

RESEARCH REPORT

# The Unemployment Insurance System in Two Recent Economic Downturns

**Lessons from the Great Recession and the COVID-19 Recession**

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# Executive Summary

The federal-state Unemployment Insurance (UI) system is a key form of social insurance in the United States and the primary program providing economic support to workers who lose earnings when they lose work or, in some instances, hours (Stone and Chen 2014). Even in tranquil economic times, the US labor market is dynamic, with millions of workers laid off each year and others displaced by technological advances or shifts in international trade (e.g., Acemoglu and Restrepo 2020; Autor, Dorn, and Hanson 2016; Davis and Haltiwanger 2014). In recessions, when more unemployed workers rely on UI benefits, the system becomes more crucial for workers and the economy (Landais, Michaillat, and Saez 2018). However, the UI system also faces additional challenges during recessions as it comes under greater stress (e.g., Lee and Needels 2018).

Already in the 21st century, the UI system has had to contend with two economic crises of historic proportions. The first was the Great Recession, an unusually severe downturn from 2007 to 2009 precipitated by a financial crisis that led to a prolonged recovery. The second was the steep economic downturn in 2020 precipitated by the once-in-a-century public health crisis associated with the COVID-19 pandemic. In each instance, the UI system was required not only to quickly ramp up operations to serve many more unemployed workers, but also to rapidly implement program changes enacted by emergency federal legislation that made the UI program temporarily more generous.

To improve the operations of the UI system in future recessions, it is important to understand the challenges that the UI system and individual state UI programs faced in these recent recessions, as well as the approaches taken to meet those challenges. In this report, we document and analyze the experiences of the UI administrative system in both the Great Recession and the COVID-19 recession, with a focus on state UI programs. This report was prepared in part to satisfy the US Department of Labor's (DOL) commitment to the US Government Accountability Office (GAO) to collect systematic evidence on state experiences in the Great Recession and draw conclusions for informing future policy (GAO 2016). This report documents the economic context of each recession and the context of the associated policy responses, and synthesizes lessons learned from both experiences.

## Research Questions

The research questions for this study consider how the UI system responded to both labor force dynamics (e.g., unemployment) and policy dynamics (e.g., changes to the UI program). For each, the

study considers structural dimensions, more permanent or longer-term trends and changes, and factors that changed across the business cycle in each recession as well as in subsequent recoveries.

1. How did the UI system respond to the cyclical labor force dynamics in the Great Recession and the COVID-19 recession? How did states respond to staffing, financing, and other administrative pressures created by the increasing number and duration of UI claims? How well did the program work to deliver benefits while under those pressures?
2. How did the UI system respond to the cyclical policy dynamics in the Great Recession and the COVID-19 recession? What challenges did those policy changes pose for state UI agencies? How well did benefit extensions and other emergency UI measures work? What were the implications for claimant experiences and outcomes, and for the effectiveness of UI as countercyclical policy?
3. What are the implications for UI of structural policy changes made during and since the Great Recession?
4. What are the implications for UI of structural labor force trends that continued to evolve since the Great Recession?

## Data and Methods

The primary data sources for this report fall into two categories. The first includes UI program and policy data and information, including the unemployment insurance COVID-19 pandemic response dashboard data previously referenced, additional data on state programs drawn from the DOL Comparison of State Unemployment Insurance Laws,<sup>1</sup> and other available data on pre-COVID-19 baseline program characteristics.<sup>2</sup> The second category is UI program administrative data (e.g., Employment and Training Administration [ETA] series).<sup>3</sup> These series include data on claims levels,

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<sup>1</sup> “Comparison of State Unemployment Insurance Laws,” US Department of Labor, 2021, <https://oui.doleta.gov/unemploy/statelaws.asp>.

<sup>2</sup> The central additional data on pre-COVID-19 baseline program characteristics pertain to the status of IT modernization by 2019, which is coded on the basis of information from “NASWA UI Information Technology Support Center: Annual Report 2019,” NASWA, 2019, <http://itsc.org/Pages/UIITMod.aspx>.

<sup>3</sup> ETA reporting data are available and described at “Data Downloads,” <https://oui.doleta.gov/unemploy/DataDownloads.asp>.

timeliness of payments, and other information in standard state UI reports, along with program financial data on payments, trust fund balances, and borrowing.<sup>4</sup>

We supplement these data with data and information from three additional sources that the study draws on in more targeted ways:

- labor market and economic data drawn principally from standard Bureau of Labor Statistics surveys, including the Current Population Survey (CPS) and the Current Employment Statistics (CES) program, to provide the economic context to which the UI system was responding<sup>5</sup>
- qualitative information on state challenges, approaches, and experiences in the COVID-19 recession as reported in the literature or from public sources of information such as state program websites<sup>6</sup>
- information synthesized from research literature on both the Great Recession and the COVID-19 recession

This report also draws on, synthesizes, and incorporates findings from the research literature on UI in the Great Recession, as well as the still-emerging literature on UI in the COVID-19 recession. For the Great Recession, this includes drawing on our previously unpublished knowledge development report on key themes and lessons learned. For relating these findings to the COVID-19 recession, this includes drawing on the pair of briefs that discuss how lessons from the Great Recession might apply in the COVID-19 context (Congdon and Vroman 2021a, 2021b).

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<sup>4</sup> Principal ETA series drawn on for this information include the ETA 5159 series, which provides information on claims activities and on the number and amount of payments; ETA AE5159, which includes this information for extended benefits (EB); ETA AU5159, which includes this information for the Emergency Unemployment Compensation (EUC) program in the Great Recession; ETA AP5159, which includes this information for the Pandemic Emergency Unemployment Compensation (PEUC) program in the COVID-19 recession; the ETA 902P series, which provides data on Pandemic Unemployment Assistance (PUA) program activities; the ETA 2112 series on financial transactions, which includes information on the Federal Pandemic Unemployment Compensation (FPUC) program that does not appear to be available elsewhere; and the ETA 227 series, which provides information on overpayment detection and recovery activities.

<sup>5</sup> The CPS is described at “Labor Force Statistics from the Current Population Survey,” US Bureau of Labor Statistics, accessed June 21, 2022, <https://www.bls.gov/cps/>. The CES is described at “Current Employment Statistics—CES (National),” US Bureau of Labor Statistics, accessed June 21, 2022, <https://www.bls.gov/ces/>.

<sup>6</sup> Sources of qualitative information on state experiences are described in more detail in section 4. These include descriptions of state responses from available literature, such as DOL IG (2021), NASWA (2021), and PRAC (2021). Sources also include public information from websites of state agencies or legislatures, as identified in subsequent notes.

Our central analytical approach is to analyze our selected data sources to provide, to the extent permitted by these sources, a detailed description of state UI program experiences in both the Great Recession and the COVID-19 recession. The analysis is principally descriptive, presenting time series and cross-sectional analyses of state- and national-level program information and data series, including selected analyses of relationships between key UI program variables and UI outcomes across states or groups of states. We collected and analyzed available data through the end of September 2021, capturing the evolution of both the UI system through the expiration of the major UI emergency provisions and the substantially complete recovery of the economy in terms of economic output (although somewhat incomplete, in terms of the labor market). Collectively, these descriptions and analyses address all four study research questions to meet the study objectives.

## Economic and Policy Context in the Recessions

Both major recessions in the 21st century so far—the Great Recession of 2007 to 2009 and the COVID-19 recession of 2020—were much more severe by different economic and labor market measures than typical recession experiences in recent decades. The Great Recession was notable not only for the scale of the initial economic shock but also (and especially) for the protracted recovery that followed. Total employment did not return to peak levels until six years after the recession began. The COVID-19 recession was distinguished by an initial spike in unemployment higher than the Great Recession and the highest since the Great Depression, reaching more than 14.7 percent in April 2020. But the recovery from the COVID-19 recession has been rapid in comparison with recent recessions, and total employment was nearly fully recovered by the end of 2021.

Both recessions saw policy responses that, combined with the rise in unemployment, led to substantial rises in UI claims. Although the Great Recession response lasted longer, the COVID-19 response was in the aggregate much larger. At its peak, UI claims exceeded 30 million during the COVID-19 recession compared with more than 10 million in the Great Recession, and UI benefits amounted to more than 2 percent of GDP in 2020 but never rose above 1 percent in the Great Recession.

The scope and scale of the UI claims response to COVID-19 were driven in part by large temporary federal emergency programs. The Pandemic Unemployment Assistance (PUA) program provided benefits to millions of workers typically ineligible for UI, including the self-employed, gig workers, persons who were affected by COVID-19 and could not meet eligibility requirements for regular UI due to inadequate work histories or other reasons, including benefit exhaustions, and workers with



educational, caregiving, and specified other responsibilities. In addition, the Federal Pandemic Unemployment Compensation (FPUC) program provided additional benefits of first \$600 then \$300 each week. Both benefits were unprecedented, at least in their scale.

## Lessons from the Great Recession

The rapid and substantial rise in UI claims in the Great Recession posed challenges for state UI operations. States reported challenges associated with taking and processing claims and related to staffing, training, and operational needs. Particular challenges arose with legacy technology systems, which were strained by both the rise in claims and the administration of new federal benefit programs. Although some states modernized IT systems in the years between the Great Recession and COVID-19, this was incomplete as of 2019.

UI benefit extensions were central to meeting the needs of workers and the economy during the Great Recession, though some features of the extensions posed additional challenges to state UI programs. The Extended Benefits (EB) program, which automatically extends benefits during recessions, required ad hoc adjustments, including both federal legislation that adjusted thresholds of triggering on as well as temporary federal funding of benefits, to perform effectively. Emergency Unemployment Compensation (EUC) was effective partly because it was implemented early in the recession, but it created challenges during the Great Recession because of the program's complexity and because it was not automatic.

Federally funded UI eligibility modernization efforts were widely adopted by states during the Great Recession and modestly increased UI eligibility and payments. Incentives included in federal legislation spurred states' adoption of expansions of eligibility, and these provisions were largely maintained by state UI programs and in place at the onset of the COVID-19 recession. Most state UI programs provided for part-time worker eligibility and had an alternative base period. Allowing UI benefits for individuals with job separations for compelling family reasons, uncommon before the Great Recession, were allowed in about half of UI programs in 2019.

States experienced large UI trust fund drawdowns and extensive borrowing during the Great Recession, and this contributed to the adoption of changes to taxes and benefits by some states. Changes in several states included a reduction in the maximum number of weeks of duration in the regular UI program. Partly as a result, the UI recipiency rate declined to a low 28 percent by 2019,

meaning that few unemployed workers would have been expected to be eligible for regular UI benefits during the COVID-19 recession, in the absence of adjustments.

## The UI System during the COVID-19 Recession

The rapid and substantial rise in UI claims in the COVID-19 recession, a rise more pronounced even than in the Great Recession, posed substantial challenges for state UI programs. This is evident in both national trends and state-level analysis of program data, including timeliness of payments and determinations. Qualitative information about challenges facing states and suggestive quantitative analysis indicate that ramping up staffing and training to take and adjudicate claims were observed to be sources of challenges, as were strained technology systems, especially in states still operating legacy IT systems. States also noted challenges associated with effectively communicating new program details from the pandemic-related programs to claimants, especially the large number of new claimants with little prior experience or familiarity with the program.

The new PUA program provided substantial income protection to a large class of workers who would otherwise not have qualified for UI benefits. However, PUA was also reported to create particular challenges for state UI programs. This is evident in available qualitative information on state experiences and consistent with some systematic indicators, such as measures indicating the time it took the program to begin taking and paying claims. A particular challenge was the need to employ alternative means for calculating and certifying benefits for workers, such as the self-employed or gig workers, who are outside of state wage records.

State UI programs were able to effectively pay the supplemental weekly benefit FPUC program as implemented in the COVID-19 recession. Delays in making these payments were shorter than, for example, delays in making payments under the PUA program. This appears to be partly because the form of these payments, as a flat weekly amount, was established with consideration for state systems. This was also because FPUC did not require a separate eligibility determination, which made the program easier to implement.

There is some evidence that the new programs, especially PUA, struggled to balance the competing demands of making timely payments to large numbers and new classes of workers, while effectively guarding against fraud and error. This challenge was observed to be associated with several factors, including the stress programs were operating under because of the rise in claims, the challenges associated with ensuring the accuracy of payments in the new programs established at the height of the

pandemic, and the emergence of new and evolving forms of fraud. This was magnified in the case of PUA by the initial requirements for the program that prohibited states from establishing eligibility determination procedures using any means other than self-certification.

States took many actions in the COVID-19 recession, including making emergency changes to their UI programs, as well as many innovations in program operations generally intended to ensure or improve accessibility to UI benefits. Several of the states that had reduced their maximum benefit durations after the Great Recession, for example, took emergency actions early in the pandemic to raise durations. And many states used innovative technology to take claims and communicate with workers, to improve access during the pandemic. Some of these changes were in response to federal incentives, such as linking administrative funding to requiring employers to notify separating workers. Not all of the actions by states were intended to extend access or eligibility, however; notably, a number of states terminated federal emergency benefits before their expiration.

## Directions for Future Research

While the experiences of the Great Recession and the COVID recession suggest important lessons and takeaways for the operation of the UI system, they also indicate important areas where additional evidence building would be valuable. Questions for future research suggested by the study include:

- **What worked and what can work to effectively expand the system to provide benefits and protection to workers not covered by regular UI?** While the experience of the PUA program demonstrated the ability and importance of expanding to include such workers as the self-employed, gig workers, and workers with limited work histories or earnings, the emergency program was reported to face serious challenges. Additional research could investigate more closely differences in how states implemented the PUA, to identify whether different approaches suggest more specific lessons. Additional research could be conducted with state programs experimenting with new approaches. Such research could inform understanding about how such programs could include these workers both in and outside of recessions.
- **Can cyclical adjustments make weekly benefit amounts more flexible?** While the experience of the FPUC program demonstrated the ability and importance of implementing countercyclical adjustments to benefit amounts, these amounts were set at fixed dollar amounts at least partly for practical reasons related to state capabilities. This was arguably appropriate in the context of a pandemic recession, but in general there are advantages to

adjustments that can take more flexible and dynamic forms. Further research could investigate more closely details on how states implemented the FPUC, to identify whether approaches to implementing the program taken by different states suggest lessons on how to make weekly benefits more flexible.

- **How can states understand and mitigate challenges posed by reduced weeks of benefits and downward trends in reciprocity?** UI reciprocity fell following the Great Recession to levels that were low by historical standards; before the COVID-19 recession, only about 28 percent of all unemployed workers received UI. A related factor was that some states had reduced their maximum weeks of regular UI benefits below the previously standard 26 weeks. Circumstantial evidence suggests these factors presented and magnified some of the challenges the system faced in responding effectively to the COVID-19 recession, but further research is needed to quantify and assess costs and approaches to their mitigation.
- **How are evolving challenges to the UI system related to ongoing changes in the labor market?** Labor markets continue to evolve in ways that may have consequences for the future operation and performance of the UI program. The extent to which, for example, changes in the nature of employment relationships or the changing demographics of the workforce have implications for the operation and effectiveness of the UI system remain important topics of future research.
- **How can federal and state governments ensure equity and access in the UI system?** As indicated and highlighted by both emerging research and federal and state policy and operational priorities, an important direction for future research is the nature and sources of, and solutions to, systemic inequities in the UI system. One area for future research will be to track in more detail state adoption and maintenance of UI program and operational innovations addressing barriers to access, as well as research into how these affect reciprocity and equity. For example, research might explore whether state innovations in communications with claimants were effective during the COVID-19 recession. Another area for research is state efforts to monitor and address disparities, especially by race.

# 1. Introduction and Background

The federal-state Unemployment Insurance (UI) system is a key form of social insurance in the United States and the primary program providing economic support to workers who lose earnings when they lose work or, in some instances, hours (Stone and Chen 2014). Even in tranquil economic times, the US labor market is dynamic, with millions of workers laid off each year and others displaced by technological advances or shifts in international trade (e.g., Acemoglu and Restrepo 2020; Autor, Dorn, and Hanson 2016; Davis and Haltiwanger 2014). The UI program replaces a portion of lost wages for qualifying workers—those who lose work through no fault of their own, have an adequate recent earnings history, and demonstrate their willingness and ability to return to suitable employment—to provide critical support to these workers, their families, and communities.

The UI program has also been observed to face long-standing and evolving challenges. As the nature of work and employment relationships has changed since the program was established at the federal level, the share of unemployed workers receiving UI has trended downward for decades, reducing the benefits to workers and the labor market (e.g., Congdon and Vroman 2021a). Moreover, barriers to access tended to disproportionately impact groups disadvantaged in the labor market, such as Black workers, limiting the equity of the program as well as its effectiveness and efficiency (e.g., Kuka and Stuart 2021).

In recessions, when more unemployed workers rely on UI benefits, the system becomes more crucial for workers and the economy (Landais, Michailat, and Saez 2018). However, the UI system also faces additional challenges in recessions as it comes under greater stress (e.g., Lee and Needels 2018). Already in the first decades of the 21st century, the UI system has had to contend with two economic crises of historic proportions. The first was the Great Recession, an unusually severe downturn from 2007 to 2009 precipitated by a financial crisis that led to a prolonged recovery. The second was the steep economic downturn in 2020 precipitated by the once-in-a-century public health crisis associated with the COVID-19 pandemic. In each instance, the UI system was required not only to quickly ramp up operations to serve many more unemployed workers, but also to rapidly implement program changes enacted by emergency federal legislation that made the UI program temporarily more generous.

The challenges the UI system faces in meeting its objectives in recessions are complicated and magnified by the unique nature of the program as a federal-state partnership. The UI system is composed of UI programs administered at the state level, operating within parameters set at the federal level. Each state plus the District of Columbia, Puerto Rico, and the Virgin Islands operates a state-financed UI program that can pay up to 26 weeks of benefits in the modal state. Financial support in

almost all state programs is provided exclusively by employer payroll taxes. The taxes are paid into state trust funds maintained at the US Department of the Treasury, which are the source of regular UI benefits paid to eligible claimants. If state trust funds are depleted, states may borrow from the Treasury to continue making benefit payments.

Expanding program operations to serve the rising number of claims in a recession thus poses challenges for program operations, such as how staffing levels can respond to meet rising claims. Each state must address such challenges separately and within the context of, for example, its own agency and state organizational structure and personnel rules and practices. Similarly, each state program must determine how to implement emergency UI measures enacted at the federal level within its unique context. And each state UI program must separately and independently communicate to new, continuing, and prospective UI claimants about program eligibility, requirements, and other terms and rules, with distinct forms, content, messaging, and outreach.

To improve the operations of the UI system in future recessions, it is important to understand the challenges that the UI system and individual state UI programs faced in these recent recessions, as well as the approaches taken to meet those challenges. In this report, we document and analyze the experiences of the UI administrative system in both the Great Recession and the COVID-19 recession, with a focus on state UI programs. We discuss the economic context of each recession and the policy context of the associated policy responses, and we synthesize lessons learned from both experiences.

## Study Context and Objectives

The Great Recession, which spanned 2007 through 2009, posed substantial challenges to the UI system. This study was originally conceived to better understand which UI measures and system elements worked and did not work during the Great Recession—and how state UI systems and practices evolved in the subsequent years—to better prepare the UI system to respond to the next recession. In doing so, the study was to satisfy the US Department of Labor’s (DOL) commitment to the US Government Accountability Office (GAO) to collect systematic evidence on state experiences in the Great Recession and draw conclusions for informing future policy (GAO 2016). The centerpiece of this study was to be a set of information collection efforts, including a survey of state programs, to build primary evidence on the perceived challenges, observed approaches, and potential lessons from the Great Recession.

Before the study could be conducted and completed with those objectives in mind, the next recession came. The COVID-19 recession of 2020 drove an even sharper rise in unemployment and UI claims than

the Great Recession (as illustrated in figures 1 and 6, respectively), pausing originally planned study activities and shifting the priorities of the research. To meet the more immediate and urgent COVID-19-related needs of program officials and others, study activities pivoted toward producing a dashboard to track state UI program and policy responses to the COVID-19 recession, along with two briefs that repurposed knowledge development research on key themes and lessons from the Great Recession to focus on how those lessons applied in the COVID-19 context (Congdon and Vroman 2021a, 2021b).

With the most severe labor market and UI program impacts of COVID-19, at the moment, behind us, the study still seeks to advance understanding of the UI system's performance in the context of recessions, but with a shifted focus and different constraints. The study's focus now includes the experience of the UI system in the COVID-19 recession, as well as in the Great Recession. As to constraints, the collection of new information, such as through a state survey, was precluded primarily because of concerns about overburdening state administrators. As a result, and following discussions with DOL, the approach shifted to an analysis of program administrative data and data on program features and policy responses (collected from publicly available sources and reported in the form of the UI COVID-19 dashboard), supplemented with other publicly available sources, such as labor force data, new research literature, and information on the experiences and practices of UI programs from selected states.

Using such an approach and data sources, this report describes state UI program experiences during the Great Recession and the COVID-19 recession, how these experiences varied by state or groups of states and by state program features, and how experiences in the Great Recession compared with experiences during COVID-19. The report describes how the COVID-19 response adds to, reinforces, or modifies what was learned from the Great Recession. Appendix A details how the study objectives and research questions changed in the wake of the COVID-19 recession.

## **Study Objectives**

Broadly, the goals of this project are first and principally to better understand how the UI system functioned and responded during the COVID-19 and Great Recessions. Our focus, here, is on the challenges faced by state programs in responding to rapidly rising claims levels and administering emergency UI programs. Secondly, we aim to understand the implications of changes in the labor force and policy environment since the Great Recession for the UI system response to the COVID-19 recession. In meeting the first of these objectives, the study will satisfy DOL's commitment to GAO to collect systematic evidence on state experiences in the Great Recession and draw conclusions for informing future policy (GAO 2016).

## Research Questions

The research questions for this study consider how the UI system responded to both labor force dynamics (e.g., unemployment) and policy dynamics (e.g., changes to the UI program). For each, the study considers structural dimensions, more permanent or longer-term trends and changes, and factors that changed across the business cycle in each recession as well as in subsequent recoveries.

1. How did the UI system respond to the cyclical labor force dynamics in the Great Recession and the COVID-19 recession? How did states respond to staffing, financing, and other administrative pressures created by the increasing number and duration of UI claims? How well did the program work to deliver benefits while under those pressures?
2. How did the UI system respond to the cyclical policy dynamics in the Great Recession and the COVID-19 recession? What challenges did those policy changes pose for state UI agencies? How well did benefit extensions and other emergency UI measures work? What were the implications for claimant experiences and outcomes, and for the effectiveness of UI as countercyclical policy?
3. What are the implications for UI of structural policy changes made during and since the Great Recession?
4. What are the implications for UI of structural labor force trends that continued to evolve since the Great Recession?

## Data Sources and Analytical Approach

As noted, the change in study scope to cover both the Great Recession and the COVID-19 recession and the inability to conduct new data collections (especially the planned survey of states) changed the data sources and analytical approaches used to answer the research questions. These sources and approaches are summarized briefly below.

### Data Sources

The primary data sources for this report are all publicly available. They fall into two categories. The first includes UI program and policy data and information, including the unemployment insurance COVID-19 pandemic response dashboard data previously referenced, additional data on state programs drawn



from the DOL Comparison of State Unemployment Insurance Laws,<sup>7</sup> and other available data on pre-COVID-19 baseline program characteristics.<sup>8</sup> The second category is UI program administrative data (e.g., Employment and Training Administration [ETA] series).<sup>9</sup> These series include data on claims levels, timeliness of payments, and other information in standard state UI reports, along with program financial data on payments, trust fund balances, and borrowing.<sup>10</sup>

We supplement these data with data and information from three additional sources that the study draws on in more targeted ways:

- labor market and economic data drawn principally from standard Bureau of Labor Statistics surveys, including the Current Population Survey (CPS) and the Current Employment Statistics (CES) program, to provide the economic context to which the UI system was responding<sup>11</sup>
- qualitative information on state challenges, approaches, and experiences in the COVID-19 recession as reported in the literature or from public sources of information such as state program websites<sup>12</sup>

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<sup>7</sup> “Comparison of State Unemployment Insurance Laws,” US Department of Labor, 2021, <https://oui.doleta.gov/unemploy/statelaws.asp>.

<sup>8</sup> The central additional data on pre-COVID-19 baseline program characteristics pertain to the status of IT modernization by 2019, which is coded on the basis of information from “NASWA UI Information Technology Support Center: Annual Report 2019,” NASWA, 2019, <http://itsc.org/Pages/UIITMod.aspx>.

<sup>9</sup> ETA reporting data are available and described at “Data Downloads,” <https://oui.doleta.gov/unemploy/DataDownloads.asp>.

<sup>10</sup> Principal ETA series drawn on for this information include the ETA 5159 series, which provides information on claims activities and on the number and amount of payments; ETA AE5159, which includes this information for extended benefits (EB); ETA AU5159, which includes this information for the Emergency Unemployment Compensation (EUC) program in the Great Recession; ETA AP5159, which includes this information for the Pandemic Emergency Unemployment Compensation (PEUC) program in the COVID-19 recession; the ETA 902P series, which provides data on Pandemic Unemployment Assistance (PUA) program activities; the ETA 2112 series on financial transactions, which includes information on the Federal Pandemic Unemployment Compensation (FPUC) program that does not appear to be available elsewhere; and the ETA 227 series, which provides information on overpayment detection and recovery activities.

<sup>11</sup> The CPS is described at “Labor Force Statistics from the Current Population Survey,” US Bureau of Labor Statistics, accessed June 21, 2022, <https://www.bls.gov/cps/>. The CES is described at “Current Employment Statistics—CES (National),” US Bureau of Labor Statistics, accessed June 21, 2022, <https://www.bls.gov/ces/>.

<sup>12</sup> Sources of qualitative information on state experiences are described in more detail in section 4. These include descriptions of state responses from available literature, such as DOL IG (2021), NASWA (2021), and PRAC (2021). Sources also include public information from websites of state agencies or legislatures, as identified in subsequent notes.

- information synthesized from research literature on both the Great Recession and the COVID-19 recession

This report also draws on, synthesizes, and incorporates findings from the research literature on UI in the Great Recession, as well as the still-emerging literature on UI in the COVID-19 recession. For the Great Recession, this includes drawing on our previously unpublished knowledge development report on key themes and lessons learned. For relating these findings to the COVID-19 recession, this includes drawing on the pair of briefs that discuss how lessons from the Great Recession might apply in the COVID-19 context (Congdon and Vroman 2021a, 2021b).

Table 1 illustrates how these data sources correspond to and are used to address each study research question.

**TABLE 1**  
**Correspondence between Study Research Questions and Principal Data Sources**

	UI program and policy data and information	UI program administrative data	Labor market and economic data	Qualitative information on state experiences	Research literature
1. How did the UI system respond to the cyclical labor force dynamics in the Great Recession and the COVID-19 recession? How did states respond to staffing, financing, and other administrative pressures created by the increasing number and duration of UI claims? How well did the program work to deliver benefits while under those pressures?	X	X	X	X	X
2. How did the UI system respond to the cyclical policy dynamics in the Great Recession and the COVID-19 recession? What challenges did those policy changes pose for state UI agencies? How well did benefit extensions and other emergency UI measures work? What were the implications for claimant experiences and outcomes, and for the effectiveness of UI as countercyclical policy?	X	X		X	X
3. What are the implications for UI of structural policy changes made during and since the Great Recession?	X		X		X
4. What are the implications for UI of structural labor force trends that continued to evolve since the Great Recession?			X		X

## Analytical Approach

Our central analytical approach is to analyze our selected data sources to provide, to the extent permitted by these sources, a detailed description of state UI program experiences in both the Great Recession and the COVID-19 recession. The analysis is principally descriptive, presenting time series and cross-sectional analyses of state- and national-level program information and data series, including selected analyses of relationships between key UI program variables and UI outcomes across states or groups of states. We collected and analyzed available data through the end of September 2021, capturing the evolution of both the UI system through the expiration of the major UI emergency provisions and the substantially complete recovery of the economy in terms of economic output (although somewhat incomplete, in terms of the labor market). Collectively, these descriptions and analyses address all four study research questions to meet the study objectives.

## Study Limitations

While the current study builds and advances knowledge on the experience of the UI system in both the Great Recession and the COVID-19 recession, it is also limited in several important respects. Because new systematic information collections, such as a survey of states, were precluded because of the circumstances surrounding COVID-19, the study is limited to an analysis of publicly available data, qualitative information, and literature. One limitation is that the available information on the experiences of state UI programs in the COVID-19 recession is principally qualitative and necessarily nonrepresentative, which limits the generalizability of findings reported from these sources. While the analysis of UI program data provides a more systematic basis for assessing UI program outcomes at the state and national levels in the COVID-19 recession, trends and patterns in these data can only be related to state UI program practices and challenges less directly. In some instances the report can draw on and summarize findings from existing literature with research designs that allow for drawing causal inferences, but the original data analysis conducted and reported here is principally descriptive.

## Organization of Report

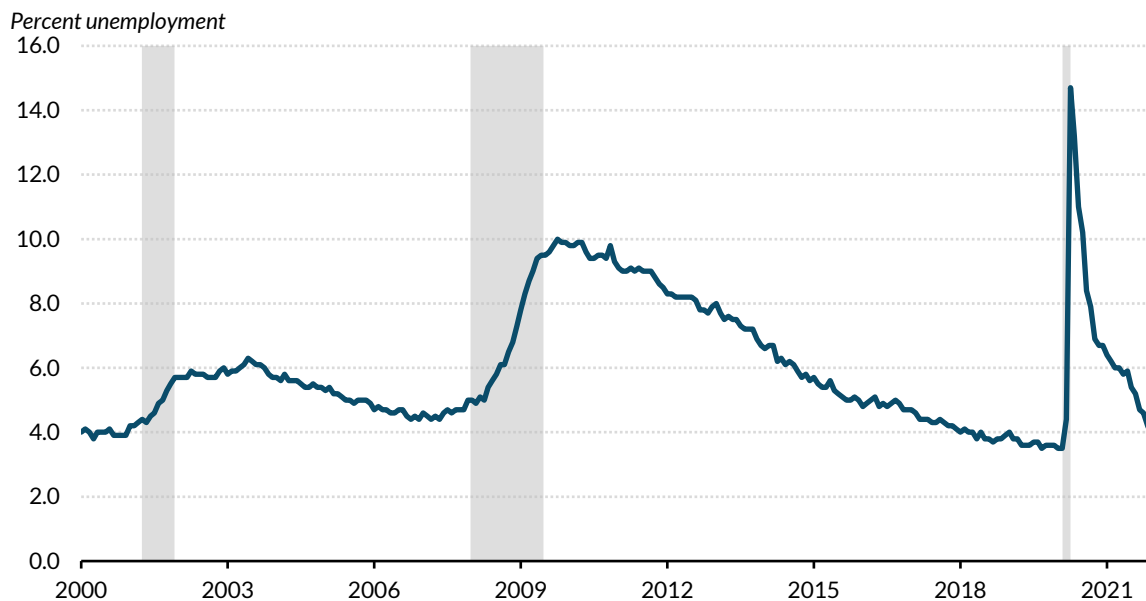
This report proceeds as follows: Section 2 gives the broad economic context and UI policy and program context in the COVID-19 recession, providing some comparisons with the economic context in Great Recession. Section 3 summarizes what we know about how the UI system responded in the Great Recession and evolved in the recovery that followed, discussing how the UI system and the labor market leading up to COVID-19 reflected the lessons and legacy of the Great Recession. Section 4 examines the

UI system during the COVID-19 recession, providing both a sense of the system response and evidence of stress on the system, as well as an analysis and discussion of how experiences varied across states and state UI programs. Section 5 concludes by identifying the lessons from both recent recessions, what we have learned, and what we still need to learn, including what lessons from the Great Recession still hold, what new lessons emerged from the COVID-19 experience, and what else is needed to build evidence and research.

## 2. Two 21st Century Recessions

Already in the 21st century, the United States has experienced two economic downturns of unusual severity. Figure 1 illustrates the path of the unemployment rate between the beginning of 2000 and the end of 2021, showing the most recent COVID-19 recession in 2020, the Great Recession from 2007 to 2009, and the earlier, more typical, recession in 2001. The Great Recession, which began in December 2007 and continued through June 2009, was the most serious economic downturn the US economy had experienced to that point in more than three decades.<sup>13</sup> As shown in figure 1, at its peak, in October 2009, the unemployment rate reached 10.0 percent and did not fully return to its pre-recession level until 2016. The brief but intense COVID-19 recession, from February to April 2020, saw unemployment spike even higher, to 14.7 percent in April 2020, but nearly returned to its pre-recession level by the end of 2021.

**FIGURE 1**  
**Unemployment and Recessions in the 21st Century**



**Sources:** Bureau of Labor Statistics; National Bureau of Economic Research (NBER).

**Notes:** Data retrieved from Federal Reserve Economic Data (FRED) at the Federal Reserve Bank of St. Louis. Shaded bars indicate periods of recession according to NBER business cycle dating; recession periods include dates between the peak of an expansion and the trough of an economic downturn sufficiently severe, widespread, and prolonged to be labeled a recession.

<sup>13</sup> Here and throughout, recession dates are from the National Bureau of Economic Research (NBER): “Business Cycle Dating,” NBER, accessed May 1, 2022, <https://www.nber.org/cycles.html>. The 2007–09 trough and peak was December 2007 and June 2009, respectively. For the COVID-19 downturn the monthly trough was April 2020 and peak was February 2020. The quarterly trough was 2020 Q2 and the quarterly peak was 2019 Q4.

The Great Recession and the COVID-19 recession, by virtue of the magnitude of disruptions to the labor market and the resulting policy responses, placed enormous stress on the UI system and state UI programs. In this section, we provide the broad context the UI system responded to in each of these recessions, including the economic and labor market context and the federal emergency measures that state UI programs were required to implement and operate. We also compare economic conditions and policy responses across the two recessions, putting them in recent historical context and illustrating the scope and scale of the implications for UI claims and benefits. Please see box 1 for key takeaways.

## Economic and Labor Market Contexts

As 2022 progresses, the US economy is still recovering from the downturn caused by the COVID-19 pandemic, but that recovery has been relatively rapid. Real gross domestic product (GDP) grew at an annualized rate of 6.3 percent during the first calendar quarter of 2021, 6.7 percent during the second calendar quarter, and then slowed to 2.3 percent during the third quarter but rebounded to 6.9 percent during the fourth quarter.<sup>14</sup> Annualized real GDP of \$19,811 billion during 2021 Q4 was 102.9 percent of its pre-recession peak of \$19,254 billion during 2019 Q4.

While the economic recovery is still only partially apparent, it is already obvious that the COVID-19 recession differs markedly from that of the Great Recession. Figure 2 compares these two most recent recession-recovery periods. The figure displays quarterly real GDP measured as a ratio to its pre-recession peak; this ratio illustrates the level of economic activity relative to the level before each recession. When the ratio is less than 1, it indicates that the level of economic activity is lower than before the recession. The peak quarters for the two recessions were 2007 Q4 for the Great Recession and 2019 Q4 for the COVID-19 recession.

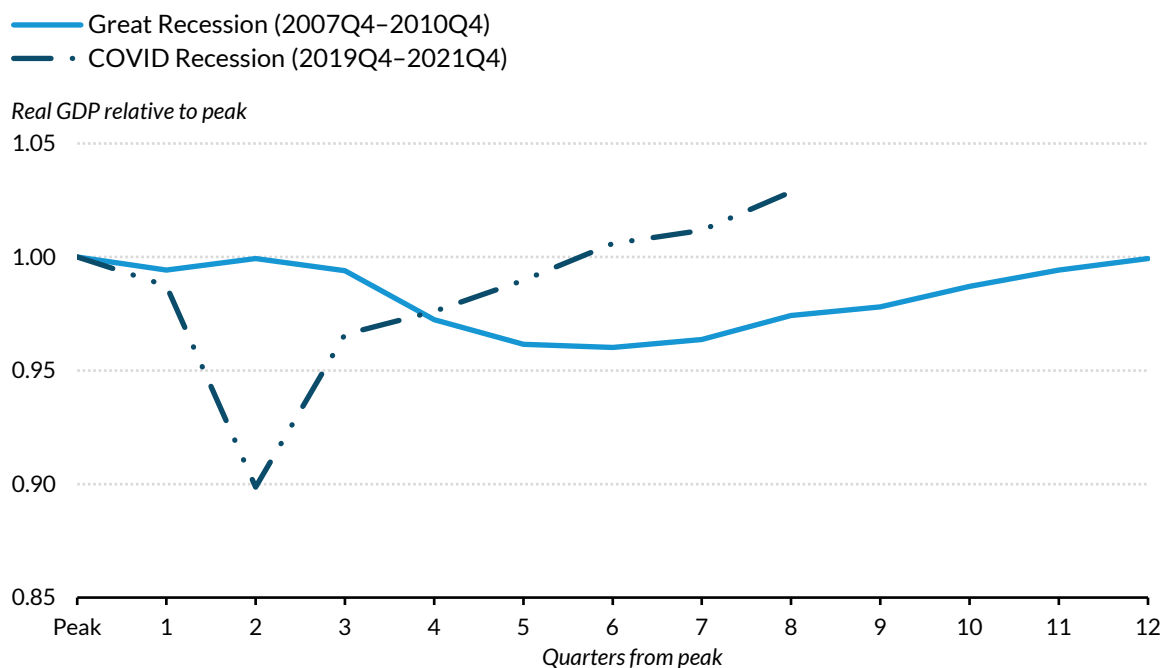
The Great Recession was characterized by both the depth and the duration of its impact on economic activity, as shown by the solid line in figure 2. The decline in real GDP during the Great Recession was largest during 2009 Q2 (the sixth post-peak quarter), at 4.0 percent below 2007 Q4. The decline was then followed by a steady but shallow recovery, with the economy not returning to its pre-recession peak until 2010 Q4, 12 quarters—three full years—after 2007 Q4.

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<sup>14</sup> GDP figures are from the Bureau of Economic Analysis (BEA): “Gross Domestic Product,” BEA, May 26, 2022, <https://www.bea.gov/data/gdp/gross-domestic-product>. Data series are retrieved from Federal Reserve Economic Data (FRED) at the Federal Reserve Bank of St. Louis.

The COVID-19 recession, by comparison, was characterized by a substantially quicker and deeper decline in economic activity, as well as a quicker return to pre-recession levels, as shown by the dashed line in figure 2. The trough, in 2020 Q2, was 10.1 percent below the peak of 2019 Q4. This peak-to-trough percentage decline was 2.5 times larger than the peak-to-trough percentage decline of the Great Recession. The post-trough recovery of real GDP has also been much more rapid for the COVID-19 recession than it was for the Great Recession. Real GDP in 2021 Q2 (four quarters following the trough) was already 100.6 percent of previous peak real GDP. The sharp recovery from the COVID-19 recession is apparent from 2020 Q3 to 2021 Q4 (three to eight quarters from the peak).

**FIGURE 2**  
**Real GDP Relative to Business Cycle Peak, Great Recession, and COVID-19 Recession**



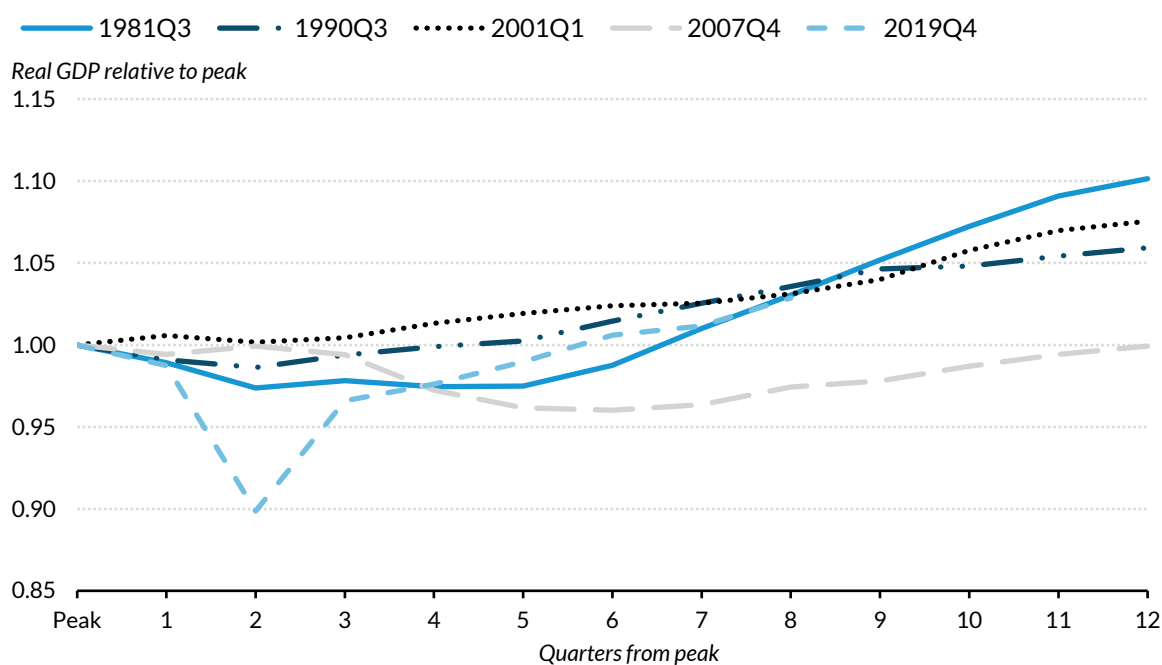
**Sources:** Bureau of Economic Analysis; National Bureau of Economic Research (NBER).

**Notes:** Gross domestic product (GDP) data retrieved from Federal Reserve Economic Data (FRED) at the Federal Reserve Bank of St. Louis. Recession and business cycle peak quarters according to NBER business cycle dating. The figure displays quarterly real GDP as a ratio to its pre-recession peak for both the Great Recession and COVID-19 recessions; for quarters where this ratio has a value of less than 1, this indicates that the level of economic activity remains lower than prevailed before the recession.

Both the Great Recession and the COVID-19 recession were also, in different ways, historically unusual recessions. Figure 3 considers the real GDP paths for the five most recent recession-recovery periods, including recessions in 1981, 1990, and 2001 through 12 quarters, or three years, of post-peak data. The duration of the effects of the Great Recession can be seen to be the longest of these recession periods. For the other recession periods, including COVID-19, the economy was back above the

previous peak of economic activity by two years post-recession. For the Great Recession, in contrast, the economy was just approaching this level after three years, as illustrated by the dashed gray line in figure 3. By way of contrast, the sharp V-shape to the COVID-19 recession, shown in the dashed light blue line in figure 3, and recovery apparent in figure 3 is more pronounced than for each of these other periods, with a more rapid fall to a lower bottom and a rapid initial recovery.

**FIGURE 3**  
**Real GDP Relative to Business Cycle Peak, Most Recent Five Recessions (1981–2021)**



**Sources:** Bureau of Economic Analysis; National Bureau of Economic Research (NBER).

**Notes:** Gross domestic product (GDP) retrieved from Federal Reserve Economic Data (FRED) at the Federal Reserve Bank of St. Louis. Recession and business cycle peak quarters according to NBER business cycle dating; quarterly recession period dates (peak to trough) for illustrated recessions are 1981 Q3–1982 Q4; 1990 Q3–1991 Q1; 2001 Q1–2001 Q4; 2007 Q4–2009 Q2 (Great Recession); 2019 Q4–2020 Q2 (COVID-19 recession). The figure displays quarterly real GDP as a ratio to its pre-recession peak for each recession; for quarters where this ratio has a value of less than 1, this indicates that the level of economic activity remains lower than prevailed before the recession.

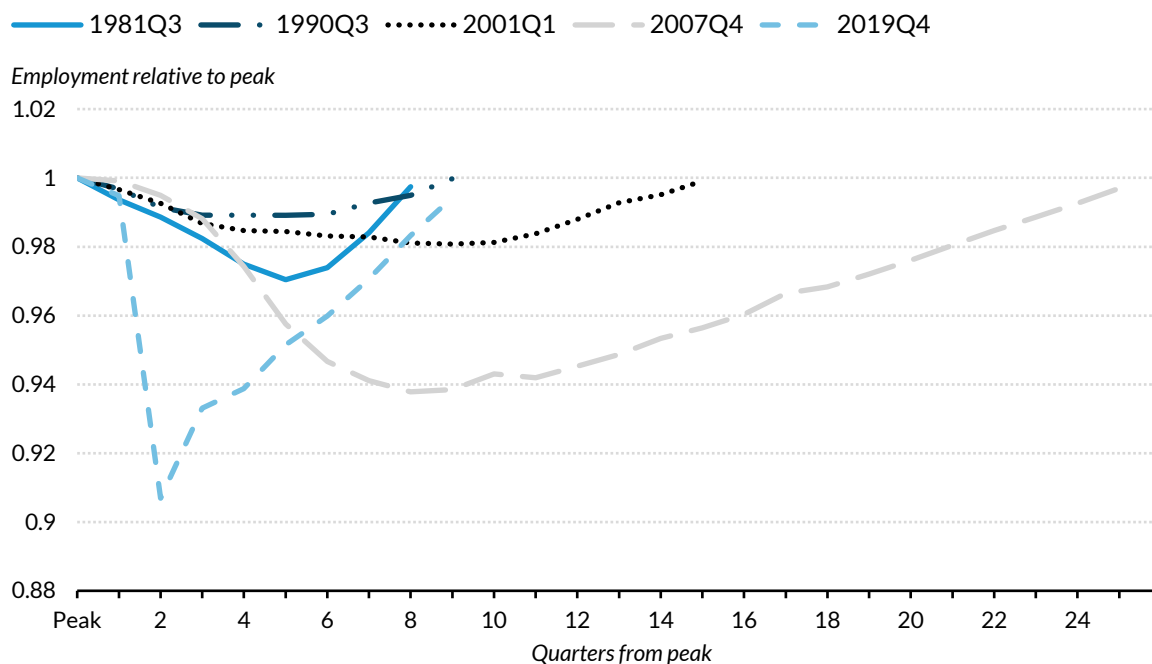
These distinguishing characteristics of the past two recessions—both severe relative to recent recessions, with the Great Recession being distinguished by its duration and the COVID-19 recession being distinguished by its depth—are apparent, and if anything, more striking, in their employment effects. Aggregate employment data for the past five recessions are shown in figure 4, which displays ratios to pre-recession peak employment for each recession until the point quarterly employment was approximately recovered to its pre-recession level. Employment effects for the Great Recession,



illustrated by the dashed gray line in figure 4, are striking in duration: total employment contracted through two full years, and full employment recovery took more than six years. The depth of the COVID-19 recession, indicated by the dashed light blue line in figure 4, is similar: in the initial months of the crisis, total employment shrank by nearly 10 percent.

These differences between the Great Recession and COVID-19 recession are also indicated in unemployment rate data, shown in figure 1. In the Great Recession, the unemployment rate peaked at 10.0 percent in October 2009 and did not fully return to its pre-recession level until 2016. The COVID-19 recession saw unemployment spike even higher to 14.7 percent in April 2020 (the highest unemployment rate since World War II) but nearly returning to its pre-recession level by the end of 2021.

**FIGURE 4**  
**Employment Recovery Relative to Business Cycle Peak, Most Recent Five Recessions, 1981–2021**

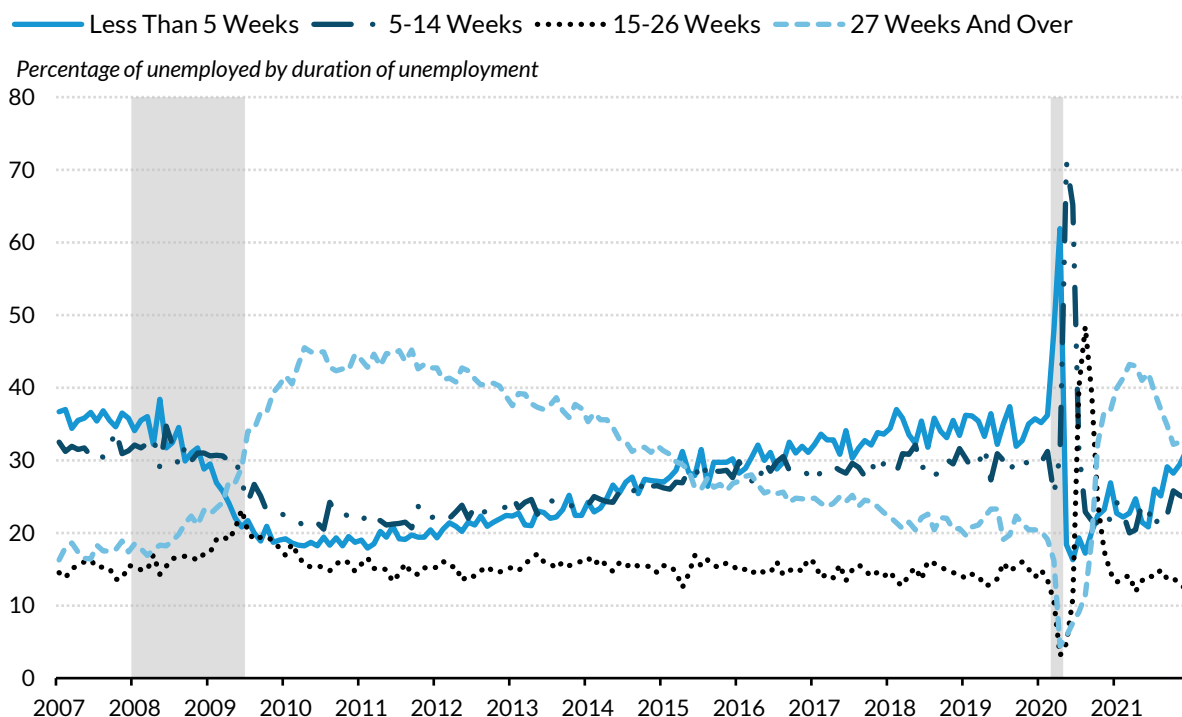


**Sources:** Bureau of Labor Statistics (BLS); National Bureau of Economic Research (NBER).

**Notes:** Employment values are for total nonfarm employment from the Current Employment Statistics (CES), using end-of-quarter values. The figure displays total employment as a ratio to its pre-recession peak for each recession; for quarters where this ratio has a value of less than 1, this indicates that total employment remains lower than prevailed before the recession. For each recovery, the figure shows employment through to the quarter where total employment equaled its previous peak (with the exception of the COVID-19 recession, which had not returned to this value as of 2021 Q4, the latest value retrieved at the time of writing). CES data retrieved from Federal Reserve Economic Data (FRED) at the Federal Reserve Bank of St. Louis. Recession and business cycle peak quarters according to NBER business cycle dating; quarterly recession period dates (peak to trough) for illustrated recessions are: 1981 Q3–1982 Q4; 1990 Q3–1991 Q1; 2001 Q1–2001 Q4; 2007 Q4–2009 Q2 (Great Recession); 2019 Q4–2020 Q2 (COVID-19 recession).

Finally, differences in economic conditions and aggregate employment between the two recessions are also reflected in the characteristics of unemployment spells. Notably, the prolonged employment effects of the Great Recession were associated with unusually long unemployment spells. Figure 5 shows the share of unemployed workers with different durations of unemployment. At the peak of unemployment in April 2010, nearly half of all unemployed workers—45.5 percent—were long-term unemployed—that is, unemployed for 27 weeks or longer, as illustrated by the dashed light blue line in figure 5. During the COVID-19 recession, by contrast, the initial spike in job losses was concentrated among unemployment spells with shorter durations, of less than 5 weeks and between 5 and 14 weeks, as illustrated by the solid blue and dashed dark blue lines in figure 5, which then evolved over the course of the subsequent two years. By the end of 2021, a roughly equal share—about one-third each—of unemployed workers were long-term and short-term unemployed. Following the Great Recession these two series did not converge to similar shares of total unemployment until around 2015.

**FIGURE 5**  
**Unemployment Durations Following the Great Recession and COVID-19 Recession, 2007–21**



**Sources:** Bureau of Labor Statistics (BLS); National Bureau of Economic Research (NBER).

**Notes:** Unemployment data retrieved from Federal Reserve Economic Data (FRED) at the Federal Reserve Bank of St. Louis. Shaded bars indicate periods of recession according to NBER. Figure shows the share of total unemployment comprised by each of the four indicated duration range: less than 5 weeks, 5–14 weeks, 15–26 weeks, and 27 weeks or more.

The general economic and broad labor force effects of the two recessions by themselves had important implications for the UI system. In both instances, their unusual severity led to high levels of unemployment. In the context of the Great Recession, the slow recovery and rise in long-term unemployment led to a large share of unemployment spells that exceeded the duration of regular UI benefits. The rapidity and depth of the COVID-19 recession led the unemployment rate to more than quadruple in the span of just two months, leading to extraordinarily high levels of UI claims. In response to these recessions, the policy environment shifted in ways that strengthened the response to the economic conditions but also created challenges for the UI system as a whole and for state UI programs operating in these contexts.

## Policy Contexts

The policy response was another important element of the context in which state UI programs navigated both the Great Recession and the COVID-19 recession. In addition to managing rising claims in their regular UI programs, states were required to implement and pay benefit extensions under both automatic triggers that activate in times of recession as well as under temporary federal emergency measures to further extend benefits, and also to implement and pay supplements to weekly benefit amounts. In the COVID-19 recession, UI benefits were also expanded to include additional workers.

We next summarize the policy response in the COVID-19 recession, with reference to the ways in which the response mirrored or differed from the policy response in the Great Recession (additional detail on how states managed corresponding programs in each period is provided in sections 3 and 4).

The policy response to the COVID-19 recession was rapid, with the first federal emergency measures included in the Coronavirus Aid, Relief, and Economic Security (CARES) Act of March 27, 2020, and substantial, as indicated by the resulting expansion of both claims and payments (and illustrated in, e.g., figure 6 and table 2). During the months of the COVID-19 downturn and subsequent economic recovery, workers had access to four primary federal UI benefits in addition to benefits available under regular state UI programs. Each type is described briefly in the following paragraphs.

### Federal-State Extended Benefits

All states have federal-state Extended Benefits (EB) programs, which provide additional weeks of UI benefits for workers when the unemployment rate in their state reaches or crosses a specified threshold. By default, EB is triggered when a state's insured unemployment rate (IUR), an unemployment measure based on UI claims data, is at or above 5 percent and is at or above 120 percent of the average IUR in the

same 13-week period in either of the prior two years. States may also adopt alternative triggers that are typically easier to meet than the standard trigger, either an IUR trigger of 6 percent that does not depend on prior-year levels or a trigger based on the total unemployment rate (TUR).<sup>15</sup>

The maximum duration of EB is up to either 13 or 20 weeks depending on the state and economic conditions. In the COVID-19 recession, by June 2020 the EB program triggered for every state but South Dakota.<sup>16</sup> In the Great Recession, 42 of the 53 UI programs triggered EB between 2008 and 2012 (Nicholson, Needels, and Hock 2014). The EB program has traditionally shared financial responsibility, half financed by the federal government and half by the states, but during both the COVID-19 recession and the Great Recession EB was fully financed by the federal government. In response, in both recessions some state programs temporarily adopted one of the alternative, easier-to-meet triggers; 13 states did so in the COVID-19 recession (Whittaker and Isaacs 2022).

## **Pandemic Emergency Unemployment Compensation**

In addition to the standing EB program, the federal government instituted an emergency program during the COVID-19 recession that further extended the number of weeks UI benefits could be claimed. The Pandemic Emergency Unemployment Compensation (PEUC) program was created under the CARES Act of March 27, 2020, and provided workers with an additional 13 weeks of federally funded benefits. Expansions of this program in December 2020 and March 2021 would bring total to 49 weeks before the program would expire on September 6, 2021.<sup>17</sup> PEUC was paid to beneficiaries who had previously exhausted regular UI or EB benefits. Weekly benefit amounts matched their pre-exhaustion weekly benefits and were fully federally financed.

Temporary emergency federally funded benefit extensions have been common in recent recessions. In the Great Recession, the analogous program took the form of the Emergency Unemployment

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<sup>15</sup> For a more detailed description of the EB program, see Whittaker and Isaacs (2022).

<sup>16</sup> Trigger status for EB is reported in “Trigger Notice No. 2020-24: State Extended Benefit (EB) Indicators under P.L. 112-240,” US Department of Labor, June 28, 2020, [https://oui.doleta.gov/unemploy/trigger/2020/trig\\_062820.html](https://oui.doleta.gov/unemploy/trigger/2020/trig_062820.html).

<sup>17</sup> Coronavirus Aid, Relief, and Economic Security Act, Pub. L. 116-136, 134 Stat. 281 (March 27, 2020), Title II, Subtitle A, <https://www.congress.gov/116/plaws/publ136/PLAW-116publ136.pdf>. The expansion to 24 weeks was provided under the Continued Assistance for Unemployed Workers Act (December 27, 2020), Title I. The American Rescue Plan Act, Pub. L. 117-2 (March 11, 2021), expanded these benefits again to a total of 53 weeks, although in practice the expiration date limited the maximum number of weeks available to 49.

Compensation (EUC) Act of 2008 (extended by subsequent legislation).<sup>18</sup> The EUC program was extended temporarily in 11 pieces of federal legislation, reaching a maximum of 53 weeks for much of 2010, 2011, and 2012.<sup>19</sup>

## Federal Pandemic Unemployment Compensation

During the COVID-19 recession, the federal government also instituted a temporary supplement to weekly benefit amounts. The Federal Pandemic Unemployment Compensation (FPUC) program, like PEUC, was created as part of the CARES Act.<sup>20</sup> From March 31 to July 31, 2020, the FPUC provided federal payments of an additional \$600 per week for workers receiving unemployment benefits. The program was reinstated under the Continued Assistance for Unemployed Workers Act in December 2020 at a lower amount of \$300 per week through early March 2021, and then further extended under the American Rescue Plan Act (ARPA) from March 2021 to September 6, 2021, when the program expired. The size of this supplement to weekly UI benefits was unprecedented. Although a similar program, Federal Additional Compensation (FAC), was implemented in the Great Recession, it provided only \$25 in supplemental weekly benefits (Chocolaad, Vroman, and Hobbie 2013).

## Pandemic Unemployment Assistance

The Pandemic Unemployment Assistance (PUA) program was a third temporary federally funded emergency UI program created under the CARES Act.<sup>21</sup> PUA initially provided for 39 weeks of benefits for individuals ineligible for regular UI programs, including the self-employed; gig workers; persons who could not meet eligibility requirements for regular UI because of inadequate work histories, benefit exhaustions, or other reasons; and workers with educational, caregiving, and specified other responsibilities. Like the

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<sup>18</sup> Emergency Unemployment Compensation Act of 2008, Pub. L. 110-252, 122 Stat. 2323 (June 30, 2008), Title IV, <https://www.congress.gov/110/plaws/publ252/PLAW-110publ252.pdf>.

<sup>19</sup> A description of the EUC program, including maximum weeks by year and claims by state and tier, is provided at “Emergency Unemployment Compensation 2008 (EUC08) and Federal-State Extended Benefit (EB) Summary Data for State Programs,” US Department of Labor, May 16, 2022, <https://oui.doleta.gov/unemploy/euc.asp>.

<sup>20</sup> For details on the FPUC program as implemented under the CARES Act, see Unemployment Insurance Program Letter No. 15-20, [https://wdr.doleta.gov/directives/attach/UIPL/UIPL\\_15-20.pdf](https://wdr.doleta.gov/directives/attach/UIPL/UIPL_15-20.pdf).

<sup>21</sup> For details on the PUA program as implemented under the CARES Act, see Unemployment Insurance Program Letter No. 16-20, [https://wdr.doleta.gov/directives/attach/UIPL/UIPL\\_16-20.pdf](https://wdr.doleta.gov/directives/attach/UIPL/UIPL_16-20.pdf).

PEUC and FPUC programs, it was extended under both the Continued Assistance for Unemployed Workers Act and ARPA, ultimately to a total of 75 available weeks, and expired on September 6, 2021.<sup>22</sup>

The PUA program does not have a close parallel in the emergency UI measures enacted in the Great Recession (although it did respond to changes in the labor force since the Great Recession, as discussed in section 3). The form of the program resembles the standing Disaster Unemployment Assistance program.<sup>23</sup> It also mirrors the Special Unemployment Assistance program enacted in the recession in the mid-1970s.<sup>24</sup> An additional noteworthy feature of the PUA program was that it extended benefits to workers in territories, such as Guam and American Samoa, that do not run regular UI programs.<sup>25</sup>

## Other UI Benefit Programs

In addition to major extensions or expansions of UI benefits, the COVID-19 recession led to other federal policy responses that were smaller in total benefit payments and number of covered workers, but worth noting.

### MIXED EARNER UNEMPLOYMENT COMPENSATION

The Mixed Earners Unemployment Compensation (MEUC) program was created later in the COVID-19 recession under the Continued Assistance for Unemployed Workers Act and paid an added \$100 per week to unemployed persons with both wages and substantial self-employment earnings.<sup>26</sup> This benefit was not available to individuals receiving PUA. There was no parallel program in the Great Recession.

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<sup>22</sup> Coronavirus Aid, Relief, and Economic Security Act, Pub. L. 116-136, 134 Stat. 281 (March 27, 2020), Title II, Subtitle A, <https://www.congress.gov/116/plaws/publ136/PLAW-116publ136.pdf>. And expansion of the PUA to 50 weeks was provided under the Continued Assistance for Unemployed Workers Act (December 27, 2020), Title I. The American Rescue Plan Act, Pub. L. 117-2 (March 11, 2021) expanded these benefits again, to a total of 79 weeks, although the expiration date limited the maximum number of weeks available in practice to 75.

<sup>23</sup> “Disaster Unemployment Assistance (DUA),” US Department of Labor, April 18, 2022, <https://oui.doleta.gov/unemploy/disaster.asp>.

<sup>24</sup> For a short description of the Special Unemployment Assistance program, see DOL (2018).

<sup>25</sup> PUA offered benefits to workers in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau. See Unemployment Insurance Program Letter No. 16-20, [https://wdr.doleta.gov/directives/attach/UIPL/UIPL\\_16-20.pdf](https://wdr.doleta.gov/directives/attach/UIPL/UIPL_16-20.pdf).

<sup>26</sup> For details on the MEUC program as implemented under the Continued Assistance for Unemployed Workers Act, see Unemployment Insurance Program Letter No. 15-20, Change 3, [https://wdr.doleta.gov/directives/attach/UIPL/UIPL\\_15-20\\_Change\\_3.pdf](https://wdr.doleta.gov/directives/attach/UIPL/UIPL_15-20_Change_3.pdf).

## SHORT-TIME COMPENSATION

Short-Time Compensation (STC), or work sharing, is another element of the UI system that provides benefits for workers who, under certain circumstances, remain employed but have their hours reduced. STC allows participating employers to place designated workers on reduced schedules, with workers receiving prorated UI benefits for the nonwork period. During the COVID-19 recession, the federal government encouraged the use of STC by reimbursing states for its full cost and providing funding to support state adoption and promotion of STC programs as part of the CARES Act.<sup>27</sup>

As discussed in more detail in section 4, although STC claims during the COVID-19 recession would rise to historically high levels for the program, it would continue to represent only a small portion (less than 2.5 percent) of regular UI weeks compensated. The support for STC during the COVID-19 recession largely mirrored the support provided in the Great Recession by the Middle Class Tax Relief and Job Creation Act of 2012 (DOL 2016).

Finally, two additional elements of the federal policy response to the COVID-19 recession were not UI programs but are worth noting for their relationship to and interaction with UI programs.

## LOST WAGES ASSISTANCE

The Lost Wages Assistance program was a grant program to states administered by the Federal Emergency Management Agency that disbursed additional weekly benefits to some workers receiving UI benefits, as implemented by a presidential memorandum in August 2020.<sup>28</sup> The program provided federal funding of \$300 per week to workers affected by COVID-19 and already receiving at least \$100 in some form of UI benefit, and was administered through state UI programs. This program helped fill a gap in weekly supplemental benefit payments during a lapse in FPUC payments, though only on a limited scale and for a limited time. States electing to participate in Lost Wages Assistance paid these benefits in August and September 2020.<sup>29</sup> There was no parallel program in the Great Recession.

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<sup>27</sup> For details on the STC program and supports provided under the CARES Act, see Unemployment Insurance Program Letter No. 21-20, [https://wdr.doleta.gov/directives/attach/UIPL/UIPL\\_21-20.pdf](https://wdr.doleta.gov/directives/attach/UIPL/UIPL_21-20.pdf).

<sup>28</sup> Executive Office of the President of the United States, "Memorandum on Authorizing the Other Needs Assistance Program for Major Disaster Declarations Related to Coronavirus Disease 2019," August 8, 2020, <https://trumpwhitehouse.archives.gov/presidential-actions/memorandum-authorizing-needs-assistance-program-major-disaster-declarations-related-coronavirus-disease-2019/>.

<sup>29</sup> Whittaker and Isaacs (2022) report based on correspondence with the Federal Emergency Management Agency that Lost Wages Assistance payments ended by September 6, 2020.

## PAYCHECK PROTECTION PROGRAM

Another important element of the federal policy context in the COVID-19 recession was the Paycheck Protection Program (PPP), which provided qualified small businesses that retained their workforce with forgivable loans that could be used to cover payroll. The PPP, also instituted under the CARES Act, was administered by the Small Business Administration and loans were available through March 2021.<sup>30</sup> The PPP is notable in the context of the UI program because it may have had offsetting effects on UI claims. Specifically, this program may have substituted for STC or other UI programs, as employers elected to use these loans to avoid reducing hours or payroll (Autor et al. 2022). There was no parallel program in the Great Recession.

## Scale of UI System Responses

In both the Great Recession and the COVID-19 recession, the combination of economic conditions and policy responses led to dramatic expansions of the UI program, in the number of workers both claiming and receiving UI benefits, as well as in the total dollar amount of UI benefits paid. The resulting scope and scale of UI claims provided tremendous benefits for workers, their families, communities, and the broader economy in both the Great Recession and the COVID-19 recession. But in each recession, the substantial and, in the case of COVID-19, especially dramatic and rapid rise in claims also challenged state UI programs.

Figure 6 provides important context for the pressure on the UI program in the pandemic, showing the rise in UI claims in all programs—regular UI as well as extended and emergency measures—over the course of the Great Recession and for the COVID-19 recession through the end of 2021. While the rise in claims in the Great Recession is substantial, more than tripling from pre-recession trends to peak levels, it is dwarfed by the rise in and rapidity of claims in the COVID-19 period: from approximately 2 million claims in March 2020 to more than 30 million claims in May 2020.

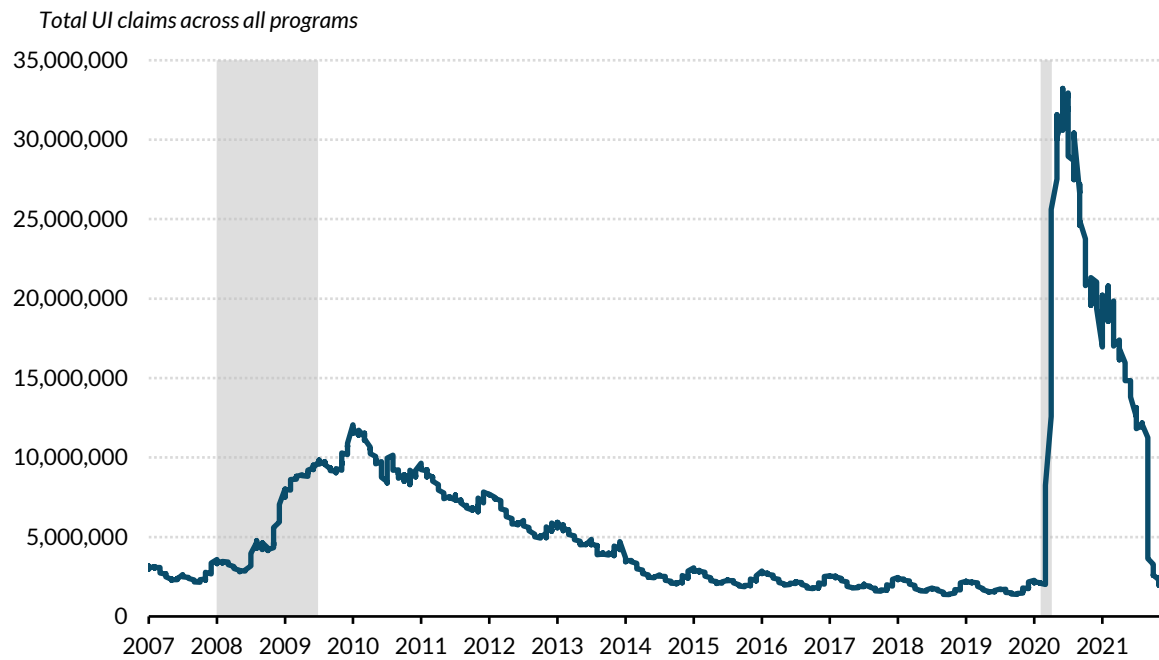
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<sup>30</sup> Coronavirus Aid, Relief, and Economic Security Act, Pub. L. 116-136, 134 Stat. 281 (March 27, 2020), Title I, <https://www.congress.gov/116/plaws/publ136/PLAW-116publ136.pdf>.



FIGURE 6

Unemployment Insurance Claims in the Great Recession and the COVID-19 Recession, 2007–21



Sources: Employment and Training Administration (ETA); National Bureau of Economic Research (NBER).

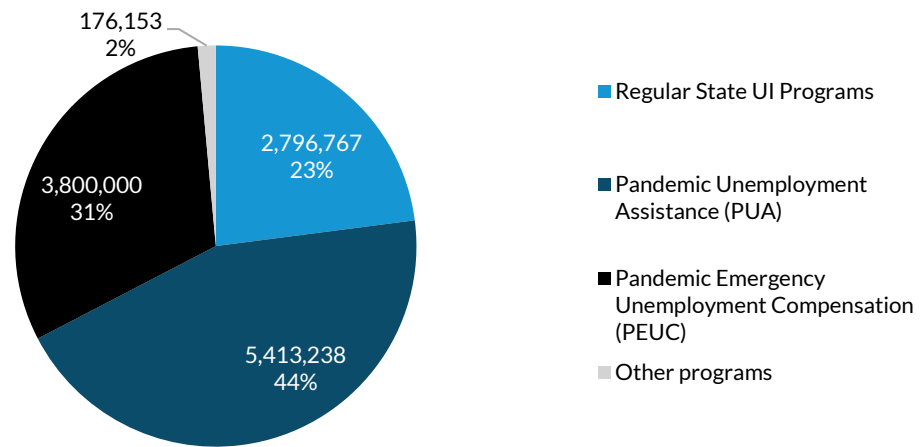
Notes: Claims include regular Unemployment Insurance, Short-Time Compensation, Extended Benefits, Emergency Unemployment Compensation (in the Great Recession), Pandemic Unemployment Assistance, and Pandemic Emergency Unemployment Compensation (in the COVID-19 recession), as well as UCFE (Unemployment Compensation for Federal Employees), UCX (Unemployment Compensation for Ex-Service Members), and state Additional Benefit (AB) programs. Shaded bars indicate periods of recession according to NBER business cycle dating.

A key factor in the meteoric rise in total claims during the COVID-19 recession was the combination of the sharp rise in unemployment with the scale of the emergency programs enacted in response. Figure 7 illustrates that, right before the expiration of these programs, PUA and PEUC were each paying more claims than regular state UI programs. Combined, PUA and PEUC constituted three-quarters of all claims.

Table 2 summarizes the scale of UI benefit support during the two recessions and provides comparisons in terms of dollars of benefits. Readers should note that the recovery from the COVID-19 recession is ongoing into 2022, causing comparisons of the two downturns to have uncertainties. The table displays information for 2007–13 (Great Recession) and for 2019, 2020, and the first nine months of 2021 (COVID-19 recession). Because the time profiles of the two recessions are so different, comparisons can be made in more than one way. The choice here is to examine six years for the Great Recession (2008–13) and 21 months for the COVID-19 recession.

FIGURE 7

Number and Percentage of Unemployment Insurance Claimants by Program, August 2021



Source: US Department of Labor, "Unemployment Insurance Weekly Claims," September 2, 2021, release.

Note: Figures are for continued claims for the week ending August 14, 2021.

TABLE 2

Unemployment Spending in the Great Recession and the COVID-19 Recession

	Regular UI benefits (\$ billions)	Extended Benefits (\$ billions)	Emergency benefits (\$ billions)	Total UI benefits (\$ billions)	GDP (\$ billions)	Total UI benefits (% of GDP)
2007	31.0	0	0	31.0	14,452	0.215
<b>Great Recession</b>						
2008	42.6	0.0	7.8	50.5	14,713	0.343
2009	79.2	6.1	43.1	128.4	14,449	0.888
2010	58.2	9.0	65.7	132.9	14,992	0.887
2011	46.4	10.6	48.3	105.3	15,543	0.678
2012	42.4	2.9	35.5	80.8	16,197	0.499
2013	38.6	0.0	21.7	60.3	16,785	0.359
2008-13	307.4	28.7	222.2	558.2	92,679	0.602
2019	25.4	0	0	25.4	21,433	0.118
<b>COVID-19 recession</b>						
2020	142.3	4.2	392.7	539.1	20,937	2.576
2021 Q1-2021 Q3	37.4	7.9	264.6	310.0	22,651	1.824
2020 Q1-2021 Q3	179.7	12.1	657.3	849.0	37,925	2.254

Sources: Author calculations based on Employment and Training Administration, Bureau of Economic Analysis data.

Notes: Unemployment Insurance (UI) benefits and Gross Domestic Product (GDP) are in billions of dollars. Federal emergency benefits were Emergency Unemployment Compensation during the Great Recession, and Pandemic Emergency Unemployment Compensation, Federal Pandemic Unemployment Compensation, and Pandemic Unemployment Assistance, in the COVID-19 recession. Last row in each panel shows aggregates for the indicated range.

For both recessions, table 2 displays three categories of benefits: regular UI benefits, EB, and federal emergency benefits. Federal emergency benefits were EUC during the Great Recession and PEUC, FPUC, and PUA in the COVID-19 recession. In addition to annual information, table 2 shows total spending over 2008–13 for the Great Recession and over 2020 plus the first nine months of 2021 for the COVID-19 recession. For purposes of comparison, the table also shows information for 2007 and 2019, the years before the Great Recession and COVID-19 recession, respectively. There were no EB or federal emergency benefit payments in the years before either recession.

Total annual UI benefits have been larger in the COVID-19 period than in the Great Recession by some measures. As a percentage of GDP, the highest level of annual support during 2008–13 was 0.89 percent in 2009; over the six-year period, benefits amounted to 0.60 percent of GDP. In the COVID-19 period, UI spending reached 2.58 percent of GDP in 2020, and over 2020 and the first three quarters of 2021 together amounted to 2.25 percent of GDP.

The difference in UI benefit levels across the recessions was driven by federal benefits, which played a more important role during the COVID-19 recession than during the Great Recession. Federal emergency programs accounted for 39.8 percent of total benefit payments during 2008–13, but 77.4 percent during 2020–21 (although this percentage would decline slightly if the final three months of 2021 were included in the measurement period, considering that federal benefits were terminated on September 6, 2021). The expansion of UI coverage under the PUA program has been quantitatively important. These benefits totaled \$79.5 billion in 2020, or 17 percent of total UI benefits paid during the year (not shown). FPUC benefits during 2020 totaled \$276.6 billion, or 51 percent of all UI benefits paid during the year (not shown).

Finally, EB has been less important during the COVID-19 recession than during the Great Recession. As a percentage of total benefits, EB totaled slightly more than 5 percent during the Great Recession, but only 1.4 percent during 2020–21 (dividing period totals for EB by period totals for UI, in table 2). EB was a small program during the Great Recession but even smaller during the COVID-19 recession. This difference was driven partly by different economic conditions and their effects on unemployment durations, partly by policy actions that temporarily made EB more generous in the Great Recession. We further discuss lessons from EB policy shifts in section 5.

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## BOX 1

### Two 21st Century Recessions: Key Takeaways

- Both major recessions in the 21st century so far—the Great Recession of 2007 to 2009 and the COVID-19 recession of 2020—were much more severe by different economic and labor market measures than typical recession experiences in recent decades.
- The Great Recession was notable not only for the scale of the initial economic shock but also (and especially) for the protracted recovery that followed. Total employment did not return to peak levels until six years after the recession began. Long-term unemployment (i.e., unemployment spells 27 weeks or longer) was a substantial part of unemployment during the Great Recession, rising to more than 40 percent of all unemployment between December 2009 and November 2012.
- The COVID-19 recession was distinguished by an initial spike in unemployment higher than the Great Recession and the highest since the Great Depression, reaching more than 14.7 percent in April 2020. But the recovery from the COVID-19 recession has been rapid in comparison with recent recessions, and total employment was nearly fully recovered by the end of 2021.
- Both recessions saw policy responses that, combined with rise in unemployment, led to substantial rises in UI claims. Although the Great Recession response lasted longer, the COVID-19 response was in the aggregate much larger. At its peak, UI claims exceeded 30 million during the COVID-19 recession compared with more than 10 million in the Great Recession, and UI benefits amounted to more than 2 percent of GDP in 2020 but never rose above 1 percent in the Great Recession.
- The scope and scale of the UI claims response to COVID-19 were driven in part by large temporary federal emergency programs. PUA provided benefits to millions of workers typically ineligible for UI. FPUC provided additional benefits of first \$600 then \$300 each week. Both benefits were unprecedented, at least in their scale.

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In both the Great Recession and the COVID-19 recession a combination of economic conditions and policy responses were observed to place tremendous strain on the operation of the UI system, which had to rapidly meet the rise in claims and implement new federal programs. The experience of the Great Recession, as well as the recovery that followed, highlighted challenges the program faced in such conditions. In the next chapter, we review the experience of the UI system in the Great Recession in more detail and identify lessons that would in many instances have implications for the COVID-19 recession.

# 3. The UI System in the Great Recession and Recovery

The UI system that encountered COVID-19 in 2020 reflected the legacy of the Great Recession. While the economic and policy contexts in the two recessions differed in important ways, the experiences of state UI programs in the Great Recession, in managing rising claims and administering federal emergency programs, provided experience with challenges that would arise in the COVID-19 context. Changes made to the UI system during and since the Great Recession would also have implications for the way the UI system could respond during the COVID-19 recession. And the labor market and workforce would be shaped by the long, slow recovery from the Great Recession in ways that would have implications for the UI system at the time of COVID-19.

This section considers each of these factors in turn, drawing on available literature and data to identify lessons from the challenges encountered and approaches taken in the Great Recession and its recovery. First, we summarize the experiences of the UI system in the Great Recession, which set the context for the COVID-19 experience. Second, we describe ways in which the UI system evolved during and after the Great Recession, leading to differences in the system as it would encounter COVID-19. And third, we briefly review ways the labor market and labor force changed in the Great Recession and recovery that would have implications for how the system would respond in the COVID-19 recession. Please see box 2 for key takeaways.

## UI System in the Great Recession

To begin, we synthesize prior literature and findings on the experience of state UI programs in the Great Recession with three key factors encountered in the recession: the reported challenges posed to state programs by the rapid and sustained rise in claims, the federal benefit extensions, and the federal supplements to weekly benefits. Each would later have direct parallels in the COVID-19 context.

### State Programs

From the onset of the Great Recession, claims for regular state UI benefits rose rapidly and substantially. Between 2007 and 2009, initial claims for regular UI benefits increased from 16.7 to 29.2 million, or by roughly 75 percent. This increase in the number of claims occurred at the same time that

the duration of claims was lengthening. Between 2007 and 2009, weeks compensated increased from 116 to 266 million, or by 129 percent. During 2009 and 2010 each, total weeks compensated across all UI programs exceeded 400 million.<sup>31</sup> Lee and Needels (2018) provide a brief overview of indicators showing the increased demand placed on the UI system by the Great Recession.

The rapid and substantial rise in UI claims in the Great Recession posed challenges for state UI operations, including training new or reassigned staff adequately, hiring new workers quickly, making necessary operational adjustments, and working with inflexible or out-of-date information technology systems. Trends in UI administrative performance measures over this period give some sense for the impacts of these challenges. Chocolaad, Vroman, and Hobbie (2013), analyzing trends in UI administrative performance data, show that the rise in claims was associated with moderate declines in key indicators, including timeliness of first payments, nonmonetary determinations, appeals, and payment accuracy.<sup>32</sup>

### CONTINGENT STAFFING

On the basis of interviews with staff in 20 state UI programs in 2011 and 2012, Chocolaad, Vroman, and Hobbie (2013) found that one challenge states reported in the Great Recession was promptly hiring a contingent workforce to meet the staffing capacity necessitated by rising claims.<sup>33</sup> Approaches to adding staff capacity included hiring new staff, reassigning existing staff (such as nonmonetary determinations and appeals staff) to claims-taking operations, temporarily rehiring recent retirees, and extending overtime hours for existing staff. Some intake activities were assumed by outside staff; for example, workers in some One-Stop centers helped with claimant applications (Chocolaad, Vroman, and Hobbie 2013). The ability of states to make these personnel adjustments was sometimes complicated by statewide hiring freezes or spending restrictions made in response to the recession (Lee and Needels 2018).

In addition to the challenges associated with expanding staff, states also faced challenges associated with quickly training new hires, outside staff, or reassigned staff (Chocolaad, Vroman, and Hobbie 2013). Some states created new special training programs. Other states took advantage of

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<sup>31</sup> The statistic for total weeks compensated comprises the federal-state Extended Benefits (EB) program and the federal Emergency Unemployment Compensation (EUC) program.

<sup>32</sup> See Figures 8.5 and 8.7 in Chocolaad, Vroman, and Hobbie (2013).

<sup>33</sup> Chocolaad, Vroman, and Hobbie (2013) report state experiences with administering UI during the recession based on interviews with state UI staff in 20 states conducted during 2011 and 2012.

having cross-trained other workforce staff in UI job functions before the recession, providing a readily accessible pool of already trained staff.

### PROGRAM OPERATIONS

Some states also found it necessary to adjust UI program operation elements to meet the rise in claims. These adjustments included extended hours of operation, added phone lines, and expanded internet capacity (Chocolaad, Vroman, and Hobbie 2013). Increased office hours of operation included longer hours during the week—opening earlier or closing later—or adding Saturday hours. Some states also made technical upgrades to increase call center capacity and expand capacity to take claims online. Several states noted that the use of callback technology for telephone claims, which directs the claimant to apply during a low-volume period to reduce wait time, was helpful for maintaining call center efficiency (Chocolaad, Vroman, and Hobbie 2013).

### TECHNOLOGY SYSTEMS

The rise in claims created a particular challenge for many state IT systems. Chocolaad, Vroman, and Hobbie (2013) report that the sharp increase in claims that began in mid-2008 was so large that some states could not easily service the growth with what were, in many instances, outmoded or legacy IT systems. State IT systems faced immediate pressure to process claims and payments promptly. Eventually, IT systems were modified and upgraded, but pressures remained—especially from late 2008 through 2010 while claims levels remained elevated.

### ADMINISTRATIVE FUNDING

Administrative funding for the UI program during the Great Recession compounded the other challenges facing states. At the outset of the recession, in 2007, federal base administrative funding was low by historical standards, adjusting for inflation and level of claims, and many states were already supplementing federal allocations with state funds (Chocolaad, Vroman, and Hobbie 2013). Above-base administrative funding is allocated on the basis of realized average weekly IUR, thus lagging the implementation of expanded agency operations it is intended to support (Chocolaad, Vroman, and Hobbie 2013). Because claims rose rapidly at the outset of the Great Recession, state needs substantially outpaced administrative funding levels. States reported that the shortfall challenged their ability to quickly respond to changes in the economy and in UI claims workloads (Chocolaad, Vroman, and Hobbie 2013). Note that the American Recovery and Reinvestment Act of 2009 (ARRA) also provided an additional \$500 million in funds in 2009 for states for UI administration. Many states

reported using these funds to invest in IT improvements (Chocolaad, Vroman, and Hobbie 2013; NASWA 2010).

## Benefit Extensions

Other challenges and lessons arose from the benefit extensions implemented during the Great Recession, which allowed workers to claim UI benefits for extended periods (longer than the then-typical 26-week maximum duration of benefits). As noted in section 2, extensions were provided under two programs: the standing federal-state EB and the temporary federal emergency program EUC.

### EXTENDED BENEFIT PROGRAMS

In the Great Recession, the maximum potential EB duration was up to 13 weeks in states, with the potential for up to 20 weeks in states that had the optional total unemployment rate (TUR) trigger and were experiencing “high unemployment.” (Whittaker and Isaacs 2016 reviews EB program details.)

In the Great Recession, most states paid EB at some point—42 of the 53 UI programs triggered EB between 2008 and 2012 (Nicholson, Needels, and Hock 2014). Between 2008 and 2013, the EB program provided \$29.5 billion in benefit payments (Hock et al. 2016). Importantly, the EB program operated somewhat differently than usual, principally because of two provisions in ARRA (Whittaker and Isaacs 2016).<sup>34</sup> First, under ARRA the federal government assumed full financial responsibility for EB in most instances (through 2013). Second, this funding encouraged states to temporarily adopt an optional TUR trigger to activate the EB program. The TUR trigger was activated when a state’s TUR was at or above 6.5 percent and also at or above 110 percent of its level in the same three-month period in either of the prior two years. The TUR threshold has generally been easier to meet than the IUR trigger (Mastri et al. 2016). In addition to the 12 states that had a TUR trigger before the ARRA, 26 states and the District of Columbia adopted a TUR trigger in response to the ARRA (Mastri et al. 2016).

An additional difference for EB during the Great Recession was that the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 allowed states to look back three years, rather than two, in determining whether to trigger EB (Whittaker and Isaacs 2016).<sup>35</sup> This change recognized that unemployment had been high for a sustained period of time but was no longer rising. Yet the

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<sup>34</sup> American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, 123 Stat. 115 (February 17, 2009), Division B, Title II, Subtitle A, Section 2003, <https://www.congress.gov/111/plaws/publ5/PLAW-111publ5.pdf>.

<sup>35</sup> Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010, Pub. L. 111-312 (December 17, 2010), Title V, <https://www.congress.gov/111/plaws/publ312/PLAW-111publ312.pdf>.



lookback element of the IUR and TUR triggers could trigger states off EB even though unemployment remained elevated (Chocolaad, Vroman, and Hobbie 2013). The three-year lookback expired in 2013.

Administering the EB program in the Great Recession provided state UI programs the opportunity to make several adjustments. Mastri and coauthors (2016) reported the results of a 2012–13 survey of 51 UI programs (50 states plus DC) that focused on adjustments in response to the ARRA's UI provisions. They found that most states adopting the TUR trigger (21 of 25 states that responded) reported that federal funding of benefits was a primary motivation, and some states adopted triggers that were explicitly conditional on full federal funding of EB. Conversely, many states that did not adopt the TUR trigger (5 of 10) did not believe they would have triggered EB by using the new trigger in the relevant time frame. Mastri and coauthors (2016) also reported the results of an analysis estimating that more than two-thirds of all EB first payments made between 2008 and 2012 resulted from states adopting the TUR trigger following the ARRA.

Mastri and coauthors (2016) indicated that temporary and ad hoc adjustments to EB—additional federal funding of benefits, incentives to adopt the alternative trigger, and allowance for a longer lookback period—were reported to make the program more difficult to implement. Many states reported that adopting the TUR trigger posed implementation challenges. Almost all responding states reported challenges reprogramming their data systems to handle the TUR, as well as challenges handling the increased number of claims. Chocolaad, Vroman, and Hobbie (2013) also found in their study that states reported challenges communicating with claimants about these benefits.

Finally, in addition to issues that arose related to EB triggers, standing administrative challenges were associated with administering EB because eligibility standards, including work search requirements, were not perfectly aligned between EB claims and standard unemployment claims (Whittaker and Isaacs 2016). Mastri and coauthors (2016), for example, report that about half of responding states noted the challenges associated with documenting work search for EB payments.

### EMERGENCY UNEMPLOYMENT COMPENSATION

Partly because of some difficulties associated with the EB program, in times of recession the federal government often provides a separate temporary extension of unemployment benefits. In the Great Recession, this took the form of the EUC program (Nicholson and Needels 2011). Initially established with the Emergency Unemployment Compensation Act of 2008 (and extended by subsequent

legislation), the EUC was fully federally financed. It usually paid benefits directly after people had fully exhausted their eligibility for regular UI benefits.<sup>36</sup>

Over the course of the Great Recession, the EUC program was extended, expanded, and modified temporarily in 11 pieces of federal legislation.<sup>37</sup> The extensions were prompted by persistently high unemployment, which declined slowly from 2010 to 2013, while the EUC program was active. The EUC maximum potential benefit duration was tied to state TURs, with higher TURs authorizing longer durations. The EUC maximum was 53 weeks for much of 2010, 2011, and 2012.<sup>38</sup> Overall, the EUC program provided substantial benefits to the unemployed. In 2010 and 2011, EUC payments exceeded regular UI payments.<sup>39</sup> Cumulative benefits through 2013, when the program ended, totaled \$230 billion (Hock et al. 2016).

Administering EUC was reported to pose several challenges for state UI programs (Chocolaad, Vroman, and Hobbie 2013). One complexity arose because federal law linked the maximum potential duration of benefits to state TURs, leading to changes in the maximum number of weeks. States also identified challenges posed by the introduction of optional weekly benefit amount calculations in mid-2010, which protected claimants from large declines in weekly benefits but required states to make additional adjustments.<sup>40</sup> Chocolaad, Vroman, and Hobbie (2013) found several states also reported challenges associated with interactions between the EUC and EB programs.

A particular reported challenge EUC posed to states related to how the program was extended over time (Chocolaad, Vroman, and Hobbie 2013). At several points the program temporarily lapsed before Congress enacted the next extension. For example, there were three breaks in EUC coverage during 2010, with the longest being seven weeks. After claimants reached enrollment and eligibility deadlines in EUC, they typically stopped filing for benefits, meaning they had to initiate new applications for benefits when EUC was subsequently extended. When EUC was extended, states were authorized to

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<sup>36</sup> Emergency Unemployment Compensation Act of 2008, Pub. L. 110-252, 122 Stat. 2323 (June 30, 2008), Title IV, <https://www.congress.gov/110/plaws/publ252/PLAW-110publ252.pdf>.

<sup>37</sup> The complicated legislative history of the EUC is illustrated in table 8.8 in Chocolaad, Vroman, and Hobbie (2013).

<sup>38</sup> A description of the EUC program including maximum weeks by year and claims by state and tier are provided at “Emergency Unemployment Compensation 2008 (EUC08) and Federal-State Extended Benefit (EB) Summary Data for State Programs,” March 29, 2004, <https://oui.doleta.gov/unemploy/euc.asp>.

<sup>39</sup> Figures are from Stephen A. Wandner and Randall W. Eberts, “Public Workforce Programs during the Great Recession,” *Monthly Labor Review*, July 2014, <https://www.bls.gov/opub/mlr/2014/article/public-workforce-programs-during-the-great-recession.htm>.

<sup>40</sup> Unemployment Compensation Extension Act of 2010, Pub. L. No. 111-205, 124 Stat. 2236 (July 22, 2010).

make retroactive payments for the interim weeks. The states learned to advise EUC claimants to remain in active claims status even though the program had terminated, although states indicated that communicating this to claimants was challenging.

### EFFECTS OF BENEFIT EXTENSIONS

Despite the challenges in administering UI benefit extensions, research has found that extensions were central to the program's effectiveness in meeting the needs of both workers and the economy in the Great Recession.

**Importance of Extensions for Households.** Benefit extensions in the Great Recession were substantial in magnitude and duration. Combined, EB and EUC paid more than \$250 billion while active, providing major support for unemployed workers (Hock et al. 2016). In 2010 and 2011, benefits under EB and EUC accounted for the majority (approximately 53 percent) of unemployment benefits going to workers.<sup>41</sup> As a result, benefit extensions provided a substantial component of the general liquidity and consumption-smoothing benefits UI provides for workers and households (Gruber 1997; Lee, Needels, and Nicholson 2017).

Several studies have more directly suggested the importance of extended UI benefits for workers in the Great Recession by examining outcomes for workers who exhausted extended benefits. Rothstein and Valletta (2017), for example, using data from the Survey of Income and Program Participation, found that the eventual exhaustion of benefits substantially reduced household income, and these effects were more pronounced for low-income and single-parent households. They also found that while households were more likely to participate in safety net programs, such as the Supplemental Nutrition Assistance Program, after benefit exhaustion, these programs replaced only a fraction of the income provided by UI benefits. As a result of the net decline in income, the poverty rate for these families rose by 13 percentage points upon exhaustion of UI benefits.

Needels and coauthors (2016) used combined survey and administrative data to examine the experiences of workers who exhausted their unemployment benefits under the extended benefit programs. They found that employment for workers who exhausted benefits was lower four to six years later compared with workers who did not exhaust their benefits (38 percent employed versus 70 percent). They also found that those who exhausted benefits experienced larger income losses, were more likely to live in poverty, and were more likely to receive benefits from safety net programs such as Supplemental Nutrition Assistance than those who did not exhaust benefits.

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<sup>41</sup> Wandner and Eberts, "Public Workforce Programs during the Great Recession."

Other recent research has illuminated how UI, by insuring individuals against precipitous declines in income, forestalls other negative economic outcomes for households and families. Hsu, Matsa, and Melzer (2018), for example, estimated that by supporting the income of unemployed homeowners and helping them stay current on their mortgage payments, the UI extensions in the Great Recession prevented roughly 1.3 million foreclosures between 2008 and 2013.

**Macroeconomic Stabilization.** As benefit extensions were a substantial component of UI spending in the Great Recession, they played an important role in macroeconomic stabilization. Vroman (2010) estimated that, inclusive of extended UI benefits, UI closed about two-fifths of the real GDP shortfall caused by the recession. Of that total, he estimated that benefit extensions represented slightly less than half of the stimulative effect of UI.

The relative importance of the extensions in the Great Recession was likely attributable to not only their magnitude and duration, but also their method of implementation. First, the EUC program was implemented earlier in the recession than temporary extensions in previous recessions (Nicholson and Needels 2011). Second, the federal funding of EB, along with adjustments to the EB triggers, was observed to be related to how the EB program played a stronger role in the Great Recession than it had in the past several recessions (Chocolaad, Vroman, and Hobbie 2013).

In addition to helping stabilize the macroeconomy, research suggests that extensions helped promote the efficiency of the labor market. Rothstein (2011) and Farber, Rothstein, and Valletta (2015) used CPS data to identify changes in employment and labor force transitions related to expansions and reductions in the availability of extended benefits. These studies found that extended UI benefits in the Great Recession reduced labor force exits among recipients. The theoretical literature also acknowledges that benefit extensions might lead to improved matches and wages, although the empirical literature on this point remains limited, with ambiguous findings and little direct evidence from the context of either the Great Recession or prior recessions (Nekoei and Weber 2015).

**Response of Workers.** One concern raised by UI benefit extensions is the possibility that extending benefits may encourage claimants to remain out of work longer than they otherwise would. The framework economists use to understand and evaluate these effects is one in which the benefits of UI are weighed against the “moral hazard” it might generate—that is, the disincentive to take a job (Baily 1978; Chetty 2008). In general, although an older economics literature tended to find more substantial evidence of moral hazard from UI (e.g., Meyer 1990), more recent research tends to find these effects are modest (e.g., Card, Chetty, and Weber 2007). Moreover, this framework recognizes that disincentive effects could vary over the business cycle; that moral hazard may be less of an issue in

recessions, when jobs are comparatively scarce and needs are comparatively large (Kroft and Notowidigdo 2016; Landais, Michailat, and Saez 2018; Schmieder, von Wachter, and Bender 2012).

Several studies have investigated the effects of UI extensions on employment in the Great Recession. Rothstein (2011) used identification strategies exploiting variation in the EUC and EB programs and data from the CPS to estimate the effects of UI benefit extensions during the Great Recession on employment outcomes. He found that the availability of extended benefits had a positive but small effect on the likelihood of eligible workers remaining unemployed. He estimated that EUC and EB raised the unemployment rate in January 2011 by 0.1 to 0.5 percentage points (at a time when the observed unemployment rate was 9 percent). Notably, he estimated that most of this effect was because of a reduction in the rate at which the unemployed left the labor force rather than a reduction in the rate at which the unemployed become employed.

Farber and Valletta (2015), also using CPS data, used variation in the timing and generosity of EUC and EB extensions across states to identify the effects of extensions in the Great Recession; then compared their results with a similar exercise examining the effects of the 2001 recession. The authors found that extensions led to a small increase in unemployment durations, largely because of a reduction in individuals leaving the labor force. They found this effect was stronger in the Great Recession than in the earlier recession. Farber, Rothstein, and Valletta (2015) found qualitatively similar results examining the effects of the extensions expiring in 2012 and 2013.

Hock and coauthors (2016) used combined survey and administrative data from 12 states to describe extended benefits claimants (for EUC or EB) in 2008 and 2009 and their experiences during and following their claims. The primary focus of the analysis was unemployment duration, reemployment, and the relationship between benefit duration and reemployment. Although Hock and coauthors' (2016) research design did not establish a causal relationship, their analysis found that workers potentially eligible for longer benefit durations had longer unemployment durations and fewer weeks of employment in the three years following their initial claim. These associations may be a result of more potential weeks of benefits being offered in states that faced worse economic conditions.

Other approaches that examined UI's effect on unemployment levels also found modest results. Chodorow-Reich, Coglianesi, and Karabarbounis (2019) examined state-level labor market responses to UI extensions, identifying their estimates from differences between the real-time unemployment rates that determined the duration of EUC benefits in the Great Recession and the revised estimates in later data. They estimated that the effects of UI benefits extension from 26 to 99 weeks in the Great

Recession increased the unemployment rate by 0.3 percentage points or less.<sup>42</sup> Marinescu (2017) used data from a large online job board to show that although benefit extensions are associated with fewer job applications, they do not reduce the number of vacancies, mitigating the effects of extensions on unemployment.

## Supplements to Weekly Benefits

The UI system faced challenges in implementing and adjusting to benefit extensions that increased the duration of benefits. Yet the system had prior experience with these types of adjustments, at least in their broad form. The ARRA enacted two other novel, at the time, changes to UI policy intended to increase the level of benefits. The first was a fixed \$25 supplement to weekly benefit amounts in 2009 and 2010 known as the FAC payment, and the second was income tax relief on UI benefit payments in 2009.

While the UI system has less experience with supplements to weekly benefits than with extensions in benefit durations, the case for countercyclical adjustments to benefit levels has been advanced in the recent literature. Kroft and Notowidigdo (2016), using Survey of Income and Program Participation and Panel Study of Income Dynamics data, showed evidence that over recent decades in the United States, the moral hazard effects of UI were lower in periods of recession, while the consumption-smoothing benefits have been constant across the business cycle. In a standard model of optimal UI, this result suggests that the optimal wage replacement rate (the share of pre-separation wages replaced by UI benefits) rises in a recession. Landais, Michailat, and Saez (2018) specified a model that considers the effects of UI on the broader labor market in the United States, which they used to estimate the UI replacement rate that would maximize welfare over recent decades. They found that the optimal UI replacement rate rises in recessions.

### FEDERAL ADDITIONAL COMPENSATION

The FAC \$25 increment started on February 22, 2009, and was paid to all claimants receiving a first payment through the end of June 2010 and to claimants with extended weeks through the end of 2010.

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<sup>42</sup> A third empirical approach, taken by Hagedorn, Manovskii, and Mitman (2016) identified the employment effects of UI benefit extensions by comparing outcomes between neighboring counties on either side of state lines (so subject to different potential EUC or EB durations). The authors estimated substantial effects of the extensions on participation and employment decisions using this approach; however, the literature suggests that this finding is not robust. Boone and coauthors (2016) showed that this effect is not robust to alternative specifications and different data and found little evidence of an employment effect using this identification strategy. Dieterle, Bartalotti, and Brummet (2020) also identified sources of bias in this method.

Aggregate FAC payments during 2009 and 2010 totaled about \$8.8 billion.<sup>43</sup> No previous temporary federal UI legislation had raised the level of weekly benefits.

Implementing FAC caused substantial administrative problems in the benefit payment system of state UI programs. In a survey of 20 state UI programs conducted by the National Association of State Workforce Agencies as part of an evaluation of ARRA, 19 indicated they encountered major problems in administering FAC payments (Chocolaad, Vroman, and Hobbie 2013). While state automated payment systems could increase weeks of benefit payments in temporary programs like EB and EUC relatively easily, the systems were not programmed to increase weekly benefit amounts. Even states with the most advanced UI payment systems in 2009, such as Ohio and Nebraska, encountered problems (Chocolaad, Vroman, and Hobbie 2013). Most states had to develop separate computer programs to make FAC payments. Typically, states developed a work-around to administer FAC payments, meaning two sets of calculations were required to arrive at the correct payment for each week in benefit status.

#### FEDERAL INCOME TAX WITHHOLDING

The ARRA also temporarily suspended federal personal income taxes on UI benefits during calendar year 2009, which effectively increased UI benefits. The suspension applied to only the first \$2,400 of benefits and was not extended. The FAC payments were also progressive, providing larger percentage supplements to workers with lower wages. This temporary income tax suspension added an estimated \$4.7 billion to take-home pay (Chocolaad, Vroman and Hobbie 2013, table 1.3).

States generally indicated that administering this temporary income tax suspension did not pose major administrative problems (Chocolaad, Vroman and Hobbie 2013). Usually, the states allowed claimants to decide about tax withholding on UI benefits. Some states initiated communications with claimants, such as mailings and website announcements, informing them of their tax-withholding options.

While these adjustments provided workers with additional liquidity, the amounts were modest. The available evidence suggests the benefits to workers were correspondingly modest. Hock and coauthors (2016) studied the effects of additional UI benefits during the Great Recession using combined administrative and survey data. They found that these provisions totaled about 7 percent of weekly benefits, most of which was attributable to the FAC.

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<sup>43</sup> Barnow (2013), Table 1.3, page 4.

# UI System Changes from the Great Recession

In addition to UI policies in the Great Recession that were designed to provide an adequate, immediate emergency response to economic conditions, other efforts during this period were intended to spur more lasting changes to the UI program. Two notable changes included the UI eligibility modernization provisions of the ARRA, and provisions to encourage state adoption and promotion of STC programs.

## Eligibility Modernization Provisions

The ARRA included a set of provisions, often referred to as UI eligibility modernization provisions, intended to induce states to adopt structural UI reforms (Chocolaad, Vroman, and Hobbie 2013). The effect of the modernization provisions was, generally, to expand UI eligibility by offering financial incentives to state UI programs for having or adopting specific benefit provisions. ARRA authorized \$7 billion to be distributed to states if they adopted (or already had) specific UI benefit provisions as of August 2011. Each state's amount was determined by its proportionate share of federal taxable payroll.

Each state's eligible amount was split into two parts (Chocolaad, Vroman, and Hobbie 2013). One-third was paid if the state established an alternative base period (ABP). Most states at the start of the Great Recession (32 of the 50 states and DC in 2007) based monetary eligibility on covered earnings during the earliest four of the past five fully completed calendar quarters. For those monetarily ineligible under the regular base period, the ABP used another period, most frequently the latest four calendar quarters. To be eligible for any modernization money, ARRA required states to adopt an ABP.

To be eligible for the remaining two-thirds share of its modernization allocation, the state had to establish two of four benefit provisions (in addition to having an acceptable ABP): (1) eligibility for those seeking part-time work if they usually worked part time before their job separation; (2) eligibility for those who quit for one of three designated reasons related to family obligations (to care for ill family members, because of domestic violence, or to move with a spouse whose new job was outside the local labor market); (3) continuation of UI benefits for exhaustees successfully participating in state-approved workplace training; or (4) a dependents' allowance.

The UI programs received \$4.4 billion of the \$7 billion, with \$1.6 billion going to 41 programs for the ABP allocations and \$2.8 billion going to 36 programs for the other allocations (Chocolaad, Vroman, and Hobbie 2013). Several states adopted these provisions between 2009 and 2011: 18 states adopted the ABP and 6 to 12 states each adopted provisions for part-time work, quits, and training for UI exhaustees. In total, 39 state programs were compensated for using an ABP, 26 for extending eligibility



to unemployed part-time workers, 19 for allowing quits for compelling family reasons, 16 for continuing to provide benefits to UI exhaustees during training, and 7 for having a qualifying dependents' allowance.<sup>44</sup>

By and large, the initial adoption of modernization provisions has been followed by continued state support of these provisions since the Great Recession. Figure 8 shows the prevalence of benefit modernization provisions by tracking counts of state programs (51 including DC) with each listed provision from January 2000 (or when first available) to 2021. The figure illustrates the widespread adoption of modernization provisions from 2009 to 2011. It also shows that most provisions have been maintained from 2014 to 2021. The number of state programs paying UI to exhaustees enrolled in approved training was observed to decline the most over this same period—the count was 20 programs in 2011 but only 15 by 2016, where it has remained.

Despite the range of specific program changes the modernization provisions allowed, their common objective was to broaden UI eligibility and payments. The literature generally finds that adoption of these provisions offers benefits—and thus the insurance value of UI—to more workers. The two most commonly adopted provisions—the ABP and the part-time work provision—are the most studied. Mastri and coauthors (2016) estimated that the ABP and part-time work provisions increased UI first payments by 6 to 10 percent in 2012. In contrast, Gould-Werth and Shaefer (2013) studied the adoption of an ABP by states going back to 1987 and found no significant effects on UI receipt, although they did find a modest increase among part-time workers with less than a high school diploma.

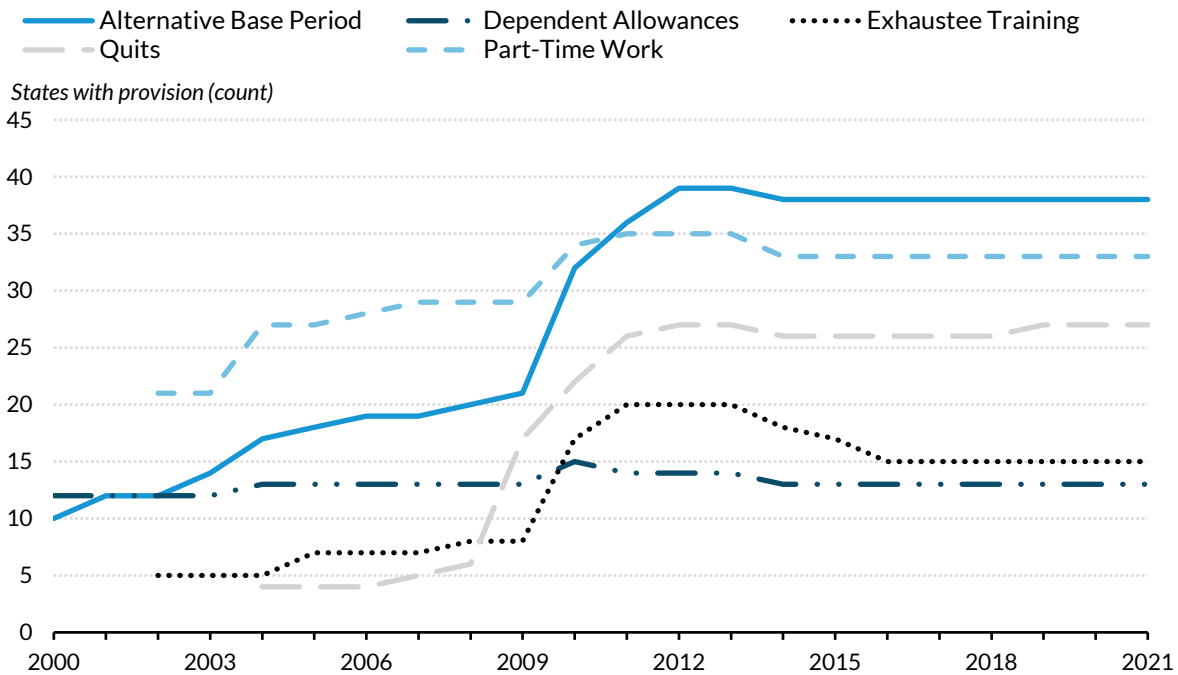
A different approach projects the likely effects of more widespread adoption of these provisions on UI receipt. Callan, Lindner, and Nichols (2015) used Survey of Income and Program Participation data to estimate what UI receipt in the Great Recession would have been if all states had adopted the ABP and extended eligibility to claimants seeking part-time work and those who quit their jobs for compelling family reasons. The analysis calculated that the share of unemployed workers eligible for UI would have risen by roughly 20 percentage points and that the adoption of modernization provisions between 2008 and 2013 realized about one-third to one-half of this increase.

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<sup>44</sup> These counts show number of states receiving ARRA compensation for specific modernization provisions. Other states also had these benefits but did not receive ARRA compensation. The counts refer to 51 UI programs but exclude Puerto Rico and the Virgin Islands.

FIGURE 8

State Adoption and Maintenance of Modernization Provisions, 2000–21



Sources: Data from Annalisa Mastri, Wayne Vroman, Karen Needels, and Walter Nicholson, *States’ Decisions to Adopt Unemployment Compensation Provisions of the American Recovery and Reinvestment Act: Final Report* (Princeton, NJ: Mathematica Policy Research, 2016) and several tables in recent issues of US Department of Labor, “Comparison of State Unemployment Insurance Laws,” <https://oui.doleta.gov/unemploy/statelaws.asp>. The counts show the number of states with the indicated benefit provisions on January 1 of each year.

Another strand of research on the modernization provisions has focused on state decisions to adopt the provisions, along with administrative and operational considerations associated with implementation. In a 2012–13 survey of 51 UI programs (50 states plus DC) by Mastri and coauthors (2016), states reported that incentives for adopting these provisions were a primary factor in their decisionmaking (Mastri et al. 2016). States were more likely to adopt the provisions when they perceived that modernization payments would cover the expected costs of benefits or program administration. For the other provisions, states reported various challenges, such as communicating the change to claimants and training staff.

In the same survey, Mastri and coauthors (2016) also asked states about challenges associated with implementing the ABP. The most prevalent challenge reported was the need to reprogram data systems in introducing the ABP. Many states also reported that a key factor was extending eligibility to workers, typically workers with less labor force experience or lower earnings, who would not qualify for benefits using the standard base period. In addition, a factor many states reported in the decision to adopt the

necessary two of the four reforms was whether the state had one or two of those provisions already in place, at least in part. States' choices of which other provisions to adopt were driven by which ones they already had partially in place. For example, of the 33 states in the sample adopting modernization provisions, 26 reported this as an important reason for adoption of their first of these provisions, and 21 for their second, the most common reasons given in each case.

Chocolaad, Vroman, and Hobbie (2013) also asked a sample of 20 states about implementing the modernization provisions, with broadly similar results. For both the ABP and the other provisions, many states reported that they generated cost estimates and that relative costs and benefits played an important role in the decision to adopt modernization provisions and which ones they chose. The study also noted that states reported substantial uncertainty in generating these cost estimates. The flexibility of the modernization funds—they could be used to pay benefits or pay for program administration—may also have made them more attractive to states than the other federal funding options.

### **Short-Time Compensation**

STC, or work sharing, allows participating employers to place designated workers on reduced schedules, with work reductions typically between 10 and 60 percent of normal weekly hours. Prorated UI benefits are paid for the nonwork period. An example would be a worker placed on a four-day schedule working 32 weekly hours and receiving UI benefits equal to 20 percent of the full weekly benefit. STC is more widely used in other countries, such as Germany, Belgium, and Italy. Its practice in the United States has remained rare (Vroman 2013).

Where adopted, STC programs have proven popular with both employers and workers and they provide some economic advantages over full layoffs by preventing the severing of employment matches that can be costly to reestablish (Abraham and Houseman 2014; Balducchi et al. 2015). However, the creation and use of STC programs within state UI programs has faced administrative challenges. Notably, individual employers must prepare plans for approval by state UI agencies.

A survey of 2,400 employers conducted in 2014 (but focused on experiences before 2012) found that employers using STC were generally satisfied with their state programs; however, few employers were aware that the program was available (Balducchi et al. 2015). Consistent with research suggesting that employer awareness of STC is low, research conducted in 2014 tested information interventions to raise employer awareness in Iowa and Oregon and found that outreach to employers significantly raised awareness in both states and increased adoptions of STC programs in Oregon (Houseman et al. 2017).

Economic conditions during the Great Recession, combined with subsequent policy actions, led to STC program expansions, and STC utilization grew though remained infrequent. States with long-standing programs experienced their highest STC utilization in 2009. Weeks claimed in that year for the 17 states with established STC programs totaled 5.5 million, although this represented only 3.8 percent of regular program weeks claimed (Vroman 2013).<sup>45</sup> Between 2010 and 2012, six states added an STC program (Vroman 2013). STC was also promoted by the Middle Class Tax Relief and Job Creation Act of 2012, which provided funding to support state adoption and promotion of STC programs and clarified the definition of qualifying STC programs (DOL 2016). The act also provided temporary federal financing of STC benefits.

Since the Great Recession, STC programs have continued to expand somewhat but remain a small part of the UI system. An additional four states adopted STC programs between 2012 and 2020, bringing the total number of state STC programs in place at the onset of the COVID-19 recession to 27.<sup>46</sup> In 2018, for example, the 25 states with STC programs at that time averaged 7,687 STC recipients per week, but this was only 0.44 percent of nationwide insured unemployment for the year.<sup>47</sup>

Although STC use in the United States is still somewhat limited, research on its effectiveness suggests that in times of recession, were it more widely employed, it might substantially cushion declines in employment. Abraham and Houseman (2014) estimated that, as operated in the Great Recession, STC prevented approximately 22,000 layoffs. They extrapolated that if every state had a program as intensive as that of Rhode Island (the most intensive), STC may have prevented approximately 10 times more. Furthermore, if the US program were as expansive as the German program, it may have supported nearly 1 million jobs.

## UI System after the Great Recession

In the recovery following the Great Recession the UI system continued to evolve, partly in response to effects generated by the recession. One set of changes were measures taken by states to restore trust

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<sup>45</sup> When STC weeks in 2009 were measured as equivalent (five-day) weeks, they represented only 1 percent of total weeks.

<sup>46</sup> The count of states with STC programs before COVID-19 is from table 4.5 in DOL's 2020 "Comparison of State Unemployment Insurance Laws," <https://oui.doleta.gov/unemploy/comparison/2020-2029/comparison2020.asp>.

<sup>47</sup> Authors' calculations based on ETA 539 Weekly Claims series data. Insured unemployment in 2018 totaled 1,734,074. Data available at "Data Downloads," accessed August 1, 2020, <https://oui.doleta.gov/unemploy/DataDownloads.asp>.

fund balances, following the high levels of spending in the Great Recession. This, among other factors, would contribute to changes in the generosity of state UI programs, which would in turn be a contributing factor to declines in reciprocity.

## Trust Fund Restoration

Following the large trust fund drawdowns and extensive borrowing during and after the Great Recession, more than half of states rebuilt their UI trust funds to levels that equaled or exceeded pre-recession balances. The evolution of trust funds is summarized briefly below, drawing on and extending original analysis on these issues reported in a series of papers by Vroman (2016, 2018a). This is important for understanding the financial issues facing states before COVID-19: financial pressures following the Great Recession may have contributed to changes in benefits, with implications for the performance of the system during the COVID-19 recession (Vroman 2018a, 2018b).

In rebuilding their trust funds after the Great Recession, individual state UI programs exhibited diversity in both the scale of their actions and the mix of changes to improve solvency. One distinct aspect of state financing responses was the speed with which some states enacted bills to help restore solvency. Hawaii, New Hampshire, South Dakota, Tennessee, Vermont, and West Virginia all enacted laws in 2009 and 2010 that increased UI tax revenue. All six states raised their taxable wage base. Other elements of their policy responses included new tax assessments (New Hampshire, South Dakota, and Tennessee) and benefit reductions (New Hampshire and West Virginia) (Vroman 2018a).

When a state's trust fund is exhausted, the state can borrow from the US Treasury to finance benefit payments (termed Title XII advances).<sup>48</sup> Loans outstanding for more than two years are subject to an automatic loan repayment process that operates through reductions in allowable Federal Unemployment Tax Act (FUTA) tax offset credits.<sup>49</sup> The credit reductions start at 0.3 percent of federal taxable payroll (levied on the first \$7,000 of each worker's annual earnings). The offset rates typically increase by 0.3 percent per year until the Title XII debt is repaid. After the Great Recession, 26 UI state programs were subject to FUTA tax credit reductions. The offsets totaled \$11 billion and accomplished much of the trust fund restoration that occurred in these states (Vroman 2018a).

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<sup>48</sup> In reference to Title XII of the Social Security Act, see [https://www.ssa.gov/OP\\_Home/ssact/title12/1200.htm](https://www.ssa.gov/OP_Home/ssact/title12/1200.htm) (accessed June 21, 2022).

<sup>49</sup> State programs usually can receive credit for 5.4 percent of the federal UI tax or 6.0 percent of federal taxable payroll.

Tables 3 and 4 display data on tax credit reductions for two contrasting groups of states. Table 3 identifies the eight states that enacted large increases in their tax bases between 2007 and 2010. Table 4 identifies the eight states that were subject to FUTA credit reductions for at least four consecutive years following the Great Recession. Tax base increases in table 3 ranged between 20 and 50 percent with a simple average of 29 percent. For each state, tables 3 and 4 also show the average high-cost multiple (AHCM), an actuarial indicator of trust fund adequacy that incorporates information on the current trust fund balance, total UI-covered payroll, and the average payout rate in three recent high-cost years. Higher AHCMs indicate higher trust fund adequacy.

**TABLE 3**  
**FUTA Tax Credit Reductions in States with Large Tax Base Increases, 2007–2010**

State	Tax base, 2007 (1,000s)	Tax base, 2010 (1,000s)	Ratio, 2010/2007	AHCM, 2007	Benefit ratio, 2009/2007	Years of reductions
Arkansas	10.0	12.0	1.20	0.32	2.22	3
Delaware	8.5	10.5	1.24	0.90	1.95	2
New Hampshire	8.0	10.0	1.25	1.19	3.02	0
Rhode Island	14.0	19.0	1.36	0.38	1.78	3
Tennessee	7.0	9.0	1.29	0.48	2.50	0
Vermont	8.0	10.0	1.25	1.20	2.14	1
West Virginia	8.0	12.0	1.50	0.45	2.34	0
Wyoming	18.1	22.8	1.26	1.15	4.76	0
<b>Average</b>	<b>10.2</b>	<b>13.2</b>	<b>1.29</b>	<b>0.76</b>	<b>2.59</b>	<b>1.13</b>

**Sources:** Data assembled at the Urban Institute using reports submitted by state UI programs to the Office of Unemployment Insurance, US Department of Labor.

**Notes:** The AHCM is an actuarial indicator of trust fund adequacy. It incorporates information on the current trust fund balance, total UI-covered payroll, and the average payout rate in three recent high cost years. Higher AHCMs indicate higher trust fund adequacy. AHCM = average high-cost multiple, FUTA = Federal Unemployment Tax Act, UI = Unemployment Insurance.

For high-increase states, FUTA credit reductions were not a large element of their trust fund restorations. State actions, such as tax base increases, were associated with small reliance on FUTA credit reductions.

The eight states in table 4 present several contrasts with the states in table 3. Between 2007 and 2010, the tax base did not change for seven states. The change in the eighth state (North Carolina) reflects an automatic change attributable to indexation of its tax base. These states tended to have low AHCMs in 2007. Their average AHCM of 0.25 was less than half the national average of 0.52 for that year (not shown). As a group, these states did not have unusually large increases in benefit payouts between 2007 and 2009. Their average ratio of 2009-to-2007 regular benefit payouts of 2.60 was below the national average of 2.76 for the same period (not shown).

The most vivid contrast between the states in the two tables is their experiences with FUTA tax credit reductions. In table 3 the simple average across the eight states was roughly 1 year of credit reductions compared with an average of 5 years in table 4. The states in table 4 made few or small changes in program financing between 2007 and 2010. They achieved much of their trust fund restoration via a largely passive route that relied heavily on FUTA credit reductions.

**TABLE 4**  
**FUTA Tax Credit Reductions in States with Small Tax Base Increases, 2007–10**

State	Tax base 2007 (1,000s)	Tax base 2010 (1,000)	Ratio 2010/2007	AHCM 2007	Benefit ratio 2009/2007	Years of reductions
California	7.0	7.0	1.00	0.27	2.22	7
Connecticut	15.0	15.0	1.00	0.54	2.29	5
Indiana	7.0	7.0	1.00	0.29	2.57	5
Kentucky	8.0	8.0	1.00	0.21	2.65	5
New York	8.5	8.5	1.00	0.09	2.19	4
North Carolina	17.8	19.7	1.11	0.23	3.61	4
Ohio	9.0	9.0	1.00	0.12	2.57	5
South Carolina	7.0	7.0	1.00	0.26	2.68	5
<b>Average</b>	<b>9.9</b>	<b>10.2</b>	<b>1.01</b>	<b>0.25</b>	<b>2.60</b>	<b>5.00</b>

**Sources:** Data assembled at the Urban Institute using reports submitted by state UI programs to the Office of Unemployment Insurance, US Department of Labor.

**Notes:** The AHCM is an actuarial indicator of trust fund adequacy. It incorporates information on the current trust fund balance, total UI-covered payroll, and the average payout rate in three recent high cost years. Higher AHCMs indicate higher trust fund adequacy. AHCM = average high-cost multiple, FUTA = Federal Unemployment Tax Act, UI = Unemployment Insurance.

Examining trust fund restoration over a longer time horizon, table 5 displays reserve ratios (trust fund reserves as a percentage of total payroll) for selected groups of states at the end of 2007 and the end of 2018. Larger values of the reserve ratio indicate state programs with more adequate trust fund reserves for paying UI benefits. The top two rows, respectively, show aggregate reserve ratios and simple averages of state-level reserve ratios across 51 programs (including the District of Columbia). Compared with 2007, reserves at the end of 2018 were measurably larger, with 2018/2007 ratios of 1.26 and 1.19 respectively. On average, states entered COVID-19 with more adequate reserves than they had at the outset of the Great Recession.

Table 5 also compares trust fund restoration across two groups of states, the largest 13 states (by total employment) and the remaining 38 (here, referred to as small) states. On average, small states maintained larger reserve ratios over this period than large states. The simple average for the 13 largest states in 2007 was only 0.52 versus 1.59 for the 38 other states, and this relative difference was still evident in 2018.

The table also illustrates the different fiscal positions of large states depending on whether they lowered their benefit levels following the Great Recession (an issue we describe further in the following subsection). Three of the 13 largest states sharply reduced maximum benefit duration between 2012 and 2014. The subsequent reductions in benefit payments helped their trust fund balances to increase sharply. As a result, their average reserve ratio in 2018 was more than twice their average in 2007 (1.43 versus 0.70) and close to the all-state simple average of 1.56 in 2018.

**TABLE 5**  
**Aggregate and Selected Reserve Ratios before the Great Recession and COVID, 2007 and 2018**  
*Percentage of total payroll*

	December 2007	December 2018	Ratio 2018/2007
Total reserve ratio	0.791	0.994	1.256
Simple average reserve ratio	1.316	1.560	1.185
13 largest states	0.520	0.909	1.748
3 of 13 that lowered benefits	0.697	1.433	2.057
10 of 13 that maintained benefits	0.467	0.752	1.610
Other 38 states	1.588	1.782	1.122
19 indexed programs	1.995	2.455	1.231
32 nonindexed programs	0.913	1.028	1.126

**Source:** Data assembled at the Urban Institute using reports submitted by state UI programs to the Office of Unemployment Insurance, US Department of Labor.

**Notes:** Reserve ratios are total net reserves on December 31 divided by total annual payroll for taxable covered employers. Reserve ratios measured as percentages. States are classified as large or small for this analysis based on total payroll employment; total payroll in 2018 estimated to be 4 percent higher than in 2017. States that lowered benefits for this analysis include the large states that reduced the maximum potential duration of regular UI benefits (Florida, Georgia, and North Carolina). Indexed programs refer to programs that index their taxable wage base to state annual average wages. Data refer to the 50 states and the District of Columbia.

The bottom two rows in table 5 display the sharply contrasting reserve ratio averages for states that index their tax bases (so that their taxable wage base increases over time as average wages increase) compared with those that do not. The 19 programs with indexed tax bases had substantially higher reserve ratios in 2018 (2.46) compared with the other 32 programs (1.03). This finding is also consistent with other research findings that an indexed tax base is associated with faster trust fund restoration following recessions (Lachowska, Vroman, and Woodbury 2020). Note, in addition, that the same research also finds differences in the speed of trust fund restorations depending on the method states use to calculate employer tax rates.<sup>50</sup>

<sup>50</sup> Specifically, states that set employer tax rates based on what is referred to as the reserve-ratio experience rating, where tax rates depend on the ratio of the employer's cumulative history of both tax payments and charges to recent payroll, see their reserves recover more slowly than states that use what is referred to as the benefit-ratio method, which bases tax rates on the ratio of recent charges to recent payroll.



One financing development of the Great Recession was increased state use of municipal bond financing to cover trust fund deficits. Eight separate state programs borrowed a total of about \$11 billion in the municipal bond market between 2010 and 2013 and used the proceeds to repay trust fund debts owed to the US Treasury (Vroman et al. 2021). These states then gradually repaid their bonds over subsequent years. By mid-2017, six of the eight had completed their bond repayments while two programs (Michigan and Pennsylvania) completed their repayments in 2019.

## **Reductions in Maximum Number of Weeks**

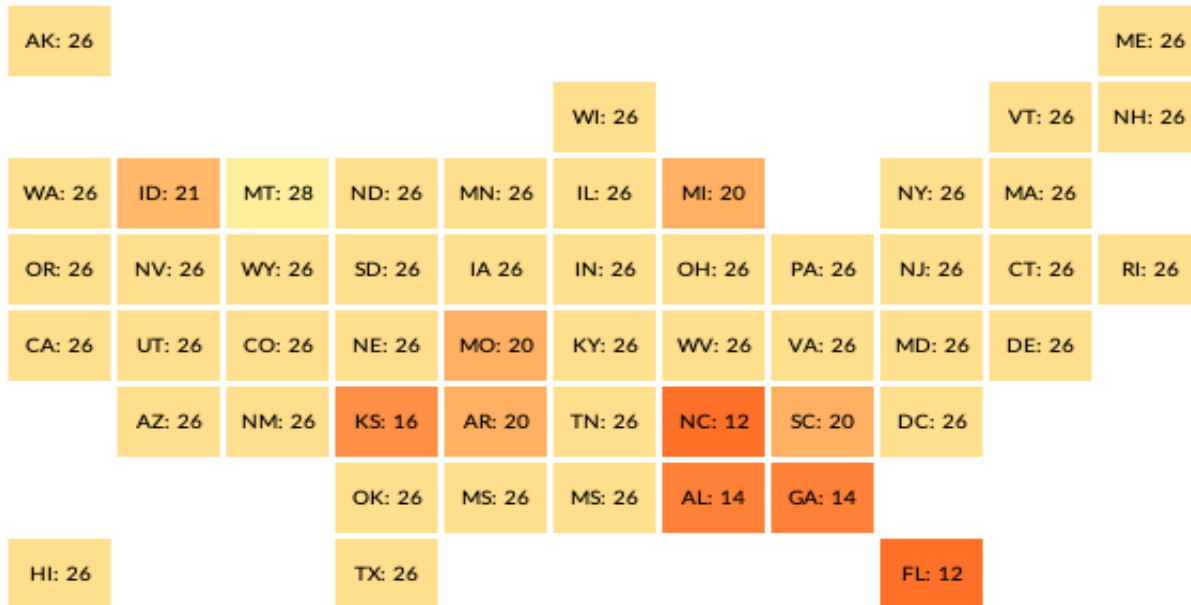
Partly as a consequence of the need to bring finances into balance following large UI trust fund drawdowns and extensive borrowing in the Great Recession, some states adopted changes to their UI programs that have led to reductions in benefits and reciprocity.

An important feature of the policy landscape in the years following the Great Recession was that some states reduced the maximum number of weeks of regular UI benefits. From the late 1970s through 2010, all state UI programs provided at least 26 weeks as the maximum potential duration in the regular program. Starting with Missouri and Arkansas in 2011, however, some states began to lower their maximum potential durations.<sup>51</sup> By 2019, maximum potential durations were as low as 12 to 14 weeks in Alabama, Florida, Georgia, and North Carolina (figure 9). At the beginning of 2020—at the onset of COVID-19—10 states had a maximum potential duration of fewer than 26 weeks (three of which, in response to COVID-19, returned to offering 26 weeks at least temporarily).

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<sup>51</sup> States' maximum duration of regular benefits is from recent issues of the "Comparison of State Unemployment Insurance Laws," last updated May 16, 2022, <https://oui.doleta.gov/unemploy/statelaws.asp>.

FIGURE 9  
Maximum Weeks of Regular UI Benefits by State, 2019



Sources: US Department of Labor, “Comparison of State Unemployment Insurance Laws,” last updated May 16, 2022, <https://oui.doleta.gov/unemploy/statelaws.asp>, and Urban Institute, “Unemployment Insurance COVID-19 Pandemic Response Dashboard,” accessed June 21, 2022, [https://urban.co1.qualtrics.com/jfe/form/SV\\_eCWE1OTG7qYGfs1](https://urban.co1.qualtrics.com/jfe/form/SV_eCWE1OTG7qYGfs1).  
Note: Figures displayed are for programs as of January 1, 2020.

These reductions in the maximum duration of benefits have implications for the extent of regular UI benefit payments. Vroman (2018b) identified state reductions in the maximum potential duration of regular UI benefits below 26 weeks as related to declining UI benefit reciprocity. The sustained economic recovery in the decade following the Great Recession led total benefit payments to decline sharply in all states. Much larger reductions, however, occurred in states that shortened average benefit duration. For example, three of the largest states (California, New York, and Texas) did not make major changes in their benefit statutes following the Great Recession. Their combined regular UI benefit payments declined from \$19.1 billion in 2009 to \$9.4 billion in 2018, or by 50.6 percent. Over the same period, combined regular benefit payments declined by 78.8 percent (from \$5.6 to \$1.3 billion) for Michigan, Missouri, and South Carolina and by 87.7 percent (from \$7.1 billion to \$0.9 billion) for Florida, Georgia, and North Carolina.

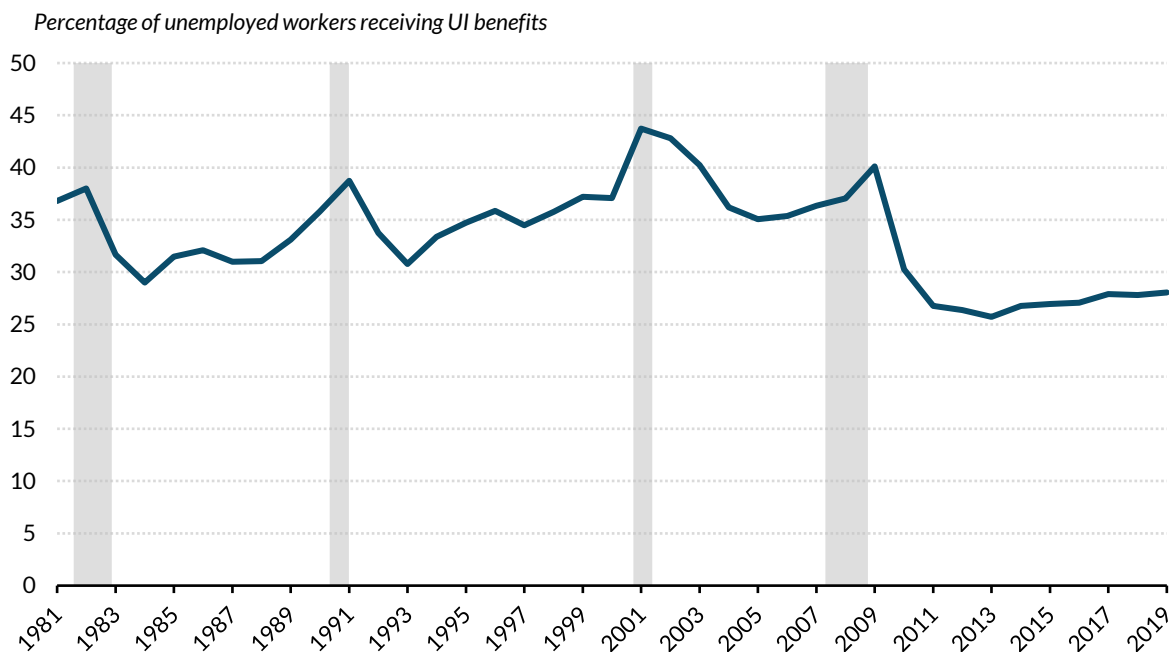
### Trends in Reciprocity

A central and important aspect of the way the UI system evolved following the Great Recession, with direct implications for the performance of the system in the COVID-19 recession, has been a decline in

the share of the unemployed receiving UI benefits. Figure 10 illustrates the share of unemployed workers claiming regular UI benefits, showing the decline in this reciprocity rate over time. In the recovery before the Great Recession, more than 35 percent of unemployed workers claimed benefits. In the years following the Great Recession, between 25 and 28 percent did. As a result of these trends, by 2019, at the onset of the COVID-19 recession, the UI reciprocity rate had fallen to 28 percent of total unemployment—that is, only about two in every seven unemployed workers received UI benefits.

At least two contributing factors have been identified (Vroman 2018b). First, 10 states as of 2019 reduced the maximum potential duration of regular UI benefits below 26 weeks. The 10 states represent about 20 percent of aggregate employment. Second, denial rates for nonseparation nonmonetary determinations (determinations of whether workers are eligible for UI on the basis of factors such as satisfying requirements to search for work) have increased in recent years. In 2019, the nonseparation denial rate of 0.86 was the highest in the history of the UI program. During the 1980s and 1990s, nonseparation denial rates were lower, between 0.50 and 0.60 each year. This suggests that changes in UI program administration affected the decline in reciprocity.

**FIGURE 10**  
**Unemployment Insurance Reciprocity Rates, 1981–2019**



**Sources:** Employment and Training Administration; National Bureau of Economic Research (NBER).

**Notes:** Reciprocity rate displayed is the ratio of UI claimants to total unemployment. Shaded bars indicate periods of recession according to NBER.

# Labor Market Following the Great Recession

Finally, the UI system has had to contend with continued changes to the labor market and labor force as it evolved in the long, slow recovery coming out of the Great Recession. Three factors are notable for their implications for the UI system: (1) changes in the nature of work and employment relationships; (2) changes in the nature of unemployment, especially the rise in durations; and (3) changes in the demographic composition of the workforce, including the aging of the workforce and its potential implications for UI.

## Changes in the Nature of Work

Recent years have brought greater attention to trends and issues associated with alternative work, including independent contracting, on-call work, temporary help, and contingent work, in other words, jobs known to have limited duration. Particular interest exists in electronically mediated work, which includes platform-based work such as rideshare work and other so-called gig employment. The Bureau of Labor Statistics defines electronically mediated work as “short jobs or tasks that workers find through websites or mobile apps that both connect them with customers and arrange payment for the tasks.”<sup>52</sup>

Understanding the magnitudes and trends related to alternative work could be important for UI primarily because workers in such employment relationships are often ineligible for regular UI benefits (though they would be made eligible in the COVID-19 recession through PUA, and which we discuss in section 4). In particular, workers classified as independent contractors are ineligible for UI. As the share of jobs performed under these arrangements rises, fewer workers or less of their earnings may be covered by UI. In addition, the legal frameworks for employee classification are the subject of current policy debates and reforms. This has been in part because some research suggests some share of workers in these arrangements may be misclassified (Planmatics 2000). Other research also shows workers have imperfect knowledge of their current job classification, which has implications for how these workers might interact with the UI system (Daley et al. 2016).

Despite the attention the changing nature of work has received, the central question of how common alternative work arrangements have become and how they have changed over time remains difficult to answer definitively (Abraham and Houseman 2021). According to the Contingent Worker

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<sup>52</sup> “Electronically Mediated Work: New Questions in the Contingent Worker Supplement,” Current Population Survey staff, *Monthly Labor Review*, September 2018, <https://www.bls.gov/opub/mlr/2018/article/electronically-mediated-work-new-questions-in-the-contingent-worker-supplement.htm>.

Supplement survey the Bureau of Labor Statistics conducted in 2017, contingent work arrangements made up only a small share of the formal US workforce in 2017, from 1 to 4 percent (or 2 to 6 million workers) depending on the definition.<sup>53</sup> Another 7 percent, or 10 million workers, were independent contractors. When compared with results from earlier rounds of this same survey (in 2005 and earlier), the share of contingent employment is relatively steady. Using tax data, Collins and coauthors (2019) documented a rise in the contractor workforce (workers who receive income reported on 1099 forms) of about 2 percentage points between 2000 and 2016. Katz and Krueger (2019) attempted to reconcile different measures and concluded there has been a modest rise in recent decades.

Accurate measurement of such forms of work appears to be challenging (Abraham et al. 2018). The lack of growth could be partly because the survey only captures contingent or alternative work that is an individual's main job (the one for which they work the most hours), thus not capturing supplemental contingent jobs. Some research suggests that a substantial share of alternative work supplements other forms of employment and earnings (Farrell, Greig, and Hamoudi 2019; Jackson, Looney, and Ramnath 2017; Koustas 2019). Challenges are particularly associated with measuring electronically mediated employment. Survey responses to newly added questions on this type of employment in the 2017 Contingent Worker Supplement, for example, faced challenges effectively or accurately identify such workers (CPS Staff 2018).

## Changes in the Nature of Unemployment

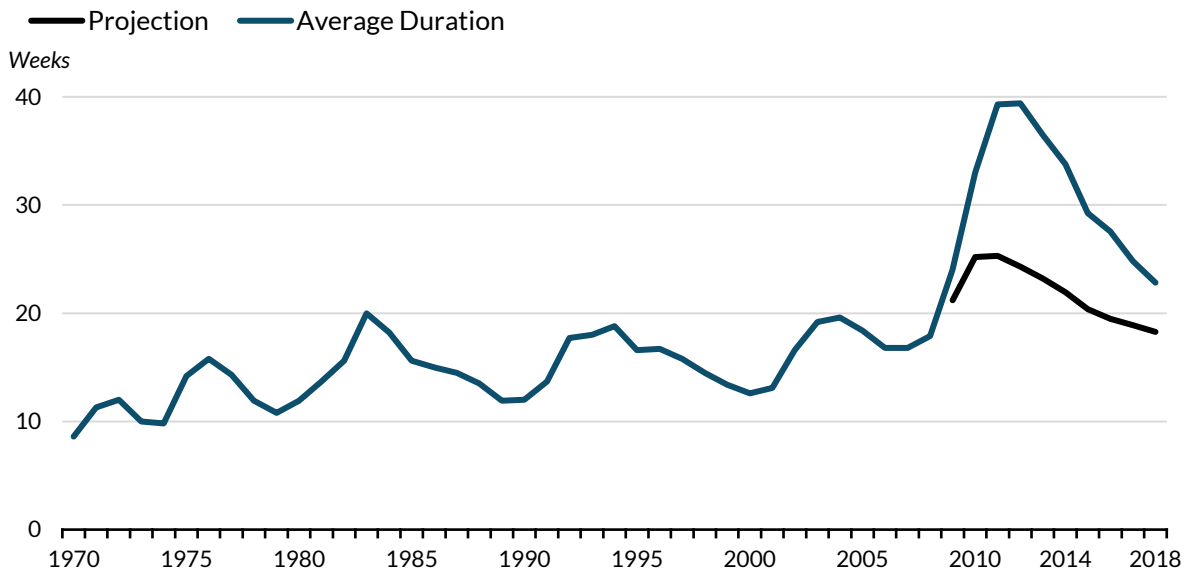
An important feature of the labor market during and after the Great Recession with some relevance for UI is the rise in average unemployment duration. Figure 11 displays the average duration of unemployment spells from the CPS for 1970 to 2018. Between 1970 and 2008, the mean ranged from a low of 8.6 weeks in 1970 to a high of 20.0 in 1983. During recovery from the Great Recession, however, mean duration was much higher, even exceeding 39.0 weeks in 2011 and 2012.

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<sup>53</sup> Bureau of Labor Statistics, "Contingent and Alternative Employment Relations—May 2017," news release, June 7, 2018, <https://www.bls.gov/news.release/pdf/conemp.pdf>.

FIGURE 11

Average Unemployment Duration, 1970–2018



**Sources:** Mean annual unemployment duration from the Current Population Survey. Projected durations from estimation in Wayne Vroman, *Unemployment Insurance Benefits: Performance since the Great Recession* (Washington, DC: Urban Institute, 2018b).

**Notes:** Average unemployment duration is the mean of reported unemployment spell duration for CPS respondents; note that beginning in 2011 the top code for unemployment duration was changed from two years to five years (in part in response to the observed rise in durations), which contributes to the rise in the values of this series after 2010. The projection shown is based on a linear regression of annual mean unemployment duration on the contemporaneous unemployment rate, the one-year lag of the unemployment rate, and a linear trend, estimated over the period 1970–2008; values for 2009–18 are projected based on the coefficients from that model and observed values of the unemployment rate for that period.

Two features of unemployment duration over this period, both illustrated in figure 11, are notable. First, while unemployment duration is known to increase during recessions, the increase in the Great Recession was greater than in previous recessions.<sup>54</sup> Analysis by Vroman (2018b) estimated a model of unemployment using three explanatory variables: (1) the current year’s unemployment rate, (2) the unemployment rate lagged one year, and (3) a linear trend from 1970. Although the regression explains average unemployment duration between 1970 and 2008, it substantially underestimates average duration for all 10 years between 2009 and 2018. Projected estimates from this regression for post-recession years are shown in figure 11. The duration of unemployment spells after 2009 was consistently higher than would have been expected based on the historical relationship between spell duration and the unemployment rate. Further, there has also been a strong upward trend in duration

<sup>54</sup> Note that beginning in 2011 the top code for unemployment duration was changed from two years to five years (in part in response to the observed rise in durations), which contributes to the rise in the values of this series after 2010. See “Changes to Data Collected on Employment Duration, BLS, July 8, 2011, <https://www.bls.gov/cps/duration.htm>.

over the entire period shown here. The linear trend from the same model indicates average duration has been increasing by 2.3 weeks a decade since 1970.

The longer unemployment duration of recent years has implications for both regular UI programs and extended benefit programs. It was a likely contributing factor, for example, to the fact the exhaustion rate for regular UI benefits remained high even during the years of economic recovery pre-dating the COVID-19 recession. In 2017, for example, the exhaustion rate in the regular UI program was 36.4 percent—higher than in the years immediately before the Great Recession.<sup>55</sup>

Both the causes and the consequences of longer unemployment durations are topics of active research (Valletta 2011; Valletta and Kuang 2012). One question receiving recent attention in the literature and interest among policymakers, for example, is whether workers suffering longer unemployment spells have a harder time finding work as a result (Shimer 2008). Kroft, Lange, and Notowidigdo (2013) conducted an audit study, disseminating fictitious résumés that were otherwise identical but differed in the length of time they showed the applicant being out of work. They found that callbacks declined with the length of time out of work, although this effect was weaker in weaker labor markets. In a series of papers employing similar methodology, Farber and coauthors (Farber et al. 2019; Farber, Silverman, and von Wachter 2016, 2017) found less-conclusive evidence of such an effect.

## Changes in the Workforce

The decade following the Great Recession saw continued changes in the demographic composition of the workforce with potential implications for UI, including by age, gender, race, ethnicity, and geography. Table 6 presents both trends and projections of labor force shares for two such groups, Black workers and workers ages 55 and older.

**TABLE 6**  
**Shares of Black Workers and Older Workers in the Labor Force, 2006, 2016, and Projected for 2026**  
*Percent*

Year	Black workers	Older workers <sup>a</sup>
2006	11.4	16.8
2016	12.3	22.4
2026 (projected)	12.7	24.8

**Source:** Bureau of Labor Statistics. 2006 and 2016 based on historical data. 2026 based on a BLS projections.

<sup>a</sup> Workers ages 55 and older.

<sup>55</sup> The exhaustion rate is from ETA-reported summary data: “Monthly Program and Financial Data,” May 16, 2022, <https://oui.doleta.gov/unemploy/claimssum.asp>.

These trends have potential implications for UI programs. Prior research has found, for example, that UI reciprocity has historically varied by worker age, with young workers having the lowest reciprocity rates.<sup>56</sup> As discussed in more detail in section 4, emerging research (e.g., O’Leary, Spriggs, and Wandner 2021; Kuka and Stuart 2021) has emphasized that Black workers tend to have lower UI reciprocity than other workers, partly reflecting barriers to program access. As the workforce has grown and continues to become more diverse, equity and effectiveness of the program are important considerations.

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## BOX 2

### The UI System in the Great Recession: Key Takeaways

- The rapid and substantial rise in UI claims in the Great Recession posed challenges for state UI operations. States reported challenges associated with taking and processing claims and related to staffing, training, and operational needs. Particular challenges arose with legacy technology systems, which were strained by both the rise in claims and the administration of new federal benefit programs. Although some states modernized IT systems in the years between the Great Recession and the COVID-19 recession, this was incomplete as of 2019.
- UI benefit extensions were central to meeting the needs of workers and the economy during the Great Recession, though some features of the extensions posed additional challenges to state UI programs. Benefit extensions played an important role in supporting workers and households and in the macroeconomic stabilization effects of UI spending. EB, which automatically extends benefits during recessions, required ad hoc adjustments to perform effectively. EUC was effective partly because it was implemented early in the recession, but it created challenges because of the program’s complexity and because it was not automatic.
- Increasing UI benefit amounts in a recession may benefit workers and the economy, but state UI programs struggled to implement the benefit adjustments made in the Great Recession. States reported challenges implementing the addition of \$25 to weekly benefits under FAC.
- Federally funded UI eligibility modernization efforts were widely adopted by states during the Great Recession and modestly increased UI eligibility and payments. Incentives included in ARRA spurred states’ adoption of expansions of eligibility, and these provisions were largely maintained by state UI programs and in place at the onset of the COVID-19 recession. Most state UI programs provided for part-time worker eligibility and had an alternative base period. Allowing UI benefits for individuals with job separations for compelling family reasons, uncommon before

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<sup>56</sup> Wayne Vroman, “Unemployment Insurance Recipients and Nonrecipients in the CPS,” *Monthly Labor Review*, October 2009, 44–53.



the Great Recession, were allowed in about half of UI programs in 2019. The literature generally finds these provisions modestly increase UI eligibility and payments.

- States experienced large UI trust fund drawdowns and extensive borrowing during the Great Recession, and this contributed to the adoption of changes to taxes and benefits by some states. Changes in several states included a reduction in the maximum number of weeks of duration in the regular UI program. Partly as a result, the UI reciprocity rate declined to a low 28 percent by 2019, meaning that few unemployed workers would have been expected to be eligible for regular UI benefits during the COVID-19 recession, in the absence of adjustments.
- During and since the Great Recession, labor markets evolved in ways that had implications for the operation and performance of the UI program. These included the rise of alternative work arrangements, which place workers outside of the regular UI program; the rising duration of unemployment spells, which places more workers at risk of exhausting UI and create challenges to supporting reemployment; and changes to the composition of the workforce, including by age, race, gender, ethnicity, and geography, with implications for UI effectiveness and equity.

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The experience of the UI system during the Great Recession and the recovery that followed shaped the system that would encounter the COVID-19 recession in 2020. Some of how the system responded during the COVID-19 recession reflected lessons from the Great Recession, while other experiences were unique to different economic, public health, and policy contexts of 2020. In the next chapter, we turn to a more detailed consideration of the experience of the UI system during the COVID-19 recession.

# 4. The UI System in the COVID-19 Recession

This section describes and analyzes the experience of the UI system and state UI programs during the COVID-19 recession. First, we describe the UI system at the national level, describing trends in claims and payments, effects for workers and the economy, evidence of stress on the system, and the support the federal government provided in response. Our description of effects for workers and the economy draws mainly on recent research literature on the topic. Our description of trends and system stress draws principally on UI program administrative data, such as timeliness of payments data and fraud and error data.<sup>57</sup> The discussion of trends also reviews federal policies and activities that supported the operation and funding of state UI programs during the COVID-19 recession.

Second, we analyze state-level experiences during the COVID-19 recession. This discussion tabulates information collected on state UI program responses during the COVID-19 recession and summarizes available qualitative information on state challenges as well as operational practices and innovations. This is supplemented with quantitative analysis of UI program data examining differences in program responses at the state level, considering the different economic conditions states faced, and incorporating data on variation in state UI program and policy characteristics to identify state-level correlates of UI program outcomes during the COVID-19 recession. Please see box 5 for key takeaways.

## UI System during the COVID-19 Recession

State UI programs experienced major challenges during 2020 and 2021 while delivering a record volume of benefit payments to the unemployed. Here we characterize the impact of the COVID-19 recession on UI program performance and identify salient trends, showing the levels of claims and benefits the program managed, reviewing evidence on the effects of these programs on workers and the economy, identifying evidence of stress on the program in payment and error data, and describing federal support provided to state UI programs during the COVID-19 period.

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<sup>57</sup> UI program administrative data series drawn on for this analysis are described in text and tables that follow; principal sources are ETA reporting data, available at <https://oui.doleta.gov/unemploy/DataDownloads.asp> (accessed June 21, 2022).

## Claims and Benefits

State unemployment insurance programs experienced major challenges during 2020 and 2021 while delivering a record volume of benefit payments to the unemployed. Table 7 summarizes total annual UI benefit payments during 2019, 2020, and the first nine months of 2021 across six primary benefit payment programs: regular state UI programs, federal-state EB, FPUC, PUA, PEUC, and MEUC.<sup>58</sup> As discussed in section 2, FPUC, PUA, and PEUC were created by federal CARES legislation in March 2020, extended in December 2020 and extended again in March 2021.<sup>59</sup> FPUC, PUA, and PEUC started paying benefits in April 2020 and expired the first week of September 2021. Four programs (EB, FPUC, PUA, and PEUC) were fully federally financed during the COVID-19 recession while regular UI has been financed by state employer payroll taxes.<sup>60</sup>

All claimants for unemployment benefits were required to first have their eligibility for regular UI benefits assessed. Those found ineligible could then file for PUA. This procedural requirement placed a heavy administrative burden on the state UI programs as claims volume increased sharply and the past earnings of new claimants were not typically in the UI data reporting system. During 2020 claimants for regular UI totaled 71.1 million, up from 11.2 million in 2019 (column 1 of table 7) or by more than six times. During previous recessions the increase in annualized UI claims was typically between 50 and 100 percent of pre-recession claims.

Increased claims during 2020–21 were also reflected in the number of monetary determinations and counts of monetary eligibility. Annual monetary determinations increased from 7.5 million in 2019 to 55.1 million in 2020. Of the 55.1 million only 31.3 million (56.9 percent) were deemed monetarily eligible. In previous recessions the number of monetary determinations might have increased by 10–15 million with 85–90 percent monetarily eligible.<sup>61</sup>

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<sup>58</sup> The UI programs for federal employees and ex-servicemen are not included in this analysis. Benefits paid to residents of Puerto Rico and the Virgin Islands are not included.

<sup>59</sup> The Consolidated Appropriations Act of December 27, 2020 (P.L. 116-260) and the American Rescue Plan Act of March 2021 (H.R. 117-1319).

<sup>60</sup> Note that the CARES Act did provide federal funding for the first week of regular UI for states without a waiting week, including states that waived their waiting week during the pandemic.

<sup>61</sup> All annual monetary determinations figures are from the ETA 218 (Benefit Rights and Experience) series.

TABLE 7

**Annual Unemployment Insurance Benefit Payments by Program, 2019, 2020, and January–September 2021**

	Initial claims (1,000s) (1)	Weeks claimed (1,000s) (2)	Weeks paid (1,000s) (3)	Total benefits (\$ millions) (4)	First payments (1,000s) (5)	Weekly benefits (\$ millions) (6)
<b>UI</b>						
2019	11,200	86,715	75,324	25,388	5,082	372
2020	71,147	519,693	465,943	142,281	30,544	302
2021 Q1–2021 Q3	24,828	140,368	115,494	37,358	6,473	324
<b>EB</b>						
2020	2,621	12,832	12,117	4,196	1,889	333
2021 Q1–2021 Q3	1,664	24,010	22,652	7,926	1,763	334
<b>FPUC</b>						
2020	–	–	461,003	276,602	–	600
2021 Q1–2021 Q3	–	–	516,000	154,801	–	300
<b>PUA</b>						
2020	28,307	420,678	340,161	79,474	15,107	230
2021 Q1–2021 Q3	8,200	242,960	216,587	49,589	3,067	231
<b>PEUC</b>						
2020	10,534	100,812	94,953	28,506	8,511	343
2021 Q1–2021 Q3	4,223	199,199	180,191	54,809	3,603	305
<b>MEUC</b>						
2021 Q1–2021 Q3	568	–	175.5	17.55	6.5	100

**Source:** Author calculations based on Employment and Training Administration (ETA) data series, including: ETA 5159 (Claims and Payment Activities); ETA 2112 (UI Financial Transaction Summary); ETA 902M (Mixed Earners Unemployment Compensation); and ETA 902P (Pandemic Unemployment Assistance Activities).

**Notes:** Data refer to the 50 states plus the District of Columbia. – = data not available. UI = Regular Unemployment Insurance, EB = Federal-state Extended Unemployment Compensation, FPUC = Federal Pandemic Unemployment Compensation, PUA = Pandemic Unemployment Assistance, PEUC = Pandemic Extended Unemployment Compensation, MEUC = Mixed Earners Unemployment Compensation.

During 2020 regular UI programs paid \$142.3 billion, the largest one-year payout in the program's history and an increase from \$25.4 billion in 2019 (column 4 of table 7). Payments of FPUC totaled \$276.6 billion in 2020. Payments of PUA to those not eligible for regular UI and that were affected by COVID-19 totaled \$79.5 billion.<sup>62</sup> Payments to the long-term unemployed totaled \$28.5 billion through PEUC and \$4.2 billion through EB. The aggregate payout across the five UI programs in 2020 totaled \$531.1 billion, or 2.2 percent of GDP. For comparison, the maximum annual payout during the Great Recession (regular UI plus extended benefits) was \$132.9 billion or 0.9 percent of GDP in 2010 (see table 2).

<sup>62</sup> Note that PUA also included regular UI exhaustees in limited circumstances.

Several other features of table 7 are noteworthy. First, PUA beneficiaries received lower weekly benefits than regular UI recipients, \$230 versus \$302 in 2020. On average, weekly PUA benefits were less than three-fourths of regular UI benefits. Second, during calendar year 2020 the largest volume of financial support was paid through FPUC (\$276.6 billion), followed by regular UI (\$142.3 billion) and PUA (\$79.5 billion). Combined, these three types of payments accounted for 93.5 percent of total unemployment benefits paid in 2020.

From April 2020 to September 2021 UI state and federal UI cash benefits totaled \$837 billion and weeks compensated totaled 2,428 million. Table 8 displays summary UI benefit data for these 18 months. Five individual UI benefits are identified along with a sixth category, “other,” which combines payments for emergency relief, the first full week of unemployment in states with a waiting week, and state supplemental benefits. For each of the six categories, table 8 shows total benefit payments, average weekly benefits, and weeks compensated.

**TABLE 8**  
**Unemployment Insurance Benefit Payments, April 2020—September 2021**

	Total benefits (\$ billions)	Average weekly benefit (\$)	Weeks compensated (millions)
Regular Unemployment Insurance (UI)	170	313	556
Federal-state Extended Benefits (EB)	12	334	36
Federal Pandemic Unemployment Compensation (FPUC) <sup>a</sup>	430	283 <sup>a</sup>	977
Pandemic Unemployment Assistance (PUA)	128	230	552
Pandemic Extended Unemployment Compensation (PEUC)	83	324	267
Other <sup>b</sup>	14	351	40
<b>Total</b>	<b>837</b>	<b>351</b>	<b>2,428</b>

**Source:** Author calculations based on Employment and Training Administration (ETA) data series, including: ETA 5159 (Claims and Payment Activities); ETA 2112 (UI Financial Transaction Summary); ETA 902M (Mixed Earners Unemployment Compensation); and ETA 902P (Pandemic Unemployment Assistance Activities).

**Notes:** Total benefits are aggregate payments under each program. Average weekly benefit is the average weekly benefit amount. Weeks compensated are the total number of weekly payments made. <sup>a</sup> Weekly FPUC was \$600 from April to July 2020 and \$300 from January 2021 to September 2021. Including Lost Wages Assistance in this calculation would make this figure slightly higher.

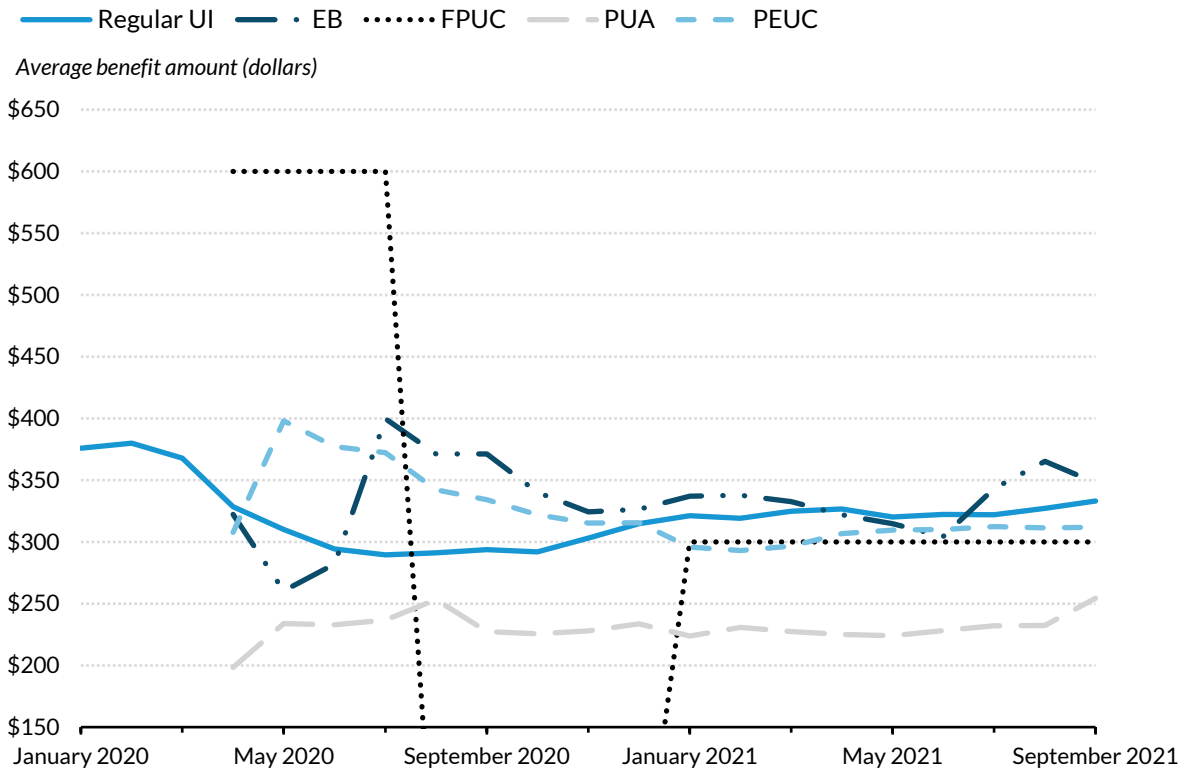
<sup>b</sup> Payments for emergency relief, the first full week of unemployment, and state supplemental benefits.

For four of the six categories (regular UI, EB, PEUC, and other) weekly benefits averaged between \$313 and \$351. The 18-month weekly average was \$283 for FPUC and \$230 for PUA.<sup>63</sup> Figure 12

<sup>63</sup> The \$283 average for FPUC is the average of \$600 per week during four months of 2020 (April to July), \$300 per week during nine months of 2021 (January to September), and \$0 per week from August to December 2020, when the program lapsed and did not pay benefits.

displays average weekly benefits by month for the five programs individually identified in table 8. The figure shows that monthly averages were concentrated between \$300 and \$350. PUA, shown by the dashed gray line, fell below the other series in every month between April 2020 and September 2021. The figure also illustrates the lapse in weekly FPUC benefits, indicated by the dotted black line, in August 2020 and resumption at a reduced level in early 2021.

**FIGURE 12**  
**Weekly Unemployment Insurance Benefits by Program, January 2020–September 2021**



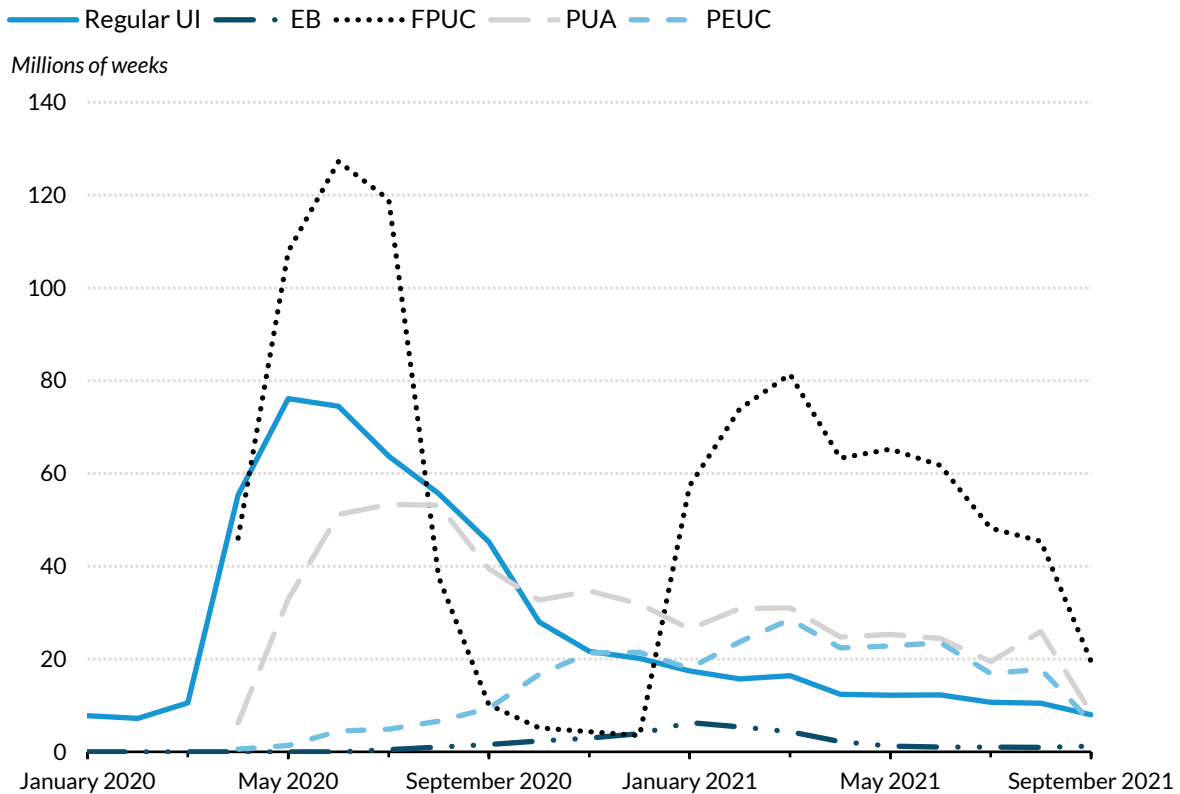
**Source:** Author calculations based on Employment and Training Administration (ETA) data series, including: ETA 5159 (Claims and Payment Activities); ETA 2112 (UI Financial Transaction Summary); ETA 902M (Mixed Earners Unemployment Compensation); and ETA 902P (Pandemic Unemployment Assistance Activities).

**Notes:** Weekly benefits are average weekly benefit amounts. EB = Extended Benefits; FPUC = Federal Pandemic Unemployment Compensation; PEUC = Pandemic Emergency Unemployment Compensation, PUA = Pandemic Unemployment Assistance, UI = Unemployment Insurance.

The individual UI programs identified in table 8 varied widely in average monthly importance during the months spanned by the table. Figure 13 provides a monthly summary of weeks compensated—the total number of weekly benefit payments made—for the same period as figure 12. Monthly weeks compensated for the three CARES Act programs combined (FPUC, PUA, and PEUC) consistently exceeded 50 million weeks from April to December 2020 (dotted black, dashed gray, and dashed light

blue lines, respectively); regular UI alone also exceeded 50 million weeks from April to August 2020 (solid blue line). Because FPUC was paid in addition to regular UI, PEUC, and PUA during the applicable weeks, total weeks compensated for this program were roughly the sum of weeks across those other programs; between May and July 2020 the FPUC paid more than 100 million weeks of benefits each month.

**FIGURE 13**  
**Weeks of Unemployment Compensation, by Program January 2020–September 2021**



**Source:** Author calculations based on Employment and Training Administration (ETA) data series, including: ETA 5159 (Claims and Payment Activities); ETA 2112 (UI Financial Transaction Summary); ETA 902M (Mixed Earners Unemployment Compensation); and ETA 902P (Pandemic Unemployment Assistance Activities).

**Notes:** Figure shows weeks compensated per month, by program. EB = Extended Benefits, FPUC = Federal Pandemic Unemployment Compensation, PEUC = Pandemic Emergency Unemployment Compensation, PUA = Pandemic Unemployment Assistance, UI = Unemployment Insurance.

Figure 13 also illustrates that weeks compensated by four of the five UI programs declined during the last six months of 2020. For FPUC, shown by the dotted black line, the decline was especially pronounced, as the program lapsed between August and December 2020. PEUC, indicated by the

dashed light blue line, was the only program with increased weeks compensated during this period, as claimants exhausted benefits under other programs.

During 2021 FPUC, PUA, and PEUC compensated a combined total of more than 900 million weeks of UI benefits. The Consolidated Appropriations Act and ARPA provided a steady flow of federal benefits between January and mid-July 2021. Figure 13 shows that during this period monthly PUA and PEUC weeks each generally exceeded 20 million, and FPUC weeks compensated consistently exceeded 50 million weeks.

Federal UI benefits authorized by ARPA extended to the week of September 5, 2021. Payments were made beyond that date only because of lags in the payment system. For example, during the week of November 27, 2021, the PUA program compensated 192,000 weeks across the 50 states plus the District of Columbia, down from 6.148 million weeks during the week of July 29.<sup>64</sup>

## Early Evidence of the Effects of UI during the COVID-19 Recession

As was the case in the Great Recession, research has investigated the effects of the UI system response to the COVID-19 recession—for workers and for the economy more broadly—although this research is necessarily preliminary and ongoing given the recency of the COVID-19 recession and response. As with the research on the effects of the UI program in Great Recession, much of this research has focused on or been identified from the emergency programs. But whereas Great Recession research focused on benefit extensions, much of the COVID-19 recession research has focused on the PUA program, which extended benefits to new groups of workers, and the FPUC program, which supplemented benefits to an unusually large degree. The early evidence from research on the effects of the UI programs during the COVID-19 recession suggest that these emergency programs provided an important measure of support to both workers and the economy.

### SUPPORT FOR WORKERS

The large benefit supplements of the FPUC and the extension of benefits to many more workers under the PUA program are generally found to have provided an important source of income and financial support to workers, their families, and communities. Ganong, Noel, and Vavra (2020), for example, documented the sheer magnitude of UI benefits for workers under these programs, in particular the extra \$600 a week provided by the FPUC. Using combined UI program information and earnings data

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<sup>64</sup> PUA figures are from the ETA 902P (Pandemic Unemployment Assistance Activities) series.



from the CPS to estimate replacement rates, they found that early in the pandemic, April to June 2020, the combined effect of UI programs led to replacement rates that exceeded 100 percent for many workers. That is, some workers received more in UI benefits than they earned in their previous job. And this was more likely for workers who had lower earnings before unemployment.

Partly as a consequence of the relative generosity of these programs, especially, in relative terms, for lower earners, the consumption support these benefits provided was substantial. Through individual-level bank account data, Ganong, Greig, Liebeskind, and coauthors (2021) showed that, in contrast to patterns typically observed, household spending actually rose for workers who became unemployed in 2020 when these benefits were available. The study, in fact, estimated that these workers also increased their savings even as their spending rose, improving household balance sheets and providing an additional buffer for households against future shocks. Using the same data, Farrell and coauthors (2020) showed that workers who experienced delays in receipt of benefits following claims were less protected from declines in consumption, at least initially. These findings suggest that the challenges states faced in processing UI claims, which we discuss in a following section on timeliness of payments, may have been associated with a real diminishment in the beneficial effects of UI for workers in the COVID-19 recession.

Other research reaches similar conclusions about the importance of UI benefits in supporting consumption by identifying the reduction in spending when benefits lapse, rather than its rise when benefits begin. Also using bank transactions data, Coombs and coauthors (2021) compared spending of households in states that terminated federal emergency benefits early (an aspect of the pandemic policy context we discuss at greater length in a following section) with households in states that did not. They found that withdrawal of UI benefits in terminating states led to a large and immediate reduction in spending, of about \$145 per week.

Comparatively generous benefit programs, especially in form of FPUC, provided households with substantial benefits during the COVID-19 recession. Comparatively broad benefit programs, principally in the form of PUA, also effectively extended substantial protections to households that do not ordinarily receive consumption-smoothing benefits from the UI system. Greig and coauthors (2022), also analyzing bank account data, noted the extent to which PUA reached different workers than those who received regular UI benefits. They showed that PUA recipients, who did not need to meet the pre-separation monetary eligibility requirements necessary to qualify for regular UI, tended to have lower incomes than recipients of regular UI benefits. PUA recipients also tended to be younger workers than regular UI claimants.

One strand of UI research that has emerged and received new emphasis during the COVID-19 period has been related to barriers to the UI program, the ways in which they limit the benefits the program conveys to workers and their households, and the resulting disparities in access across groups of workers, especially by race. As noted in Congdon and Vroman (2021a) and discussed in section 3, levels of UI reciprocity had been falling over time until the COVID-19 pandemic, declining to 28 percent in 2019. Using UI program data on reciprocity and the characteristics of UI claimants, together with state-level data on workforce demographics, O’Leary, Spriggs, and Wandner (2021) estimated that in 2019 the reciprocity rate for Black workers was even less adequate than for white workers—4 percentage points lower.

To explain these differences in reciprocity by race, Kuka and Stuart (2021) combined detailed demographic and labor force data from the Survey of Income and Program Participation with data on state UI programs. They found that in the decades before COVID-19 reciprocity of UI by Black workers was roughly 24 percent lower than for white workers; this effect was driven by lower rates of Black workers claiming UI. The study presented evidence that lower rates of UI receipt for Black workers are explained in part by lower average earnings of Black workers. Further, part of this difference was associated with lower reciprocity rates in the South.

The challenge of access to UI benefits, particularly differential impacts by race, has also been noted in the context of the COVID-19 recession itself. Workers of all races reported finding the process of applying for UI during the pandemic to be subjectively difficult (Acs and Karpman 2020). GAO (2021), using data from the Census Household Pulse Survey, a survey fielded during the pandemic, found that the fraction of UI claimants who received UI benefits was reported to be higher for white than for Black workers. In data from selected states, this difference was specifically apparent in the PUA program. Similarly, Bell and coauthors (2021), examining differences in reciprocity and payment rates in UI program data across states, found that states with higher shares of Black workers have lower reciprocity and payment rates. Carey and coauthors,<sup>65</sup> also using Household Pulse Survey data, showed differences across groups in the rate at which UI applicants succeed in receiving UI benefits. They found success rates higher for white workers than Black workers, as well as for older workers than younger workers; this rate is also positively associated with education and earnings levels.

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<sup>65</sup> Carey Patrick, Jeffrey A. Groen, Bradley A. Jensen, Thomas J. Krolik, and Anne E. Polivka, “Applying for and Receiving Unemployment Insurance Benefits during the Coronavirus Pandemic,” *Monthly Labor Review*, September 2021.

## MACROECONOMIC STABILIZATION

By supporting household consumption and spending in a recession, the UI system also helps to stabilize the economy (Chodorow-Reich and Coglianesi 2019). The aggregate role played by the UI program in the COVID-19 recession is still a matter of active research. On the one hand, as noted in section 2, relative to the total output gap the total amount of benefits paid through UI during the COVID-19 recession was even larger than in the Great Recession. On the other hand, the unique economic circumstances and UI policy responses in the COVID-19 recession present a challenge for estimating the multiplier on UI spending.<sup>66</sup> Especially for 2020, this difficulty is attributable to challenges associated with measuring the effect of social distancing and other factors that separately affected demand. For this reason, the Congressional Budget Office estimated the macroeconomic effects of federal spending during the COVID-19 recession, including UI programs, under a range of potential values for the multiplier (Seliski et al. 2020).

The difficulty in estimating the stabilization effects of UI during the COVID-19 recession is also attributable, in part, to the unusually high amounts of UI benefits paid. High replacement rates might have been associated with recipients spending a smaller share of their benefits (though still roughly 70 percent over six months) (Ganong, Greig, Liebeskind, et al. 2021). That is, UI spending in the COVID-19 recession was higher than in the Great Recession as a share of GDP, yet the multiplier on that spending may have, at least over some periods, been lower. While there is no question that the UI programs played a substantial role in stabilizing demand and the macroeconomy, a precise estimate of the fraction of the output gap closed by UI spending remains a question for further research.

## RESPONSE OF WORKERS

As with research on the effects of UI in the Great Recession, the literature has paid close attention to whether UI in the COVID-19 recession, especially the unusually generous PUA and FPUC programs, had negative effects on labor supply or employment. Some papers generated early evidence, interpreting employment effects from the provision of expanded benefits. These papers tended to find modest effects of benefits on search behavior or employment. For example, Altonji and coauthors (2020), using data on work schedules from software used by employers, found that in the early months of the pandemic workers eligible for more generous UI benefits were not less likely to be employed or slower to return to work than workers eligible for less-generous benefits. Examining online jobs data in the early months of the pandemic, Marinescu, Skandalis, and Zhao (2020) found that job applications

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<sup>66</sup> The multiplier on UI spending is the effect on total output (GDP) from each dollar of UI spending; for a recent (pre-COVID) discussion of evidence on this multiplier, see Chodorow-Reich and Coglianesi (2019).

per vacancy declined only modestly as more generous UI became available. In an extension of their analysis using bank account data, Ganong, Greig, Noel, and others (2021) found little evidence that the generosity of UI benefits had substantial effects on either search behavior or aggregate employment for roughly the first year of the pandemic, from April 2020 to April 2021.

Another strand of research on worker responses identifies search and employment effects later in the pandemic, by examining differences between states that terminated the federal emergency benefits early, in summer 2021, and states that did not (an approach we illustrate in a separate comparison in a following subsection). This literature tends to find null or modest effects of unemployment insurance on either search behavior or employment. Dube (2021), using data from the Census Pulse Survey, and identifying effects from the variation the terminations created in replacement rates, found little evidence of employment gains in terminating states relative to those that maintained benefits. Holzer, Hubbard, and Strain (2021), using CPS data and identifying effects from differences across states over time, presented evidence that the national unemployment rate would have been modestly lower (0.3 percentage point) in those months if all states had terminated.

## Evidence of Systemwide Stress

Challenges posed by the rise in claims placed the UI system and state UI programs under stress. Evidence at the system level can be seen in trends in payment processing delays and in fraud and error rates over time and across programs.

### PAYMENT LAGS

Timeliness of first UI payments is a measure of performance indicating the fraction of regular UI benefit payments issued to new claimants within 14 days in states that do not have a waiting week or within 21 days in states that do have a waiting week, with an established performance benchmark of 87 percent in 14 or 21 days, respectively. The (ETA) 9050 report series indicates how promptly UI is providing workers with income support after they initiate a claim. Data on the time lapse in payments for the first continued week (ETA 9051) and on timeliness of nonmonetary determinations (both separation and nonseparation) (ETA 9052) can be interpreted similarly. In the aggregate, changes in the timeliness of payments and nonmonetary determinations over the business cycle indicate the level and persistence of stress from rising claims loads or other factors. Research has found, for example, a negative relationship between timeliness of first payments and system workload (as indicated by the volume of first payments) (Lachowska, Mas, and Woodbury 2022).

Starting in March and April 2020, state UI programs experienced an unprecedented increase in claims for benefits. This analysis summarizes the UI system response for 2020 and the first six months of 2021. Three ETA reports are emphasized: (1) first-payment time lags (ETA 9050), (2) weekly benefit time lags (ETA 9051), and (3) nonmonetary determination time lags (ETA 9052). To help place these reports into a broader historical context, the time-lapse data from 2020 and 2021 are presented along with data from earlier years. The time-lapse reporting systems with monthly data extend back to 1997. Including data from earlier periods allows comparisons of the 2020–21 experience with that of earlier downturns in 2001 and 2008.

**First-Payment Promptness.** First payments are judged to be prompt if made within 14 or 21 days of an initial claim. The performance standard is for 87 percent of initial claims to be made within 14 or 21 days of the week-ending date of the first compensable week in the benefit year. Figure 14 shows annual data on first payment promptness through the first six months of 2021. A dramatic decline is evident in 2020–21. For 21 of the 23 earlier years the national percentage equaled or exceeded the 87 percent performance standard. Counts of states meeting the 87 percent standard in the three final years were 46 in 2019, 9 in 2020, and 7 in 2021. The national percentages in 2020 and 2021 were respectively 75.4 and 70.7. Low first-payment promptness extended into the first six months of 2021.<sup>67</sup>

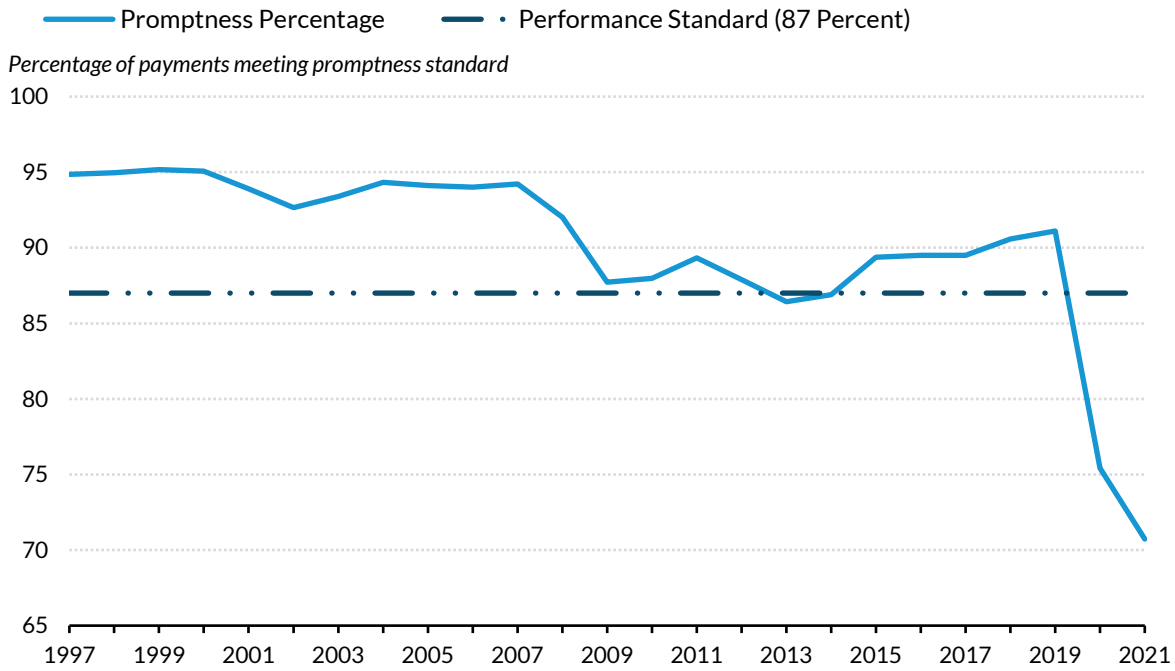
Recessions are typically associated with a decrease in first-payment promptness, but the declines in the COVID-19 context were unusual (though perhaps not surprising given the claims volume). During 2000–02, the annual percentages were respectively 95.1, 93.9, and 92.7. During 2007–09 the annual percentages were respectively 94.2, 92.0, and 87.7. The decline in first-payment promptness was much larger after 2019. The percentages during 2019–21 were respectively 91.1, 75.4, and 70.7, a decline of more than 20 percentage points between 2019 and 2021.

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<sup>67</sup> All first payment timeliness figures are from the ETA 9050 (First Payment Time Lapse) series.

FIGURE 14

**Promptness of First Unemployment Insurance Payment, 1997–2021**



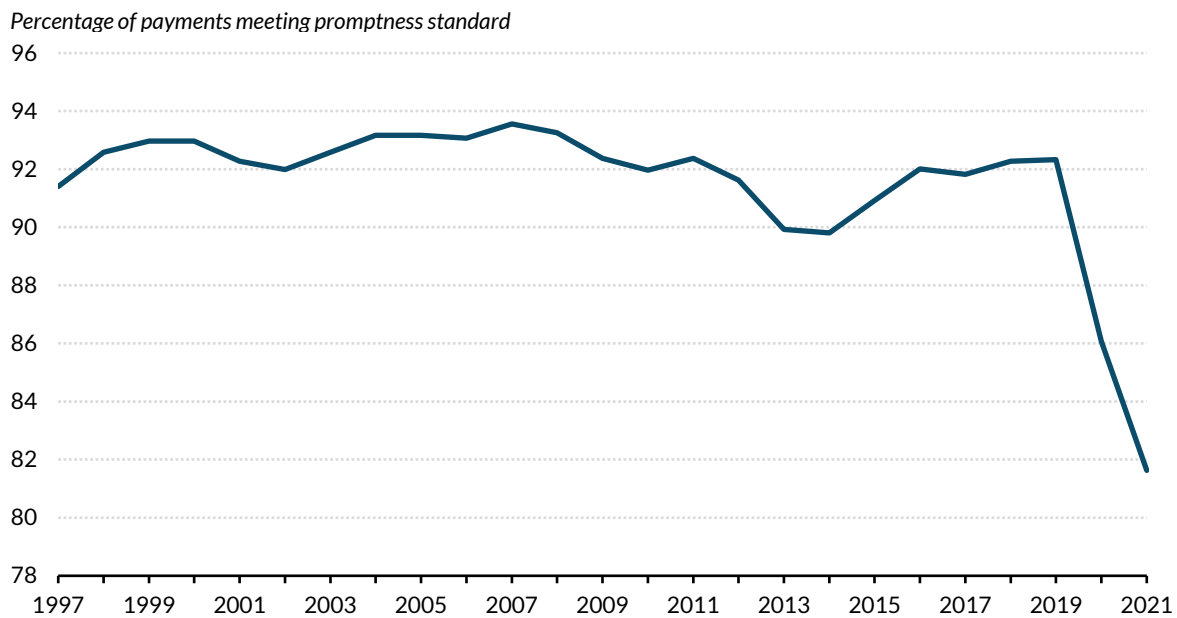
**Source:** Employment and Training Administration (ETA); ETA 9050 (First Payment Time Lapse) series.

**Notes:** Promptness of first UI payments is a measure indicating the fraction of first regular UI benefit payments issued to new claimants within 14 days in states that do not have a waiting week or within 21 days in states that do have a waiting week.

Promptness of First Continued Week. States also reported on the time lapse in the first continued week compensated. Figure 15 summarizes the first continued week of UI payments made within 14 days of the first payment in the benefit year. Again, the effects of the COVID-19 recession are prominent. The share of first continued week payments made within 14 days of the first payment decreases during the recessions of 2000–02 and 2007–09. But the most prominent feature of the figure is the decline in payments made within 14 days during 2020 and 2021. The percentages decrease from 92.3 in 2019 to 86.1 in 2020 and to 81.6 during the first six months of 2021.

FIGURE 15

**Promptness of First Continued Week of Unemployment Insurance Payment, 1997–2021**



**Source:** Employment and Training Administration (ETA); ETA 9051 (Continued Weeks Compensated Time Lapse) series.

**Notes:** Timeliness of first continued week of UI payments is a measure indicating the fraction of the first continued regular UI benefit payment made within 14 days of the first payment in the benefit year.

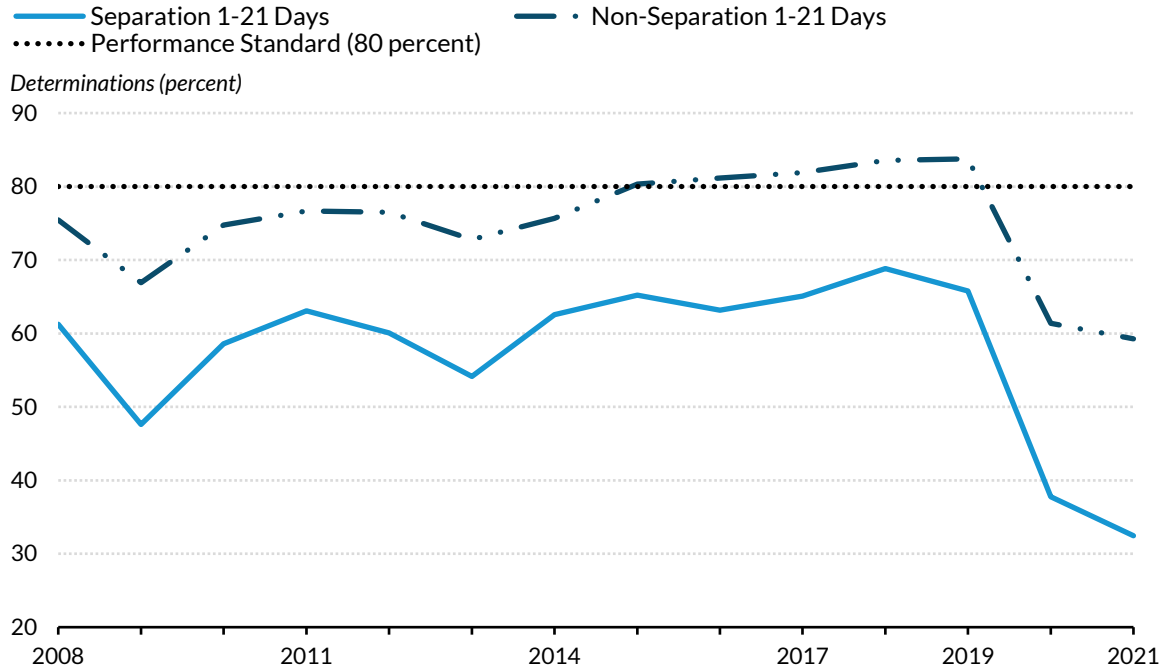
**Promptness of Nonmonetary Determinations.** The performance standard for nonmonetary determinations (both separation and nonseparation) by UI agencies is that 80 percent are to be made within 21 days of discovering a dispute.<sup>68</sup> Figure 16 shows national nonmonetary performance from 2008 through the first six months of 2021.

For most years from 2008 to 2021, nonseparation determinations were made, on average, close to the performance standard of 80 percent. The average during 2008–2019 was 77.4 percent. During the same 12 years the average for separation determinations was only 61.3 percent, 18.7 percentage points below the standard. As in figures 14 and 15, a large decrease in performance during 2020 and the first half of 2021 is evident in figure 16. These decreases are substantially larger than the decreases during previous recessions, which is consistent with the much larger rise in claims during the COVID-19 recession (see figure 6).

<sup>68</sup> Nonmonetary determinations assess the eligibility of the claimant to receive benefits for reasons other than those related to earnings (assessed separately, as monetary determinations). Nonmonetary aspects of eligibility for UI benefits include those related to both the terms of the worker’s separation (e.g., whether they were fired for cause) as well as those related to other (nonseparation) issues (e.g., availability to return to work).

FIGURE 16

**Promptness of Nonmonetary Unemployment Insurance Determinations, 2008–2021**



**Source:** Employment and Training Administration (ETA); ETA 9052 (Nonmonetary Determination Time Lapse) series.

**Notes:** Promptness of nonmonetary Unemployment Insurance (UI) determinations is a measure indicating the fraction of nonmonetary issues resolved within 21 days of discovery. Nonmonetary determinations assess the eligibility of the claimant to receive benefits for reasons other than those related to earnings (assessed separately, as monetary determinations). Nonmonetary aspects of eligibility for UI benefits include those related to both the terms of the worker’s separation (e.g., whether they were fired for cause) as well as those related to other (nonseparation) issues (e.g., availability to return to work).

Three performance patterns are apparent in the data illustrated in figures 14, 15, and 16. First, timely performance declined sharply in 2020 relative to 2019. Second, timely performance deteriorated further in 2021 relative to 2020. Third, the two-year decline in performance during 2020–21 was much larger than during 2008–09. First payment timeliness, for example, fell from 91 percent in 2019 to 75 percent in 2020 and further to 71 percent in 2021; this two year change during the COVID-19 Recession (20 percentage points) was much larger than the corresponding decline during the Great Recession (roughly 7 percentage points from 2007 to 2009).

The preceding patterns are not surprising. The state systems processed many more claims during 2020–21 than during 2008–09. Initial claims during 2008–09 totaled 42.8 million whereas during 2020–21 they totaled 99.6 million.<sup>69</sup>

<sup>69</sup> Claims figures are from ETA reporting series noted above.



## Fraud and Error

Other indications of the stress placed on the UI system are measures of states' experiences with fraud and error, as have been well documented elsewhere (DOL IG 2021; Isaacs and Whittaker 2022). Benefit determination errors could in principal arise from several sources in the face of a recession such as the one precipitated by COVID-19: pressure to make timely eligibility determinations after a large rise in claims, claimant and employer unfamiliarity with application procedures, and errors by UI staff newly hired to expand administrative capacity. The mix of claimants as UI program coverage expanded to the self-employed, gig workers, and others previously excluded from UI, and for whom past earnings are not part of existing UI wage records, was another possible source for errors. The expanded availability of UI benefits could also have attracted an increase in fraudulent applications. Here, we assess the evolution of UI benefit payment accuracy during the COVID-19 recession.

State UI programs have been tracking benefit payment accuracy for nearly four decades. During 2020 and 2021 the states reported on five UI benefit payment programs: regular UI, federal-state EB, FPUC, PUA, and PEUC.<sup>70</sup> Reports on fraud and other payment errors in regular UI extend from the early 1980s and reports on EB errors extend from 2011. Reports on FPUC, PUA, and PEUC extend from April 2020 when these programs started making UI payments. The reports track two types of payment errors: fraud and nonfraud. The latter covers all erroneous payments made without intention to defraud UI agencies. Errors can be made by three entities: claimants, employers, and UI staff. The following analysis focuses on both fraud and nonfraud errors.

Table 9 displays annual calendar year data on regular UI error payments from 2008 to 2021. Four features of table 9 are noteworthy. First, nonfraud cases have been much more common than fraud cases. Over the 14 years spanned by the table, nonfraud cases accounted for 82.8 percent of the combined total. Second, fraud and nonfraud cases both rise and fall with the business cycle. Nonfraud case counts appear to be especially responsive to increases in unemployment, as evidenced in the increases during 2009–2011 (to roughly 1.5 million each year from a little more than 1 million in 2008) and 2020–21 (to 2.2 and 2.9 million, respectively, from a level of 768,000 in 2019) (column 5). Third, average losses from both fraud and nonfraud increased during 2020 and 2021 with the nonfraud average rising sharply to match the fraud average in 2021 after being the lower average every year from 2008 to 2019. Fourth, nonfraud cases increased dramatically during 2020 and 2021. Nonfraud cases were almost 3.8 times more frequent in 2021 than in 2019, while fraud cases were actually lower in 2021 than in 2019 (222,000 versus 294,000) (although figures for recent years may rise in future

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<sup>70</sup> From December 27, 2020, to September 6, 2021, payment errors were also recorded in the MEUC program. MEUC benefits and payment errors were small and are not examined further in this analysis.

years of reporting). Because both case counts and average losses increased more among nonfraud cases, total losses through nonfraud errors in 2021 were 13 times larger than among fraud cases (\$5.234 billion versus \$394 million).

TABLE 9

**Fraud and Nonfraud Payment Errors in Regular Unemployment Insurance, 2008–2021**

	First payments (1,000s) (1)	Fraud cases (1,000s) (2)	Fraud losses (\$ millions) (3)	Fraud, average (\$) (4)	Nonfraud cases (1,000s) (5)	Nonfraud losses (\$ millions) (6)	Nonfraud, average (\$) (7)
2008 <sup>a</sup>	9,943	359	417	1,163	1,042	728	699
2009	14,038	356	454	1,276	1,520	1,211	796
2010	10,617	405	572	1,411	1,590	1,407	885
2011	9,370	474	647	1,365	1,460	1,283	879
2012	8,573	437	598	1,368	1,282	1,072	836
2013	7,728	391	567	1,450	1,213	977	805
2014	6,927	430	551	1,282	1,186	926	806
2015	6,429	435	497	1,143	1,065	763	716
2016	6,036	359	404	1,126	943	629	667
2017	5,611	332	398	1,199	873	614	704
2018	5,115	308	389	1,262	817	584	714
2019	5,082	294	363	1,235	768	539	701
2020	31,080	175	229	1,304	2,239	2,662	1,189
2021	7,562	222	394	1,775	2,898	5,234	1,806

Sources: Employment and Training Administration (ETA); ETA 227 (Overpayment Detection and Recovery Activities) series and ETA 5159 (Claims and Payment Activities) series.

Notes: Nonfraud errors include erroneous payments made without intention to defraud Unemployment Insurance (UI) agencies; fraud includes erroneous payments made when claimants knowingly provide false information to receive UI benefit payments.<sup>a</sup> 2008 annual estimates based on data from the last six months of the year.

Media coverage of UI payment fraud and errors during and after the COVID-19 recession has emphasized organized schemes with multiple fraudulent recipients and large illegal payouts. A June 2021 press release from the Maryland Department of Labor flagged 508,000 fraudulent claims filed between May 1 and June 21, 2021.<sup>71</sup> The Washington State Employment Security Department reported recovering \$300 million in fraudulent claims in May 2020. In Washington the criminals used stolen personal information to file claims.<sup>72</sup> Yet, for regular UI benefits, total reported error payment losses as summarized in table 9 have been much larger among nonfraud cases than among fraud cases.

<sup>71</sup> Maryland Department of Labor, “Maryland Has Detected over 500,000 Fraudulent Unemployment Claims in the Last Six Weeks,” news release, June 21, 2021, <https://www.dllr.state.md.us/whatsnews/uifraudsixweeks.shtml>.

<sup>72</sup> Will Linendoll, “Washington Recovers \$300 Million in Fraudulent Unemployment Insurance Claims,” ABC News, May 28, 2020, <https://abcnews.go.com/Business/wireStory/washington-recovers-300m-fraudulent-unemployment-claims-70934796>.

Benefit payment integrity is also monitored by the DOL Office of Inspector General. Recent testimony addressed several challenges to ensuring payment accuracy (Turner 2022.): The improper payment rate has exceeded 10 percent in 14 of the 18 most recent years. PUA presents a unique problem because the basis for most PUA claims is self-reported earnings rather than (the more accurate) employer-reported earnings. Further, errors arise when claimants do not meet work search requirements or continue to claim after returning to work, or their employers do not accurately report the circumstances of job separations.

Table 10 summarizes recovery of both fraudulent and nonfraudulent overpayments from 2008 to 2021. The aggregate (14-year) recovery of fraudulent payments was \$4.69 billion of \$6.48 billion, or 72.4 percent of the total. For nonfraud cases the total recovery was \$7.72 billion of \$18.66 billion, or 41.4 percent. During 2020 and 2021 the recovered proportion decreased for nonfraud payments (column 6) (fraud recovery for these same years includes anomalies in the data that prevent clear interpretation, and are an area for future research; column 3). Recovery of fraudulent overpayments met the 68 percent performance standard every year from 2013 to 2021. Recovery rates for both types of overpayment exceeded 50 percent in every year between 2012 and 2019.

Table 10 makes evident that the recovery rate for fraudulent payments has increased during the COVID-19 recession. Not only is the 14-year average much higher than that for nonfraudulent payments (0.72 versus 0.41), but it is also the higher of the two during 12 of the 14 individual years. The contrast was largest during 2020 and 2021 when the recovery rate among nonfraud cases dipped sharply. Nonfraud cases and losses both increased sharply in 2020 and again in 2021. These recession-related plateaus were much higher than during the Great Recession.

TABLE 10

## Recovery of Fraudulent and Nonfraudulent Unemployment Insurance Payments, 2008–2021

	Fraud, total (\$ millions) (1)	Fraud, recovered (\$ millions) (2)	Fraud, Share recovered (3) = (2)/(1)	Nonfraud, total (\$ millions) (4)	Nonfraud, recovered (\$ millions) (5)	Nonfraud, Share recovered (6) = (5)/(4)
2008	417	240	0.576	728	362	0.498
2009	454	292	0.643	1,211	604	0.499
2010	572	263	0.459	1,407	694	0.493
2011	647	283	0.437	1,283	698	0.544
2012	598	347	0.581	1,071	603	0.563
2013	567	410	0.723	977	607	0.621
2014	551	412	0.748	956	505	0.528
2015	497	436	0.877	763	450	0.590
2016	404	368	0.910	629	406	0.646
2017	398	344	0.865	614	394	0.641
2018	389	313	0.804	584	358	0.614
2019	363	307	0.845	539	352	0.653
2020	229	402	1.757 <sup>a</sup>	2,662	779	0.293
2021	394	277	0.704	5,233	907	0.193
<i>Total</i>	<i>6,480</i>	<i>4,692</i>	<i>0.724</i>	<i>18,657</i>	<i>7,719</i>	<i>0.414</i>

**Sources:** Employment and Training Administration (ETA); ETA 227 (Overpayment Detection and Recovery Activities) series.

**Notes:** Nonfraud errors include erroneous payments made without intention to defraud Unemployment Insurance (UI) agencies; fraud includes erroneous payments made when claimants knowingly provide false information to receive UI benefit payments.<sup>a</sup> This value should be interpreted with caution; an explanation for why this value for 2020 is greater than one has not been found and is an area for future research; one potential contributing factor is lags in both establishment and recovery.

Two additional factors are worth keeping in mind interpreting overpayment and recovery data for recent years. First is to note that overpayment establishment can take time, and these delays might have been longer than normal in recent years because of the volume of investigations required. Second is to note that recoveries lag establishments, making percentage recoveries estimates because overpayments may have been established during the year prior to the recovery. As a result, both detection and recovery figures may be expected to increase in the future.

During the COVID-19 recession, state UI programs also tracked payment errors in the new federally financed benefit payment programs, FPUC, PUA, and PEUC. Table 11 summarizes payment errors for the FPUC program during the eighteen months from April 2020 to September 2021. Table 12 presents payment error information for the PEUC program for the same 18-month period. These two tables have similar formats. For both FPUC and PUA the beneficiary received a payment from more than one UI program. Tables 11 and 12 also identify these other programs (regular UI, EB, PUA and PEUC in table 11 and regular UI and EB in table 12). The “total” columns of tables 11 and 12 thus show aggregate fraud and nonfraud errors and associated recoveries for each program, error rates, and recovery rates.

As in table 10, tables 11 and 12 show two types of errors: fraud and nonfraud. The tables also shows three series for each type of benefit: total benefit payments, payment errors (fraud and nonfraud) and recovery (fraud and nonfraud).

At least three features of table 11 are noteworthy. First, nonfraud errors for all four types of benefits dominate in the error totals. The four nonfraud shares of total errors (line 3 divided by line 4) ranged between 0.85 and 0.99 (not shown). Second, fraud and nonfraud error proportions (lines 8 and 9) were higher in short-term programs (regular UI and PUA) than in long-term programs (EB and PEUC). Third, recovery rates (lines 11 and 12) did not exhibit any noticeable patterns across the four types of benefits. The fraud recovery rate was highest for EB and PEUC benefits and lowest for PUA benefits. The nonfraud recovery rate was highest for regular UI benefits and lowest for EB and PUA benefits.

All recovery rates in table 11 fell below 10 percent of associated losses. This stands in sharp contrast with the recovery rates for regular UI examined previously in table 10 (14-year averages of 72 percent for fraud and 41 percent for nonfraud and above 10 percent for all individual years). Perhaps the contrast reflects that the programs underlying table 11 paid new recession-related benefits whereas the Table 10 data reflected the long-standing payment error reporting system for regular UI benefits. Note that lags in detection and recovery will also tend to depress these figures in recent years; this difference may be expected to shrink somewhat over time.

**TABLE 11**  
**Payment Errors and Recovery in Federal Pandemic Unemployment Compensation, Apr. 2020–Sept. 2021**

		Total FPUC	Regular UI	EB	PUA	PEUC
1	Total benefits (\$ millions)	393,753	170,081	12,122	128,235	83,315
2	Errors, fraud (\$ millions)	787.7	318.3	0.7	389.0	79.7
3	Errors, nonfraud (\$ millions)	7,693.7	2,965.8	120.3	4,168.2	439.5
4	Total errors = 2 + 3 (\$ millions)	8,481.4	3,284.1	121.0	4,557.1	519.1
5	Recovery, fraud (\$ millions)	29.6	21.7	0.05	1.7	6.1
6	Recovery, nonfraud (\$ millions)	353.3	207.5	4.41	119.0	22.4
7	Total recovery = 5 + 6 (\$ millions)	382.8	229.1	4.46	120.7	28.5
8	Fraud / total benefits = 2 / 1	0.0020	0.0019	0.0001	0.0030	0.0010
9	Nonfraud / total benefits = 3 / 1	0.0195	0.0174	0.0099	0.0323	0.0053
10	Total losses / total benefits = 4 / 1	0.0215	0.0193	0.0100	0.0353	0.0063
11	Fraud recovery rate = 5 / 2	0.0376	0.0680	0.0755	0.0043	0.0769
12	Nonfraud recovery. rate = 6 / 3	0.0459	0.0700	0.0367	0.0286	0.0509
13	Total recovery rate = 7 / 4	0.0451	0.0700	0.0369	0.0329	0.0549

**Sources:** Employment and Training Administration (ETA); ETA 227 (Overpayment Detection and Recovery Activities) series (rows 2 to 7) and ETA 5159 (Claims and Payment Activities) series (row 1).

**Notes:** EB = Extended Benefits, FPUC = Federal Pandemic Unemployment Compensation, PEUC = Pandemic Emergency Unemployment Compensation, PUA = Pandemic Unemployment Assistance, UI = Unemployment Insurance. Nonfraud errors include erroneous payments made without intention to defraud Unemployment Insurance (UI) agencies; fraud includes erroneous payments made when claimants knowingly provide false information to receive UI benefit payments.

Probably the most substantial details in table 12 (as in table 11) relate to the low recovery rates for error payments to date. For the total PEUC program only 0.10 of all error payments were recovered (\$153.1 of \$1,530.9 million). Note, however, that the recovery rate was more than twice as high for PEUC fraud payments as for nonfraud payments (0.22 compared with 0.10). As with the regular UI program, UI administration of PEUC is much more efficient at recovering fraudulent payments than recovering nonfraud error payments. This fraud-nonfraud contrast in recovery rates was not observed for FPUC in table 11, where the aggregate nonfraud recovery rate was actually the slightly higher of the two (0.046 versus 0.038).

**TABLE 12**  
**Payment Errors and Recovery in Pandemic Emergency Unemployment Compensation, Apr. 2020–Sept. 2021**

		Total PEUC	Regular UI	EB
1	Total benefits (\$ millions)	182,203	170,081	12,122
2	Errors, fraud (\$ millions)	63.5	63.5	0.1
3	Errors, Nonfraud (\$ millions)	1,467.4	1429.2	38.2
4	Total errors = 2 + 3 (\$ millions)	1,530.9	1,492.7	38.4
5	Recovery, fraud (\$ millions)	14.2	21.7	0.05
6	Recovery, Nonfraud (\$ millions)	138.9	138.9	0.0
7	Total recovery = 5 + 6 (\$ millions)	153.1	153.1	0.0
8	Fraud / total benefits = 2 / 1	0.00035	0.00037	0.00001
9	Nonfraud / total benefits = 3 / 1	0.00805	0.00840	0.00315
10	Total losses / total benefits = 4 / 1	0.00840	0.00878	0.00317
11	Fraud recovery rate = 5 / 2	0.22362	0.34173	0.00001
12	Nonfraud recovery rate = 6 / 3	0.09466	0.09719	0.00000
13	Total recovery rate = 7 / 4	0.10001	0.10257	0.00000

**Source:** Employment and Training Administration (ETA); ETA 227 (Overpayment Detection and Recovery Activities) series (rows 2 to 7) and ETA 5159 (Claims and Payment Activities) series (row 1).

**Notes:** EB = Extended Benefits, PEUC = Pandemic Emergency Unemployment Compensation, UI = Unemployment Insurance. Nonfraud errors include erroneous payments made without intention to defraud Unemployment Insurance (UI) agencies; fraud includes erroneous payments made when claimants knowingly provide false information to receive UI benefits.

Table 13 focuses upon errors, fraud, and recovery in the PUA program. In contrast with tables 11 and 12 this table displays data for only one UI program. Note there are no data for the regular UI program.

TABLE 13

**Payment Errors and Recovery in Pandemic Unemployment Assistance, Apr. 2020–Sept. 2021**

	<b>Total PUA</b>
1 Total benefits (\$ millions)	128,574
2 Errors, fraud (\$ millions)	511.330
3 Errors, nonfraud (\$ millions)	95.475
4 Total errors = 2 + 3 (\$ millions)	606.805
5 Recovery, fraud (\$ millions)	10.170
6 Recovery, nonfraud (\$ millions)	8.095
7 Total recovery = 5 + 6 (\$ millions)	18.265
8 Fraud / total benefits = 2 / 1	0.0040
9 Nonfraud / total benefits = 3 / 1	0.0007
10 Total losses / total benefits = 4 / 1	0.0047
11 Fraud recovery rate = 5 / 2	0.0199
12 Nonfraud recovery rate = 6 / 3	0.0848
13 Total recovery rate = 7 / 4	0.0301

**Source:** Employment and Training Administration (ETA); ETA 902P (Pandemic Unemployment Assistance Activities) series.

**Note:** PUA = Pandemic Unemployment Assistance. Note that PUA claimants were usually workers whose labor market earnings were not already present in the UI data reporting system. Nonfraud errors include erroneous payments made without intention to defraud Unemployment Insurance (UI) agencies; fraud includes erroneous payments made when claimants knowingly provide false information to receive UI benefit payments.

PUA presented especially serious administrative challenges because the PUA claimants were usually workers whose labor market earnings were not already present in the UI data reporting system. State agencies were required to rely on self-attestations about past earnings. Inaccurate attestations may have frequently overstated prior earnings and thus eligibility for PUA benefits.

The PUA program paid \$128.6 billion in benefits between April 2020 and September 2021. Fraud and nonfraud errors totaled, respectively, \$511.3 and \$95.5 million. In contrast with the fraud and nonfraud estimates in previous tables, estimated fraudulent payments in the PUA program exceeded nonfraud payments and by a ratio more than five to one. Note, however, that fraudulent and nonfraudulent payments totaled less than 1.0 percent of total PUA benefits and that recovery of fraudulent payments totaled less than 2.0 percent of the total (row 11). These low discovery rates in rows 8, 9, and 10 of table 13 may be expected given the inability of states to require verification of PUA applicant earnings. These difficulties may mean that decisions about PUA eligibility may have had high error rates, leading to large numbers of undetected errors and fraud in eligibility decisions.

The benefit recovery rates in rows 11, 12 and 13 are low and repeat the low recovery rates noted previously in tables 11 and 12. All three federal benefit programs (FPUC, PEUC and PUA) exhibited low recovery rates. The highest recovery rate among the pandemic-related federal benefit programs was

the recovery rate of 0.224 for fraud in the federal PEUC program (table 12). However, because recovery activities remain ongoing, these figures may rise in future years of reporting.

## Federal Support

Recognizing the stress placed on the UI system and state programs by the rise in claims and benefit payments, the federal government provided important sources of financial support to state programs. In addition to federal financing of the emergency benefits themselves, this included financial support for trust fund restoration, as well as for state UI program administration.

### TRUST FUND RESTORATION

When state UI trust fund balances decline and go negative during recessions, states have traditionally borrowed from the US Treasury to continue making benefit payments. States that borrowed then repaid their Treasury loans in later periods (Vroman et al. 2021). During the COVID-19 recession, states with inadequate trust funds were able to utilize an additional source. The CARES Act and ARPA included the State and Local Fiscal Recovery Fund (SLFRF), originally termed the Coronavirus Relief Fund. This fund, administered by the US Treasury, is authorized to make grants to state and local governments, Tribal governments, and territories for various worthy activities. One grant area is for restoration of state UI trust funds. In 2020, more than 20 states used these grants to increase their UI trust fund balances.

The states have considerable flexibility in utilizing SLFRF grants. On January 27, 2022, the Treasury issued a final rule regarding the use of these funds. Each state can secure a grant sufficient to raise its trust fund balance from its level on May 17, 2021, to its level on January 27, 2020. States must not use these grants to reduce tax effort. States can obligate these trust fund restoration monies as late as the end of 2024 and utilize the grants as late as the end of 2026. A January 2022 analysis by the Tax Foundation indicated that 39 states had unobligated SLFRF funds of about \$76 billion, nearly twice their outstanding Treasury loans.<sup>73</sup>

This is the first time that state UI trust funds can be restored to a specific prior balance using federal grant funds. The SLFRF will clearly facilitate trust fund restoration. Unlike previous economic

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<sup>73</sup> Jared Walszak, "States Should Act Fast on UC Trust Fund Deposits, and Other Takeaways from the New Treasury Guidance on ARPA Funding," Tax Foundation blog, January 28, 2022, <https://taxfoundation.org/american-rescue-plan-treasury-guidance/>.



recoveries, SLFRF grants will allow state trust fund restoration without resort to either of the means used in previous recoveries, namely UI benefit reductions or employer tax increases.

In 2021 states started to reduce their aggregate UI trust fund indebtedness. At the end of August 2021, 14 programs owed the Treasury a total debt of \$54.2 billion. By the end of December 2021, this had decreased to 10 programs owing \$39.9 billion. Unlike in previous recessions, however, state UI programs already had the resources to repay UI trust fund loans.

### ADMINISTRATIVE FUNDING

The federal UI pandemic response also provided the states with \$1.0 billion to help them build capacity to meet the rise in UI claims. These monies were provided through the Families First Coronavirus Response Act of March 18, 2020.<sup>74</sup> Individual state shares were based on their proportionate share of federal UI taxable payroll. Notably, disbursement of the grants to support administrative funding was conditioned on several actions to be taken by states, generally to promote access to UI. One-half of the funding amount was conditioned on states having or putting in place three program measures to support claimants: (1) requirements that employers notify workers about UI at the time of separation, (2) requirements that states notify claimants about the receipt and status of their claim, and (3) requirements that states take claims in at least two ways, whether in person, by phone, or online. The other half of the funding amount was conditioned on states having or putting place emergency flexibilities related to easing eligibility requirements, such as suspending work search requirements. We now discuss state program responses in more detail, including early evidence on the responsiveness of states along these dimensions.

## State UI Program Experiences during the COVID-19 Recession

The COVID-19 recession placed enormous strain on state UI programs, and states worked to meet those challenges in a variety of ways. Challenges to state UI programs arose first and foremost because of the rapid and unprecedented rise in claims, placing strain on their ability to determine and pay claims promptly while maintaining accuracy. These challenges were compounded by those posed by the

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<sup>74</sup> Families First Coronavirus Response Act, P.L. 116-127 (March 18, 2020), <https://www.govinfo.gov/content/pkg/PLAW-116publ127/pdf/PLAW-116publ127.pdf>. For details on the UI administrative funding provisions of this act, see Unemployment Insurance Program Letter No. 13-20, [https://wdr.doleta.gov/directives/attach/UIPL/UIPL\\_13-20.pdf](https://wdr.doleta.gov/directives/attach/UIPL/UIPL_13-20.pdf).

federal emergency measures, especially PUA and FPUC, which required states to quickly establish and operate systems for processing and paying claims to workers outside of the regular UI systems and to pay the supplemental weekly payment amounts.

In this section, we describe and analyze state UI program experiences during the COVID-19 recession. First, we summarize information on the state UI program responses, including state-level changes to UI programs, their operation, and their adoption and maintenance of the federal UI programs. Second, we describe and analyze evidence on the observed challenges states faced in response to both the rise in claims and the implementation of new federal programs, as well as consequences for UI programs.

## State UI Program Responses

States and state UI programs took various efforts to adapt and better serve their workforces during the COVID-19 recession. These included making or adopting changes to UI programs at the state level, which complemented the federal effort. We describe below the available qualitative information, drawn from other published sources as well as publicly available materials, such as state program websites, on approaches states took to manage the rise in claims. And we describe the unusual actions some states took in terminating the federal programs early in summer 2021, months before those programs expired at the federal level.

### STATE UI PROGRAM MEASURES

As described in section 1, as part of this project's response to the information-gathering and evidence-building needs of program officials and policymakers during the COVID-19 recession, we compiled the Unemployment Insurance COVID-19 Pandemic Response Dashboard, recording selected state UI program responses during the pandemic.<sup>75</sup>

Information in the dashboard was collected from a scan of contemporaneous, publicly available information, such as state UI program, labor department, and other executive agency websites. The dashboard was first compiled and made available in June 2020, then updated monthly through May 2021. To allow for easy comparison, the dashboard includes information for the 50 states and DC, covering the following topics:

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<sup>75</sup> The last update of the Unemployment Insurance COVID-19 Pandemic Response Dashboard, from May 2021, is available at [https://urban.co1.qualtrics.com/jfe/form/SV\\_eCWE1OTG7qYGfs1](https://urban.co1.qualtrics.com/jfe/form/SV_eCWE1OTG7qYGfs1).

- benefits, coverage, and eligibility
- claims and programs, including STC, Reemployment Services and Eligibility Assessments, and Self-Employment Assistance.
- employer-related requirements

The dashboard was made available to DOL and state UI and other labor agencies each month between June 2020 and May 2021. Next, we describe and present information on relevant state UI program and policy actions in the COVID-19 context, drawing principally on the information collected as part of this dashboard effort. We include information on state-level program responses as well on state adoption and implementation (and eventual recession) of the federal emergency programs.

**Benefits, coverage, and eligibility.** Many states made or experienced changes to their UI programs to, broadly, expand benefit coverage and generosity during the COVID-19 period. Changes took several forms, including raising the maximum duration of benefits in the regular state UI program, triggering EB, waiving the waiting week, expanding allowed separations, and waiving work search requirements. Some changes were automatic, such as triggering EB (although some states had to take the active step of temporarily adopting new EB triggers, making EB more likely to trigger), and some were the result of emergency discretionary activities by state governments. We note which throughout this subsection. Other changes were in direct response to federal incentives.

**Duration of benefits.** As discussed in section 3, one way the UI system evolved after the Great Recession was that 10 states reduced the maximum number of weeks workers could claim benefits under regular UI programs. In the COVID-19 recession, some of these states raised their maximum durations. Table 14 shows those states in which the maximum potential duration of regular UI benefits changed during the observation period, the old and new number of weeks of maximum regular benefits, and the dates the states made those changes.

**TABLE 14**  
**State Changes to Regular Unemployment Insurance Benefit Durations, March 2020–January 2021**

State	Number of weeks before March 2020	Number of weeks at first change after March 2020	Date of change
Florida	12	19	01/01/21
Georgia	14	26	03/26/20
Kansas	16	26	04/21/20
Michigan	20	26	03/10/20
North Carolina	12	16	01/01/21

Sources: Urban Institute, “Unemployment Insurance COVID-19 Pandemic Response Dashboard,” accessed June 21, 2022, [https://urban.co1.qualtrics.com/jfe/form/SV\\_eCWE1OTG7qYGfs1](https://urban.co1.qualtrics.com/jfe/form/SV_eCWE1OTG7qYGfs1) and state program websites.

These changes occurred in different ways. Usually, Florida, Georgia, Kansas, and North Carolina, update their maximum number of weeks on the basis of unemployment rate in their state. However, Georgia and Kansas overrode those triggers, taking action to raise their maximum durations to 26 weeks early in the pandemic. Florida and North Carolina let their maximum durations evolve according to their triggers in state law; these states took longer to take effect (both changing only at the start of 2021) and kept maximum duration below 26 weeks (19 and 16 weeks, respectively). As the economy has recovered, some of these states have reduced their maximums: as of January 2022, both Florida and North Carolina are back to providing 12 weeks, but both Georgia and Kansas have kept the 26-week level (data not shown in table).

Michigan raised the duration by executive action from the governor, raising its maximum from 20 to 26 weeks early in the pandemic. But this action was challenged in the courts and temporarily rescinded before being reinstated in October 2020.

**Extended benefits.** All states had EB programs in place before COVID-19 that included triggers to automatically activate depending on state labor market conditions. Nearly all states triggered EB early in the pandemic. States began triggering EB at the end of April 2020 (Connecticut, Michigan, Rhode Island), and all states but South Dakota would trigger EB by the end of June 2020. States would initially trigger 13-week extensions, with many triggering 20-week extensions at some point (Rhode Island and Washington would be the first to trigger 20 weeks at the end of May 2020). The first state trigger off EB during the COVID-19 recession was Idaho, in August 2020. Several states temporarily adopted new EB triggers while the federal government was covering the full costs of EB benefits, making it more likely they would trigger EB.

**Allowed separations.** As noted, workers are typically eligible for UI benefits only when they lose work through no fault of their own, such as when they are laid off, or under certain other limited conditions (such as the modernization provision that allows for separations related to compelling family reasons, discussed in section 3). Especially in the early months of the pandemic, many states clarified or expanded allowable separations to reflect the unusual public health circumstances. At least 22 states expanded eligibility for UI benefits to include leaving work because of lost child care or school closures. And at least 38 states expanded eligibility to workers unemployed from having to quarantine or to act as a caregiver for someone in quarantine.

**Supplemental benefits.** Several states also paid their own supplemental benefits on top of regular UI weekly benefits or federal benefits. This included at least Arkansas, Colorado, the District of Columbia, Maine, Montana, New Mexico, North Carolina, Rhode Island, Vermont, and Washington (NASWA

2021). Supplemental benefits took many different forms. New Mexico, for example, provided a lump-sum supplement of \$1,200.<sup>76</sup> Rhode Island provided an additional \$200 per week for two weeks during the early phase of pandemic.<sup>77</sup> Vermont provided a supplement of \$100 per week for up to five weeks in late 2020.<sup>78</sup> The District of Columbia provided supplemental benefits in December 2020 when PUA benefits temporarily lapsed.<sup>79</sup>

**Work search requirements.** All state UI programs require that claimants actively search for work to help establish and maintain their eligibility for UI benefits. Beginning early in the COVID-19 recession, partly in recognition of the unusual conditions and partly because of the administrative funding allotments examined previously in this section, all 50 states and the District of Columbia relaxed or waived work search requirements. Nearly every state for which we could date the issuance of these waivers did so by the end of March 2020, with a few in April 2020.

As the labor market recovered over the subsequent two years, states began reinstating work search requirements. The reimposition of work search requirements has varied in timing across state UI programs, more so than their waiver. States such as Kansas and Arkansas, for example, began reinstating these requirements in spring 2020, in May and June, respectively. By May 2021, roughly half of states, 24 of the 51 programs, had reinstated their work search requirements.

**Reemployment bonuses.** Beginning in mid-2021, as labor markets were improving, some states began offering reemployment bonuses to eligible workers. These bonuses took a range of values, were implemented with a variety of forms and funding streams and under various authorities and had different eligibility requirements and restrictions. Bonuses were generally available to workers who had previously claimed UI benefits, returned to work, and maintained their employment for some number of weeks.

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<sup>76</sup> New Mexico Department of Workforce Solutions, “Bill Passes in Special Session Providing Eligible Claimants with a One-Time New Mexico Worker Pandemic Benefit Payment,” news release, November 24, 2020, <https://www.dws.state.nm.us/en-us/News/Latest-News/bill-passes-in-special-session-providing-eligible-claimants-with-a-one-time-new-mexico-worker-pandemic-benefit-payment>.

<sup>77</sup> Dan McGowan, “Rhode Islanders on Unemployment to Get Extra \$200 a Week during Two-Week Economic ‘Pause’ to Stem Spread of COVID-19,” *Boston Globe*, November 25, 2020, <https://www.bostonglobe.com/2020/11/25/metro/rhode-islanders-unemployment-get-extra-200-week-during-two-week-economic-pause-stem-spread-covid-19/>.

<sup>78</sup> “Vermont Short-Term Supplemental Benefit Update (\$100 Benefit),” State of Vermont Department of Labor, November 5, 2020, <https://labor.vermont.gov/commissioner-notes/vermont-short-term-supplemental-benefit-update-100-benefit>.

<sup>79</sup> City of Washington, DC, “Mayor Bowser Announces \$1,200 Local Stimulus Payment to Support Nearly 20,000 Washingtonians,” news release, December 7, 2020, <https://dc.gov/release/mayor-bowser-announces-1200-local-stimulus-payment-support-nearly-20000-washingtonians>.

Table 15 lists the states offering reemployment bonuses in 2021 and basic information on bonus amount and eligibility. In many instances, bonuses were financed from limited discretionary funds, so that only a few eligible returning workers were expected to receive the bonus before funding was exhausted. In addition to these 11 states that paid lump-sum bonuses, Michigan instituted a \$300 per week bonus payment for workers brought back to employment under STC plans, from June to September 2021.<sup>80</sup>

**TABLE 15**  
**State Lump-Sum Reemployment Bonuses, 2021**

State	Bonus amount and eligibility
Arizona	Up to \$2,000 to eligible returning workers
Colorado	Up to \$1,600 to eligible returning workers
Connecticut	\$1,000 for up to 10,000 eligible returning workers
Idaho	\$1,500 to eligible returning workers
Kentucky	\$1,500 for up to 15,000 eligible returning workers
Maine	Up to \$1,500 to approximately 7,500 eligible returning workers
Montana	\$1,200 to eligible returning workers
New Hampshire	Up to \$1,000 to eligible returning workers
New Mexico	Up to \$1,000 to approximately 15,000 eligible returning workers
Oklahoma	\$1,200 for up to 20,000 eligible returning workers
Virginia	\$1,000 to eligible returning workers

Sources: Urban Institute, “Unemployment Insurance COVID-19 Pandemic Response Dashboard,” accessed June 21, 2022, [https://urban.co1.qualtrics.com/jfe/form/SV\\_eCWE1OTG7qYGfs1](https://urban.co1.qualtrics.com/jfe/form/SV_eCWE1OTG7qYGfs1) and state UI program and government websites.

**Short-time compensation.** As discussed in section 2, in both the Great Recession and the COVID-19 recession, the federal government encouraged states to adopt or expand STC programs. In the CARES Act, the federal government temporarily reimbursed states for STC benefit payments during 2020.<sup>81</sup> The act also made available up to \$100 million in grant funding to states to improve the administration of STC programs or to promote STC programs.<sup>82</sup>

<sup>80</sup> State of Michigan, “Gov. Whitmer Encourages Businesses to Enroll in Back-to-Work Incentive, Asks Legislature to Expand Program to Get More Michiganders Back into Workforce,” news release, June 16, 2021, <https://www.michigan.gov/leo/bureaus-agencies/uia/covid-info-employees/panel-resources/uia-press-releases/gov--whitmer-encourages-businesses-to-enroll-in-back-to-work-incentive-asks-legislature-to-expand-p#:~:text=Governor%20Gretchen%20Whitmer%20today%20asked,workforce%20through%20September%204%2C%202021.>

<sup>81</sup> For details on the STC funding provisions of the CARES Act, see Unemployment Insurance Program Letter No. 21-20, [https://wdr.doleta.gov/directives/attach/UIPL/UIPL\\_21-20.pdf](https://wdr.doleta.gov/directives/attach/UIPL/UIPL_21-20.pdf).

<sup>82</sup> For details on the STC promotion and administration provisions of the CARES Act, see Unemployment Insurance Program Letter No. 22-20, [https://wdr.doleta.gov/directives/attach/UIPL/UIPL\\_22-20.pdf](https://wdr.doleta.gov/directives/attach/UIPL/UIPL_22-20.pdf).

In 2019, before the COVID-19 recession, 26 states and the District of Columbia had STC programs, eight of which had been added since 2010 following the Great Recession.<sup>83</sup> At the outset of the COVID-19 recession and the related economic downturn, those newer programs contributed substantially to total STC weeks claimed. During April 2020, the eight programs accounted for 15 percent of the national total STC weeks compensated.<sup>84</sup> And 2020 saw STC respond strongly as unemployment increased, with the weekly average of STC beneficiaries reaching a program high by July 2020, at 418,993 nationwide. Even at that historic high, however, STC weeks claimed still represented less than 2.5 percent of regular UI weeks claimed during the month.<sup>85</sup>

Partly in response to federal STC incentives, several states that did not have STC programs before COVID-19 also instituted programs. Virginia, for example, enacted legislation in 2020 to establish an STC program.<sup>86</sup> Wyoming enacted legislation creating an STC program in 2021.<sup>87</sup> Several other states with STC programs established before the COVID-19 recession also took advantage of federal support to expand and extend programs in innovative ways. Early in the pandemic, for example, Michigan used the STC program for state and public sector workers, helping make Michigan a high STC claims state during the recession.<sup>88</sup>

**Employer-related requirements.** Other actions some states took during the pandemic were related to employer requirements, also in ways that tended toward expanding reciprocity among eligible workers, some of which were encouraged by federal legislation. For example, as noted previously, to be eligible for a portion of the supplemental administrative funding made available under the Families First Coronavirus Response Act, state UI programs had to have in place, or put in place, a requirement for employers to notify workers of UI eligibility. This requirement was subsequently introduced in several states, including Georgia, Minnesota, and Pennsylvania. For example, Pennsylvania amended its UI law in March 2020 to require that employers provide workers separating from employment or experiencing

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<sup>83</sup> Colorado, Maine, Michigan, Nebraska, New Hampshire, Ohio, Pennsylvania, and Wisconsin began STC programs after the Great Recession.

<sup>84</sup> STC claims figures in this paragraph are authors' calculations based on ETA 539 Weekly Claims series data; data available at "Data Downloads," accessed August 1, 2020, <https://oui.doleta.gov/unemploy/DataDownloads.asp>.

<sup>85</sup> STC claims figures are from the ETA 5159 (Claims and Payment Activities) series.

<sup>86</sup> Virginia Acts of Assembly (2020), <https://lis.virginia.gov/cgi-bin/legp604.exe?201+ful+SB548ER2+pdf>.

<sup>87</sup> Short-Time Compensation Program, HB0009 (February 9, 2021), <https://wyoleg.gov/Legislation/2021/HB0009>.

<sup>88</sup> State of Michigan, "State of Michigan to Participate in Federal Work Share Program to Protect Workers, Help Address Budget Deficit," news release, May 13, 2020, <https://www.michigan.gov/whitmer/news/press-releases/2020/05/13/state-of-michigan-to-participate-in-federal-work-share-program>.

a reduction in hours with information about the availability of UI, including basic information about how to file a claim and where to get more information about the state UI program.<sup>89</sup>

## STATE APPROACHES TO UI OPERATIONS

In response to COVID-19, state UI programs also took varying and innovative approaches to manage both the rise in claims and the need to implement federal emergency measures. Circumstances as described in section 1 prohibited this research from systematically collecting information from state programs about these approaches. Instead, we briefly review qualitative information on UI operations approaches collected and reported in other sources, including publicly available sources such as state UI program websites. While this information is not systematic or representative, it can potentially identify innovative or exemplary practices, suggest lessons from the COVID-19 experience, and point to directions for further research. From these sources, at least three categories of innovative approaches emerge, including approaches to meeting staffing and training needs, using technology, and communicating with workers.

**Staffing and training needs.** States took various approaches to making personnel adjustments necessary to meet the rise in claims, including in approaches to hiring staff, reassigning staff, and contracting, along with approaches to training new, reassigned, or contracted staff (Maher & Maher 2021). States reported taking advantage of temporary flexibilities related to hiring and staffing, including the relaxation of merit staffing requirements as provided by federal guidance under the CARES Act. Some states also reported taking advantage of flexibility provided under state emergency declarations for expanded use of contracting staff, for aspects of operations including call centers, support, and adjudication. Some state UI programs also reported getting staff assistance from other state workforce agencies (NASWA 2021).

Many states specifically added capacity to call centers (NASWA 2021). Hawaii, for example, launched and staffed a new call center to support UI claimants.<sup>90</sup> Other states contracted with call centers to boost capacity (NASWA 2021).

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<sup>89</sup> PA Act of Mar. 27, 2020, P.L. 25, No. 9, <https://www.legis.state.pa.us/cfdocs/Legis/LI/uconsCheck.cfm?txtType=HTM&yr=2020&sessInd=0&smthLwIn d=0&act=9>.

<sup>90</sup> State of Hawaii Department of Labor and Industrial Relations, "Virtual Call Center for Unemployment Insurance Claims Launched," news release, September 30, 2020, <https://labor.hawaii.gov/blog/news/virtual-call-center-for-unemployment-insurance-claims-launched/>.



Some states noted they were able to onboard new staff quickly using train the trainer models, reducing time demands on key UI program staff. Some state UI programs also successfully brought in and trained staff from other state agencies (Maher & Maher 2021). States also found ways to manage training in remote work environments in the pandemic context.

**Use of technology.** During the COVID-19 recession, state UI programs took advantage of or implemented new technology to help meet the sharp rise in claims, in the face of pressure to quickly process claims and payments. Some states perceived that IT modernization helped with timeliness (Maher & Maher 2021). And in our analysis of timeliness of payments data in the next subsection, we find evidence consistent with this. Some states with underlying legacy IT systems used or implemented specific modern elements, with some success.

Rhode Island, for example, reported that the cloud-based claims system it established early in the pandemic provided the ability to scale to manage the rise in claims.<sup>91</sup> Rhode Island did not experience a decline in first payment timeliness, while the average state was down 14 percentage points between 2019 and 2020.<sup>92</sup> Several states, such as New York, reported success with streamlining applications through technology (NASWA 2021).

State approaches also included the use of technology tools to assist workers with UI claims outcomes (NASWA 2021). Some states with demographic data and advanced IT systems noted the ability to monitor access to benefits across groups in real time (Maher & Maher 2021). Other states created online claims dashboards to monitor trends. Some states scanned social media to identify challenges claimants were reporting. States also took efforts to ensure that needed technology was available to claimants (NASWA 2021). Nebraska, for example, partnered with community groups to make sure workers had access to technology to file claims. Other states developed text-based systems to file weekly claims, as in Ohio (NASWA 2021).

**Communication with workers.** States also took new and innovative approaches to communicating with workers and UI claimants in the COVID-19 recession (boxes 3 and 4). Communication was especially important as the surge in claims included workers new to the UI system and its requirements. States developed new websites or pages specifically to clarify information for claimants, for example, new Frequently Asked Questions pages (Maher & Maher 2021; NASWA 2021). Many states, for

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<sup>91</sup> Amazon, "The Cloud Helps Rhode Island Manage an Unprecedented Surge in UI Claims," *Governing*, April 24, 2020, <https://www.governing.com/work/cloud-helps-rhode-island-manage-an-unprecedented-surge-in-ui-claims.html>.

<sup>92</sup> Author calculations from ETA 9050 (First Payment Time Lapse) data.

example Missouri, Ohio, and New Jersey, reported development or deployment of virtual assistants or chatbots to provide automated online assistance.<sup>93</sup> A number of states also reported developing and using online chat features, including West Virginia, Oklahoma, Oregon, and Kentucky.<sup>94</sup>

Many states also employed new forms of outreach and active communications, including email, text messages, and social media platforms such as Facebook and Twitter (Maher & Maher 2021). A number of states, such as Louisiana, Montana, and Oregon, developed and posted explainer videos.<sup>95</sup> Other states pushed SMS (text) messages to reach out to claimants and potential claimants (NASWA 2021). California and New York, for example, provided updates on claim and payment status by text message.<sup>96</sup> Other states improved their phone assistance, for example, by using systems with scheduled phone callbacks (NASWA 2021), a method also used during the Great Recession. States perceived that these efforts, where effective, reduced the volume of phone calls and in-person visits, relieving some pressures on staffing needs.

Other states conducted outreach in virtual town halls, leveraging such platforms in the context of the pandemic (NASWA 2021). States used virtual town halls to provide information to large numbers of workers and answer their questions, often at greater scale and more quickly than possible in traditional formats.

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<sup>93</sup> See, for example, "Frequently Asked Questions," Missouri Department of Labor, <https://laboranswers.mo.gov/hc/en-us>.

<sup>94</sup> See, for example, "Kentucky Career Center," Commonwealth of Kentucky, <https://kcc.ky.gov/pages/default.aspx>.

<sup>95</sup> See, for example, "How Do You File for Unemployment Online? Louisiana Workforce Commission Takes You Through Steps," WDSU 6 News, March 26, 2020, <https://www.wdsu.com/article/how-do-you-file-for-unemployment-online-louisiana-workforce-commission-takes-you-through-steps/31903743#>.

<sup>96</sup> See, for example, "Text Alerts for Unemployment Claims," State of California Employment Development Department, May 10, 2022, <https://edd.ca.gov/en/unemployment/text-alerts>.

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### BOX 3

#### State Innovations in Communications and Technology: Pennsylvania

Pennsylvania illustrates some ways states took innovative approaches in technology and communications to support UI claimants through the COVID-19 pandemic. During the COVID-19 recession, the Pennsylvania Department of Labor and Industry began several new initiatives:

- Pushed out tips for UI claimants through social media, including Facebook and Twitter, beginning in the early weeks of the pandemic.<sup>a</sup>
- Updated and launched a live chat feature and a chatbot on its UI program website in September 2020.<sup>b</sup>
- Held virtual town halls between June and November 2020, providing information and responding to questions about UI from workers and claimants.<sup>c</sup>
- Completed a modernization of its benefit system in June 2021.<sup>d</sup>

<sup>a</sup> Commonwealth of Pennsylvania, "L&I Offers Six Tips to Get Unemployment Compensation Benefits Quicker," news release, April 30, 2020, <https://www.media.pa.gov/pages/labor-and-industry-details.aspx?newsid=451>.

<sup>b</sup> Commonwealth of Pennsylvania, "L&I Launches UC Chatbot and New Employer Live Chat Capabilities, Giving Greater Accessibility to UC Claimants and Employers," news release, September 23, 2020, <https://www.media.pa.gov/pages/labor-and-industry-details.aspx?newsid=487>.

<sup>c</sup> Commonwealth of Pennsylvania, "L&I Holding Unemployment Compensation Virtual Town Hall on Thursday," news release, June 2, 2020, <https://www.media.pa.gov/pages/labor-and-industry-details.aspx?newsid=461>; Commonwealth of Pennsylvania, "L&I Hosts Final Live Virtual Town Hall at 1 p.m. Today," news release, November 19, 2020, <https://www.media.pa.gov/pages/labor-and-industry-details.aspx?newsid=504>.

<sup>d</sup> Commonwealth of Pennsylvania, "New Unemployment System Now Online," news release, June 8, 2021, <https://www.media.pa.gov/pages/labor-and-industry-details.aspx?newsid=594>.

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**Virtual service delivery.** Another notable innovation in the pandemic was the move to virtual service delivery, required in especially early phases of the pandemic by public health and social distancing measures. Virtual delivery included remote approaches to UI claims taking. It also included, for some states, a move to virtual reemployment assistance, as with state Reemployment Services and Eligibility Assessments (NASWA 2021). The waiver to job search requirements in many states meant reemployment assistance was also modified, limited, reduced, or suspended.<sup>97</sup> But where it was maintained, states such as Indiana, North Carolina, and Wisconsin conducted assessments virtually.

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<sup>97</sup> See, for example, National Governors Association Center for Best Practices, "State Strategies to Leverage RESEA in Response to COVID-19," memorandum, July 23, 2020, <https://www.nga.org/center/publications/leverage-resea-covid19/>.

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## BOX 4

### State Innovations in Providing In-Person Assistance: Oklahoma

Oklahoma illustrates how states took innovative approaches supporting claimants and managing office visits in the context of the COVID-19 pandemic. With claimants in need of assistance, but with phone lines and offices taxed and pandemic restrictions creating barriers, the Oklahoma Employment Security Commission conducted “roadshow” events in communities around the state to provide accessible, in-person assistance to workers and claimants.<sup>a</sup>

<sup>a</sup> Haley Hughey, “Hundreds of Oklahomans Line Up to Address Unemployment Claims for a Second Week,” KUTL 8 News, July 22, 2020, <https://ktul.com/news/local/hundreds-of-oklahomans-line-up-to-address-unemployment-claims-for-a-second-week/>; Destiny Washington, “OSEC Claims Event Serves More than 8,000 in OKC and Tulsa,” Fox News 25, July 23, 2020, <https://okfox.com/news/local/oesc-claims-events-serves-more-than-8000-in-okc-and-tulsa>.

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## TERMINATIONS OF FEDERAL BENEFITS

In contrast with many of the efforts previously noted, some states took distinct but noteworthy actions later in the pandemic to opt out of the federal emergency programs, reducing the UI benefits available to their workforce. Starting in June 2021 nearly half of state UI programs voluntarily terminated federal UI benefits, even though the benefits were fully financed by the federal partner. The main argument these states gave was that UI benefits had been too generous and were influencing decisions to not return to work.<sup>98</sup>

Twenty-five states offered this argument as justification for the early termination of federal UI benefits. Three states’ termination decisions were challenged in court, and two challenges prevailed (in Indiana and Maryland but not in Texas). In total, of 51 state UI programs (the 50 states plus the District of Columbia) 24 ended federal UI benefits before the statutory expiration date of September 6, 2021. The states that ended federal UI benefits early had smaller labor forces and below-average unemployment rates. In 2020, for example, the 24 states represented 47 percent of state UI programs, 40 percent of the national labor force, and 36 percent of national unemployment.

As noted in section 3, the available literature finds little evidence for the argument that federal UI benefits had large employment effects. Consistent with those findings, we present here a brief analysis to show the differences in unemployment trends between states that terminated benefits early and those that did not. Table 16 displays data for the first three calendar quarters of 2021 for three federal UI benefit programs (FPUC, PUA, and PEUC). Of the 24 state programs that ended federal UI benefits early, 21 did so in

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<sup>98</sup> See reporting, for example, in “Half of states are ending increased unemployment benefits as governors say businesses need workers,” Sarah Ewall-Wice, CBS News, June 2, 2021, <https://www.cbsnews.com/news/unemployment-benefits-states-end-federal-aid/>

June 2021 and three in July. These payment data have lags such that the June terminations are apparent starting in July. Thus, the effects of the early terminations are apparent in the third calendar quarter of 2021.

**TABLE 16**  
**Early Termination of Federal Unemployment Benefit Programs, 2021**  
*Billions of dollars*

	Early termination, 24 states (1)	Retained benefits, 27 states (2)	Total = (1) + (2) (3)	Termination state share = (1) / (3) (4)	No ending projection = (2) / (1 - (4)) (5)	Forgone benefits = (5) - (3) (6)
<b>FPUC</b>						
Jan.-Mar.	16.19	34.65	50.84	0.318		
Apr.-June	14.80	31.33	46.14	0.321		
July-Sept.	1.78	21.24	23.02	0.077	31.22	8.20
<b>PUA</b>						
Jan.-Mar.	3.78	16.43	20.22	0.187		
Apr.-June	2.96	13.94	16.90	0.175		
July-Sept.	0.72	11.33	12.06	0.060	13.83	1.77
<b>PEUC</b>						
Jan.-Mar.	5.86	14.89	20.75	0.282		
Apr.-June	5.89	15.35	21.14	0.277		
July-Sept.	1.18	11.65	12.83	0.092	16.18	3.35
<b>Total, all programs</b>						
Jan.-Mar.	25.83	65.97	91.80	0.281		
Apr.-June	23.65	60.62	84.27	0.281		
July-Sept.	3.68	44.22	47.90	0.077	61.23	13.33

**Sources:** Author calculations based on Employment and Training Administration (ETA) data series, including: ETA 5159 (Claims and Payment Activities); ETA 2112 (UI Financial Transaction Summary); and ETA 902P (Pandemic Unemployment Assistance Activities).

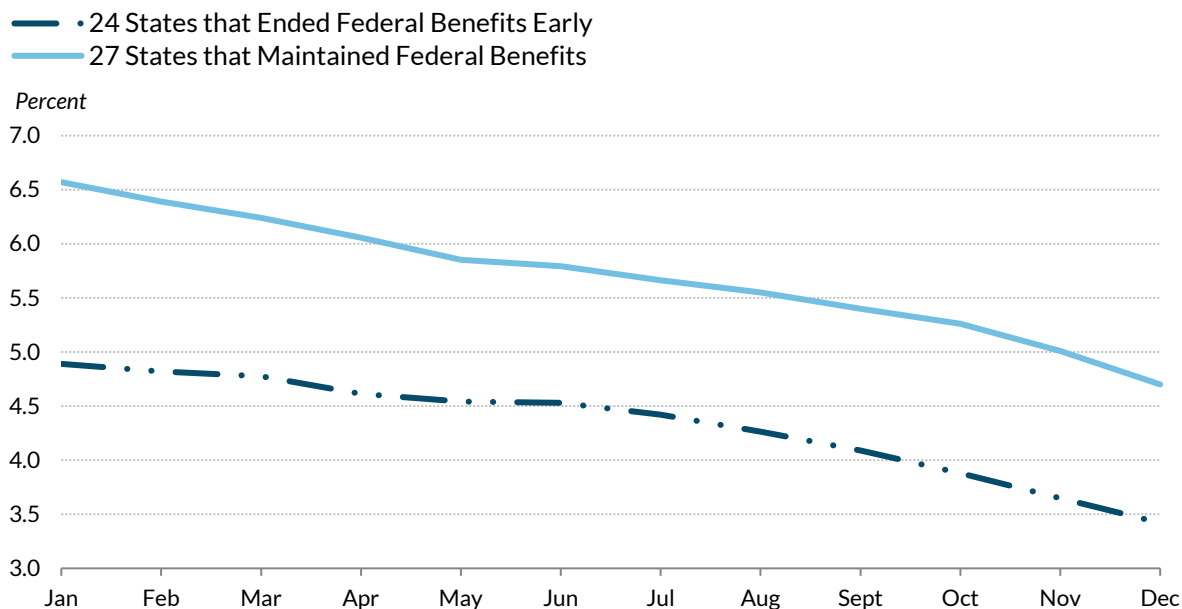
**Notes:** States that ended federal benefits early began terminating these benefits in May 2021. Termination state share is the share of benefits, for each program, and in total, paid by the set of states that terminated early. Foregone benefits is an estimate of the total benefits foregone by terminating states in the July to September 2021 period; estimate is calculated assuming terminating states would have paid the same share of benefits in those months if they had retained benefits. EB = Extended Benefits, FPUC = Federal Pandemic Unemployment Compensation, PEUC = Pandemic Emergency Unemployment Compensation, PUA = Pandemic Unemployment Assistance.

Note in the bottom rows of table 16 how total benefits across the three programs decline during the third quarter, in the states that maintained federal UI benefits until September 6 as well as in the states that enacted early terminations. The aggregate payout during July-September declined by more than 40 percent in the 27 states that maintained benefit eligibility (column 2) as unemployment was declining and these programs were winding down. Column 1 of table 16 provides strong evidence of how much faster payments declined in the states with early benefit terminations. Aggregate payouts during July-September 2021 totaled \$3.68 billion compared with nearly \$23.65 billion during April-June 2021.

Table 16 also shows estimates of the amounts not paid by the 24 early-termination states during July–September 2021. Column 5 gives an estimate of how much would have been paid if the 24 states had maintained their share of total payouts from the first six months of 2021. Under this assumption the aggregate payout across the three federal programs during the third quarter would have totaled \$61.23 billion rather than the actual payout of \$47.90 billion (column 3). Column 6 then shows the estimated benefit reduction during July–September totaling \$13.33 billion. With no reductions, the early-termination states would have paid out \$17.01 billion during the third quarter of 2021 (\$3.68 + \$13.33 billion) rather than their actual payout of \$3.68 billion. Because these benefits were paid by the federal government, the reduction in payouts generated savings to the federal government of \$13.33 billion.

The rationale advanced by states for early termination of federal UI benefits was to encourage workers to become reemployed more quickly. To judge the empirical content of this argument one might examine recent changes in state unemployment rates. Figure 17 displays monthly average unemployment rates for two groups of states in 2021: the 24 that ended federal UI benefits early and the 27 that maintained benefits until they expired on September 6, 2021. The chart shows simple averages that weigh the individual states equally within each group.

**FIGURE 17**  
**Average State Unemployment Rates, 2021**



**Source:** Underlying monthly state unemployment rate (TUR) averages from Bureau of Labor Statistics, “Geographic Profile of Employment and Unemployment,” July 14, 2021, <https://www.bls.gov/opub/geographic-profile/home.htm>.

**Notes:** States that ended federal benefits early began terminating these benefits in May 2021.

If generous UI benefits were prolonging unemployment spells, their effect should diminish after federal benefits were terminated in June and July. It might be expected that the average unemployment rate decreased more rapidly in the 24 states that terminated federal UI benefits early when compared with the average for the 27 that continued federal benefits until September 6. Figure 17 shows that both monthly series declined noticeably in 2021. Of the two series, the average unemployment rate was higher in the 27 states that maintained federal UI benefits. During the 12 months of 2021 the difference averaged 1.38 percentage points. However, both series declined steadily between January and December. Most important, there is no indication in figure 17 that the unemployment rate declined more rapidly in the 24 early-termination states from July to September as might be expected if generous UI benefits were slowing the return to work.

Figure 17 explores only one possible effect of generous UI benefits on worker behavior. There could also be effects on labor force participation, hours of work, or reservation wages. The monthly unemployment data here are not offered as dispositive. However, they do suggest that between June and September of 2021, there were no observed differences on state unemployment rates of the federal UI benefits the 27 early-termination state programs did not pay.

## Challenges Faced by States

In this section, we summarize both qualitative and quantitative information on challenges states reportedly faced in the operation of UI programs during the COVID-19 recession. We describe some of the available qualitative information on challenges states faced in managing the rise in claims. We also describe and analyze indicators of program stress, such as timeliness of payments, at the state level, and provide some statistical associations with characteristics of state UI programs.

### QUALITATIVE INFORMATION ON STATE CHALLENGES

State UI programs faced substantial challenges related to managing both the rise in claims and the need to implement federal emergency measures. While circumstances prohibited this project from conducting systematic information collections from state programs about their approaches, we briefly review qualitative information on these challenges as collected and reported in other sources, along with information on state approaches from publicly available sources such as state UI program websites. While this information is not systematic or representative, it does suggest lessons from the COVID-19 experience and point to directions for further research. From these sources, we observe that states faced at least four categories of challenges in the COVID-19 recession: (1) managing the rise in

claims, (2) implementing the PUA program, (3) managing the FPUC program, and (4) finding adequate administrative funding.

**Managing the rise in claims.** As noted throughout, the rise in claims during the COVID-19 recession was of a magnitude and speed without precedent in the history of the UI system. That states faced challenges in paying claims is well documented, as indicated by the payment timeliness indicators summarized here, both nationally (above) and across states (below), as well as the assessment of other reviews of challenges faced by the program (DOL IG 2021). Substantial contemporaneous media attention was also paid to the delays and challenges claimants faced.<sup>99</sup>

There is suggestive qualitative evidence on the specific sources of stress on states in responding to the rise in claims. Stresses revealed themselves in challenges related to program staffing, technology systems, communication to workers and claimants, and issues related to fraud and error.

**Staffing.** Taking claims by phone and in person, and processing and reviewing claims, requires UI program staff. States found that hiring staff, whether permanent or temporary, was difficult and expensive. Nearly all states hired additional staff, but many reported challenges hiring adequate staff quickly to enough to process the rise in claims (DOL IG 2021). States also reported challenges associated with training staff from other agencies to work on UI (Maher & Maher 2021). As in the Great Recession, states reported challenges associated with quickly training new staff, both contactors and hires, in part because the UI program is complex (Maher & Maher 2021). Challenges related to staffing and training were further magnified by the need for many program staff to work remotely during the COVID-19 pandemic. Available evidence suggests that delays in hiring and training staff translated into substantial delays in processing claims in many states (PRAC 2021).

**Technology.** During the Great Recession state UI programs reported IT and data challenges related to intake capacity in response to the sharp and large rise in claims and in the face of pressure to process claims and payments promptly. In many states this appears to have remained true during the COVID-19 recession (PRAC 2021). Many states reported their technology being overwhelmed by the initial spike in claims. As noted, some states had modernized systems between the Great Recession and the COVID-19 recession, but many states still had legacy systems, which multiplied challenges. Outdated IT systems are reported to have played a central role in challenges facing many states (DOL IG 2021). And even states with modern systems reported being challenged by claims (PRAC 2021). Some states with

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<sup>99</sup> See, for example, Tiffany Hsu and Tara Siegel Bernard, “Coronavirus Layoff Surge Overwhelms Unemployment Offices,” *New York Times*, March 19, 2020, <https://www.nytimes.com/2020/03/19/business/coronavirus-unemployment-states.html>.



centralized IT offices also noted that this was a source of friction and delays in responding to the pandemic (Maher & Maher 2021). Some states also noted concerns that innovations in technology may create barriers to equitable access (Maher & Maher 2021).

**Communication with workers.** A number of states have noted that communications to claimants in the COVID-19 recession posed a substantial challenge (Maher & Maher 2021). The usual challenge of communicating effectively with workers about the complex the UI program was reported to be magnified by two factors. One was the large number of claimants in the COVID-19 recession with no prior experiences with the UI system, whose lack of familiarity with the program and its requirements imposed additional challenges. The other was challenges stemming from additional complexities related to the new programs, especially PUA. Some states identified legacy IT systems as magnifying limitations on communication with workers and claimants, making clear, concise, easy to understand, and timely communication more difficult or impossible (Maher & Maher 2021).

Note, finally, that these challenges in communicating effectively to claimants also had spillover effects on challenges states faced related to staffing and operations, as confusion, misunderstanding, and lack of information led claimants to call or visit offices. Some states have also noted challenges related to communication and equity issues, in particular ensuring that new, often technology-enabled forms of communication are accessible to, for example, populations with limited access to the hardware or broadband needed use them (Maher & Maher 2021).

**Fraud and error.** As previously discussed in more depth, there is suggestive evidence from state experiences that new forms of fraud and error were an important challenge facing state UI programs in the COVID-19 recession (DOL IG 2021; Isaacs and Whittaker 2022). These difficulties were in some instances related to new programs, such as PUA, that introduced new operational and integrity challenges. But some of these challenges also appear attributable to organized efforts to exploit the ready availability of benefits.

**Implementing the PUA program.** Administering PUA benefits was observed to present several distinct challenges to state UI programs. Two are especially important. First, the program was initially implemented in a period when regular UI benefit claims were extraordinarily high (figure 6). Second, state UI agencies were not, when the program was first implemented under the CARES Act, allowed to request information to verify earnings, but relied solely on claimant attestation. (Regular UI, in contrast, uses past earnings already in agency wage records as the basis to establish eligibility.) The ability of claimants to self-certify their eligibility for PUA, on the one hand, reduced burden on states to verify but was, on the other, a contributing factor to errors (PRAC 2021). The Consolidated Appropriations Act of

2021, passed in December of 2020, modified the PUA program to allow states to request wage data from claimants, such as pay stubs, IRS W-2 and 1099 forms, and past tax returns. But states reported difficulty getting data on self-employment income (Maher & Maher 2021).

There are also a few other indicators of the challenges the PUA program posed to states. Information on when states began processing applications and making payments under PUA, collected in the dashboard, shows wide variation across states and substantial delays in many. While the earliest states for which we have data were able to make PUA payments before the end of April 2020, others did not process applications until mid-May 2020. This is consistent with findings in DOL IG (2021), which reports states making first payments up to 60 or more days after the PUA program began. This is also consistent with Greig and coauthors (2022), who find in their data that PUA first payments tended to be larger, suggestive of delays in processing initial claims under the program.

Other evidence from early in the pandemic is also consistent. Table 17 summarizes early experiences with the PUA program. The table displays PUA weeks claimed for the weeks of April 18 and May 16. The columns show national data and data for three groups of states: large northern states, large southern states, and the remaining 38 states (including DC). The top row shows total unemployment (in millions) for these groupings as of April 2020, the first month to reflect the effect of the pandemic. The 13 large states combined represented 60.7 percent of unemployment in April and the other 38 states 39.3 percent.

The three geographic categories illustrate a key regional, general fact about the UI program: reciprocity rates are lower in the South than elsewhere in the United States. This contrast is apparent in the early weeks of the PUA program. In the week of April 18, the five large southern states accounted for 18.4 percent of PUA benefits, similar to their share of April unemployment (19.4 percent). By the week of May 16, however, their share had declined to 4.0 percent.

A second feature of table 17 is the faster response of the 38 smaller states in making PUA benefit payments when compared with the larger states. In the week of April 18, the smaller states accounted for 64.3 percent of PUA continued claims compared with their 39.3 percent of April unemployment. By May 16, their share had declined to 20.7 percent. The third noteworthy feature of table 16 is the rapid growth of PUA continued claims in the eight large northern states, from 17.3 percent of total weeks claimed in the week of April 18 to 75.3 percent in the week of May 16. By the latter week, the more than 8 million claimants in these states represented 84.8 percent of total unemployment in these eight states.

TABLE 17

## Rollout of Pandemic Unemployment Assistance by Region and State Size, 2020

	US total	State Group			
		13 large	8 large northern <sup>a</sup>	5 large southern <sup>b</sup>	Other 38
Unemployment (millions)	23.078	14.016	9.532	4.484	9.062
Share of total unemployment		0.607	0.413	0.194	0.393
PUA Claims April 18 (millions)	0.995	0.355	0.172	0.183	0.640
Share of total PUA claims		0.357	0.173	0.184	0.643
PUA Claims May 16 (millions)	10.741	8.518	8.088	0.430	2.223
Share of total PUA claims		0.793	0.753	0.040	0.207

**Sources:** Unemployment data from the Bureau of Labor Statistics “State Employment and Unemployment” release for April 2020. PUA continued claims from Unemployment Insurance claims reports from the indicated weeks.

**Notes:** State sizes classified by total employment. <sup>a</sup> Eight large northern states: California, Illinois, Massachusetts, Michigan, New Jersey, New York, Ohio, and Pennsylvania. <sup>b</sup> Five large southern states: Florida, Georgia, North Carolina, Texas, and Virginia. Unemployment is total unemployment, with share of total unemployment being the share for each group of states. PUA April 18 is the number of PUA claims that week, with share of total PUA claims being the share for each group of states. PUA May 16 is the number of PUA claims that week, with share of total PUA claims being the share for each group of states.

Finally note that even after the PUA program launched, there is some evidence that states faced ongoing operational challenges. For example, in an analysis timeliness of PUA payments conducted by the Office of Inspector General, based on data collected from a 12 states, none could establish having made PUA payments in a manner that would have satisfied the standard timeliness thresholds (although, as noted above, timeliness deteriorated in regular UI during the COVID-19 recession, as well) (DOL IG 2021).

**Awarding FPUC and supplemental benefits.** States also faced challenges associated with implementing additional benefit payments in the form of the FPUC benefit as well as Lost Wages Assistance, but these challenges appear to have been less substantial. As one piece of evidence, the delays in making payments after FPUC was created were shorter than for the PUA program. In our dashboard collection of these data, every state was able to begin making these payments before the end of April 2020. These lags were typically shorter than for the PUA payments (DOL IG 2021). However, there was still some evidence of challenges paying these benefits promptly (DOL IG 2021). Two aspects of this finding are noteworthy: one is that this program was designed by building on state experiences and lessons from the Great Recession. While the corresponding program in the Great Recession, the FAC, was much smaller, it had established some state program capability and precedent for making payments of this form. Second, the program established a state preference for fixed dollar supplements to weekly benefits, which the policy to some extent reflected.

**Finding administrative funding.** Finally, several states also noted that administrative funding levels were not equal to the resources needed to implement and adequately operate the new UI programs under pandemic conditions (DOL IG 2021).

## QUANTITATIVE ANALYSIS OF STATE RESPONSES

As a final body of evidence on the challenges facing state UI programs in the pandemic, we present selected state-level analysis of the timeliness of payments, described previously at the national level. As noted, these data indicate program stress. As illustrated by figures 14, 15, and 16, key administrative decisions experienced longer time lapses during the COVID-19 recession. The deterioration in aggregate performance indicators was much larger than during the Great Recession. By disaggregating these data by state, we can identify which states faced more- or less-severe challenges in operating the program in the COVID-19 context. We can, further, combine the state-level variation in this indicator of program stress with data on characteristics of state programs to analyze whether and which observable features of a state, its economic and program context, and its operational capacities or approaches are associated with and might explain variation in challenges maintaining timeliness of payments.

**State variation in timeliness of payments.** To begin we note simply that there is in fact substantial variation in state UI program experiences during the COVID-19 recession by measures of timeliness. Focusing on first-payment timeliness, we find that some state UI programs continued to meet performance benchmarks in 2020 and 2021. In 2020, nine states met the benchmarks: Colorado, Louisiana, Minnesota, Montana, North Dakota, Rhode Island, Utah, Virginia, and Wyoming. In 2021, six states did: Colorado, Illinois, Minnesota, North Dakota, Rhode Island, and Wyoming

**Relationships with state UI program characteristics.** As an additional analysis to understand challenges facing state UI programs in the COVID-19 recession, we can combine state-level indicators of program stress with state-level data on program characteristics and economic conditions, to estimate the associations between state UI program outcomes and state program and policy variation. Next, we present and interpret the results of such an analysis using state-level timeliness data during the COVID-19 recession as the outcome of interest, combined with data on variation across states in their UI program characteristics and a measure of local labor market and economic conditions across states. Our analysis includes the 50 state UI programs plus DC, for a total of 51 observations.

Following the discussion and results presented, we concentrate on timeliness of first payments (ETA 9050) as our primary indicator of the stress placed on state systems during the COVID-19 recession. As discussed, lags in first payments in particular indicate that states faced challenges in processing and paying UI claims under both the volume of claims and the additional burdens of

implementing emergency federal policies. Lags in first payments are also an indicator that correlates directly with outcomes for workers and UI claimants; as shown by Greig and coauthors (2022), delays in processing payments can be shown to correlate with indicators of financial hardships for households and workers.

Specifically, we conduct an analysis to explain the variation across state UI programs in their deterioration in timeliness of first payment rates between 2019 and 2020. While the UI system as a whole experienced a marked decline in this rate, as shown in figure 14, there was also an important degree of variation across states in the extent of this decline. The median state experienced a decline of 12.1 percentage points between 2019 and 2020, with a mean decline of 14.6 percentage points. But this was larger in some states and less pronounced in others. The standard deviation of this change across states was 11.0 percentage points. The largest declines were substantial. Florida experienced a decline of 41.1 percentage points, and Hawaii a decline of 46.7 percentage points.<sup>100</sup>

To characterize state UI systems, we include several state-level measures. First, reflecting the importance suggested by contemporaneous qualitative reports, we include a measure for whether the state program had a modernized IT system at the onset of COVID-19; specifically, we include a variable that indicates whether states had completed a modernization effort of either their tax or their benefit program by 2019.<sup>101</sup> If IT challenges were important for state operation of UI programs in the COVID-19 recession, and if the presence of modern IT systems helped states to more effectively operate their UI programs, we should find that, other things being equal, the presence of a successfully modernized system moderates the decline in timeliness of first payments. In 2019, 27 of the 51 programs had completed a tax system modernization, benefits system modernization, or both. We also include an indicator for whether states were part of a multistate consortium (arrangements where multiples states share a single technology platform), to identify if any associations between program outcomes and whether states operate their own systems independently or in conjunction with other states. In 2019, 13 of the 51 state programs were part of a multistate consortium.

We also include other dimensions of state UI program and policy variation, to capture and identify other sources of variation across state programs. Our principal measure is the state-level UI reciprocity rate for 2019, calculated at the ratio of insured unemployed to total unemployed in each state. As noted in section 3, the nationwide UI reciprocity rate stood at 28 percent in 2019. But there was substantial

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<sup>100</sup> All timeliness of first payment figures author calculations from ETA 9050 (First Payment Time Lapse) data.

<sup>101</sup> Status of IT modernization by 2019 is coded based on information from “NASWA UI Information Technology Support Center: Annual Report 2019,” NASWA, 2019, <http://itsc.org/Pages/UIITMod.aspx>.

state-level variation in this measure. The standard deviation of the reciprocity rate across states was 11.4 percentage points. Reciprocity rates ranged from as high as 50.3 in Massachusetts and 59.0 in New Jersey, to as low as 10.7 in Florida and 9.5 in North Carolina. As discussed, this measure captures some of the cross-state variation in the generosity of state programs, and to some extent the degree to which programs are accessible to workers.<sup>102</sup> (Carey et al. 2021).

Finally, we include measures of state local labor market and economic conditions. While the COVID-19 recession was sharp and deep nationwide, the health of local economies varied at the onset of COVID-19, as did the magnitude of employment shock in the initial months of the pandemic. To capture the former, we include the state-level unemployment rate for the month of February 2020, the last full month before the economic effects of COVID-19 were evident. To capture the latter, we include the change in the state-level unemployment rate between February and April 2020. In most states, and nationally, unemployment rates peaked in April 2020, making this measure an indicator of the degree of the initial economic shock. This measure captures the extent to which variation across states in first-payment timeliness is driven by the relative rise in unemployment, and indicates the degree to which the associated sharp rise in UI claims explains the challenges in UI program operations, other things being equal.

The analytical framework we use to isolate these effects while holding the others constant is a cross-sectional, ordinary least squares linear regression, with states as the unit of observation. We estimate and report results of regressions of our indicated outcome ( $Y$ ), on our vector of variables characterizing state UI programs ( $Z$ ), and a vector of variables capturing state-level economic conditions ( $X$ ), with an error term ( $\epsilon$ ) assumed to be independent and identically distributed:

$$Y = \alpha + Z\pi + X\beta + \epsilon$$

The coefficients of interest,  $\pi$ , would be interpreted as the average difference in outcome  $Y$  associated with the indicated program, policy, or practice, controlling for other elements of  $Z$  and the included elements of  $X$ . So, for example, where  $Z$  indicates which states had modernized IT systems in place before COVID-19, and  $Y$  is a measure of the fraction of payments meeting timeliness standards,  $\pi$  reflects the average difference in timeliness across groups of states by modernization status, controlling for differences in  $X$ , including state-level economic or labor market conditions.

Table 18 reports the results of this analysis. These findings are purely descriptive, from a single cross-section of 51 state programs, and, with an important exception, generally imprecisely estimated. First, the effects of IT modernization are in the predicted direction (positive values on coefficients in the

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<sup>102</sup>Carey and coauthors, "Applying for and Receiving Unemployment Insurance Benefits."

table below indicate the variable protected against declines in the timeliness of first payments between 2019 and 2020, while negative values indicate the variable contributed to the decline). But the effects of modernization are small, and not statistically significant. State participation in a multistate consortium also enters positively, but also is small and not statistically significant.

The results on the state UI program reciprocity rate are not precisely estimated, but the magnitude of the point estimate is large. Going from the low to the high end of the observed range of reciprocity rates, a difference of approximately 0.5 is associated with a mitigation of the decline in timeliness of first payments by approximately 5 percentage points.

The effects of labor market conditions on the change in the rate of timelines of first payments are perhaps the most striking results shown. Higher state unemployment rates in February 2019 are associated with larger declines in timeliness, although this effect is not statistically significant. The change in the state unemployment rate between February and April is both large and significant at the 10 percent level. A 10 percentage point larger rise in that rate over that period was associated with a 7 percentage point larger decline in timeliness of first payments. These results suggest that among our included variables, the rise in claims caused by the rise in unemployment drove differences across state in challenges in making timely payments, The finding is consistent with a hypothesis that the challenges state UI programs faced in the pandemic were driven substantially by the challenges associated with the unprecedented rise in claim volumes, and that even modern IT systems were swamped by these larger issues related to the economic and policy context.

**TABLE 18**  
**Correlates of Changes in Timeliness of First Unemployment Insurance Benefit Payment, 2019–20**

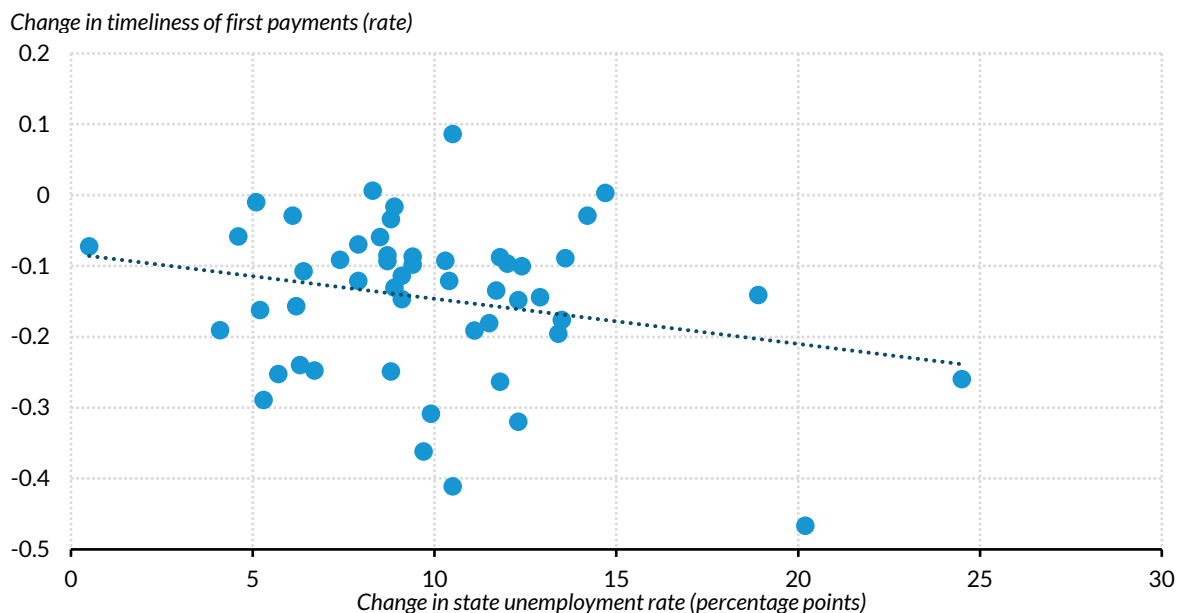
Explanatory variable	Dependent Variable: Change in First-Payment Promptness	Dependent Variable: Change in First-Payment Promptness
	Rate of change	Standard error
Change in state unemployment rate, February–April 2020 (percentage points)	-0.007 <sup>^</sup>	0.0041
State unemployment rate in February 2020 (percent)	-0.013	0.0179
State had modernized UI information technology system in 2019 (indicator)	0.006	0.0317
State was part of multistate consortium (indicator)	0.006	0.0369
State UI reciprocity rate in 2019 (rate)	0.107	0.1445
Constant	-0.059	0.0931

**Source:** Author calculations using data from the US Department of Labor Employment and Training Administration, the Bureau of Labor Statistics, and the National Association of State Workforce Agencies.

**Notes:**  $N = 51$ ,  $R^2 = 0.08$ , <sup>^</sup>  $p < 0.1$ , \*  $p < 0.05$ .

To illustrate this relationship between state labor market conditions and state UI program challenges in paying claims, figure 18 shows a scatterplot of the decline in the rate of first payment timeliness, on the y-axis, against the rise in the state-level unemployment rate, on the x-axis. The general negative relationship between these two variables is clear visually.

**FIGURE 18**  
**Change in Timeliness of First Unemployment Insurance Benefit Payment, 2019–20, by Change in State Unemployment Rate, February–April 2020**



Source: Author calculations using Employment and Training Administration and Bureau of Labor Statistics data.

**BOX 5**

**The UI System in the COVID-19 Recession: Key Takeaways**

- The rapid and substantial rise in UI claims in the COVID-19 recession, a rise more pronounced even than in the Great Recession, posed substantial challenges for state UI programs. This is evident in both national trends and state-level analysis of program data, including timeliness of payments and determinations. Qualitative information about challenges facing states and suggestive quantitative analysis indicate that ramping up staffing and training to take and adjudicate claims were observed to be sources of challenges, as were strained technology systems, especially in states still operating legacy IT systems. States also noted that challenges associated with effectively communicating program details to claimants, especially the large number of new claimants with little prior experience or familiarity with the program. These



challenges were in some ways reinforcing: difficulties with communications and IT systems led more claimants to require personal assistance, placing further stress on staff.

- The new PUA program provided substantial income protection to a large class of workers who would otherwise not have qualified for UI benefits, including the self-employed; gig workers; persons who could not meet eligibility requirements for regular UI because of inadequate work histories, benefit exhaustions, or other reasons; and workers with educational, caregiving, and specified other responsibilities. However, PUA was also reported to create particular challenges for state UI programs. This is evident in available qualitative information on state experiences and consistent with some systematic indicators, such as measures indicating delays in taking and paying claims under the program. In addition to the general challenges associated with implementing a new program in the context of a system already under strain, two particular challenges appeared: First, states needed to employ alternative means to calculate and certify benefits for workers, such as the self-employed or gig workers, who are outside state wage records. Second are the complexities associated with effectively communicating about the new program.
- Most state UI programs were able to effectively pay the supplemental weekly benefit FPUC program as implemented in the COVID-19 recession. Delays in making these payments were shorter than, for example, delays in making payments under the PUA program. This appears to be partly because the form of these payments, as a flat weekly amount, was established with consideration for state systems. This was also because FPUC did not require a separate eligibility determination, which made the program easier to implement.
- There is some evidence that the new programs, especially PUA, struggled to balance the competing demands of making timely payments to large numbers and new classes of workers, while effectively guarding against fraud and error. This challenge was observed to be associated with several factors, including the stress programs were operating under because of the rise in claims, the challenges associated with ensuring the accuracy of payments in the new programs established at the height of the pandemic, and the emergence of new and evolving forms of fraud. This was magnified in the case of PUA by the initial requirements for program that prohibited states from establishing eligibility determination procedures using any means other than self-certification.
- States took many actions in the COVID-19 recession, including making emergency changes to their UI programs, as well as many innovations in program operations generally intended to ensure or improve accessibility to UI benefits. Several of the states that had reduced their maximum benefit durations after the Great Recession, for example, took emergency actions early in the pandemic to raise durations. And many states used innovative technology to take claims and communicate with workers, to improve access during the pandemic. Some of these changes were in response to federal incentives, such as linking administrative funding to requiring employers to notify separating workers. Not all of the actions by states were intended to extend access or eligibility, however; notably, a number of states terminated federal emergency benefits before their expiration.

The experience of the UI system during the COVID-19 recession adds to lessons learned from the Great Recession. While the labor market and policy responses were distinct, some findings from the COVID-19 recession reinforce lessons from the Great Recession, such as the challenges state UI programs faced in meeting rising claims. Other aspects of the experiences in COVID-19 generated new lessons and findings for the UI system, such as the experience of state programs with implementing the PUA program and providing benefits to new categories of workers. In the next section, we conclude by synthesizing lessons from across both recessions and identifying areas where additional research is needed.

# 5. Lessons from the Recessions

Taken together, evidence from experience of the Great Recession and the COVID-19 recession identifies lessons for the UI system from these recent recessions. These include lessons from the Great Recession that appear to still hold, as well as new lessons that emerged from the COVID-19 experience. It also includes the identification of questions in need of additional evidence building and further research.

## Lessons from the Great Recession Reinforced by the COVID-19 Recession

- **Unemployment Insurance is an important source of financial stability for households and plays a substantial role in macroeconomic stabilization.** The literature from the Great Recession is clear, and the emerging research from the COVID-19 recession is consistent, with the conclusion that UI provided critical consumption-smoothing benefits to workers and households in both recessions. The benefit levels during the COVID-19 period were, for many workers, in many months, more than they were earning in their pre-separation job. Moreover, this empirical literature is largely consistent with the idea that the generosity of UI benefits, in terms of both duration and replacement rates, can be expanded without substantial negative impacts on either job search behavior or total employment. Finally, in both recessions, UI benefits played a substantial macroeconomic role supporting demand.
- **A rapid and substantial rise in UI claims poses substantial challenges for state UI operations.** As indicated by the review of prior studies of the Great Recession, as well as our analysis and summary of qualitative information on state experiences during the COVID-19 recession, state programs were significantly challenged by the rapid rise in claims. During both recessions, to different degrees, challenges were associated with expanding staff capacity and limits imposed by IT systems. In particular the challenges reported by states without modern IT systems suggests the importance of system modernization.
- **To play an important role, UI benefit extensions have required ad hoc federal intervention.** Benefit extensions played an important role in supporting workers and the economy in both the Great Recession and the COVID-19 recession. But, in both cases this support required emergency federal intervention. Automatic extensions built into the UI system, in the form the Extended Benefits program, required ad hoc adjustments to perform effectively in the Great

Recession and played a limited role in the COVID-19 recession. The temporary extensions, EUC in the Great Recession and PEUC in the COVID-19 recession, were substantial.

- **Federal incentives for states to improve access and expand eligibility show promise.** Incentives to expand eligibility included in eligibility modernization provisions during the Great Recession were observed to spur states' adoption of these expansions, and these provisions were largely maintained by state UI programs in the recovery following the Great Recession. For example, separations for compelling family reasons were seldom allowed before the Great Recession, but about half of UI programs allowed such separations before COVID-19. During the COVID-19 recession, less extensive but still potentially important federal incentives intended to improve access, such as tying administrative funding to requiring employer notification at separation, successfully induced some states to adopt such measures, at least temporarily.
- **STC, however, remains somewhat lightly used despite federal incentives.** Work-sharing programs were expanded during and following the Great Recession, as a result of both federal and state policy efforts. At the start of the COVID-19 recession, 26 states and the District of Columbia had STC programs. Incentives for and support to STC programs during the COVID-19 recession, modeled on the Great Recession efforts, supported existing programs and helped two more states to create new programs. While STC was used more often in the COVID-19 recession than in prior recessions, it remains a small program relative to both other countries' use and its perceived value.

## New Lessons Emerging from the COVID-19 Recession

- **Unemployment Insurance can be extended to cover new classes of workers but doing so poses challenges within the current system.** The experience of the PUA program demonstrated that the system could provide benefits to individuals not eligible for regular UI programs, including the self-employed, gig workers, and workers with limited work histories or earnings. The number of PUA claims, to some extent, also highlights the size of this class of workers who, in modern labor markets, are not protected by the current UI system—in August 2021, for example, the month before the program expired, PUA claims remained over 5 million, representing more than 40 percent of all UI continued claims. However, the PUA program also revealed challenges associated with including these workers in the UI system, especially challenges associated with self-certification and income verification for workers whose earnings are outside of state UI wages records.

- **Substantial supplementation to weekly UI benefits in recessions can effectively reach workers, but there are limits in the current system.** The FPUC program, which added substantially to weekly benefits—initially \$600 per week, later \$300 per week—demonstrated that the significant countercyclical adjustment to replacement rates suggested by economic research can be achieved in practice. The emerging research literature suggests that these benefits played a particularly important role for workers’ economic security during the pandemic. However, the structure of this adjustment as a flat weekly amount, which has limitations, was designed in part to recognize limitations in the capabilities of state systems to make more flexible adjustments.
- **States found margins of adjustment in their programs in innovative ways that could have important implications for the effectiveness of the system.** States demonstrated the ability to make their own emergency changes to UI programs in the COVID-19 recession. These included program adjustments, for example, states that had reduced their maximum benefit durations after the Great Recession took emergency actions early in the pandemic to raise durations. And many states innovated in their use of technology for taking claims and communicating to workers in attempts to improve access during the pandemic. Some states, however, also terminated federal benefits before their expiration, an action without precedent in the Great Recession.
- **Error and fraud in emergency programs emerged as challenges in new ways.** Evidence suggests that the design of the PUA program created challenges in balancing the competing demands of making timely payments to large numbers and new classes of workers while effectively guarding against fraud and error. Such difficulties were observed to be related to several factors, including the stress programs were operating under because of the rise in claims, the challenges associated with ensuring the accuracy of payments in new programs established at the height of the pandemic (especially the PUA program with the challenges associated with its operation), and the emergence of new and evolving forms of fraud.
- **Active steps are required to ensure equity and access in the UI system.** New research and data has emerged in the context of COVID-19 that emphasizes the ways in which barriers to access diminish the effectiveness of the system. These barriers have tended to disproportionately affect groups disadvantaged in the labor market, such as Black workers, limiting the equity of the program as well as its effectiveness and efficiency. A number of states took innovative approaches during the COVID-19 recession to begin more actively monitoring and addressing these issues, which have also been recognized at the federal level.

## Questions in Need of Additional Evidence Building and Further Research

- **What worked and what can work to effectively expand the system to provide benefits and protection to workers not covered by regular UI?** While the experience of the PUA program demonstrated the ability and importance of expanding to include such workers as the self-employed, gig workers, and workers with limited work histories or earnings, the emergency program was reported to face serious challenges. Additional research could investigate more closely differences in how states implemented the PUA, to identify whether different approaches suggest more specific lessons. Additional research could be conducted with state programs experimenting with new approaches. Such research could inform understanding about how such programs could include these workers both in and outside of recessions.
- **Can cyclical adjustments make weekly benefit amounts more flexible?** While the experience of the FPUC program demonstrated the ability and importance of implementing countercyclical adjustments to benefit amounts, these amounts were set at fixed dollar amounts at least partly for practical reasons related to state capabilities. This was arguably appropriate in the context of a pandemic recession, but in general there are advantages to adjustments that can take more flexible and dynamic forms. Further research could investigate more closely details on how states implemented the FPUC, to identify whether approaches to implementing the program taken by different states suggest lessons on how to make weekly benefits more flexible.
- **How can states understand and mitigate challenges posed by reduced weeks of benefits and downward trends in reciprocity?** UI reciprocity fell following the Great Recession to levels that were low by historical standards; before the COVID-19 recession, only about 28 percent of all unemployed workers received UI. A related factor was that some states had reduced their maximum weeks of regular UI benefits below the previously standard 26 weeks. Circumstantial evidence suggests these factors presented and magnified some of the challenges the system faced in responding effectively to the COVID-19 recession, but further research is needed to quantify and assess costs and approaches to their mitigation.
- **How are evolving challenges to the UI system related to ongoing changes in the labor market?** Labor markets continue to evolve in ways that may have consequences for the future operation and performance of the UI program. The extent to which, for example, changes in the nature of employment relationships or the changing demographics of the workforce have implications for the operation and effectiveness of the UI system remain important topics of future research.

- **How can federal and state governments ensure equity and access in the UI system?** As indicated and highlighted by both emerging research and federal and state policy and operational priorities, an important direction for future research is the nature and sources of, and solutions to, systemic inequities in the UI system. One area for future research will be to track in more detail state adoption and maintenance of UI program and operational innovations addressing barriers to access, as well as research into how these affect reciprocity and equity. For example, research might explore whether state innovations in communications with claimants were effective during the COVID-19 recession. Another area for research is state efforts to monitor and address disparities, especially by race.

# Appendix. Change in Study Focus in Response to COVID-19

The Great Recession, which spanned 2007 through 2009, posed substantial challenges to the UI system. This study was originally conceived to better understand which UI measures and system elements worked and did not work during the Great Recession—and how state UI systems and practices evolved in the subsequent years—to better prepare the UI system to respond to the next recession. In doing so, the study was to satisfy the US Department of Labor’s (DOL) commitment to the US Government Accountability Office (GAO) to collect systematic evidence on state experiences in the Great Recession and draw conclusions for informing future policy (GAO 2016). The centerpiece of this study was to be a set of information collection efforts, including a survey of state programs, to build primary evidence on the perceived challenges, observed approaches, and potential lessons from the Great Recession.

Before the study could be conducted and completed with those objectives in mind, the next recession came. The COVID-19 pandemic of 2020 drove an even sharper rise in unemployment and UI claims than the Great Recession (as illustrated in figures 1 and 6, respectively), pausing originally planned study activities and shifting the priorities of the research. To meet the more immediate and urgent COVID-19-related needs of program officials and others, study activities pivoted toward producing a dashboard to track state UI program and policy responses to the COVID-19 recession, along with two briefs that repurposed knowledge development research on key themes and lessons from the Great Recession to focus on how those lessons applied in the COVID-19 context (Congdon and Vroman 2021a, 2021b).

With the most severe labor market and UI program impacts of COVID-19, at the moment, behind us, the study still seeks to advance understanding of the performance of the UI system in the context of recessions, but with a shifted focus and different constraints. The study’s focus now includes the experience of the UI system in the COVID-19 recession, as well as in the Great Recession. As to constraints, the collection of new information such as through a state survey, was precluded primarily because of concerns about overburdening state administrators. As a result, and following discussions with DOL, the approach shifted to an analysis of program administrative data and data on program features and policy responses (collected from publicly available sources and reported in the form of the UI COVID-19 dashboard), supplemented with other publicly available sources, such as labor force data, new research literature, and information on the experiences and practices of UI programs from selected states.



Using the above approach and data sources, this report describes state UI program experiences during the Great Recession and COVID-19 recession, how these experiences varied by state or groups of states and by state program features, and how experiences in the Great Recession compared with experiences during the COVID-19 recession. The report describes how the COVID-19 recession response adds to, reinforces, or modifies what was learned from the Great Recession. The study considers both policy and labor force dynamics, as each has evolved structurally over time, as well as how each responded to business cycle conditions in the recessions.

## Study Objectives

To record the study's change in focus and approach as described above, we present below both the original and revised study objectives for this project.

### Original Statement of Study Objectives

Broadly, the goals of this project are to conduct research, first and principally, to better understand how the UI system functioned and responded during the Great Recession to better prepare the UI system to respond to the next recession. Secondly, the study aims to understand the potential implications of changes in the labor force and policy environment since the Great Recession for the performance of the UI system in the next recession. In meeting the first of these objectives, the study will satisfy DOL's commitment to GAO to collect systematic evidence on state experiences in the recession and draw conclusions for informing future policy (GAO 2016).

### Revised Statement of Study Objectives to Include the COVID-19 Experience

Broadly, the goals of this project are to conduct research, first and principally, to better understand how the UI system functioned and responded in the COVID-19 and Great Recessions, with an emphasis on the challenges faced by state programs in responding to rapidly rising claims levels and administering emergency UI programs. Secondly, the study aims to understand the implications of changes in the labor force and policy environment since the Great Recession for the UI system in responding to the COVID-19 recession. In meeting the first of these objectives, the study will satisfy DOL's commitment to GAO to collect systematic evidence on state experiences in the Great Recession and draw conclusions for informing future policy (GAO 2016).

# Research Questions

The research questions for this study underwent a corresponding revision. To record and note the changes, we present first the original set of study research questions for this project.

## Original Study Research Questions

1. **UI and cyclical labor force dynamics:** How did state UI agencies respond to the staffing, IT, financing, and other administrative pressures created by the increasing number and duration of UI claims during the Great Recession? How have these state systems and practices evolved since the recession? And how do states anticipate responding on these dimensions in future recessions?
2. **UI and cyclical policy dynamics:** How well did the benefit extensions and other cyclical adjustments to UI work during the Great Recession? What challenges did they pose for state UI agencies? What were the implications for claimant experiences and outcomes, and for the effectiveness of UI as countercyclical policy? What might be improved in future recessions?
3. **UI and structural policy trends:** What have been the effects of changes in the policy environment for and among state UI agencies during and since the Great Recession? What are the possible implications for the effectiveness of UI in future recessions?
4. **UI and structural labor force trends:** What are the implications of structural changes in the labor force for UI administration and outcomes? Would any of these changes be relevant to the fairness and countercyclical economic role of UI benefits in a future mass unemployment event?

With DOL's approval, we revised the research questions to reflect the changes in the study's focus. These revised questions incorporate the expanded focus that includes the COVID-19 recession and abstract from specific components of the original questions that are no longer a focus or can no longer be answered because the originally planned state survey will not be conducted. For example, in the original first question, "How do states anticipate responding on these dimensions in future recessions?" was predicated on us directly asking states about their future plans. The revised research questions follow.

## Revised Study Research Questions

1. How did the UI system respond to the cyclical labor force dynamics in the Great Recession and the COVID-19 recession? How did states respond to staffing, financing, and other administrative pressures created by the increasing number and duration of UI claims? How well did the program work to deliver benefits while under those pressures?
2. How did the UI system respond to the cyclical policy dynamics in the Great Recession and the COVID-19 recession? What challenges did those policy changes pose for state UI agencies? How well did benefit extensions and other emergency UI measures work? What were the implications for claimant experiences and outcomes, and for the effectiveness of UI as countercyclical policy?
3. What are the implications for UI of structural policy changes made during and since the Great Recession?
4. What are the implications for UI of structural labor force trends that continued to evolve since the Great Recession?

# References

- Abraham, Katharine, John Haltiwanger, Kristin Sandusky, and James Spletzer. 2018. "Measuring the Gig Economy: Current Knowledge and Open Issues." NBER Working Paper 24950. Cambridge, MA: National Bureau of Economic Research.
- Abraham, Katharine G., and Susan N. Houseman. 2014. "Short-Time Compensation as a Tool to Mitigate Job Loss? Evidence on the US Experience during the Recent Recession." *Industrial Relations* 53 (4): 543–67.
- . 2018. "Making Ends Meet: The Role of Informal Work in Supplementing Americans' Income." Roundtable on Improving Employment and Earnings in Twenty-First Century Labor Markets, American Economic Association Meetings, January 2019.
- . 2021. "What Do We Know about Alternative Work Arrangements in the United States? A Synthesis of Research Evidence from Household Surveys, Employer Surveys, and Administrative Data." Report to the Department of Labor. Kalamazoo, MI: W. E. Upjohn Institute.
- Acemoglu, Daron, and Pascual Restrepo. 2020. "Robots and Jobs: Evidence from US Labor Markets." *Journal of Political Economy* 128 (6): 2188–244.
- Acs, Gregory, and Michael Karpman. 2020. "Employment, Income, and Unemployment Insurance during the COVID-19 Pandemic." Washington, DC: Urban Institute.
- Altonji, Joseph, Zara Contractor, Lucas Finamor, Ryan Haygood, Ilse Lindenlaub, Costas Meghir, Cormac O'Dea, Dana Scott, Liana Wang, and Ebonya Washington. 2020. "Employment Effects of Unemployment Insurance Generosity during the Pandemic." New Haven, CT: Yale University.
- Autor, David, David Cho, Leland D. Crane, Mita Goldar, Byron Lutz, Joshua Montes, William B. Peterman, David Ratner, Daniel Villar, and Ahu Yildirmaz. 2022. "The \$800 Billion Paycheck Protection Program: Where Did the Money Go and Why Did It Go There?" *Journal of Economic Perspectives*, 36 (2): 55–80.
- Autor, David H., David Dorn, and Gordon H. Hanson. 2016. "The China Shock: Learning from Labor Market Adjustment to Large Changes in Trade." *Annual Review of Economics* 8 (1).
- Baily, Martin Neil. 1978. "Some Aspects of Optimal Unemployment Insurance." *Journal of Public Economics* 10 (3): 379–402.
- Balducchi, David, Stephen A. Wandner, Annelies Goger, Zachary Miller, Sandeep Shetty, Cassandra Agbayani, and Jasmine Eucogco. 2015. *Employer Views about the Short-Time Compensation Program: A Survey and Analysis in Four States*. Columbia, MD: IMPAQ International.
- Barnow, Burt S. 2013. "Background, Purpose, and Methodology." In *The American Recovery and Reinvestment Act: The Role of Workforce Programs*, edited by Burt Barnow and Richard Hobbie, chapter 1. Kalamazoo, MI: W. E. Upjohn Institute.
- Bell, Alex, Thomas J. Hedin, Peter Mannino, Roozbeh Moghadam, Geoffrey Schnorr, and Till Von Wachter. 2021. "Disparities in Access to Unemployment Insurance during the COVID-19 Pandemic: Lessons from US and California Claims Data." Los Angeles: California Policy Lab.
- Boone, Christopher, Arindrajit Dube, Lucas Goodman, and Ethan Kaplan. 2016. "Unemployment Insurance Generosity and Aggregate Employment." IZA Discussion Paper 10439. Bonn, Germany: IZA Institute of Labor Economics.
- Callan, Thomas, Stephan Lindner, and Austin Nichols. 2015. "Unemployment Insurance Modernization and Eligibility." Washington, DC: Urban Institute.
- Card, David, Raj Chetty, and Andrea Weber. 2007. "The Spike at Benefit Exhaustion: Leaving the Unemployment System or Starting a New Job?" *American Economic Review* 97 (2): 113–18.

- Chetty, Raj. 2008. "Moral Hazard vs. Liquidity and Optimal Unemployment Insurance." *Journal of Political Economy* 116 (2): 173–234.
- Chocolaad, Yvette, Wayne Vroman, and Richard Hobbie. 2013. "Unemployment Insurance." In *The American Recovery and Reinvestment Act: The Role of Workforce Programs*, edited by Burt Barnow and Richard Hobbie, chapter 8. Kalamazoo, MI: W. E. Upjohn Institute.
- Chodorow-Reich, Gabriel, and John M. Coglianesi. 2019. "Unemployment Insurance and Macroeconomic Stabilization." In *Recession Ready*, edited by Heather Boushey, Ryan Nunn, and Jay Shambaugh, Washington, DC: Brookings Institution.
- Chodorow-Reich, Gabriel, John Coglianesi, and Loukas Karabarbounis. 2019. "The Macro Effects of Unemployment Benefit Extensions: A Measurement Error Approach." *Quarterly Journal of Economics* 134 (1): 227–79.
- Collins, Brett, Andrew Garin, Emilie Jackson, Dmitri Koustas, and Mark Payne. 2019. "Is Gig Work Replacing Traditional Employment? Evidence from Two Decades of Tax Returns." Working paper. Washington, DC: US Internal Revenue Service.
- Congdon, William J., and Wayne Vroman. 2021a. "Covering More Workers with Unemployment Insurance: Lessons from the Great Recession." Washington, DC: Urban Institute.
- . 2021b. "Extending Unemployment Insurance Benefits in Recessions: Lessons from the Great Recession." Washington, DC: Urban Institute.
- Coombs, Kyle, Arindrajit Dube, Calvin Jahnke, Raymond Kluender, Suresh Naidu, and Michael Stepler. 2021. Early Withdrawal of Pandemic Unemployment Insurance: Effects on Earnings, Employment and Consumption. Working paper, August 20. Toronto: University of Toronto.
- CPS (Current Population Survey) Staff. 2018. "Electronically mediated work: new questions in the Contingent Worker Supplement." *Monthly Labor Review*.
- Daley, Kelley, Jacob Klerman, Mehera Baugher, Lauren Dunton, Utsav Kattel, and Andrew Burkey. 2016. "Worker Classification Knowledge Survey." Cambridge, MA: Abt Associates.
- Davis, Steven J., and John Haltiwanger. 2014. Labor Market Fluidity and Economic Performance. Working 20479. National Bureau of Economic Research.
- Dieterle, Steven, Otávio Bartalotti, and Quentin Brummet. 2020. "Revisiting the Effects of Unemployment Insurance Extensions on Unemployment: A Measurement-Error-Corrected Regression Discontinuity Approach." *American Economic Journal: Economic Policy* 12 (2): 84–114.
- DOL (US Department of Labor). 2016. *Implementation of the Short-Time Compensation (STC) Program Provisions in the Middle Class Tax Relief and Job Creation Act of 2012 (P.L. 112-96)*. Washington, DC: US Department of Labor, Employment and Training Administration, Office of Unemployment Insurance.
- DOL IG (Department of Labor Office of Inspector General). 2021. "COVID-19: States Struggled to Implement CARES Act Unemployment Insurance Programs." <https://www.oig.dol.gov/public/reports/oa/2021/19-21-004-03-315.pdf>
- Dube, Arindrajit. 2021. Aggregate Employment Effects of Unemployment Benefits During Deep Downturns: Evidence from the Expiration of the Federal Pandemic Unemployment Compensation. NBER Working Paper 28470. Cambridge, MA: National Bureau of Economic Research.
- Farber, Henry S., Chris M. Herbst, Dan Silverman, and Till von Wachter, 2019. "Whom Do Employers Want? The Role of Recent Employment and Unemployment Status and Age." *Journal of Labor Economics* 37 (2): 323–49.
- Farber, Henry S., Jesse Rothstein, and Robert G. Valletta. 2015. "The Effect of Extended Unemployment Insurance Benefits: Evidence from the 2012–2013 Phase-Out." *American Economic Review* 105:171–76.

- Farber, Henry S., Dan Silverman, and Till von Wachter. 2016. "Determinants of Callbacks to Job Applications: An Audit Study," *American Economic Review* 106 (5): 314–18.
- . 2017. "Factors Determining Callbacks to Job Applications by the Unemployed: An Audit Study." *RSF: Russell Sage Foundation Journal of the Social Sciences* 3 (3): 168–201.
- Farber, Henry S., and Robert G. Valletta. 2015. "Do Extended Unemployment Benefits Lengthen Unemployment Spells? Evidence from Recent Cycles in the US Labor Market." *Journal of Human Resources* 50 (4): 873–909.
- Farrell, Diana, Peter Ganong, Fiona Greig, Max Liebeskind, Pascal Noel, and Joe Vavra. 2020. "Consumption Effects of Unemployment Insurance during the Covid-19 Pandemic" Working Paper. Washington, DC: JP Morgan Chase Institute.
- Farrell, Diana, Fiona Greig, and Amar Hamoudi. 2019. "The Evolution of the Online Platform Economy: Evidence from Five Years of Banking Data." *AEA Papers and Proceedings* 109 (May): 362–66.
- Ganong, Peter, Fiona Greig, Max Liebeskind, Pascal Noel, Daniel Sullivan, and Joseph Vavra. 2021. "Spending and Job Search Impacts of Expanded Unemployment Benefits: Evidence from Administrative Micro Data." Becker Friedman Institute for Economics Working Paper 2021-19. Chicago: University of Chicago.
- Ganong, Peter, Pascal Noel, and Joseph Vavra. 2020. "US Unemployment Insurance Replacement Rates during the Pandemic." *Journal of Public Economics* 191: 104273.
- Ganong, Peter, Fiona Greig, Pascal Noel, Daniel M. Sullivan, and Joseph Vavra. 2021. "Micro and Macro Disincentive Effects of Expanded Unemployment Benefits." Washington, DC: JPMorgan Chase Institute.
- GAO (US Government Accountability Office). 2016. "Declining Resources: Selected Agencies Took Steps to Minimize Effects on Mission but Opportunities Exist for Additional Action." GAO-17-79. Washington, DC: GAO.
- . 2021. "Preliminary Information on Potential Racial and Ethnic Disparities in the Receipt of Unemployment Insurance Benefits during the COVID-19 Pandemic." GAO-21-599R. Washington, DC: GAO.
- Gould-Werth, Alix, and H. Luke Shaefer. 2013. "Do Alternative Base Periods Increase Unemployment Insurance Receipt among Low-Educated Unemployed Workers?" *Journal of Policy Analysis and Management* 32 (4): 835–52.
- Greig, Fiona, Daniel M. Sullivan, Samantha Anderson, Peter Ganong, Pascal Noel, Joseph Vavra. 2022. "Lessons Learned from the Pandemic Unemployment Assistance Program during COVID-19." Washington, DC: JPMorgan Chase Institute.
- Gruber, Jonathan. 1997. "The Consumption-Smoothing Benefits of Unemployment Insurance." *American Economic Review* 87 (1): 192–205.
- Hagedorn, Marcus, Iourii Manovskii, and Kurt Mitman. 2016. "Interpreting Recent Quasi-Experimental Evidence on the Effects of Unemployment Benefit Extensions." NBER Working Paper 22280. Cambridge, MA: National Bureau of Economic Research.
- Hock, Heinrich, Walter Nicholson, Karen Needels, Joanne Lee, and Priyanka Anand. 2016. "Additional Unemployment Compensation Benefits during the Great Recession: Recipients and their Post-Claim Outcomes." Washington, DC: Mathematica Policy Research.
- Holzer, Harry J., R. Glenn Hubbard, and Michael R. Strain. 2021. "Did Pandemic Unemployment Benefits Reduce Employment? Evidence from Early State-Level Expirations in June 2021." NBER Working Paper 29575. Cambridge, MA: National Bureau of Economic Research.
- Houseman, Susan, Christopher J. O'Leary, Katharine G. Abraham, Frank Bennici, and Susan Labin. 2017. *Demonstration and Evaluation of the Short-Time Compensation Program in Iowa and Oregon: Final Report*. Washington, DC: US Department of Labor, Chief Evaluation Office.
- Hsu, Joanne W., David A. Matsa, and Brian T. Melzer. 2018. "Unemployment Insurance as a Housing Market Stabilizer." *American Economic Review* 108 (1): 49–81.

- Isaacs, Katelin P., and Julie M. Whittaker. 2022. *Unemployment Insurance: Program Integrity and Fraud Concerns Related to the COVID-19 Pandemic Response*. Washington, DC: Congressional Research Service.
- Jackson, Emilie, Adam Looney, and Shanthi Ramnath. 2017. "The Rise of Alternative Work Arrangements: Evidence and Implications for Tax Filing and Benefit Coverage." Washington, DC: Office of Tax Analysis.
- Katz, Lawrence F., and Alan B. Krueger. 2019. "Understanding Trends in Alternative Work Arrangements in the United States." NBER Working Paper 25425. Cambridge, MA: National Bureau of Economic Research.
- Koustas, Dmitri K. 2019. "What Do Big Data Tell Us about Why People Take Gig Economy Jobs?" *AEA Papers and Proceedings* 109 (May): 367–71.
- Kroft, Kory, Fabian Lange, and Matthew J. Notowidigdo. 2013. "Duration dependence and labor market conditions: Evidence from a field experiment." *Quarterly Journal of Economics* 128, no. 3: 1123–1167.
- Kroft, Kory, and Matthew Notowidigdo. 2016. "Should Unemployment Insurance Vary with the Local Unemployment Rate? Theory and Evidence." *Review of Economic Studies* 83 (3): 1092–124.
- Kuka, Elira, and Bryan A. Stuart. 2021. "Racial Inequality in Unemployment Insurance Receipt and Take-Up." NBER Working Paper 29595. Cambridge, MA: National Bureau of Economic Research.
- Lachowska, Marta, Wayne Vroman, and Stephen A. Woodbury. 2020. "Experience Rating and the Dynamics of Financing Unemployment Insurance." *National Tax Journal* 73 (3): 673–698.
- Lachowska, Marta, Alexandre Mas, and Stephen A. Woodbury. 2022. "Poor Performance as a Predictable Outcome: Financing the Administration of Unemployment Insurance." *AEA Papers and Proceedings* 112: 102–106.
- Landais, Camille, Pascal Michaillat, and Emmanuel Saez. 2018. "A Macroeconomic Approach to Optimal Unemployment Insurance: Applications." *American Economic Journal: Economic Policy* 10 (2): 182–216.
- Lee, Joanne, and Karen Needels. 2018. "Summary of Literature Review: Challenges and Strategies Used to Operate Unemployment Insurance Programs during the Great Recession." Princeton, NJ: Mathematica Policy Research.
- Lee Joanne, Karen Needels, and Walter Nicholson. 2017. "A Longitudinal Survey of Unemployment Insurance Recipients in Two Regions in California." Princeton, NJ: Mathematic Policy Research.
- Maher & Maher. 2021. "Unemployment Insurance Advance: Creating a Path Forward." Report to the Employment and Training Administration. Neptune, NJ: Maher & Maher.
- Marinescu, Ioana, 2017. "The General Equilibrium Impacts of Unemployment Insurance: Evidence from a Large Online Job Board." *Journal of Public Economics* 150:14–29.
- Marinescu, Ioana Elena, Daphné Skandalis, and Daniel Zhao. 2020. "The Impact of the Federal Pandemic Unemployment Compensation on Job Search and Vacancy Creation." NBER Working Paper 28567. Cambridge, MA: National Bureau of Economic Research.
- Mastri, Annalisa, Wayne Vroman, Karen Needels, and Walter Nicholson. 2016. *States' Decisions to Adopt Unemployment Compensation Provisions of the American Recovery and Reinvestment Act: Final Report*. Princeton, NJ: Mathematica Policy Research.
- Meyer, Bruce D. 1990. "Unemployment Insurance and Unemployment Spells." *Econometrica* 58 (4): 757–82.
- NASWA (National Association of State Workforce Agencies). 2010. "Unemployment Insurance Provisions of the Recovery Act Survey: Summary of State Responses." Washington, DC: NASWA.
- . 2021. "2021 State of the Workforce Report." Washington, DC: NASWA.
- Needels, Karen, Walter Nicholson, Joanne Lee, and Heinrich Hock. 2016. "Exhaustees of Extended Unemployment Benefits Programs: Coping with the Aftermath of the Great Recession." Princeton, NJ: Mathematic Policy Research.



- Nekoei, Arash, and Andrea Weber. 2015. "Does Extending Unemployment Benefits Improve Job Quality?" IZA Discussion Paper 9034. Bonn, Germany: IZA Institute of Labor Economics.
- Nicholson, Walter, and Karen Needels. 2011. "The EUC08 Program in Theoretical and Historical Perspective." Princeton, NJ: Mathematica Policy Research.
- Nicholson, Walter, Karen Needels, and Heinrich Hock. 2014. "Unemployment Compensation during the Great Recession: Theory and Evidence." *National Tax Journal* 67 (1): 187–218.
- O’Leary, Christopher J., William E. Spriggs, and Stephen A. Wandner. 2021. "Equity in Unemployment Insurance Benefit Access." Policy Paper 2021-026. Kalamazoo, MI: W.E. Upjohn Institute.
- Planmatics, Inc. 2000. "Independent Contractors: Prevalence and Implications for Unemployment Insurance Programs." Washington, DC: US Department of Labor, Employment and Training Administration.
- PRAC (Pandemic Response Accountability Committee). 2021. "Key Insights: State Pandemic Unemployment Insurance Programs." Washington, DC: Council of the Inspectors General on Integrity and Efficiency.
- Rothstein, Jesse. 2011. "Unemployment Insurance and Job Search in the Great Recession." Brookings Papers on Economic Activity. Washington, DC: Brookings Institution.
- Rothstein, Jesse, and Robert G. Valletta. 2017. "Scraping By: Income and Program Participation after the Loss of Extended Unemployment Benefits." *Journal of Policy Analysis and Management* 36 (4): 880–908.
- Schmieder, Johannes F., Till von Wachter, and Stefan Bender. 2012. "The Effects of Extended Unemployment Insurance over the Business Cycle: Evidence from Regression Discontinuity Estimates over 20 Years." *Quarterly Journal of Economics* 127:701–52.
- Seliski, John, Yiqun Gloria Chen, Junghoon Lee, Aaron Betz, U. Devrim Demirel, and Jaeger Nelson. 2020. "Key Methods That CBO Used to Estimate the Effects of Pandemic-Related Legislation on Output." Washington, DC: Congressional Budget Office,
- Shimer, Robert. 2008. "The Probability of Finding a Job." *American Economic Review* 98 (2): 268–73.
- Stone, Chad, and William Chen. 2014. "Introduction to Unemployment Insurance." Washington, DC: Center on Budget and Policy Priorities.
- Turner, Larry. 2022. "Pandemic Response and Accountability: Reducing Fraud and Expanding Access to COVID-19 Relief through Effective Oversight," Testimony before the US Senate Committee on Homeland Security and Governmental Affairs, March 17.
- Valletta, Robert G. 2011. "Rising Unemployment Duration in the United States: Composition or Behavior?" Working Paper. San Francisco: Federal Reserve Bank of San Francisco.
- Valletta, Robert G., and Katherine Kuang. 2012. "Why Is Unemployment Duration So Long?" FRBSF Economic Letter 2012-3. San Francisco: Federal Reserve Bank of San Francisco.
- . 2010. "The Role of Unemployment Insurance as an Automatic Stabilizer During a Recession." Washington, DC: IMPAQ International.
- . 2013. "Short-Time Compensation and Job Preservation." Washington, DC: Urban Institute.
- . 2016. "The Big States and Unemployment Insurance Financing." Washington, DC: Urban Institute.
- . 2018a. "State UI Financing Response to the Great Recession." In *Unemployment Insurance Reform: Fixing a Broken System*, edited by Stephen A. Wandner, 103–30. Kalamazoo, MI: W. E. Upjohn Institute.
- . 2018b. "Unemployment Insurance Benefits: Performance since the Great Recession." Washington, DC: Urban Institute.



Vroman, Wayne, Tracy Gordon, Lauren Eyster, Erin Huffer, and Carolyn O'Brien. 2021. *Alternative Strategies for Financing State Unemployment Trust Fund Deficits: State Experiences in the Aftermath of the Great Recession*. Report to the US Department of Labor. Washington, DC: Urban Institute.

Whittaker, Julie M., and Katelin P. Isaacs. 2016. *Unemployment Insurance: Programs and Benefits*. Washington, DC: Congressional Research Service.

———. 2022. *Unemployment Insurance (UI) Benefits: Permanent-Law Programs and the COVID-19 Pandemic Response*. Washington, DC: Congressional Research Service.

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