And yet states faced delays in processing the enormous surge in UI claims and standing up the new PUA program. In response, many states relaxed third-party verification, which resulted in an increase in improper payments.

This trade-off between speed and accuracy does not have to exist, however. Investment in technology can expand the frontier of what is possible, enabling states to be more accurate in making payments at a given speed or to make payments faster while maintaining accuracy. States need to approach their UI delivery infrastructure as if it were economic disaster preparedness, much the same way the Federal Emergency Management Agency (FEMA) plans for aid delivery during a hurricane. As such it seems reasonable for the federal government to play a more active role in responding to labor market disasters, rather than relying on states to prepare and respond on their own. The federal government could provide technology and data infrastructure that could enable not only flexible benefit levels set at a target income replacement rate, but also stronger, more-seamless eligibility verification and fraud prevention.

Background and Data

During the pandemic, the U.S. government expanded federal UI benefits through three key programs: Federal Pandemic Unemployment Compensation, Pandemic Unemployment Assistance, and Pandemic Emergency Unemployment Compensation.

Federal Pandemic Unemployment Compensation (FPUC) established weekly supplements on top of any state UI benefits for which recipients were eligible. Weekly supplements were available intermittently, and were set at \$600 between March and July 2020, \$300 in Lost Wages Assistance (LWA) in September and October 2020, and \$300 between January 2021 and September 6, 2021.⁴

Pandemic Unemployment Assistance (PUA) expanded eligibility of UI to self-employed workers, gig workers, independent workers, and others not previously eligible for UI or who were unable to work for a variety of COVID-related reasons.⁵ For example, workers could receive UI benefits if they were unable to work because of dependent care responsibilities, a COVID-19 illness in the family, or the health risk at work.

Pandemic Emergency Unemployment Compensation (PEUC) extended the duration of federal UI benefits by 53 weeks for those who had exhausted their regular state benefits.

The contribution of these three expansions to claims volume and cost evolved over time. Figure 2.1 shows continuing UI claims and cost, both state and federally financed, by month; Figure 2.2 shows the evolution of continuing UI claims volumes by program.⁶ Regular state claims surged immediately when the pandemic first hit. Once the PUA program got up and running, it accounted for roughly 40 percent of total claims until it expired. PEUC claims increased steadily as workers faced longer-term unemployment, accounting for roughly a quarter of claims by December 2020 and a third of claims between March and September 2021 when it expired. In 2020 the cost of the expansions was roughly \$400 billion, of which supplements cost \$282 billion (71 percent), PUA \$80 billion (20 percent), and PEUC \$29 billion (7 percent) (U.S. Department of Labor [DOL] 2021).

In addition to these expansions, administrative barriers to accessing UI benefits were lowered, enabling states to dramatically and swiftly expand UI coverage. For example, UI benefits are typically available only to those who lose their jobs through no fault of their own. In normal times, the UI system requires former employers to verify whether workers are ineligible for UI because they had been fired for cause, did not respond to a recall, or had started working in a new job. During the pandemic these reporting requirements were relaxed. In addition, work search requirements were waived, meaning that recipients

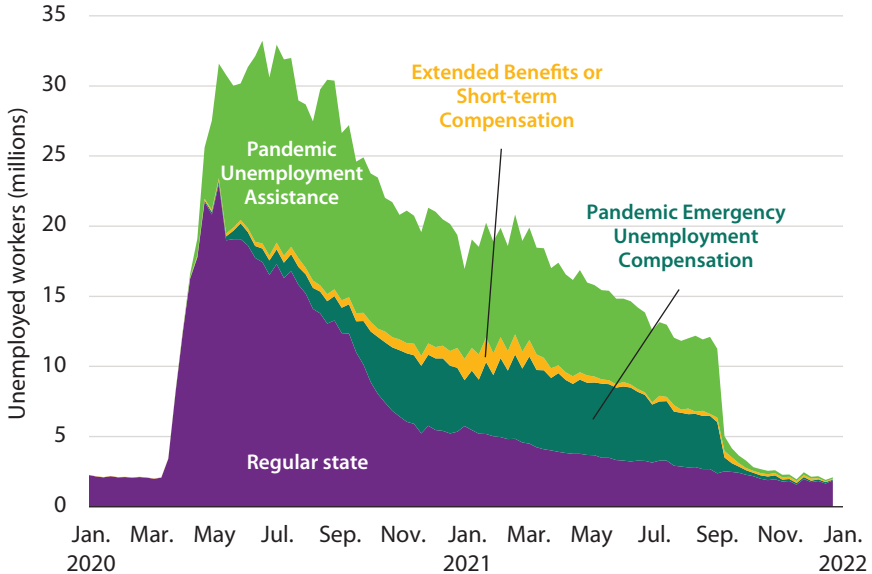
4. LWA was not part of the FPUC but rather was a FEMA disbursement authorized through executive order. Some states matched LWA with an additional \$100 for a total weekly supplement of \$400.

5. Generally speaking, to qualify for UI, a person must have lost their job through no fault of their own, be able to work, available to work, actively seeking work, and have earned at least a certain amount of money during a base period prior to becoming unemployed.

6. As documented by Cajner et al. (2020), there were various problems with UI claims data, potentially distorting the continued claims estimates in figures 2.1 and 2.2. For example, some PUA recipients were double counted as being on both PUA and regular UI. In addition, some states report all retroactive claims during the week the individual received their first payment.

FIGURE 2.2

Weekly Continued Unemployment Insurance Claims, by Program



Source: U.S. Department of Labor n.d.b.

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did not have to prove that they were looking for a job in order to continue to receive benefits. Finally, unemployed workers typically have to be unemployed for a week before benefits can be paid; this waiting period was waived in the Coronavirus Aid, Relief, and Economic Security Act (CARES Act).

Evaluating COVID Unemployment Insurance Policies

The conceptual framework typically used by economists to think about how best to structure UI benefits frames the issues as a trade-off between protection (i.e., replacing lost earnings to prevent a drop in consumption) and inefficiency (i.e., creating disincentives to find a job and incurring administrative costs to prevent fraud and other overpayments). During an economic downturn, the benefits of protection increase, because, in addition to supporting households, the boost to consumption helps stabilize the macroeconomy. In addition, efficiency losses decrease because it is more difficult to find a job when labor demand is low, meaning that any decrease in job search has less impact on actual

employment, especially considering that any one person who is not looking for a job might make it easier for another person to find one. Both channels tilt in favor of greater insurance provision in an economic downturn because the benefit of protection increases and the cost of efficiency losses decreases.

In addition to this trade-off, policymakers might wish to insure a greater share of consumption for lower-wage workers than for higher-wage workers, both because higher-income workers are more likely to have savings to help them smooth through periods of unemployment and because cuts to consumption for those whose budgets are already very tight are likely to be much more painful. The lower costs of disincentive effects further support the case for particularly generous UI for lower-wage earners during recessions.

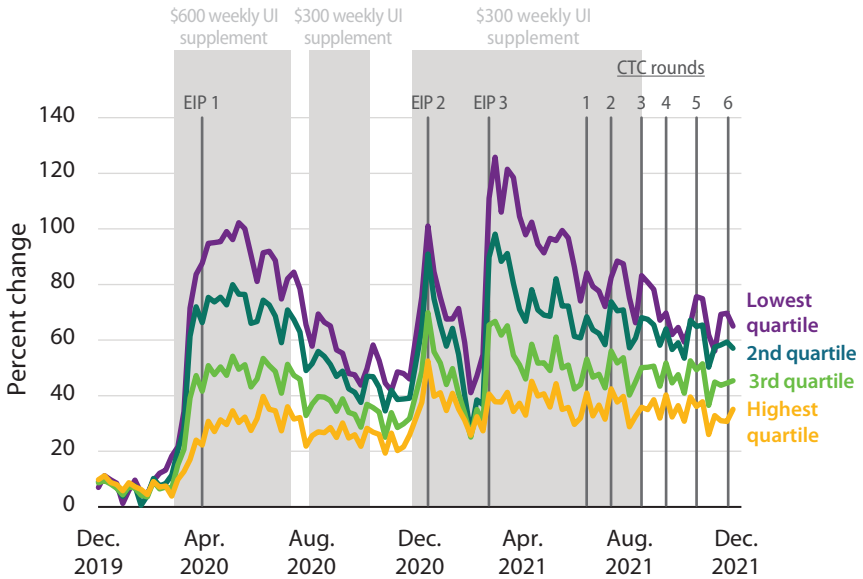
A central question is how the pandemic UI policies affected this trade-off—that is, how much they increased protection by increasing access to UI and boosting the level of benefits versus how much they lowered program efficiency in terms of work disincentive effects and fraud or other overpayments.

In addressing this question, it is important to recognize three ways in which the COVID-19 downturn differed from other recessions. First, this recession was born out of a public health threat. Thus, UI was meant to insure people against income losses associated not just with involuntary job loss, as in a usual recession, but also with the choice not to work due to the public health risk. Second, job losses were dramatic and were concentrated in lower-paid in-person service sectors such as restaurant, travel and hospitality, and retail (Bell et al. 2021a). Third, UI was just one of a variety of government-support policies aimed directly at households, including three rounds of stimulus checks (Economic Impact Payments [EIP]), debt forbearance, advance payment of child tax credits, and rent relief. Still, total UI payments in 2020 (\$572 billion) were more than double the EIP payments (\$275 billion). By 2021 UI claims had dropped considerably; at the same time, families received two more rounds of EIPs, and roughly a quarter of families received the monthly advanced Child Tax Credit (CTC) between July and December. Nevertheless, in 2021 total UI payments (\$340 billion) were not that much lower than stimulus (\$569 billion) and were considerably larger than advanced CTC (\$128 billion). Collectively, these income supports put a lot of money in the hands of families. As of the end of 2021, according to data from the JPMorgan Chase Institute (JPMCI; Greig, Deadman, and Sonthalia 2022), described below, cash balances were 65 percent higher than 2019 levels for low-income families, potentially influencing a range of economic decisions, including the decision whether to return to work (Figure 2.3).

Because of the nature of the COVID-19 recession and the accompanying policy interventions, it is difficult to disentangle enduring policy lessons from those that are unique to the pandemic. In the following discussion we underscore where there is uncertainty in the extent to which outcomes might be unique to the COVID-19 era.

FIGURE 2.3

Percent Change in Median Weekly Checking Account Balances Relative to 2019, by Income Quartile



Source: Greig, Deadman, and Sonthalia 2022.

Note: We assign households into income quartiles based on their total income from 2019. Households in the lowest quartile earned between \$12,000 and \$26,171 in labor income; 2nd quartile households earned \$26,171 to \$40,826; 3rd quartile households earned \$40,826 to \$64,974; and highest quartile households earned more than \$64,974.



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Data Sources

A range of data sources shed light on the impacts of UI during the COVID-19 recession, many of which were not available in prior recessions, allowing for richer and more-contemporaneous evidence to inform policy. UI claims data and payroll data published by the Bureau of Labor Statistics provide aggregate estimates of UI flows and stocks and concurrent changes in aggregate employment, but these estimates come with large confidence intervals and do not shed light on the impacts of UI for a given UI recipient. During COVID-19 the U.S. Census Bureau launched the Household Pulse Survey, offering a timely nationally representative survey of households that provided insight into the demographics of UI applicants and recipients alongside other worker outcomes.

Administrative data sets also provided a window into the impacts of UI across a range of important outcomes. The largest and most representative of such data sets is the JPMCI data which observed more than a million deidentified UI recipients during the pandemic. JPMCI data are limited in that they capture only claimants with bank accounts at Chase who receive their UI benefits via direct deposit. About half of UI benefits in 2020 were paid via prepaid cards, and are therefore excluded from the sample. UI distribution varies by state; in California most UI payments are made through prepaid cards. In addition, for the subset of claimants previously working at large firms for whom the JPMCI data capture industry, the industry distribution is different from the national distribution among UI recipients according to DOL UI data: for example, the two most underrepresented industries in the JPMCI data are construction and agriculture, and the two most overrepresented industries are public administration, and finance and insurance. Still, Ganong, Greig, Liebeskind, et al. (2021) show that the JPMCI data mirror both pre-pandemic characteristics, such as the income distribution of UI recipients and benefit levels by state from the DOL, and pandemic patterns, such as the huge rise in UI claims nationally and by state and changes in industry composition. The data provide a window into each individual's UI spell and path of income, spending, and liquid assets and shed light on distinct UI programs—regular UI versus PUA (e.g., Ganong, Greig, Liebeskind, et al. 2021; Ganong, Greig, Noel, et al. 2021; Greig, Sullivan, and Anderson et al. 2022).

Earnin, a financial services company that provides workers with early access to their earned wages when users connect their bank accounts, made publicly available sample data on roughly 19,000 mostly low-income users (Coombs et al. 2021). The California Policy Lab offered a window into administrative UI data for California, delivering insights into not just who was receiving UI, but also insights into many administrative aspects of the program that we discuss below (see, for example, Bell et al. 2021b).

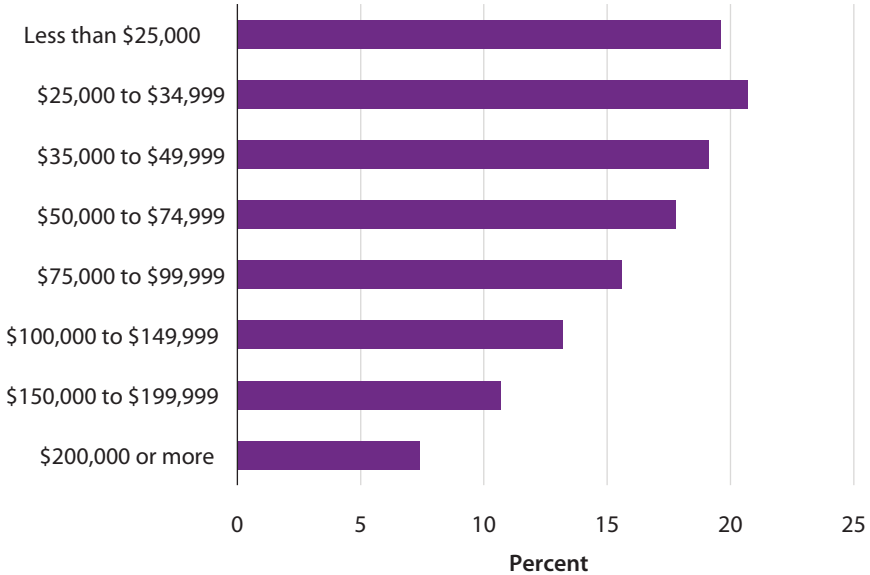
Empirical Lessons

UI Policy Expansions Were Highly Progressive in That They Offset Income Losses and Delivered the Most Benefit to Lower-Income Workers

Job losses were concentrated in low-wage service sectors. Thus, the typical UI recipient was a lower-income worker. For example, according to the Household Pulse Survey, between August and December of 2020, roughly 20 percent of workers earning less than \$35,000 per year received UI, compared to fewer than

FIGURE 2.4

Reported Unemployment Insurance Receipt in 2020, by 2019 Income



Source: Carey et al. 2021.

Note: Data are pooled from August 19, 2020 and December 21, 2020. Income groups are based on 2019 total household income (before taxes).



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15 percent of workers earning \$100,000 or more (Carey et al. 2021).⁷ JPMCI data document a similar income gradient in UI receipt (Figure 2.4; Greig, Deadman, and Noel 2021), and also show that renters were more likely to receive UI than were mortgage holders (Greig, Zhao, and Lefevre 2021).

Although the distributional consequences of the COVID-19 recession might have been more severe than during other recessions, it is common for job losses to be concentrated among lower-income workers both in general (Keys and Danzinger 2008; Mincer 1991) and during recessions (Forsythe and Wu 2021; Hoynes, Miller, and Schaller 2012; Shibata 2021). This implies that, during recessions, by targeting support to individuals who have lost a job, UI disproportionately channels relief to lower-income workers.

7. It is worth noting, as Carey et al. (2021) document and we discuss later, that UI reciprocity rates tend to be lower among lower-income workers.

The extended duration of UI under the PEUC program—which extended benefits to an additional 53 weeks—disproportionately benefited women, less-educated workers, and people of color, because these workers, according to the California Policy Lab, were more likely to experience long-term unemployment in California (Bell et al. 2021a). Notably, more than half of all workers benefiting from PEUC in February 2021 had no more than a high school degree, despite those workers making up just 33 percent of the labor force (Bell et al. 2021a). In addition, those at risk of losing benefits in December 2020, before PEUC was extended, disproportionately worked in low-wage sectors such as accommodation, food services, and retail (Bell et al. 2020a).

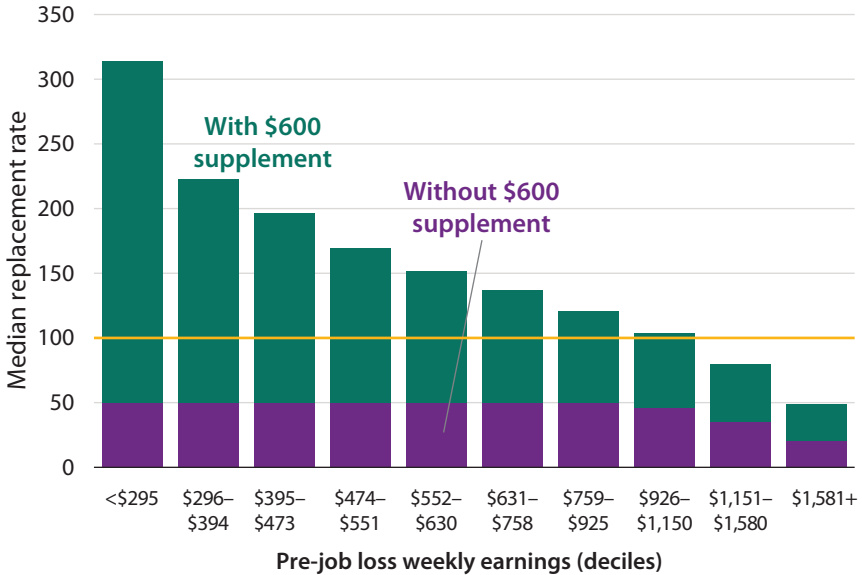
Turning to the weekly supplements, a key policy goal of the supplements was to raise UI replacement rates to compensate workers who had lost their job or who were unable or unwilling to work due to COVID-19. The fragmented state-based UI IT systems made it infeasible to target a uniform replacement rate by tailoring the supplement amount to pre-job loss earnings. As a result, a flat nationwide weekly supplement of \$600 was set, which was largely based on a national mean pre-job loss earnings level of workers who were unemployed before the pandemic began.

These flat weekly benefit supplements, initially \$600 and then reduced to \$300, had three key effects on the income distribution. First, they dramatically increased income replacement rates (UI benefits as a percentage of wages on the lost job) for all UI recipients from a median of 50 percent under regular UI to 145 percent under the \$600 supplement and roughly 100 percent under the \$300 supplement. Second, the fixed dollar supplements, by construction, were highly progressive in that they delivered greater relief to lower-income workers. With the \$600 weekly supplement, a typical worker in the bottom two deciles of the income distribution has a replacement rate of more than 200 percent (Figure 2.5). Accordingly, as Bell et al. (2020b) document, this had the effect of delivering higher-income replacement rates among women, and among Black, lower-educated, and younger workers. Third, while this policy was highly progressive in targeting more relief to lower-income workers, it created horizontal inequity between the employed and unemployed: jobless workers received more in unemployment benefits than similarly paid workers who remained employed, often while taking on greater health risk.

In sum, the UI expansions were highly progressive in terms of who received benefits as well as the benefit levels and durations. All told, expanded UI benefits are credited with lowering the official poverty rate in 2020 by 1.4 percentage points, and with lowering it by 2.5 percentage points among Black households (Chen and Shrider 2021). This effect is likely understated because UI benefits are significantly underreported in the Current Population Survey, the data set used to calculate official poverty measures; just 40 percent of UI benefits were captured in the 2020 survey.

FIGURE 2.5

Median Unemployment Insurance Replacement Rates Across the Income Distribution



Source: Ganong, Noel, and Vavra 2020.

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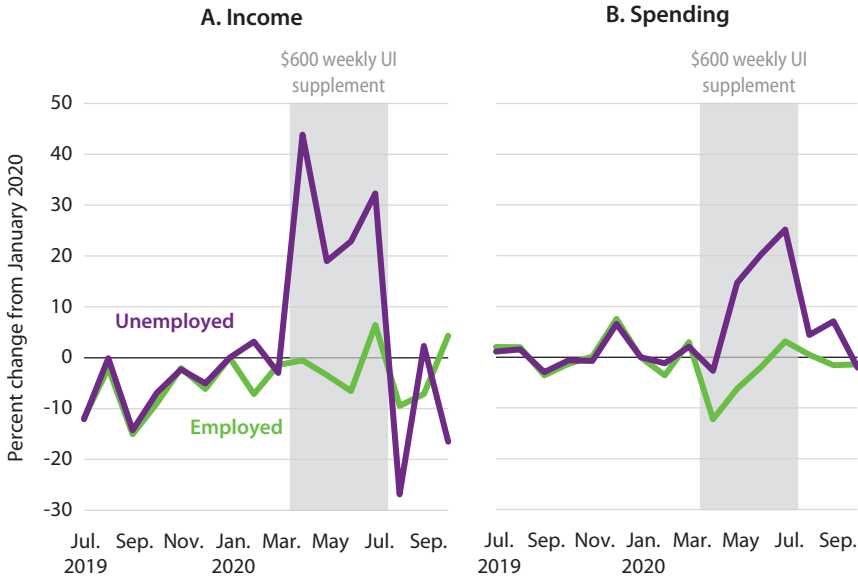
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The Spending Impacts of UI Were Large: UI Benefits Provided a Powerful Stimulus to the Macro Economy by Boosting Consumption, Particularly among Low-Income and Low-Liquidity Workers

Spending was highly responsive to unemployment benefits through COVID-19, providing a significant boost to the macroeconomy. Figure 2.6 compares the income and spending trends between matched samples of jobless and employed workers with similar pre-pandemic incomes. Ganong, Greig, Liebeskind, et al. (2021) estimate that spending among jobless workers increased by more than 20 percent with the arrival of the \$600 supplements at a time when spending among the employed was depressed. When the \$600 supplement phased out in August 2020, spending among jobless workers dropped. Spending then temporarily increased in September 2020 with the arrival of \$300 in LWA.

FIGURE 2.6

Percent Change in Income and Spending from January 2020, by Employment Status



Source: Ganong, Greig, Liebeskind, et al. 2021.

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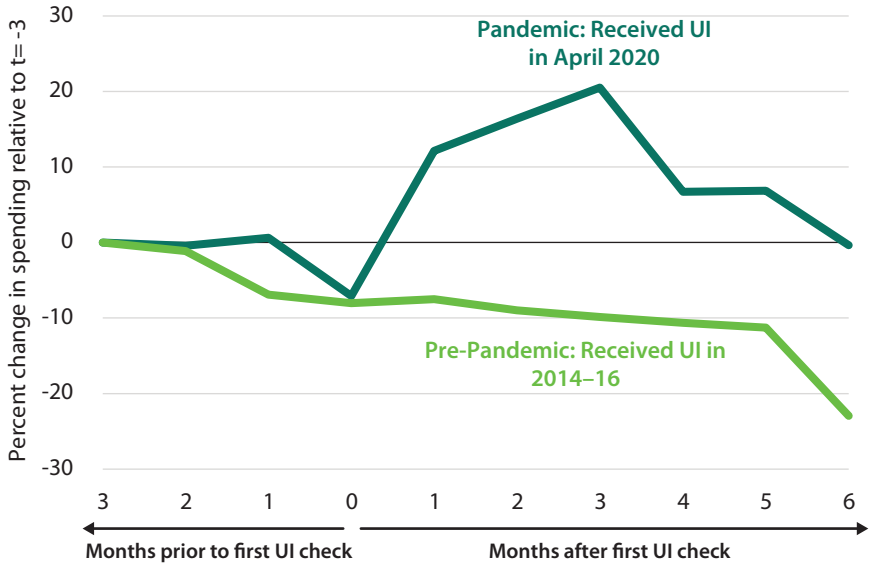
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Spending also dropped significantly when workers lost their benefits entirely, underscoring the impact of extended benefits (Figure 2.7). This is evident when comparing the path of spending among jobless workers who received UI benefits during the pandemic (from Ganong, Greig, Liebeskind, et al. 2021) versus workers who received UI benefits in pre-pandemic times (Ganong and Noel 2019). In most states, jobless benefits normally last six months, after which workers cut their spending (Figure 2.7, light green line). During COVID-19, in contrast, the federal PEUC program extended UI benefits an additional 53 weeks, boosting spending beyond the six-month mark (dark green line). Similarly, Coombs et al. (2021) document a 20 percent drop in spending among jobless workers in the 26 states that turned off expanded benefits before the federal expiration in the summer of 2021.

These spending responses imply a relatively high marginal propensity to consume (MPC) out of UI benefits. Ganong, Greig, Liebeskind, et al. (2021) estimate a one-month MPC of 0.43 at the onset of the \$600 supplement and a 0.29 MPC at the expiration of the \$600 supplement. Coombs et al. (2021)

FIGURE 2.7

Percent Change in Spending Relative to Three Months Prior to First Unemployment Insurance Check



Source: Ganong, Greig, Liebeskind, Noel, Sullivan, and Vavra 2021; Ganong and Noel 2019.



estimate an even greater MPC of 0.52, albeit for a lower-income sample, when the 26 states terminated benefits.

To assess whether these MPCs are big or small, we compare them to two benchmarks: previous estimates on MPCs following job loss, and MPCs out of stimulus payments in the Great Recession and during COVID. Although the Congressional Budget Office (CBO) often discusses spending impacts when UI expansions are debated (e.g., CBO 2020), there is little direct empirical evidence of how spending is affected by UI expansions.

Much of the past literature uses survey data, which has a number of limitations discussed in Ganong and Noel (2019). Ganong and Noel (2019) instead use JPMCI data from pre-pandemic, nonrecessionary times to estimate spending responses to regular unemployment benefits, which replace 30–50 percent of lost income. MPC estimates are quite sensitive to choices of the categories of account outflows included in the spending measure (e.g., nondurable

spending versus total account outflows for any purpose).⁸ For this reason, we compare MPC estimates based on total account outflows that are present in both papers: Ganong, Greig, Liebeskind, et al. (2021) compute a one-month MPC on total account outflows of 0.69, compared to the 0.83 pre-pandemic number in Ganong and Noel (2019), suggesting a slightly lower MPC out of these large UI supplements during the pandemic than out of regular UI in pre-pandemic times. However, this difference is relatively small, implying that MPCs out of these supplements were similar to MPCs out of regular UI even though the supplements were much larger and occurred during a pandemic that depressed overall spending.

More importantly, all past empirical evidence focuses on how spending responds to *regular* unemployment benefits and not to the much larger *supplements* implemented during the pandemic. In principle, spending responses to small benefit changes could differ markedly from spending responses to large benefit increases, since the latter have larger effects on unemployed households' liquidity positions.

In contrast to UI spending impacts, there is a large and growing literature on the spending impacts of stimulus payments. This is an interesting comparison, insofar as stimulus is another commonly used countercyclical fiscal policy, and the identification strategies for estimating effects, which typically exploit variation in timing in the arrival of payments, are similar. Estimates of the MPC from stimulus payments vary widely depending on the spending measure and the income and liquidity levels of the family, making comparisons across papers with different data sources and samples difficult. Nevertheless, Kaplan and Violante (2014) summarize the findings from the pre-pandemic literature and argue for a target three-month nondurable MPC of 25 cents per dollar. Using Nielsen spending data, Broda and Parker (2014) find that the one-month MPC out of rebates is 30–50 percent less than the three-month response. Applying this same ratio to the 0.25 MPC suggests a one-month MPC of nondurables to tax rebates of 0.125 to 0.175, which is substantially below the one-month MPC of 0.43 that Ganong, Greig, Liebeskind, et al. (2021) estimate to the start of unemployment benefits.

Several studies have estimated the MPC from stimulus payments, or EIPs, during the pandemic. Two studies use Factiveus debit card account data held by lower- and middle-income households and estimate an MPC of between 0.29 and 0.51, depending on the spending measure (Misra et al. 2021) and 0.46 out of the first round of stimulus and 0.39 out of the second round of stimulus (Karger

8. Ganong and Noel (2019) estimate a one-month MPC at the start of UI benefits of 0.27 on nondurable spending (on credit and debit cards, as well as on electronic payments) and 0.83 on total account outflows. The MPC estimates of 0.43 at the onset of the \$600 supplement and 0.29 at the expiration of the \$600 supplement reflect a broader spending measure (including spending on credit and debit cards, cash, paper checks, and various electronic payments) that are not directly comparable to the MPC on nondurable spending in Ganong and Noel (2019).

and Rajan 2020). Baker et al. (2020), using data on 90,000 low-income users of a personal finance app, estimate a 10-day MPC of between 0.25 and 0.40. Greig, Sullivan, et al. (2022), also using JPMCI data on 1 million households, estimate a lower MPC out of EIP than UI, and lower MPCs still from the second and third rounds of EIP (see Chapter 3 of this volume).

In short, spending impacts out of UI generally appear to be larger than spending impacts out of stimulus payments. This likely reflects several factors. First, UI targets support to families that have lost income because one family member has lost a job; that is different from the broader population that received stimulus payments. Second, UI transfers are more persistent than one-off stimulus checks. In most models of consumption, both forces imply greater MPCs out of UI than out of stimulus checks. This stronger spending response out of UI makes it an attractive policy for stimulating aggregate demand, although this must be balanced against the benefits of other targeting approaches, horizontal equity considerations between employed and unemployed workers, as well as potential negative consequences from reduced labor supply, which we discuss next.

Work Disincentive Effects from UI Benefits Were Small during the Pandemic, Especially When Compared to Historical Standards

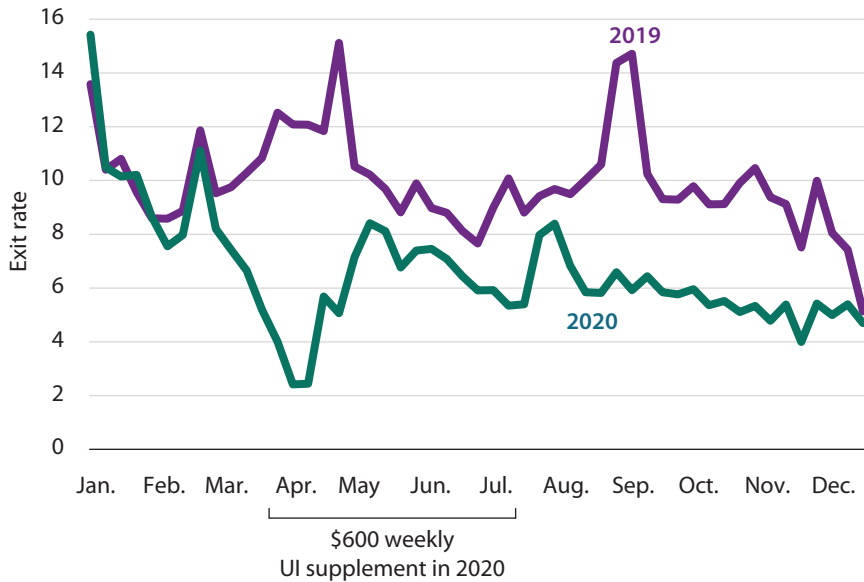
Many policymakers were concerned that the high levels and long durations of UI payments might deter workers from returning to work. These concerns became particularly pronounced in the spring of 2021 when employers started to experience labor shortages. UI became a prime suspect in the case of the missing workers when, in March 2021, job openings surged above pre-pandemic levels to roughly 8 million while there were still 8 million fewer employed workers than before.

A variety of studies provide clear evidence that the impact of UI supplements on job finding were remarkably low by historical standards. This is evident from a simple descriptive time series of exit rates out of UI, a proxy for job search.⁹ First, focusing on total exit rates, which include both recalls to prior employers and exits to new jobs, Ganong et al. (2022) document that, although total UI exits remained lower in 2020 than in pre-pandemic times, the weekly exit rate from unemployment showed a very brief but not sustained increase when the \$600 UI supplement expired at the end of July 2020 (Figure 2.8).

9. UI recipients can exit UI for a variety of reasons: they can be recalled by their prior employer, find a new job, exhaust their UI benefits, or face an administrative or policy hurdle that causes a lapse in their benefits. All these forces were in play at different points during the pandemic. But, at the start of the pandemic, benefit expiration was not a factor given the additional 53 weeks of benefits available.

FIGURE 2.8

Weekly Exit Rate from Unemployment Benefits



Source: Ganong et al. 2022.

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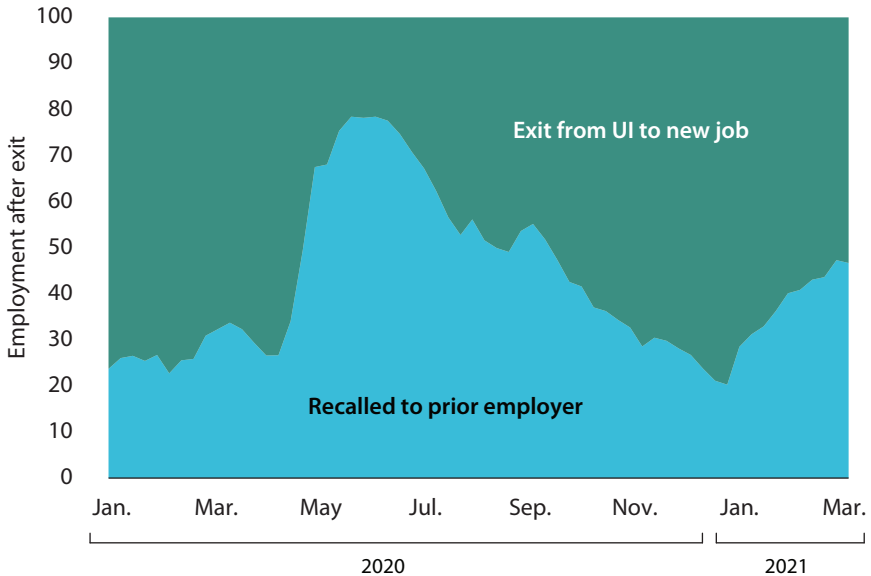
Indeed, the weekly exit rate between August and December 2020 remained much lower than that rate had been in 2019, when the \$600 supplements were not in place.

In addition, an enormous number of people exited from UI while the \$600 supplements were still available. Ganong, Greig, Liebeskind, et al. (2021) estimate that 53 percent of jobless workers who received the \$600 supplement returned to work before the \$600 supplement expired. Put another way, more than half of jobless workers receiving UI opted to go back to jobs, the vast majority of which paid less than unemployment benefits did with the \$600 weekly supplement included.

A big reason for the large number of exits while the \$600 supplement was in place was recalls. Roughly 70 percent of workers who exited unemployment in the second quarter of 2020 returned to work at their prior employers (Figure 2.9; Bell et al. 2021c; Ganong, Greig, Liebeskind, et al. 2021). In principle, workers become ineligible for UI if they turn down a suitable job offer, and being recalled to one's prior job is a suitable job offer. However, given difficulties that states faced verifying eligibility during the pandemic (DOL 2021), it might have been difficult for states to enforce this provision, meaning that much of the return to

FIGURE 2.9

Employment After Exit from Unemployment Benefits



Source: Ganong et al. 2022.

Note: New job is defined as a UI exit without a recall, measured using receipt of labor income from a prior employer.

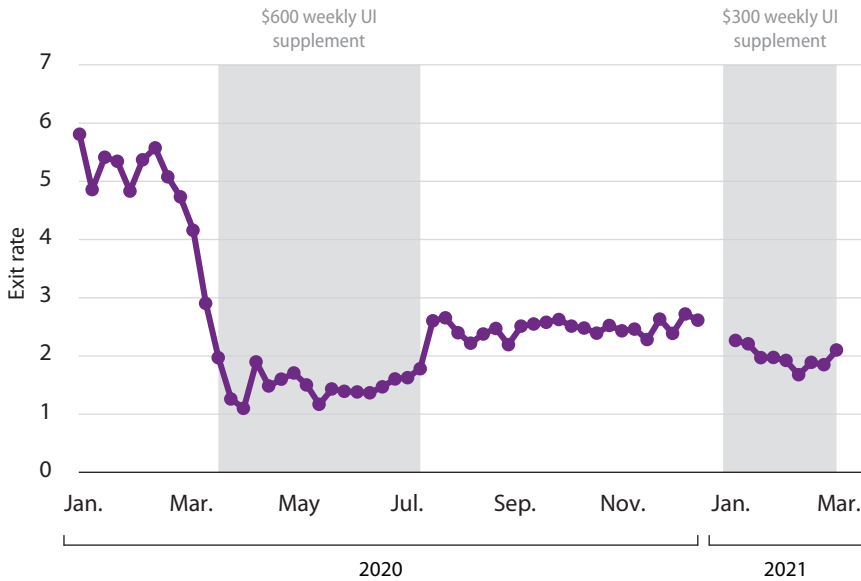


work that did occur was effectively voluntary. Although policy interventions, such as the Paycheck Protection Program, were in place to encourage recalls, the fact that so many workers returned to work despite UI replacement rates exceeding 100 percent is surprising and a policy success, given the spending boost UI supplements generated.

Recognizing that the decision to recall a worker mostly sits with the employer, in quantifying the work disincentive effects, Ganong, Greig, Noel, et al. (2021) focus on the exit rate from UI to new jobs. They find only small changes in exits to new jobs associated with changes in UI supplements. Prior to the pandemic in early 2020, in any given week roughly 5 percent of UI recipients exited to new jobs (Figure 2.10). In April 2020, at the start of the pandemic, the job-finding rate dropped precipitously to below 2 percent as job losses mounted and stay-at-home orders took effect. In August 2020, after the expiration of the \$600 supplement, the exit rate to new jobs increased from 1.6 percent to 2.4 percent. In January 2021, when the \$300 supplement was implemented, the job-finding rate decreased by roughly half a percentage point to 2 percent, which was still significantly lower than the 5 percent pre-pandemic baseline.

FIGURE 2.10

Exit Rate to New Job from Unemployment



Source: Ganong et al. 2022.

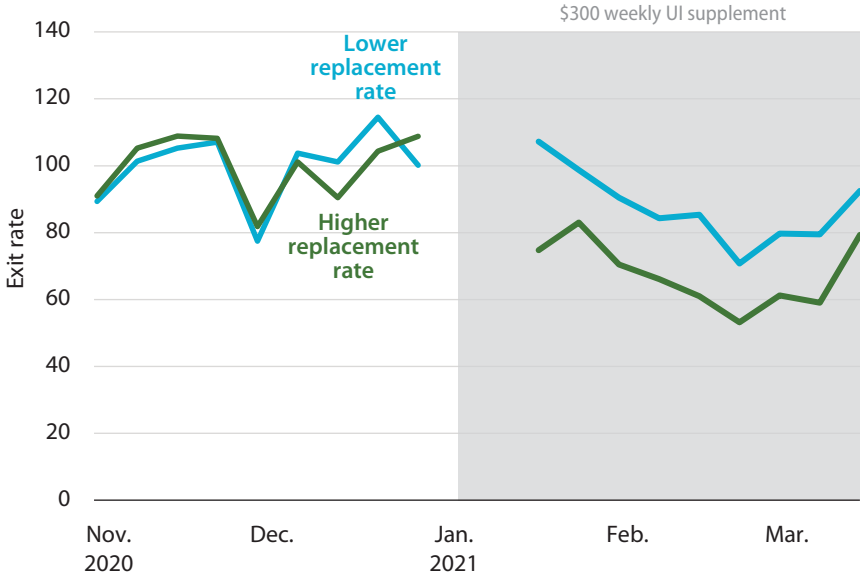


Ganong, Greig, Noel, et al. (2021) deploy two complementary research designs to estimate causal effects of the supplements on job finding. They first compare the magnitude of the change in exit rates when the UI supplement policy changes versus when it does not. They find a larger change in exit rates when the UI policy changes, but the effects are small. Second, they examine changes in UI exit rates when supplements ended and started, and compare the differences in those changes between workers with high- versus low-income replacement rates with the supplement (i.e., lower- versus higher-wage workers, respectively).¹⁰ The rationale is that the supplements represented a larger proportional benefit change for lower-income workers who were thus

10. Ganong, Greig, Noel, et al. (2021) use a difference-in-differences approach comparing fixed groups of UI recipients over time with high- versus low-income replacement rates with the supplement. The key identification assumption is that job finding would have trended similarly between the two groups in the absence of the supplements, even if there were fixed differences between the groups. The authors validate those identifying assumptions by evaluating pre-trends, which are consistent between the two groups, and also controlling for industry, state, and age in order to focus on groups that are as similar as possible other than replacement rates.

FIGURE 2.11

Exit Rate to New Job Relative to November/December Group Average



Source: Ganong et al. 2022.

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more affected by when the supplements were turned off and on. Indeed, they observe larger changes in the job-finding rate among low-income workers, who had higher-income replacement rates with the supplement (Figure 2.11).

Together, these research designs suggest that UI supplements decreased the new job-finding rate by just 0.6 to 1.1 percentage points. They imply a duration elasticity of unemployment with respect to the level of benefit of around 0.1, which implies that doubling the level of UI benefit payments is associated with only a 10 percent increase in the duration a worker remains unemployed. As discussed in Ganong, Greig, Noel, et al. (2021), these duration elasticities are significantly lower than 18 prior studies.

Ganong, Greig, Noel, et al. (2021) estimate that the \$600 supplement reduced employment by less than 0.8 percent and the \$300 supplement reduced employment by less than 0.5 percent. This implies that in the absence of the \$600, an additional 840,000 unemployed workers would have returned to employment by July 2020. Without the \$300 supplement, employment would have been 570,000 higher in August 2021. Looked at a different way, in the absence of the

\$600 supplements, the shortfall of employment relative to February 2020 levels would have been roughly 12.1 million instead of 13.0 million in July 2020. In August 2021 the employment shortfall would have been 4.5 million without the \$300 supplement compared to 5.0 million workers. These changes are small relative to overall pandemic fluctuations in employment, and Ganong, Greig, Noel, et al. (2021) show that they are also small relative to predictions of the labor supply disincentive effects from pre-pandemic evidence.

Notably, several other studies using a variety of data sources, including the Census Household Pulse Survey, similarly concluded that higher income replacement rates from the UI benefit supplements yielded minimal if any aggregate impacts on employment (e.g. Dube 2020, 2021; Finamor and Scott 2021). Thus, although generous UI was initially a prime suspect in the case of the missing workers, the available evidence suggests that generous UI was not in fact a major driver.

Another question is whether the extended duration of UI benefits disincentivized people from returning to work. Here the best evidence from the pandemic comes from studies that evaluated the impacts of UI expiration among the 26 states that opted to end federal UI benefits early (in June and July instead of September 2021). When those states ended benefits early, roughly two-thirds of UI recipients lost UI benefits entirely, and the remaining one-third lost the \$300 weekly supplement but continued to receive regular UI benefits. Coombs et al. (2021), leveraging administrative data from Earnin on a sample of low-income workers, find relatively small impacts of the early termination on job finding: ending pandemic UI increased employment by only 4.4 percentage points compared to the 35 percentage points decline in UI reciprocity among workers who were unemployed, with most of the impact on employment coming from the workers who lost their benefits entirely instead of those who simply lost the \$300 weekly supplement. The small work disincentive effects detected are notable in light of the lower-income sample of workers, who, as Ganong, Greig, Noel, et al. (2021) show, were generally more responsive to UI policy changes. Those authors find that the effect of the policy change on labor supply increased employment by 35,000 in June and 135,000 in July. But terminating expanded benefits in June and July instead of September depressed employment gains in August by 25,000. Those estimates imply that, if benefits had remained in place in all states through September, the unemployment rate would have been 4.8 percent in August, as opposed to 4.5 percent in reality.

Data from representative surveys show slightly larger effects of benefit termination on employment, albeit with wider confidence intervals. For example, a Goldman Sachs (2021) analysis of the household survey of the DOL July jobs report concluded that benefit expiration increased the job-finding rate of jobless workers by 6 percentage points in July 2021 over an average of 27 percent, driven entirely by a 9-percentage-point increase in job finding among those who

lost all UI benefits, and did not just lose the supplement.¹¹ They estimate that, if benefits had expired nationwide, July job growth would have been 400,000 higher at more than 1.3 million, albeit with a wide confidence interval of 25,000 to 650,000. The authors note that, in fact, there was no observed aggregate increase in employment in the states that ended UI early due to the fact that there were offsetting decreases in labor force participation, suggesting that many workers have left the workforce for nonfinancial reasons and are less influenced by the end of UI benefits. Holzer, Hubbard, and Strain (2021) using Current Population Survey (CPS) data estimate that the flow of unemployed workers into employment increased by 14 percentage points following early termination of benefits in June and July of 2021, and that the unemployment rate in July and August 2021 would have been 0.3 percentage points lower had all states opted to terminate benefits in June, on par with estimates from Coombs et al. (2021).

Stepping back, it is helpful to calibrate the relative magnitudes of the impacts of UI benefits on spending and income. Coombs et al. (2021) helpfully compare in dollar terms the large spending drops against the employment gains occurring in a number of states that turned off expanded benefits in the summer of 2021, when labor markets appeared relatively tight. Cumulatively, over the eight weeks after UI benefits expired, jobless workers lost \$1,385 in UI benefits from both supplements and terminations. Over those eight weeks, aggregate earnings increased for workers by just \$93, offsetting only 7 percent of the loss in benefits. As a result, spending fell by \$678 (20 percent), as the loss of benefits led to large immediate declines in consumption. Put simply, the work disincentive effects from expanded UI benefits were small compared to not only the size of the aggregate pool of missing workers, but also the spending boost they generated for jobless workers.

Why were employment effects from expanded UI benefits so much lower during the pandemic than previous estimates? Are those effects unique to the pandemic or should they encourage policymakers to repeat unemployment expansions in the next recession? We discuss five classes of explanations: labor demand, high household liquidity, high recalls, child-care constraints, and health-care concerns.

First, as discussed above, work disincentive effects are likely to be smallest in a recession, perhaps because labor demand is low (Kroft and Notowidigdo 2016; Landais, Michaillat, and Saez 2018; Mercan, Schoefer, and Sedláček 2020). This could have been a factor in the early part of the pandemic in 2020 amid business closures and shutdowns. This line of reasoning implies that we might have seen a larger work disincentive in 2021, when labor market demand was strong. However, as summarized above, Dube (2021) and others estimate small work disincentive effects in the summer of 2021 when UI expansions

11. Goldman Sachs (2021) relies on individual-level data from the household survey of the Department of Labor July 2021 employment report.

were expiring, suggesting low labor demand cannot account for the low work disincentive effects.

Second, increased household liquidity could in theory have slowed UI recipients' return to work, but research during the pandemic suggests that this effect was small. Prior research finds that part of the disincentive effect of UI arises from increased liquidity. For example, Chetty (2008) documents much smaller causal impacts of UI benefits on exit rates among benefit recipients who are not liquidity constrained. This research is relevant for understanding the time period during the pandemic when liquidity was elevated, due in part to a series of policy interventions that included UI supplements, three rounds of stimulus payments, debt forbearance programs, and advanced child tax credits. As shown above in figure 2.4, as of the end of 2021 cash balances were still significantly elevated above pre-pandemic baselines, to the tune of 65 percent for lower-income families (Greig, Deadman, and Sonthalia 2022). However, Ganong et al. (2022) find that incorporating measures of liquidity have little impact on the disincentive estimates. This suggests that higher liquidity did not account for the low work disincentive effects during the pandemic, and that other forces must have been at play.

Third, as documented above, recalls to prior employers made up a large share of reemployments among jobless workers—as high as 70 percent of all UI exits in the summer of 2020, compared to 20 percent in pre-pandemic times (Ganong, Greig, Liebeskind, et al. 2021). (The recall rate does not usually rise and sometimes falls in recessions.) Insofar as the decision to recall sits with the employer, some workers might have been waiting to be recalled to their old jobs, and so their search for new jobs could have been less impacted by financial incentives.

Fourth, school and daycare closures or reduced hours, frequent quarantines, or an unwillingness to use care services because of the threat of virus exposure, may have caused some workers to be hesitant or unable to accept new jobs due to increased care responsibilities. For example, as of summer 2021 visits to early child-care centers were still down by roughly 20 percent relative to pre-pandemic levels (Cascio 2021).

Finally, the pandemic might reduce job search above and beyond a normal recession due to the health risk. It might be more difficult to search for a job during a public health emergency, employers could be recruiting for positions with above-average health risk, or workers may be less willing to return to work given the health risk.

In short, the more plausible explanations are those that are potentially unique to the pandemic. However, empirical work to date offers no smoking gun evidence that definitively accounts for the lower work disincentive effects during the pandemic. Perhaps in light of this, historical publication bias favoring empirical results that document larger disincentive effects might warrant consideration as a sixth possible explanation.

The PUA Program Was Successful in Increasing Access to Benefits and Insuring Income Losses for Workers on the Margins of the Labor Market without Clear Evidence of Greater Work Disincentive Effects

The PUA program marked a significant expansion in the UI eligibility framework. PUA provided benefits to individuals who were not otherwise eligible for regular UI benefits, including the self-employed, those seeking part-time employment, and individuals lacking sufficient work history. It was generally not payable to individuals who were able to telework or who were receiving paid leave. It did make eligible individuals who were unable or unavailable to work for a variety of COVID-19 related reasons, including instances where the worker or family member was diagnosed with COVID-19, had primary caregiving responsibility for a member of the household as a result of COVID-19, or became the primary source of income if the primary breadwinner died due to COVID-19. It remains unclear exactly which types of PUA eligibility were most common. DOL data (DOL n.d.) suggest that the share of eligible PUA claimants who were self-employed was 41 percent in 2020 and 49 percent in 2021. Bell et al. (2021a) report that most PUA recipients in California were self-employed. In order to evaluate work disincentive effects of this program it is critical to understand the extent to which individuals qualified for PUA for reasons unrelated to work.

Other key design questions were whether and how to verify income and set benefit levels. As mentioned above, PUA represented a meaningful departure in the policy framework insofar as it did not require employer verification of prior earnings or eligibility, but instead relied on the applicant to provide documentation.¹² PUA claims were meant to document ineligibility for regular UI on the application. Many states did so by requiring workers to first apply for and then be denied regular UI benefits before applying for PUA.

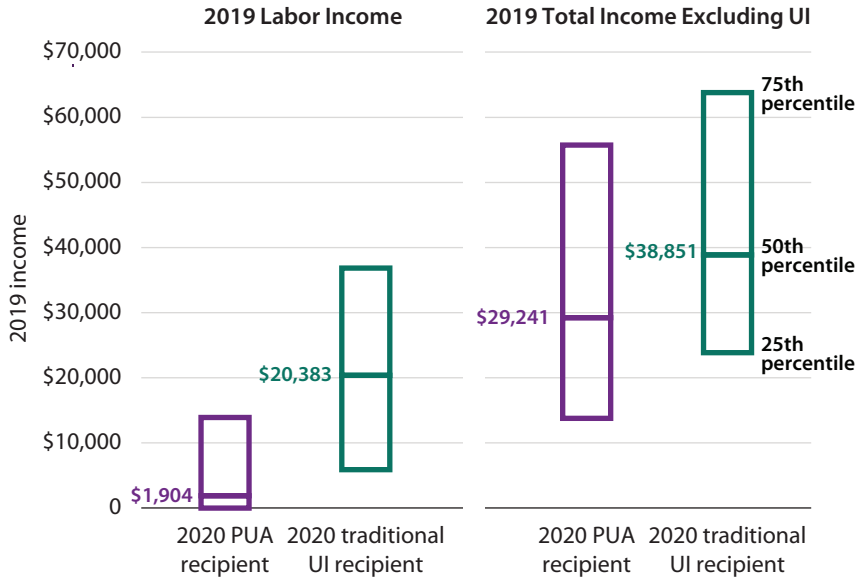
As for benefit levels, rather than receive a flat benefit level, PUA recipients were required to provide documentation to verify their income. Weekly benefits were set at 50 percent of prior weekly income, subject to the state minimum benefit level. All told, the PUA program dramatically expanded UI eligibility, representing roughly 40 percent of total UI claims.

Who benefited from this program and what was its impact? There is little empirical evidence on the impact of PUA. The JPMCI data were able to distinguish between PUA and regular UI in a handful of states that paid the benefits via separate channels (i.e., they carried different transaction descriptions when

12. Initially, eligible individuals were required only to self-certify that they could not work due to a COVID-19 related reason. The CARES Act increased documentation requirements, requiring applicants to provide proof of employment, self-employment, or a qualifying job offer (Pandemic Response Accountability Committee 2021).

FIGURE 2.12

Distribution of 2019 Income for 2020 Unemployment Insurance Recipients, by Program



Source: Greig, Sullivan, and Anderson et al. 2022.

Note: Total Income includes all inflows into checking account excluding UI payments themselves. Sample includes those who received any UI or PUA payments in 2020.



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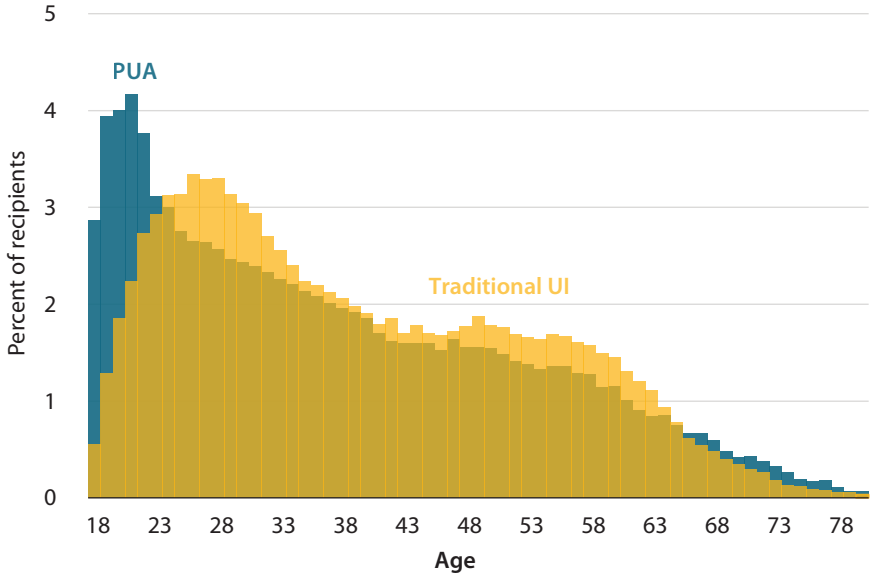
directly deposited into bank accounts).¹³ The California Policy Lab also was able to distinguish between regular recipients and PUA recipients in administrative California state data. We summarize key insights from those two sources of data.

PUA disproportionately benefited lower-income families and those who were more marginally attached to the labor market (Greig, Sullivan, and Anderson et al. 2022). We offer three illustrations of this statement. First, JPMCI documented that PUA recipients had lower direct deposit labor income—characteristic of more formal employment arrangements—and also lower total income in 2019 than did traditional UI recipients (Figure 2.12). Second, the JPMCI data also show that the PUA program disproportionately benefited both younger workers with more-limited work histories and older, potentially

13. These states are Ohio (45.3 percent of sample), New Jersey (47.6), Massachusetts (3.6), West Virginia (3.2), Arkansas (0.3) and Vermont (0.2). According to DOL data (DOL n.d.c), these states account for roughly 5 percent of total initial claims nationally.

FIGURE 2.13

Age Distribution of Unemployment Insurance Recipients, by Program



Source: Greig, Sullivan, and Anderson et al. 2022.

Note: Distribution of age for UI and PUA recipients in 2020. Recipients include those who had age information associated with an account in January of 2020 and those who received any UI or PUA payments in 2020.

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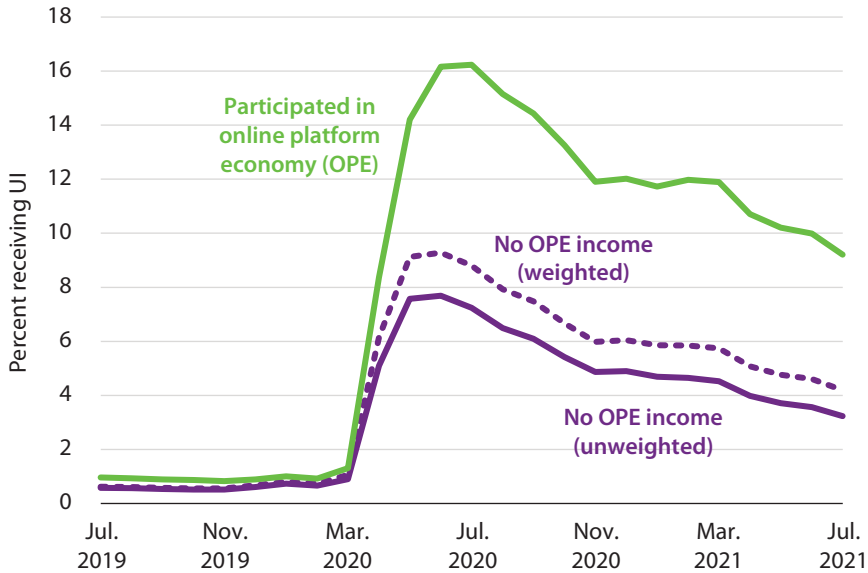
semi-retired, workers (Greig, Sullivan, and Anderson et al. 2022; Figure 2.13). This was also evident in California (Bell et al. 2021a).

Third, contingent workers saw a larger increase in UI receipt during the pandemic (Figure 2.14). For example, families who in 2019 had earned income from the Online Platform Economy (OPE), a subset of contingent work facilitated by online platforms such as rideshare apps, were much more likely to receive UI in 2020 and 2021 than those without such income (Greig and Sullivan 2021). Prior to the pandemic, OPE workers were 61 percent more likely to receive UI in the last six months of 2019 than were workers who had not earned platform income. During the pandemic this increased to 138 percent for the last six months of 2020, suggesting a larger proportional increase in UI receipt among OPE workers than non-OPE workers.¹⁴ The PUA program

14. We see similar results after reweighting non-OPE workers to match the joint age-income distribution of the OPE sample: OPE workers were 50 percent more likely to receive UI in

FIGURE 2.14

Share of Workers Who Received Unemployment Insurance, by Online Platform Economy Participation



Source: Greig and Sullivan 2021.

Note: Online platform economy (OPE) sample is all those who earned OPE income in 2019, while the non-OPE sample is those who never earned OPE income in JPMCI data. Weighted non-OPE sample is reweighted by age-income bins to match the joint age-income distribution of the OPE sample.

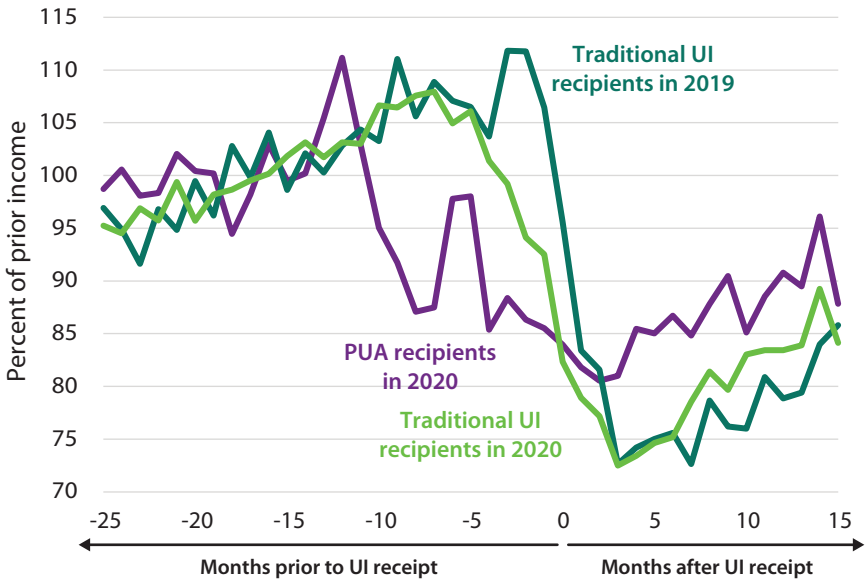


provided meaningful income insurance that would not have been covered by the regular UI program. Delays in UI payments make it difficult to know exactly when workers experienced job loss and the magnitude of their income loss. In fact, by the time they got their PUA payments, some PUA recipients might have already returned to work. Notwithstanding these measurement challenges, Figure 2.15 shows the change in workers' total income (excluding UI benefits) around the time of first benefit receipt (Greig, Sullivan, and Anderson et al. 2022). As a reference point, 2019 UI recipients experience a sharp 30 percent

the second half of 2019 compared to 94 percent in the second half of 2020. In the absence of the PUA program, it might seem surprising that OPE workers were more likely to receive UI than non-OPE workers, but Farrell, Greig, and Hamoudi (2019) document that workers turn to the OPE to generate income when they involuntarily lose a job, as identified by UI receipt.

FIGURE 2.15

Percent of Prior Income Around the Week of the First Unemployment Insurance Receipt, by Program



Source: Greig, Sullivan, and Anderson et al. 2022.

Note: Average weekly total income excluding unemployment payments for UI recipients in 2019 and 2020 and PUA recipients in 2020. Weekly time-series is normalized by the average of total income from between 25 and 9 weeks prior to receiving any UI payments in or after April 2019 and those who received any UI or PUA payments in 2020.

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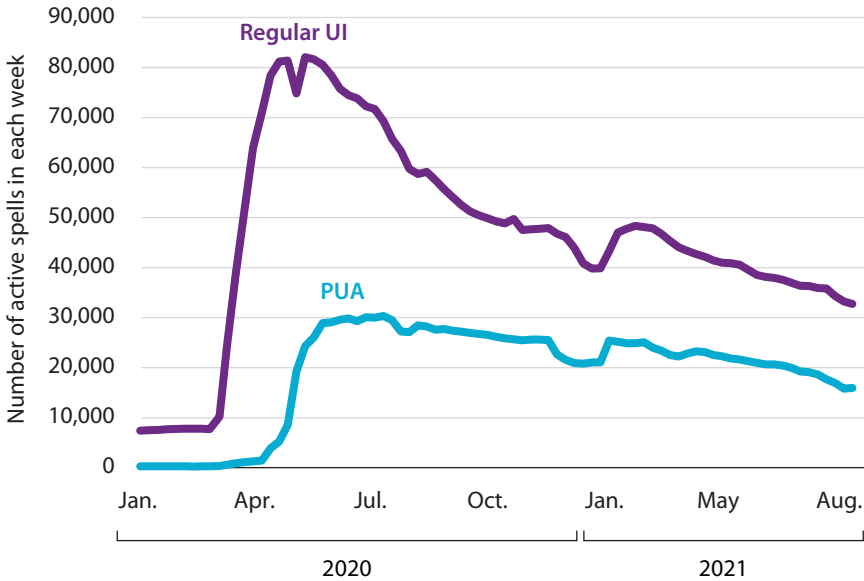


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drop of income right before they get their first UI payment. This lines up with workers losing their income one or two weeks before their first UI payment. In 2020, when UI payments were more likely to be delayed, there is a 30 percent drop in income but the drop is not as sudden because some workers had been laid off for several weeks before receiving their first UI payment. PUA recipients' income drops about 20 percent from peak to trough, but there is no steep drop off as with the UI recipients. This is what we would expect if some workers experienced their income loss six, seven, or eight weeks before benefit receipt, which in the aggregate creates a much more gradual decline in income. Moreover, if some workers returned to work before receiving their first benefits, this would effectively hide the total extent of their income loss. Despite these various measurement problems, the data suggest that PUA did in fact compensate recipients for significant income loss.

FIGURE 2.16

Regular Unemployment Insurance and Pandemic Unemployment Assistance Active Spells, January 2020–August 2021



Source: Greig, Sullivan, and Anderson et al. 2022.

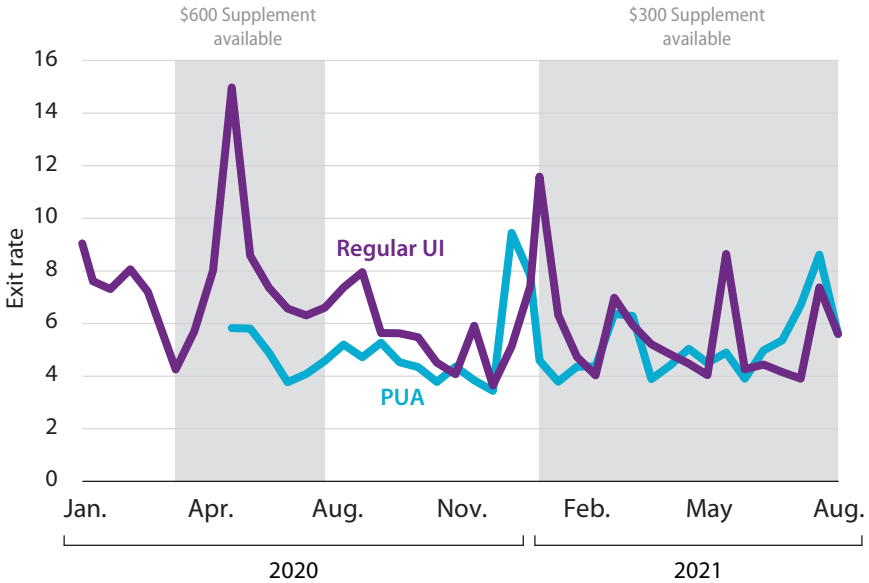


Next, we turn to the question of whether PUA recipients exhibited greater work disincentive effects than regular UI recipients. In contrast to causal evidence summarized above for all UI recipients, here the evidence is purely descriptive. On the one hand, Bell et al. (2021a) document that PUA recipients in California were more likely to experience long-term unemployment than were regular UI recipients: as of mid-February 2021, 59 percent of PUA recipients compared to 44 percent of regular UI recipients had received benefits for 26 weeks or more. Additionally, Greig, Sullivan, and Anderson et al. (2022) use JPMCI data to document that PUA claims fell more slowly than regular UI claims, particularly in 2020 (Figure 2.16).

However, decomposing these total claims into starts and exits reveals significant churn in the population receiving PUA with new workers starting and exiting the PUA program in any given week, even when supplements were available. In other words, one reason for the slower fall in PUA claims is that new workers continued to enter the PUA program, even as others were exiting.

FIGURE 2.17

Exit Rates from Regular Unemployment Insurance and Pandemic Unemployment Assistance Programs, January 2020–August 2021



Source: Greig, Sullivan, and Anderson et al. 2022.

Note: The spikes in exit rates that occur in May for regular UI recipients, and in December for both regular UI and PUA recipients, reflect volatility associated with administrative changes in the program. The May survey coincided with the beginning of PUA: this suggests that some regular UI recipients may have transitioned to PUA. The spikes in the last two weeks of December and the first two weeks of January reflects a surge in exits when PEUC and PUA temporarily lapsed.



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Figure 2.17 compares the exit rate out of regular UI versus PUA throughout the pandemic, which more narrowly homes in on potential work disincentive effects. Notably, the PUA exit rate is slightly lower than the exit rate for regular UI in 2020, but hovers around 5 percent throughout the time when the \$600 supplement was available. Exit rates are comparable between regular UI and PUA recipients in 2021, when the \$300 supplement was available.

One possible account for the slightly higher exit rate among regular UI recipients in 2020 is that, as documented in figure 2.10, recalls accounted for a large share of exits in 2020. Recalls, or job restarts, could disproportionately reflect regular UI recipients whose employers can rehire past employees and who, in theory, have an obligation to accept the recall or risk losing UI

benefits. PUA recipients, in contrast, include a range of different worker types and circumstances, including contingent workers, self-employed workers, and caregivers. Their ability or choice to return to work may lie more in their own hands, and benefit receipt was not subject to third-party verification. Put differently, that so many PUA recipients exited the program signals extraordinary levels of voluntary compliance with PUA eligibility guidelines on the part of claimants.

In summary, PUA dramatically expanded UI eligibility to workers at the margins of the labor force, offsetting meaningful income losses. Although PUA recipients were more likely than regular UI recipients to experience long-term unemployment, UI exit rates were generally comparable between the two programs, even when the supplements were available. This leads to the tentative conclusion that work disincentive effects were not significantly larger for PUA recipients than they were for regular UI recipients. Given the scarcity of data on PUA recipients, these conclusions remain uncertain.

In the next section we discuss administrative challenges, some of which were particularly acute in the PUA program.

Administrative Shortcomings and Red Tape in Serving the Surge in UI Demand Were Costly in Terms of Consumer Welfare and Government Expense

As economists, we tend to focus on the economics of policy but not enough on the plumbing of policy. In a macro sense, the UI plumbing worked well and improved over the course of the pandemic. In 2020 alone, states dispensed \$572 billion in federal and state UI funds to 31 million jobless workers (BEA 2022a; DOL n.d.b). States stood up the entirely new PUA program and began making payments within a month; states typically are given two years to conform to new policies.

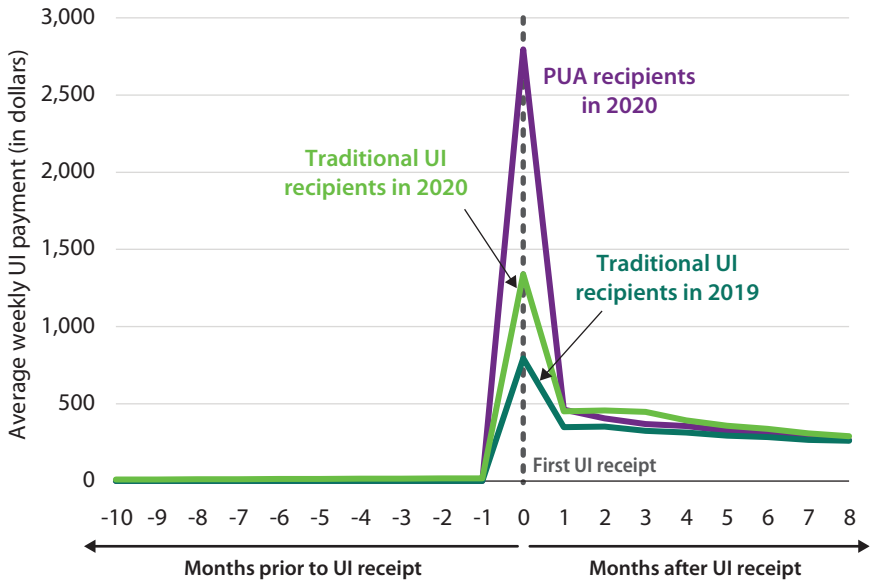
That said, a variety of administrative challenges hampered the effectiveness of UI during the pandemic and are costly in terms of consumer welfare. The time to address them is now, when there is less pressure on state UI systems as the U.S. recovers from the recession. We focus on four key administrative issues: delays in UI payments, red tape, disparities in UI reciprocity, and an increase in overpayments.

Issue 1: Delays in UI Payments

There were substantial delays in UI payments. States had to stand up an entirely new program in the case of PUA. DOL's inspector general documents that, from the passage of the CARES Act to the first payment of a claim, it took 38 days for the PUA program and 25 days for the FPUC program (DOL 2021). However,

FIGURE 2.18

Average Weekly Unemployment Insurance Payments Received Around the Week of First UI Receipt, by Program



Source: Greig, Sullivan, and Anderson et al. 2022.

Note: Recipients include those who received any UI payments in or after April 2019 and those who received any UI or PUA payments in 2020.



many UI recipients experienced even longer delays. Novello and Stettner (2020) estimated that the share of initial 2020 claims that had been paid stood at just 14 percent by the end of March, 47 percent by the end of April, and 56 percent by the end of August.

Greig, Sullivan, and Anderson et al. (2022) document payment delays by comparing the size of the first UI payment to subsequent weekly payments (Figure 2.18). From the first payment size, one can infer how many weeks' worth of back pay the worker received in their first benefit payment, indicating how many weeks the worker waited to receive their first payment. In 2019, when the UI system was not overloaded, delays were fairly short, and workers' first UI checks contained roughly two weeks' worth of payments. In 2020, when the UI system was heavily burdened, initial checks had about three weeks' worth of payments. In contrast, the PUA system had much larger initial payments corresponding to delays of six or seven weeks. Bell et al. (2021c) similarly

document significant delays in UI benefit receipt in California, especially for PUA recipients.

These delays were consequential in terms of consumer welfare. As Farrell et al. (2020) show, delays in UI payments created economic hardship for the recipients: workers who had to wait a month longer for their benefits cut their spending by 10 percentage points more than workers who waited less than a month. DOL (2021), summarizing press reports, described the impacts of UI delays on claimants as including an inability to pay bills, increased credit card debt, high interest rate borrowing, depleted savings, food scarcity, and homelessness.

Issue 2: Red Tape

A second issue are administrative seams between different UI programs, or red tape, at the end of claimants' benefit year. Bell et al. (2021c) and Ganong, Greig, Noel, et al. (2021) document a huge surge in UI exits in March and April of 2021, when, in certain states, a large number of UI recipients were reaching the end of their benefit year and had to file a transitional claim in order to continue receiving state UI benefits (Figure 2.19). This suggests that the need to recertify lowered benefit receipt among many eligible workers.

Issue 3: Disparities in UI Reciprocity

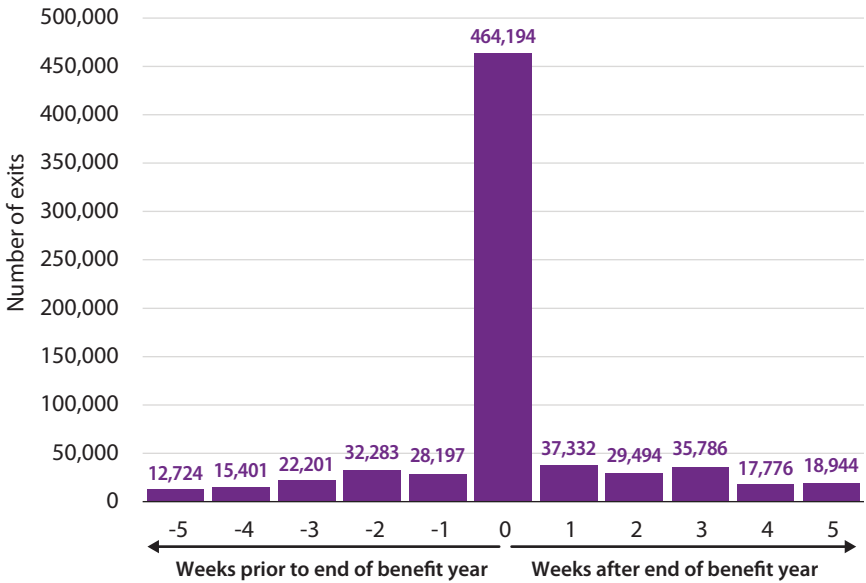
A third issue is continued disparities across the states in UI reciprocity rates, or the ratio of the number of UI recipients to the number of unemployed workers. Prior to the pandemic, UI provided coverage to few unemployed workers. In 2019, nationally the UI reciprocity rate stood at just 28 percent, ranging from 59 percent in New Jersey to just 10 percent and 11 percent in North Carolina and Florida, respectively.¹⁵ Low UI reciprocity stems from shorter UI durations (e.g., 13 weeks in Florida during normal times compared to 26 weeks in most states) and more stringent eligibility screens. Reciprocity rates are noticeably lower in states with higher shares of Black populations (Bell et al. 2021d; O'Leary, Spriggs, and Wandner 2021).

During COVID, the share of unemployed workers receiving UI benefits increased dramatically, largely due to extended benefit duration through PEUC and the increase in eligibility through the PUA program. The share of unemployed workers on regular UI (excluding PUA) increased from 28 percent in 2019 to 78 percent in 2020 and 37 percent in 2021 (DOL n.d.d., sec. A.12, A.13). But disparities in access and cross-state variation persisted. Reciprocity rates ranged from 134 percent in Vermont (and more than 100 percent in six other states) to just 42 percent in South Dakota and 44 percent in North Carolina (DOL

15. Data are from the DOL Unemployment Insurance Chartbook (DOL n.d.d., sec. A.12, A.13).

FIGURE 2.19

Number of Claimants Exiting Regular Unemployment Insurance by Number of Weeks Until End of Benefit Year, March 7–May 22, 2021



Source: Bell et al. 2021c.

Note: Includes claimants for Regular UI only, where an exit is defined as the last payment before a gap of two or more weeks without a certification for benefits. Claimants who certify for those weeks retroactively and those who transition into the PUA program are not counted as exits.



n.d.d., sec. A.12, A.13). Reciprocity rates exceeding 100 percent in some states are unsurprising in light of the fact that eligibility for regular UI was expanded to include workers who would normally not be considered unemployed: for example, work search requirements were waived during the pandemic.¹⁶ In addition, partial UI claims, duplicate claims, improper payments, and payments for multiple weeks of benefits could all have contributed to claims exceeding the number of unemployed (Bell et al. 2021d; Cajner et al. 2020).

Disparities in access also remained across socioeconomic categories. Lower-educated, lower-income, and Black workers, communities with less

16. For this reason, Bell et al. (2021d) argue in favor of the more expansive U-6 definition of unemployed in the reciprocity rate denominator.

broadband access, and communities with the youngest and oldest applicants all exhibited lower reciprocity rates (Bell et al. 2021d; Bitler, Hoynes, and Schanzenbach 2020; Carey et al. 2021). Bell et al. (2021d) document that correlations between these demographic characteristics and reciprocity rates or first payment rates did not attenuate during the pandemic, and in some cases worsened. Thus, although reciprocity rates increased dramatically on the whole, it is not clear that the expansions in eligibility and duration improved equity in access to the program across socioeconomic characteristics.

Issue 4: Overpayments

A fourth issue is the increase in UI overpayments, or fraudulent claims, during the pandemic. Prior to the pandemic, according to the DOL (n.d.c.), UI overpayments, administrative errors, and fraud accounted for roughly 10 percent of claims. Applying the 10 percent overpayment rate from prior years, DOL (2022) projected that overpaid claims could ultimately total \$87 billion. However the most recent estimates at [PaymentAccuracy.gov](https://www.paymentaccuracy.gov) suggest that overpayments increased not just in dollar terms but also in percentage terms: the overpayment rate during the pandemic is 18 percent for fiscal year 2021. For the PUA program, DOL data (n.d.d.) similarly indicate an overpayment rate of 19 percent for 2021. A few states are on record reporting larger improper payment rates, for example accounting for as much as 27 percent of benefits paid in Arizona (Christie 2021). Certainly, concerns of fraud appeared frequently in the press and were a salient touchpoint among policymakers (Crapo et al. 2021). The full toll of fraud remains unknown and states will likely continue to find and recover improper payments for some time.

Although 18 percent represents a near doubling of the improper payment rate from pre-pandemic years, 82 percent of claims were paid out correctly. This represents an extraordinary level of voluntary compliance given that, in service of speed, verification activities and requirements were relaxed during the pandemic. In addition, a significant share of overpayments represent a claimant or agency error rather than fraud. As documented by DOL (2021), during the pandemic many states did not perform activities to detect and recover improper payments, such as cross-matching claims with various state and interstate data sets, that would identify new hires, death records, incarcerated individuals, and individuals also benefiting from UI in another state. At the same time, organized crime associated with data breaches and identity theft increased the threat of fraud by foreign groups. In sum, improper payments likely increased due to both weaker agency control activities in the face of peak volume claims and an increase in crime involving identity theft.

Implications for Future UI Policy

COVID-19 led to the largest UI policy experiment since the advent of UI in the 1930s. Prior to the pandemic, regular UI replaced just 50 percent of earnings in most places, and, as evidenced in low reciprocity rates, many unemployed workers did not receive UI benefits. Historically, the primary UI policy response to a recession was to extend the duration of benefits because people might face longer-term unemployment. The COVID-19 pandemic gave policymakers a reason to temporarily set aside concerns of work disincentives and paying people not to work.

What happened when the U.S. gave more people more money, and for longer? UI coverage increased a lot, reaching workers who had historically been left out of the UI system, and boosting the spending of all UI recipients. But there were some comparatively smaller losses in efficiency, in the form of work disincentive effects and UI overpayments. What are the implications of these conclusions for designing policy for the future, even as federal expansions have expired? We highlight two key points. First, UI benefit expansions covered labor income risk not insured by regular UI, warranting consideration of adopting these more permanently or as automatic countercyclical stabilizers. Specifically, we discuss potential approaches to UI supplements and eligibility expansions, the two key expansions that were novel to this pandemic. Second, stronger administrative systems are necessary for delivering timely and accurate UI benefits at scale in a worker-centered, recession-ready way.

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UI Supplements

With a typical replacement rate of 30–50 percent, regular UI cannot sustain families over extended periods of time. While that rate may be sufficient during normal labor market conditions, temporary supplements might be warranted, especially during recessions when the risk of long-term unemployment is high. Regular UI replacement rates in the U.S. are very low by international standards (Gruber 2005), and arguably offer inadequate income support. As Bell et al. (2021b) document, without benefit supplements, the average weekly benefit of \$332 was just 56 percent of California’s threshold for “Very Low Income.”

Given uncertainty about why work disincentive effects were so much lower during the pandemic than would have been predicted by historical evidence, it could be reasonable to take a conservative approach to supplements. Replacement rates of 60–70 percent would be on par with international standards (Gruber 2005). Supplements could be adjusted according to labor market conditions: UI replacement rates could be set higher during the trough of a recession while labor demand is low, as a means of boosting consumption, and then

tapered as labor demand recovers. This has the added advantage of allowing for geographic specificity in supplement levels, insofar as labor market conditions and recovery trajectories can vary widely across regions.

How should supplements be structured? Should they be flat or tailored to a target income replacement rate? Although flat supplements were highly progressive, flexible supplements that target a replacement rate below 100 percent likely create fewer inefficiencies in terms of work disincentive effects, which were larger among lower-income workers during the pandemic. In addition, flexible supplements below 100 percent replacement offer greater horizontal equity by ensuring that UI recipients are not better off than similarly paid employed workers. In addition, they could target replacement rates that differ not only over time but also across income groups, as proposed by Dube (2021). As we discuss below, flexible supplements require a stronger IT and administrative backend, which is therefore necessary for sound UI policy.

Eligibility Expansions

PUA mitigated labor income risk for workers who were more marginally attached to the labor force, with no clear evidence of increased work disincentive effects. This potentially warrants UI reform to broaden eligibility more permanently or to create a second-tier level of income support for unattached workers. For example, others have advocated expanding eligibility to workers with part-time, seasonal, or otherwise low or volatile incomes (Dube 2021; Furman 2016). The proliferation of more-modern means of verifying income streams (e.g., apps like Earnin that provide early access to wages prior to payday) could make these eligibility expansions more technically feasible.

Conceptually, versions of these programs already exist. During COVID, the share of UI beneficiaries receiving partial UI benefits increased to almost 20 percent in California (Bell et al. 2020a).¹⁷ One way to expand eligibility is to relax pre-unemployment earnings requirements for UI or to increase the amount of income that is disregarded when calculating partial UI weekly benefit amounts, as advocated by Hedin, Schnorr, and von Wachter (2020). One caveat, however, is that simply relaxing earnings requirements could have the effect of increasing benefit levels without meaningfully increasing the number of people who receive benefits. Thus, a true expansion of eligibility in terms of the categories of workers who are eligible might still be needed to replicate the expanded coverage achieved through the PUA program.

The COVID-19 virus and its impacts on the availability of care also made other good cause circumstances—such as a health event and caring for dependents—more salient as part of a potentially more enduring UI eligibility

17. Workers earning less than three quarters of their prior weekly wages due to reduced hours qualify for partial UI.

framework. For example, the Omicron surge in January 2022 resulted in disruptions in care, widespread quarantines, and a return of virtual school or school cancellations. According to the Census Household Pulse Survey, the number of families who reported not working due to having COVID-19 or caring for someone with COVID-19 increased from 3 million in the first half of December 2021 to more than 8 million between December 29, 2021, and January 10, 2022 (U.S. Census Bureau n.d.). With PUA no longer in place in 2022, however, workers had no means of receiving income support if they lost income as a result of these circumstances.

A key challenge that states faced during the pandemic is that they were standing up an entirely new program amid peak claims volume. Thus, keeping a permanent version of PUA has the added important benefit of allowing states time to establish protocols and enhance systems to accommodate other populations of uncovered workers in non-peak times.

Stronger administrative systems are necessary for delivering timely and accurate UI benefits at scale in a worker-centered, recession-ready way. In UI administration, there is always a trade-off between speed and accuracy. If a UI agency approves all claims immediately, then there will be a high rate of overpayment and fraud. However, if a UI agency spends a long time checking every claim, then legitimate UI claimants will not be able to access their benefits when they need them most. In an economic downturn, this trade-off is even more acute: UI plays a key fiscal stimulus role, and its ability to deliver vast sums of relief quickly is critical to mitigating a recession. Yet states faced delays in processing the enormous surge in UI claims and standing up the new PUA program. In response, many states relaxed third-party verification, resulting in an increase in improper payments.

This trade-off between speed and accuracy does not have to exist. Investment in technology can expand the frontier of what is possible, enabling states to be more accurate in making payments at a given speed or to make payments faster while maintaining accuracy. States need to approach their UI delivery infrastructure as if it were economic disaster preparedness, much the same way FEMA plans for aid delivery during a hurricane. In fact, the federal government helps with natural disaster response by providing not just funding, but also operational and delivery support. As such it seems reasonable for the federal government to play a more active role in responding to labor market disasters, rather than relying on states to prepare and respond on their own. The fact that FEMA money was enlisted to pay for temporary \$300 supplements in the fall of 2020 could serve as a potentially helpful precedent for more federal intervention and support. This is a way for the federal government to quickly authorize additional funding through executive orders when legislative action might take longer.

More generally, the federal government could provide a technology and data infrastructure that could enable not only flexible benefit levels set at a target income replacement rate but also stronger, more seamless eligibility

verification and fraud prevention. Specifically, as proposed by Dube (2021), the federal government could use available earnings data from both UI applicants and employer earnings data to automatically calculate benefit levels. As Simon-Mishel et al. (2020) document, fewer than half of states have modernized their UI systems. The COVID-19 crisis laid bare the consequences of these antiquated systems, which were a critical barrier to implementing a benefit supplement tied to prior earnings. During the pandemic the DOL’s inspector general, in its recommendations to reduce overpayments and fraud, advised state agencies to join and cross-check a number of data exchanges, but many states did not. Arguably the federal government could play a stronger role in cross-checking and third-party verification.

Modernization efforts are under way. The American Rescue Plan provided grant funding to states to partake in modernization efforts, and DOL is actively working with states and law enforcement agencies to prevent and counter fraud.

Further research is required to design optimal UI policy and administration, and there are still many open questions. For example, how much should optimal UI replacement rates and durations vary with underlying economic conditions? How do work and spending responses to changes in UI depend on expectations about the persistence of these changes? What can we learn from temporary policy changes when contemplating the effects of more-permanent changes to the UI system? How might agencies verify prior wages and income losses among self-employed individuals to determine eligibility and prevent fraud? Finally, which aspects of UI should be made permanent as a counter-cyclical automatic stabilizer versus leaving some aspects to legislative action?

The COVID-19 recession underscored the importance of answering such questions.

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The COVID-19 pandemic posed an extraordinary threat to lives and livelihoods. In the United States, the pandemic triggered a sharp downturn. Yet, the ensuing economic recovery was faster and stronger than nearly any forecaster anticipated due in part to the swift, aggressive, sustained, and creative response of U.S. fiscal and monetary policy. But when the next recession arrives, it most likely won't be triggered by a pandemic.

Recession Remedies examines and evaluates the breadth of the economic-policy response to COVID-19. Chapters address Unemployment Insurance, Economic Impact Payments, loans and grants to businesses, assistance to renters and mortgage holders, aid to state and local governments, policies that targeted children, Federal Reserve policy, and the use of non-traditional data to monitor the economy and guide policy. These chapters provide evidence and lessons to apply to the next recession.

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