

Unemployment Insurance Reform

By
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The Unemployment Insurance (UI) system is the largest general social insurance program for working-age individuals in the United States and currently insures more than 140 million workers against temporary income losses related to unemployment. UI has been the bedrock of U.S. social policy in recessions, but the system has remained largely unchanged since the mid-1970s despite substantial changes in the labor market that include deindustrialization, higher female participation, increases in wage inequality, and technological changes. This article summarizes existing empirical evidence on the state of the UI system and its effectiveness in achieving its stated goals. A range of reform proposals are discussed that aim to address both the well-known, long-term issues with UI, as well as UI's readiness to support the workforce of the twenty-first century.

Keywords: unemployment insurance; experience rating; worker behavior; firm behavior

The unemployment insurance (UI) program has been the bedrock of U.S. social policy in response to job loss and swings in unemployment during recessions. The UI program provides temporary benefits to employees who lost their job through no fault of their own. Individuals with a minimal degree of prior labor market attachment are insured but benefits are only a fraction of a worker's prior earnings.

Since its inception in the mid-1930s, the primary goals of the UI program have been to

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NOTE: I thank Brenda Garcia Lemus for excellent and indispensable research assistance and the two editors of the special issue for helpful guidance. All remaining errors or omissions are my own.

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DOI: 10.1177/0002716219885339

prevent declines in consumption of individuals who lose their jobs and their families without their having to spend down or liquidate their assets. In addition, the program is meant to enable unemployed workers to find productive employment rather than quickly take available lower-wage jobs. One important function of the UI system is to also help unemployed workers continue to spend as a means of automatically stabilizing the economy in hard-hit local labor markets.

The UI program is the largest social insurance program available to the general working-age population in the United States. As of the fourth quarter of 2018, the program provided monthly benefit payments to around 1.6 million unemployed individuals. During the Great Recession in 2007 to 2008 and its aftermath, the UI system saw a massive expansion of its program from a duration of six months to as long as two years, and it provided benefits to more than 10 million individuals (see Vroman 2011).

Despite important secular changes in the labor market over the last decades, the core UI program has remained relatively unchanged since the mid-twentieth century, with little reforms since the 1980s, with the exception of a brief reform push in the course of the American Recovery and Reinvestment Act (ARRA). In the face of an evolving labor market and difficulties of the UI system during the Great Recession, including delays in approving benefit extensions and funding shortfalls, an increasing number of observers have called for a systemic approach to reforming UI. Absent such a system-wide approach, in the aftermath of the Great Recession, several states have begun to cut UI benefits and UI durations to address recent financing shortfalls of their UI state programs.

Some of the potential issues in the UI system have been well known to policymakers and researchers alike. On one hand, as with any program involving both conditional benefits and taxation, the UI system has been shown to affect employment decisions of both workers and employers. While the value of the insurance provided is usually found to outweigh such costs, these considerations are relevant for setting the right parameters of the system. On the other hand, problems of solvency of the UI state trust funds have plagued the UI system, especially in the aftermath of larger recessions, highlighting the need to address the financing of the system and the state-federal partnership embedded in the UI program.

This article provides an overview of the UI program as it stands today and summarizes some of the main reform proposals put forward to address the various issues that the system is facing. These deal with, among others, whether the current UI program adequately supports a workforce that has undergone substantial changes in recent decades, including a higher female labor force participation rate, increased inequality, deindustrialization and the rise of service jobs, ongoing technological changes, and the recent rise in contract work. Reform proposals also address concerns over states' ad hoc benefit reductions to address financing needs, as well as the current way in which the UI program is extended in recessions to account for rising unemployment. I also discuss extensions of the UI system that have been proposed to address the large costs of layoffs through temporary wage subsidies, sometimes called job sharing, and options to keep some of the benefits as workers resettle into initially lower-paying jobs. I do not provide a thorough analysis of proposals to replace the UI program as a whole,

such as Universal Basic Income or Unemployment Savings Accounts, but I do discuss them in the conclusion.

An Overview of the UI Program and Its Effect on Behavior

UI in the United States is a federal-state unemployment compensation system that was established in 1935 by the Social Security Act.¹ The system was designed to provide partial temporary compensation to workers who become unemployed through no fault of their own and to serve as an economic stabilizer during economic recessions.² Workers quitting a job on their own are not eligible, with some exceptions (see National Employment Law Project [NELP] 2012).³ The program requires applicants to demonstrate a work history as measured in terms of past wages or prior weeks of work (NELP 2012). The prior work is typically measured by the amount of earnings received in a base period. While this differs by state, the typical state requires a minimal amount of earnings in four of five calendar quarters prior to job loss.⁴ As a result, labor market entrants or workers with unstable earnings histories are not typically eligible for UI. To receive benefits, beneficiaries must be actively seeking work. Most states set a maximum benefit period of 26 weeks; however, the federal government provides ad hoc extended benefits through times of high unemployment. During periods of severe economic hardship such as throughout the Great Recession, Congress approved federally funded supplemental benefits to further extend the benefit period. As of the end of fiscal year 2018, around 142.7 million workers were covered by the unemployment compensation program and \$29.3 billion of benefits were paid.⁵ During the peak of the Great Recession, the regular UI benefits more than doubled from \$31 billion in 2007 to \$72 billion in 2009.⁶ However, as further discussed below, typically less than half of the unemployed receive UI benefits.

These state-level unemployment compensation systems are administered by the states within a general framework set by federal law.⁷ As a result, the eligibility and benefit terms, along with the financing structure, greatly vary by state as each has the flexibility to design its own program within general federal requirements. For example, Hawaii's UI maximum weekly benefit amount is \$619 compared to \$454 in Texas.⁸ In addition, the duration of the benefits varies by state. Many states have 26 weeks of maximum duration, but for instance, in Florida, the maximum duration of benefits ranges from 12 to 23 weeks depending on the state's unemployment rate; whereas in Missouri, the maximum duration is set at 13 weeks.⁹ States can also set the earnings history and the type of job moves that determine eligibility. As a result, for example, low-income or younger workers with limited earnings histories may be eligible for UI in some states but not in others. Similarly, the so-called State Unemployment Tax Act (SUTA) tax rate and the tax base vary across states. The key functions of the federal government are to provide broad guidelines on administering the program, inspect state performance, offer technical assistance, determine funding requirements, ensure compliance with state law, and hold and invest the money provided by the states in the unemployment trust fund.¹⁰

In recessions, the duration of UI benefits is typically extended. This occurs either through a jointly financed Extended Benefit (EB) program, or a federally financed Emergency Unemployment Compensation (EUC) program. These programs are further discussed in detail in the next section.

Program financing: Experience rating and reserve ratios

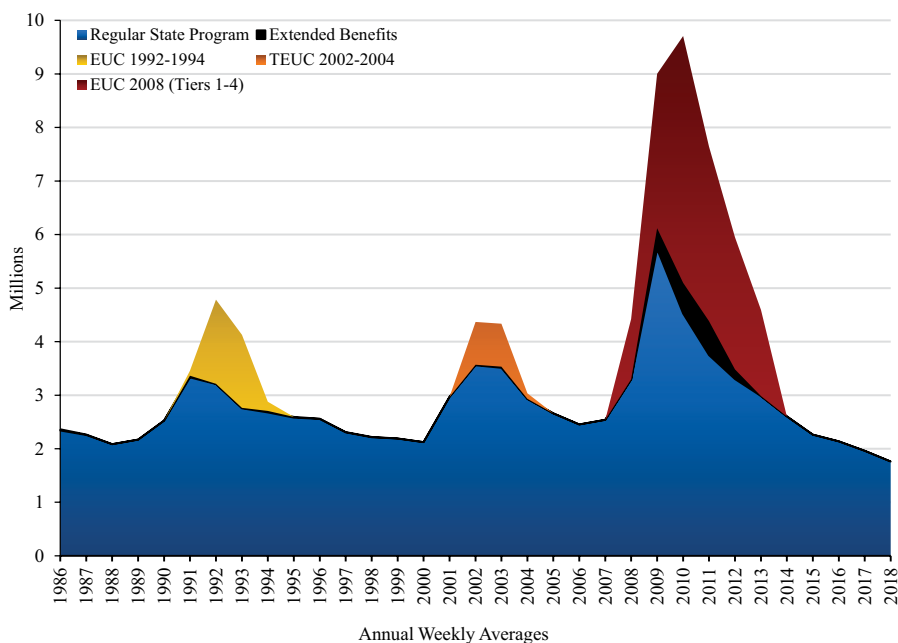
While the state-federal UI system allows states to set their own financing structures, nearly all states fund their programs through employer payroll taxes. The U.S. Treasury manages the state-level trust fund accounts and ensures compliance with federal guidelines. Currently, the states determine UI tax rates based on each employer's history of layoffs, also known as an "experience rating." Under a full-cost experience rating, each firm would incur a tax rate accurately reflecting its past layoffs. Currently, states set a maximum rate on payroll tax schedules, leading to so-called imperfect experience rating.

Currently, states use one of the following four formulas that capture some form of experience rating to determine payroll taxes: the reserve ratio, benefit ratio, benefit-wage ratio, or payroll decline. The Employment Development Department (EDD) in California uses the reserve ratio formula, which is equal to the reserve account balance of a firm divided by the average base payroll.¹¹ The reserve account balance captures the prior reserve balance of a firm's insurance account plus the interest rate earned by the account minus the amount of UI benefits paid to former employees. The reserve ratio is then used to determine the UI tax rate based on the contribution schedule defined by the EDD.¹² I return to this point below.

In addition to taxes levied by the states, the UI system is also financed at the federal level based on the 6 percent Federal Unemployment Tax Act (FUTA) tax rate on wages up to \$7,000, where some employers receive credits of up to 5.4 percent under an approved state unemployment compensation program.¹³ The federal funds are used to fund administrative costs, the share of federal extended benefits, advances paid to states, and benefits under federal supplemental or emergency programs.¹⁴

During the Great Recession, the unemployment compensation system faced serious challenges, as states started to borrow from the federal government to pay benefits (Vroman et al. 2017). The unemployment compensation system continues to be out of balance, as payroll taxes are not indexed to provide sufficient benefits and revenues over time (Balducchi et al. 2018). Consequently, during economic downturns, states are faced with the choice of either borrowing funds from the federal government or reducing the generosity of the benefits (Balducchi et al. 2018). In addition, states continue to use imperfect experience rating formulas to collect payroll taxes from employers, even though this has been shown to lead to more layoffs and distorted incentives for unstable firms (Rejda and Rosenbaum 1990). While the unemployment compensation system is in need of reform to address the vitality of the system in future recessions, the federal government has failed to modernize the system since the 1970s via the passage of newer federal guidelines.

FIGURE 1
 Overview of Individuals Claiming Unemployment Insurance Benefits,
 by Year and Program Type



SOURCE: U.S. Department of Labor data. See <https://oui.doleta.gov/unemploy/Data Dashboard.asp>.

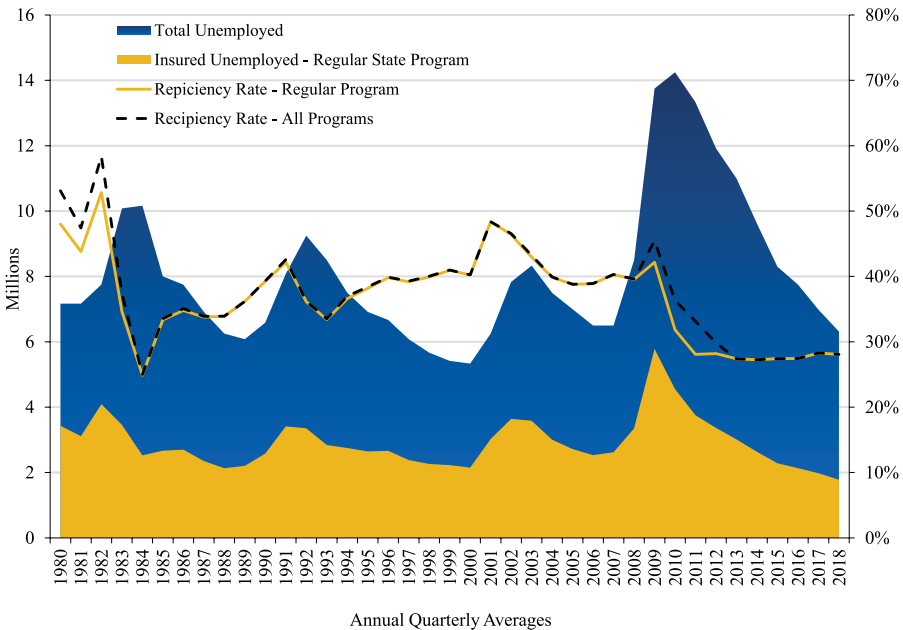
NOTE: EUC = Emergency Unemployment Compensation; TEUC = Temporary Extended Unemployment Compensation.

Basic trends in the UI program

Figure 1 shows the number of individuals claiming UI benefits under different programs, as measured by the annual average over weekly claims. The regular state UI program provides the vast majority of benefits. In times of economic distress, Congress has approved a series of emergency UI programs to provide additional federally funded benefits to claimants across the country. This practice began during the large recessions in the mid-1970s and early 1980s and continued with the EUC program during the Great Recession.¹⁵ The EUC program started in July 2008 and ended in December 2013. This was the longest emergency UI program approved by Congress, providing coverage for up to 99 weeks, compared to 56 weeks during the 1982 recession.¹⁶

The EUC program was rolled out in four tiers, where each tier provided additional benefit weeks. Under tier 1, the EUC program provided an additional 14 weeks of benefits in all states; whereas in tiers 2–4, the benefits were only provided to states with high unemployment rates.¹⁷ The EUC program had to be approved by Congress under each tier, which led to much-discussed delays in approval and lapses in coverage, among other problems. The federal-state EB UI

FIGURE 2
Unemployed Workers Served by the Unemployment Insurance System, by Year



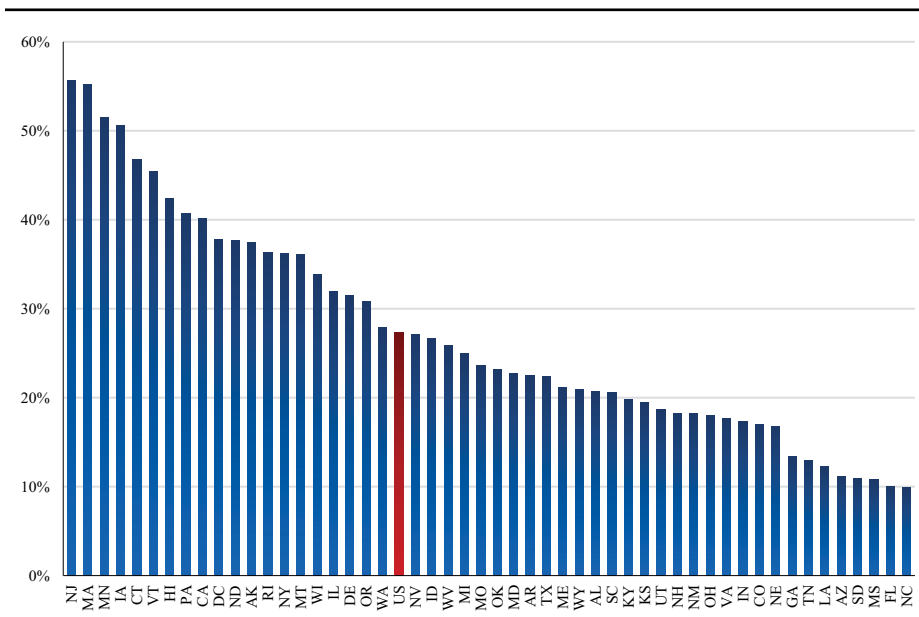
SOURCE: U.S. Department of Labor data. See https://oui.doleta.gov/unemploy/data_summary/DataSum.asp.

program grants benefits to those who reside in a state experiencing high unemployment.¹⁸ The EB program was approved under the Federal-State Extended Unemployment Compensation Act of 1970.¹⁹ Given that the payments in the EB program are partially funded by the states, the program has been used sparingly in recent recessions.

Figure 2 shows the number of total unemployed workers compared to those who claim benefits from the UI system. The recipiency rate measures the number of unemployed individuals receiving UI benefits across all programs as a percentage of the total number of unemployed, whether insured by the program or not.²⁰ The graph shows that a vast portion of unemployed individuals do not receive UI benefits (see also Vroman 2009). After falling in the early 1980s, the recipiency rate has been trending down again since the end of the Great Recession and is now below 30 percent.

Figure 3 shows how the recipiency rate varies substantially by state. For instance, New Jersey has a much higher recipiency rate compared to North Carolina. This is a result of different eligibility criteria set by each state, where some states set much stricter criteria than others. In addition, the differences may capture different application rates across states. Overall, it is clear that the current unemployment insurance system highly varies by state, leading to differences in coverage of unemployed workers and benefits.

FIGURE 3
 Unemployment Benefits Reciprocity Rate of Regular Program by State,
 as of the Fourth Quarter of 2018



SOURCE: U.S. Department of Labor data. See https://oui.doleta.gov/unemploy/data_summary/DataSum.asp.

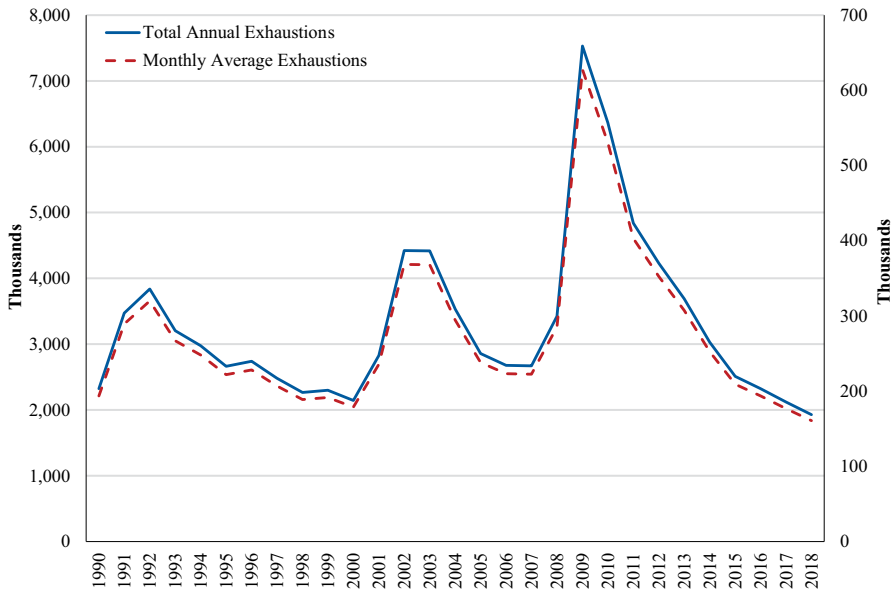
Figure 4 displays the number of exhaustions of regular UI benefits over time. As depicted in the figure, a large number of unemployed workers exhausted their benefits during the peak of the Great Recession. Generally, exhaustions of regular benefits tend to peak during recessionary periods and then level down during economic expansions. Partly in response, the U.S. Congress has typically passed ad hoc emergency UI programs during recessions to provide additional benefits to those who have exhausted their regular benefits.

Figure 5 provides an example of a tax schedule set under a system of experience rating. For instance, in California, the reserve ratio is a function of the amount of benefits paid out to prior laid-off employees, which reflects the experience rating built into the system.²¹ Then, depending on the overall schedule that is based on the solvency of the state fund, the employer’s specific tax rate reflects its reserve ratio. Consequently, those employers with a stronger history of layoffs will face a higher tax rate compared to those with fewer layoffs. Most states use a system based on an imperfect experience rating to determine each employer’s tax rate, as discussed in more detail in the section that follows.

Effects on the economy and worker and firm behavior

One of the key objectives of the UI system in the United States is to serve as an economic stabilizer during recessions. The UI benefits smooth consumption

FIGURE 4
U.S. Exhaustions of Regular State UI Claimants Who Collect Their Full Entitlement of UI Benefits

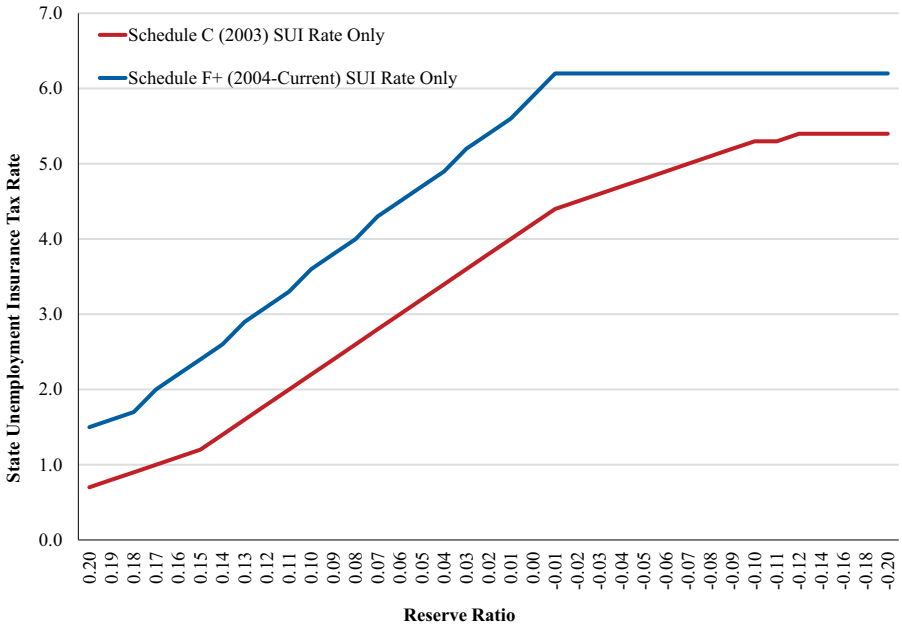


SOURCE: U.S. Department of Labor data. See <https://oui.doleta.gov/unemploy/chartbook.asp>.

during the period of initial job loss and do not permanently impact consumption levels. For instance, empirical research shows that food consumption decreases by 7 percent when the main breadwinner becomes unemployed; however, in the absence of UI benefits, that decrease would have been a substantial 22 percent (Gruber 1994). As a result, the system serves as a consumption buffer during job loss. The UI system also serves as an economic stimulus by partially replacing lost income and mitigating reductions in consumption due to job loss (Orszag 2001). At least one study has found that economic recessions, as measured by GDP in real terms, would have been up to 15 percent worse in the absence of the UI system (Chimerine et al. 1999).

At the same time, economists have long been concerned that UI benefits may lead unemployed workers to stay out of work longer, as they reduce the relative value of employment. A long and ongoing empirical literature has indeed shown that both higher UI benefits and longer-benefit durations lead employees to stay out of the workforce for a longer period of time (e.g., Solon 1979; Moffitt 1985; Katz and Meyer 1990; Krueger and Meyer 2002, Schmieder and von Wachter 2016). Two important hurdles in studying whether UI benefits have this effect are that measures of total duration of nonemployment are typically not available, and identifying variation comes from recession-induced benefit expansions. Recent studies suggest the effect of recent UI expansions during the Great Recession had

FIGURE 5
 Example of California’s Experience Rating Tax Schedule Tax Rate Determined
 by the Reserve Ratio and the Solvency of the System



precisely estimated but moderate negative effects on unemployment duration (e.g., Rothstein 2011; Valletta 2014; Farber and Valletta 2015; Kroft and Notowidigdo 2016).²²

A key question is whether these reductions are indeed a cost to society. Among others, this depends on whether access to UI benefits relaxes preexisting income constraints, rather than reduces the value of working, and whether they allow workers to find better jobs. The first question depends to an important extent on whether individuals are credit constrained, and this has been difficult to assess because of a lack of widely available data on assets. Chetty (2008) estimates that the effects of UI benefits on labor supply are to an important degree nondistortionary income effects in addition to being distortionary substitution effects due to a lower incentive to look for work. The second question has been hard to answer in the United States because of a lack of larger longitudinal datasets on the unemployed. In countries where such data are available, longer UI durations tend to lead to zero or small negative effects (e.g., Schmieder, von Wachter, and Bender 2016), though this may depend on the duration of unemployment (e.g., Nekoei and Weber 2017). While research on these questions of interpretation is still ongoing, it is likely that a program such as UI has some behavioral consequences that need to be considered when addressing potential reforms of the system.

Based on these fundamental trade-offs, researchers have developed a conceptual framework for assessing the optimal amount and duration of UI benefits. Current estimates of this framework suggest that average replacement rates at or below 50 percent and 26 weeks' benefit durations are likely to be *too low* compared to the optimum levels (e.g., Chetty 2008; Schmieder, von Wachter, and Bender 2012). In the conceptual framework, the value of UI payments in terms of reduced consumption losses as workers become unemployed are traded off against any costs from providing the insurance (e.g., Bailey 1984; Chetty 2008; Schmieder and von Wachter 2016). Since workers effectively pay for their own benefits through their contributions to the system, these costs consist of behavioral distortions deriving from reductions in labor supply, either because UI benefits lead workers to take longer to search for jobs or because they work less once employed in response to higher UI tax rates.²³ The empirical implementation of this framework typically relies on estimates of the effects of UI benefit payments on labor supply and on consumption. For benefit levels, two separate studies have confirmed that current UI benefit levels are likely to be too low (Chetty 2008; Kroft and Notowidigdo 2016). For UI benefit durations, Schmieder and von Wachter (2016) review the literature and conclude that at current benefit durations, a further increase would improve worker well-being.

The conceptual framework for evaluating the optimal level of benefit amounts and benefit durations at any given point in time has also been used to assess the extent to which UI benefits should be more generous during recessions. Findings based on this framework suggest that during recessions, UI benefits should indeed be given for longer periods of time and be more generous. The key question is again the trade-off between the benefit of consumption smoothing, that is, avoiding large reductions in consumption at unemployment, and any potential negative effect from a reduction in employment. Thereby, a key question in recessions is whether employment reductions of UI are smaller, because more workers compete for fewer jobs, or larger, because businesses have a harder time filling jobs because workers spend more time looking for better jobs. Since UI exhaustion rates typically rise substantially in recessions, there is an unambiguous rise in the benefit of extending UI durations. At the same time, the so-called efficiency costs of UI benefits tend to be either unchanged or smaller in recessions (e.g., Schmieder, von Wachter, and Bender 2012; Johnston and Mas 2018).

It is also well understood that employers' behavior can also be affected by the UI system. Per se, payroll taxes can impose a cost on hiring that depends on whether the incidence of the tax falls on workers, consumers, or the firm. Furthermore, research has shown that the experience rating feature of the UI tax system can affect employment decisions by affecting the cost of a layoff (e.g., Anderson and Meyer 1994). These potential responses are again relevant when evaluating different reform proposals. Finally, the financial health of the UI system is determined in part by the political process at the state level that is responsible for choosing the key parameters of the system. Hence, policy-makers' behavior and incentives can play an important role in the overall health of the system, but they have not yet been systematically analyzed.

Recent Reforms to the UI System

Federal reforms before ARRA

The latest major federal reform of the UI program took place as part of the Unemployment Compensation Amendments of 1976. The most significant change as part of the amendments was the expansion of the program to cover nearly all wage and salary workers in the United States (U.S. Congress 1976). In addition, Congress permitted the creation of the National Commission on Unemployment Compensation (NCUC) to make additional recommendations to improve the UI system (Committee on Finance of U.S. Senate 1976). In 1981, the commission submitted a report making a series of recommendations to improve the UI system, such as establishing federal minimum benefit standards.²⁴ Subsequently, the Unemployment Compensation Amendments of 1981 made minor changes to the UI system to reduce costs to the program. Most notably, it eliminated the national trigger for the extended benefits program to lower federal costs.²⁵ And, in 1991, Congress passed the Emergency Unemployment Compensation Program to address the 1990 to 1991 recession, which also established the Advisory Council for Unemployment Compensation to conduct empirical studies of the U.S. system.²⁶ Since then, in recognition of the need to reform the UI system, the Obama administration submitted several proposals in the 2017 fiscal year budget to expand coverage, restore the 26-week minimum benefit duration, create a better extended benefits program, and restore the solvency of the state UI funds; however, none of the proposals passed.²⁷

State-level reforms targeted by ARRA

The ARRA of 2009 provided \$7 billion in federal funding as modernization incentive payments to states that implemented changes to expand eligibility and the level of benefit generosity in their unemployment compensation systems.²⁸ The incentive payments were provided until October 1, 2011, and the changes made by the states must have been permanent.²⁹ The states received one-third of their designated total share of incentive payments if they set an alternative base period to raise eligibility among workers with lower or unstable earnings that met federal guidelines.³⁰ Moreover, the states were eligible for the remaining two-thirds of their share if they first enacted an alternative base period and then implemented at least two of the following four requirements:³¹

- (1) Individuals should not be denied regular unemployment compensation if they are only part-time workers,
- (2) Permit those with voluntary separations from employment due to compelling family reasons to be eligible for regular unemployment compensation,
- (3) Provide extended unemployment compensation to exhaustees of regular unemployment benefits who were enrolled in a state-approved training program covered by the Workforce Investment Act of 1998, and

- (4) Grant dependent allowances to those receiving regular unemployment compensation who have dependents.

Last, the ARRA of 2009 provided \$500 million in federal funding to the states for the administration of the modernization of their programs, to improve outreach to individuals who might be eligible for regular unemployment insurance benefits, and for reemployment services.³²

State-based changes since the Great Recession

Since the Great Recession, several states have enacted laws to reduce the maximum duration of their unemployment compensation benefits or changed the weekly benefit amount, mainly to address funding shortfalls in the UI system. For instance, in 2011, Arkansas, Florida, Illinois, Michigan, Missouri, and South Carolina passed state laws to reduce their UI benefit duration. Later, in 2012, Georgia reduced its benefit duration, followed by Kansas and North Carolina in 2013. Afterwards, Arkansas and Missouri (later found unconstitutional) reduced their benefit durations in 2015, followed by Idaho in 2016, and Arkansas passed a third benefit duration reduction in 2016 (Isaacs 2018). Following the peak of the recession, in February 2011, around \$42.4 billion of unemployment trust fund loans were outstanding, as states had to borrow money to meet their unemployment compensation obligations.³³ Consequently, many states faced severe financial pressures and decreased unemployment compensation spending by reducing the generosity or duration of their benefits.

Proposals for Basic Reforms to UI

Policy analysts and researchers have discussed the need to modernize the UI system for some time. This discussion gained momentum during the Great Recession. The result has been a series of well-articulated proposals and convergence on a list of basic fixes. Several of these reform proposals had made it into President Obama's Budget Proposal for Fiscal Year (FY) 2017, and some have been taken up by the Trump administration. The following is a list of the core proposals, including a brief summary of their justification.

Prevent erosion of benefit generosity by mandating minimum benefits

Partly to counter funding difficulties in the aftermath of the Great Recession, several states have cut benefit durations below the typical 26-week mark. Similarly, there is substantial heterogeneity in benefit levels across states. Yet there are no compelling reasons why similar workers in different states should be treated differently by the UI system. Research provides justification for the optimal generosity of UI benefits and when these should vary with characteristics of workers or local labor markets. Hence, the choice of benefit parameters and how

they vary in the population or over time should not be a function of the local political process or short-term funding needs.

Federal law should mandate a minimum amount of potential duration of UI benefit of 26 weeks, an average effective replace rate of 50 percent of benefits (with gradual adjustments of the maximum benefit amount), and a dependent allowance to support families with children with higher consumption commitments. To ensure states update their laws, the federal government can limit the credit for the State Unemployment Tax employers receive against the Federal Unemployment Tax.

Institutionalize federal emergency UI benefits as a function of local unemployment rates

Research clearly indicates that UI benefits should be extended in recessions. This is because the benefits to workers at risk of exhausting their benefits are greater, the inefficiency costs are not larger and perhaps smaller, and the potential of stimulating effects is greater. The experience in the aftermath of the Great Recession has shown that leaving extensions of UI benefits to the political process can lead to gaps in coverage that are damaging to affected workers. For most recessions, there is no evidence indicating a need for wasteful and potentially harmful discretion.

The federal Emergency Unemployment Compensation program should be made a permanent program. A straightforward way to achieve this is to reform the current trigger-based extended benefit program and make it 100 percent federally financed. In the course of such a reform, the trigger structure should be modified to keep the fraction of workers covered by UI approximately constant over the business cycle.

Fix outdated data collection so evidence can guide policy

To maintain daily operations of their UI programs, states collect information on workers' wages, UI claimants' benefits, and their employers' UI taxes. This information is vital for an efficient administration of the UI system, including understanding which parts of the system are cost-effective. Yet the current law only requires states to share the data with federal agencies for extremely limited purposes. Moreover, many of the datasets lack basic information, such as worker age or gender. Researchers are now well equipped to manage and analyze sensitive administrative data stored by government agencies to uncover critical trends that could inform policy-makers.

The data collection should be modernized by adopting four complementary strategies: (1) enhance data collection by states, (2) establish a national data clearinghouse of UI data at either the Bureau of Labor Statistics or the Census Bureau, (3) support these changes by providing a common software and offering moderate grants to upgrade hardware, and (4) establish a protocol to allow access to the data for research purposes and to improve the UI system. It is important

to include an enforcement mechanism to ensure states' compliance with this last requirement.

The UI system in the United States collects several sources of data that not only are vital to a better understanding of how UI benefits and related programs work but also provide crucial information on the labor market needed to address many other issues. These are quarterly earnings records collected to assess workers' eligibility for UI benefits; UI claims records recording when workers file and receive benefits; records on job search assistance received by unemployed workers (funded under the Wagner-Payser Act); and records on job training received, mostly but not exclusively, by lower-income unemployed workers (funded under the Workforce Innovation and Opportunity Act [WIOA]). At present, the administrative worker-level records from WIOA services are sent annually by each state to the U.S. Department of Labor, chiefly for reporting purposes. The earnings records are sent to the Department of Health and Human Services to become part of the National Directory of New Hires (NDNH), which can be used to only enforce child support orders. No similar national collection of UI claims data exists, and the NDNH or the WIOA data are currently not accessible to researchers. Efforts by the Census Bureau to collect earnings data directly from the states has been hampered by the need to enter into legal agreements with fifty states. Yet the automated electronic collection processes already in place for the NDNH and the WIOA data shows that in principle, national databases of vital labor market data could be easily created as soon as appropriate legal frameworks are in place to guard the confidentiality and access of these data for research purposes.

Expand coverage of UI to fit structure of modern workforce

The current UI system does not serve a large fraction of the unemployed. This is partly due to changes in the structure of the workforce, with an increasing number of low-wage workers in unstable jobs or rising part-time employment, especially among women. Through incentives provided by the ARRA, a substantial number of states have now made benefits more easily accessible by adopting a range of proposals. Yet the ARRA reforms were implemented very unevenly across the country, leading to a patchwork of eligibility for UI across the United States.³⁴

A reform should provide pathways to harmonize eligibility for UI across states and increase take-up rates among eligible individuals. There is little justification for the current patchwork of eligibility, and meetings of state and federal UI officials should provide a system of best practices for eligibility requirements and outreach. Eligibility requirements should include those proposed in the ARRA, among them allowing for training of UI beneficiaries, enabling part-time workers to claim benefits, enhancing the mobility of working couples by making moves for family-related reasons a qualifying event for UI, and instituting the alternative base period. In addition, some of the gradual restrictions imposed over the last three decades to lower UI payments should be reviewed and possibly modified as well (Evangelist 2012).

Incentives provided by the ARRA led nineteen states to adopt an alternative base period and eleven states implemented a part-time inclusionary definition (Mastri et al. 2016, 8–9). One research study found that if all states implemented all the provisions, eligibility would have increased by 20 percent (Linder and Nichols 2012, 13). While the ARRA provisions improved coverage, not all states implemented all the provisions to fully improve eligibility. As part of broader UI reform efforts, the federal government should consider fully extending provisions, such as the alternative base period, to workers regardless of geographic location.

Resolve financing shortfalls in states' UI trust funds

As a consequence of growing wages and low taxable wage bases that are not indexed to covered wages, just 25 percent of earnings covered by UI laws nationally are currently subject to state UI payroll taxes. The minimum taxable wage base, set by the federal government, is currently \$7,000 and has not changed since 1983. While most states have set a state wage base higher than the required federal minimum, most are relatively low, with taxable wage bases of \$15,000 or less.³⁵ Some states, such as California and Florida, continue to use the bare minimum \$7,000 base to charge their state unemployment insurance taxes.³⁶ Similarly, the net federal tax rate—as defined under the FUTA—has been 0.8 percent for more than 30 years, depressing revenues that pay, among others, for UI administration by federal and state agencies (Dixon 2013). Many states' UI tax rates—as defined by their SUTAs—have remained low as well, and states have increasingly resorted to borrowing to finance UI benefits during recessions. Hence, even without the large increase in UI payments during and after the Great Recession, the financial soundness of the UI system has been steadily eroding (NELP 2010).

Policy-makers and researchers have proposed several sensible reforms to improve the complex financing system and solvency of the state UI funds. One proposed solution is to raise the federal taxable wage base by indexing it to wage growth, while lowering the FUTA tax rate.³⁷ Another possible solution is to institute federal penalties for states that fail to carry sufficient forward balances in their trust funds during expansions (West et al. 2016). A third proposed reform is to prevent payroll taxes from rising in the midst of a protracted recovery by extending the two-year window until the FUTA tax credit expires, institutionalizing interest wavers, and encouraging states to also delay automatic tax triggers aimed at balancing their trust funds.

While the solvency of the state unemployment insurance funds has improved greatly over the last few years since the aftermath of the Great Recession, as of March 2019, twenty-four states and U.S. territories continue to face solvency levels below the recommended standard. The Department of Labor measures the forward-funding solvency of the states' funds via the Average High Cost Multiple (AHCM), which is equal to the average of the three highest benefit cost rates over the last 20 years compared to the reserve ratio. The states with an AHCM value of greater than one have reached the minimum level of solvency needed before entering the next recession to cover UI benefits.³⁸ As the economy approaches the

next recession, many states across the country continue to be at risk of once again entering federal debt to meet their UI benefit obligations. As a result, it is critical to reform the current financing structure of the federal-state UI system to ensure its vitality over the next recession and course of future business cycles.

The Congressional Budget Office (CBO) found that administering the aforementioned first proposed change to the current financing system via increasing the federal taxable wage base by indexing it to wage growth while decreasing the FUTA tax rate would result in an additional \$18 billion in revenue from 2019 to 2028.³⁹ Under the CBO analysis, the states would receive additional revenues if their state wage base met the wage base set by the federal government via FUTA. The proposed reform would significantly improve the financial state of the federal part of the UI system along with the individual state UI systems.

Moreover, the Trump administration proposed as part of its FY2019 budget that states should be required to have a balance in their state trust fund accounts reflecting an AHCM of at least 0.50 (see Congressional Research Service 2018). For those states with an AHCM of less than 0.50, a penalty would be reflected via a higher net FUTA tax rate on those states' employers. The change would help to incentivize states to maintain enough funding to cover UI benefits claimed during the next recession and help to ensure financial soundness of their state's trust fund.

Additional proposals worthy of consideration

There are interesting proposals meant to fix additional shortcomings of the current UI system. In addition, there are challenging open questions that have not yet been addressed. These proposals and open questions include, among others, the following:

- A modernization of the administration of UI, including information technology used to administer claims, which is found to be outdated and underfunded (see NELP 2010; West et al. 2016).

The states have encountered various challenges related to the administration of their UI programs, mostly due to insufficient funding for newer information technology (O'Leary and Wandner 2018). State analysts such as in California have reported as a challenge insufficient federal funding to properly administer the state UI program (Legislative Analyst's Office 2017). As a result of a lack of proper federal funding to administer the state UI programs, during the peak of the Great Recession in the first quarter of 2009, 40 percent of states failed to meet the federal guidelines on their benefit payment obligations due to the large volume of claims submitted.⁴⁰ Policy researchers have proposed updating the current administration and information technology of the UI system by improving data collection, setting up a national database at a government entity like the Census, providing funding and technical support to implement the changes, and setting guidelines for researchers on how to access the data (von Wachter 2016).

- A reform of firms' UI tax rates to better internalize the costs of layoffs, reduce the cost to the UI system, and achieve similar cost of layoffs across states.

The academic literature shows that implementing a full-cost experience rating system to replace the current imperfect experience rating structure would incentivize employers to reduce the number of layoffs during recessions and lead to stable hiring during expansions (e.g., Rejda and Rosenbaum 1990). Further research finds that allowing volatile industries to use more UI benefit resources than more stable industries induces a 5 percent increase in layoff unemployment (Deere 1991). The most volatile industries receiving subsidies as a result of imperfect experience ratings are construction, manufacturing, and mining (Anderson and Meyer 1993). Increasing the degree of experience ratings can lead to lower seasonal variations in temporary layoffs in volatile industries, especially in construction and durable manufacturing (Card and Levine 1994).

More recent empirical research finds that an increase of 5 percent in experience rating on average leads to a 1.4 percent decrease in job flows and a decrease of 0.21 percentage points in the unemployment rate (Ratner 2013). The impact of the increase in experience rating on tax revenues is less clear (Ratner 2013). Policy advocates and researchers recommend improving the current UI payroll system by increasing the degree of experience rating such that a tax schedule must include at least ten different tax rates capturing a firm's layoff history (O'Leary and Wandner 2018).

- An optional private unemployment account to cover the self-employed or independent contractors

Currently, private UI is not widely available and can only be purchased from a handful of private insurance companies to partially cover lost wages during times of unemployment.⁴¹ The rate of covered workers by the UI system has fallen over the last few decades, and as a result, a lower share of workers can access UI benefits (McKay 2017b). As a result, some have proposed that a private UI system should be created for independent workers and the self-employed by pooling resources among these workers through an intermediary (e.g., Kletzer and Rosen 2006; Harris and Krueger 2015). Further, policy-makers could consider developing policies to induce the growth of the private UI market as an alternative for those not covered by the public UI system.

- A "job seeker allowance" to aid workers with limited work history who do not qualify for UI because of a lack of earnings history (West et al. 2016).

Traditional UI benefits require applicants to meet certain past earnings or work history levels, such as in California, where a worker must have earned at least \$1,300 during the highest-earning quarter.⁴² Consequently, unemployed individuals with limited work history, such as young workers, those with health issues, and those who exited the labor market for caregiving purposes do not

qualify for traditional UI benefits. Some policy reform advocates have proposed implementing a job seeker allowance to help low-income workers mitigate the financial hardship due to job loss or lower income volatility, and to help improve job outcomes (West et al. 2016).

Proposals for Innovation in UI

Even if sufficiently modernized according to the basic reforms reviewed above, UI as it is currently designed can neither prevent nor buffer much of the large and lasting earnings losses due to layoffs. This also affects the UI system's efforts to reemploy workers, who may wait too long to engage in the process of rebuilding their careers. Yet several innovations of the existing UI system have been proposed that could greatly expand the reach of UI without the need to establish a new program.

Institute a functioning system of work sharing to prevent costly layoffs

An increasing number of U.S. states have instituted programs of work sharing—also called short-term compensation, or STC—that allow workers to draw prorated UI benefits while on the job as an alternative to layoff. Evidence from other countries suggests work sharing can achieve substantial reductions in layoffs. Yet take-up of the programs by employers in the United States has been low, partly because of restrictive program rules and a lack of awareness about the program.

Several policy options are available to strengthen the use of STC across and within states, especially during recessions. One would be to continue to incentivize adoption of the program, with 100 percent of STC outlays funded federally for the first three years after adoption, or alternatively require states to establish STC programs. To raise attractiveness to employers, during this period states should be required to not charge employers for their uses (meaning there should be no experience rating). Another policy option would be to encourage states to share best practices, harmonize their efforts in outreach, and consider targeting employers using industry-level indicators of economic activity or those in the Worker Adjustment Retraining and Notification (WARN) system. A third policy option would be to encourage widespread use of short-term compensation during recessions when extended benefits are turned on by having STC benefits 100 percent federally financed, by suspending experience ratings, and by not having STC benefits deducted from worker's maximum UI eligibility. Finally, research should continue to assess what prevents the adoption of the STC program and how to develop best practices for eligibility requirements.

The current U.S. STC program provides regular unemployment benefits prorated by a partial work reduction. For example, employers can adapt the program by lowering the hours of all their workers by 25 percent instead of laying off 25 percent of their full-time workforce when business is slow, where the STC

program would replace the lost wages. At the moment, the STC program is underutilized, and only the following twenty-six states have operational programs that meet the new federal definition: Arizona, Arkansas, California, Colorado, Connecticut, Florida, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Texas, Vermont, Washington, and Wisconsin.⁴³ One key benefit of the STC program is a reduction of those who become long-term unemployed during recessionary periods (Hassett and Strain 2014).

Policy advocates and researchers have identified three main potential advantages of the STC program compared to traditional layoffs. First, STC leads to more equitable outcomes, as the negative effects from a recession are distributed across workers rather than only a subgroup of workers. Second, STC serves as a macroeconomic stabilizer, as more workers continue to receive traditional work earnings. Third, STC mitigates economic hysteresis that occurs when a severe recession reduces the economy's production capacity for the future (Hassett and Strain 2014). Moreover, Hijzen and Martin (2013) found that STC programs increase the productivity of those working and help to preserve jobs during an economic recession. While the impact of the STC program on productivity in the short-term is of little or no concern, the long-term impact remains ambiguous, and some critics argue that it could deter the shift of workers from eroding to growing industries (D. Baker 2011).

The current STC system in the United States needs major reforming as it currently does not have nationwide coverage to better serve workers and employers regardless of location. Abraham and Houseman (2014) found that the STC program saved a significant number of jobs in the manufacturing sector during the Great Recession; however, it did not serve as an aggregate mitigation tool to reduce overall layoffs due to the program's small scale and patchy regional coverage. Due to the program's popularity as another tool to help the unemployed, policy-makers need to consider expanding the current STC program in terms of regional coverage and the number of employers it can serve.

Experiment with wage insurance to aid workers returning to employment

Since UI only insures a minor fraction of the total earnings risk of job losers, its role as an insurance mechanism and automatic stabilizer in recessions performs substantially below its potential. As a result, a growing number of researchers have suggested complementing the current UI system with a system of wage insurance. Wage insurance is likely to provide substantial additional insurance value. It may provide cost savings by lowering UI payments. And it is unlikely to further reduce wages and may raise them by shortening unemployment.⁴⁴ Yet currently little is known on potential effects of wage insurance.

A series of proposals have been made to extend existing wage-insurance plans for trade-related layoffs to all workers covered by UI (Wandner 2016). Given the evidence on job loss, introducing a version of wage insurance is a sound policy, but an experimental evaluation will be important to better understand its effects.

Policy parameters should be set with core facts in mind—for example, average wage losses of displaced workers with three years or more of tenure from good employers in a recession are about \$15,000 per year in the first couple of years (von Wachter, Song, and Manchester 2011), so \$10,000 over two years replaces only 30 percent of the loss.⁴⁵ Similarly, insurance benefits should be extended to workers earning more than \$50,000 on their new job since this would exclude substantially affected middle-class employees and their families from insurance.⁴⁶ Since most evidence suggests that earnings losses last at least three years, and likely many more, a proposal with sharp limits has to educate workers about the long path to recovery.

At the moment, the United States only operates a small-scale wage insurance program, known as the Alternative Trade Adjustment Assistance Program, as part of the Trade Adjustment Assistance Act (TAAA) (McKay 2017a). The program offers a wage subsidy of 50 percent of the difference between wages at the time of separation and current wages from reemployment to dislocated workers who are at least 50 years old and had a multiyear tenure in a TAAA-certified industry. The benefits provided to dislocated workers are capped at a maximum amount of \$10,000 over the course of two years, along with a credit for health insurance and relocation costs.⁴⁷

In 2016, the Obama administration proposed a federally funded wage insurance program mimicking the current Alternative Trade Adjustment Assistance Program. The proposed program was released as part of the FY2017 Presidential Budget Request, which would offer 50 percent of a dislocated worker's lost wages with a maximum amount of \$10,000 during a period of up to two years. The eligibility criteria were more generous as the program would have included all displaced workers making less than \$50,000 per year in their new job who had been with their prior employer for at least three years (see Wandner 2016). Ultimately the program was not adopted, but it may provide a good point of departure for future policy considerations regarding wage insurance.

Currently, there is a lack of rigorous empirical research on any evaluation of the impact of a wage insurance program on worker's outcomes in the United States due to the program's narrow coverage (Wandner 2016, 8). However, the Canadian Government conducted an experiment to evaluate the causal impact of their wage insurance known as the Earnings Supplement Program (ESP) (Bloom et al. 1997). The randomized controlled trial consisted of a sample of 5,912 displaced workers from various provinces, with a control versus a treatment group (Bloom et al. 1997). Interestingly, among those in the treatment group, only 20 percent received the earnings supplement with an average weekly payment of \$127 (Bloom et al. 2001). Researchers leading the Canadian experiment found that the supplemental wage had little impact on job-search efforts, employment outcomes, and use of UI (Bloom et al. 2001). As a result of the findings and the costs associated with the program, the Canadian government decided against implementing the ESP program on a larger scale (McKay 2017a).

Even while the Canadian ESP experiment did not yield the desired results, the findings from that study are not fully transferable to the U.S. context in any case, as the benefits and eligibility were different from those proposed by the

Obama administration and used for the Alternative Trade Adjustment Assistance program. Moreover, prior work has shown that similar programs can improve job-finding rates (e.g., Meyer 1995) and be cost effective if appropriately targeted (O'Leary, Decker, and Wandner 2005).⁴⁸ Hence, if the goal is to help reintegrate the long-term unemployed into the labor market and reduce income shocks among displaced workers, then a wage insurance program is a policy tool worth careful consideration and additional research.

Conclusion

This article provided an overview of the UI program and a range of reform proposals, along with research evidence to support those reforms. Some of the proposals are recent and responded to new challenges of the UI program, while some of them are older and aimed to address well-known issues with the current UI system. Throughout, I have focused on reforms that keep the central tenets of the current UI system in place but try to address some of the core issues with the program summarized at the outset of the article.

Overall, there are a range of sensible proposals to reform the UI system, several of which would find broad backing among academics and policy-makers alike. Yet in many cases there are important open questions, in particular for empirical research. Progress on several fronts is currently severely hampered by a lack of mostly administrative micro data that are, in principle, available but currently not accessible because of a missing legal framework. This in itself constitutes an important proposal for reform.

There are a few reforms discussed here that are soundly grounded in empirical academic research or longstanding regulatory experience, or both: mandating minimum UI benefits at the federal level to prevent states from arbitrarily cutting benefits to fix budget shortfalls; replacing the current ad hoc Emergency Unemployment Compensation by a federally financed, trigger-based system to ensure a smooth temporary expansion of the UI system in recessions; considering several proposals for stabilizing funding of the system, including expanding the tax base and requiring minimal reserves; and creating a national system of data collection and access for research purposes.

Other reforms are sensible, but additional research is important for making recommendations thoroughly grounded in empirical evidence. While many agree that the UI system could better serve a broader group of workers, not enough research is available on longer-run trends in the take up of UI benefits or effects of recent reforms; preventing dramatic long-term earnings losses associated with job displacements could be addressed by a system of job sharing, but little U.S.-based evidence is available; finally, once large wage losses are incurred, further evidence on effective ways of reintegrating displaced workers more quickly would be beneficial. Other reform ideas are promising but are relatively new and may need more discussion, such as UI for the self-employed or reform of experience ratings. Here, evidence from other countries, most notably Europe, may

show the potential for this and other programs to help make the UI system more flexible and effective.

UI has been a successful program worthy of being strengthened through appropriate reforms. There have been proposals that would replace UI altogether that were not covered here. One more recent proposal has been Universal Basic Income (UBI). UBI proposals have been discussed elsewhere in detail (e.g., Hoynes and Rothstein 2019). Overall, while by design they sidestep the issue of reducing the relative benefit of working that affects a conditional program such as UI (e.g., moral hazard effects), they may simply be too expensive and have adverse distributional consequences despite promises to the contrary. Another alternative to UI that has been proposed in the past that again sidesteps the issue of moral hazard by design are personal savings accounts that would allow workers to self-insure for temporary employment shocks. While not without conceptual appeal, such a program would still need to rely on a final insurance pool for those who exhaust their savings account. Moreover, the difficulties in incentivizing participation in savings accounts, and the tight link to the stock market, bring additional implementation challenges worthy of a separate discussion.

Notes

1. See <https://oui.doleta.gov/unemploy/pdf/partnership.pdf>.
2. *Ibid.*
3. See <https://oui.doleta.gov/unemploy/uifactsheet.asp>. The ARRA provided incentive payments to states that would modernize their UI system such as by extending eligibility to those who quit their jobs for compelling reasons such as due to domestic violence, spousal relocation, or illness.
4. See <https://oui.doleta.gov/unemploy/uifactsheet.asp>.
5. *Ibid.*
6. See <https://www.stlouisfed.org/publications/regional-economist/october-2012/unemployment-insurance-payments-overpayments-and-unclaimed-benefits>.
7. See <https://oui.doleta.gov/unemploy/pdf/partnership.pdf>.
8. See <https://www.nolo.com/legal-encyclopedia/collecting-unemployment-benefits-hawaii.html> and <https://www.nolo.com/legal-encyclopedia/collecting-unemployment-benefits-texas-32500.html>.
9. See <https://eligibility.com/unemployment/florida-fl-unemployment-benefits> and <https://www.cbpp.org/research/economy/policy-basics-how-many-weeks-of-unemployment-compensation-are-available>.
10. *Ibid.*
11. See https://www.edd.ca.gov/pdf_pub_ctr/de2088c.pdf.
12. See https://www.edd.ca.gov/pdf_pub_ctr/de231z.pdf.
13. See <https://oui.doleta.gov/unemploy/pdf/partnership.pdf>.
14. *Ibid.*
15. See <https://oui.doleta.gov/unemploy/euc.asp>.
16. See https://oui.doleta.gov/unemploy/supp_act.asp.
17. See <https://oui.doleta.gov/unemploy/pdf/euc08.pdf>.
18. *Ibid.*
19. See <https://fas.org/sgp/crs/misc/R45478.pdf>.
20. See https://oui.doleta.gov/unemploy/data_summary/definitions.pdf.
21. See https://www.edd.ca.gov/pdf_pub_ctr/de231z.pdf.
22. Presence of UI benefits can have other effects on worker behavior. For example, given that eligibility for UI benefits typically depends on a minimum amount of employment, unemployed workers may face

an added incentive to search for jobs if they do not qualify or if their UI benefits come toward an end (Mortensen 1977). Empirical work has found evidence of such an “entitlement effect” (e.g., Christofides and McKenna 1996; M. Baker and Rea 1998), although the net effect on employment can either be positive or negative (Hamermesh 1979). There have also been studies of UI on spousal labor supply, as benefits may lower the need of a spouse to increase labor supply to make up for lost income (e.g., Cullen and Gruber 2000).

23. In principle, the ability to search longer may improve job quality. However, current evidence suggests these effects may be small or even negative (e.g., Schmieder and von Wachter 2016).

24. See <https://pdfs.semanticscholar.org/b3a5/e169a456b105a2d23773086a560d70a20922.pdf>.

25. See <https://www.congress.gov/bill/97th-congress/house-bill/2880>.

26. See <https://www.congress.gov/bill/102nd-congress/house-bill/3575>.

27. See <https://obamawhitehouse.archives.gov/omb/budget>.

28. See Section 2003, “Special Transfers for Unemployment Compensation Modernization,” in <https://www.congress.gov/bill/111th-congress/house-bill/1/text>.

29. *Ibid.*

30. *Ibid.* The federal definition defined an *alternative base period* as a state that (A) uses a base period that includes the most recently completed calendar quarter before the start of the benefit year for purposes of determining eligibility for unemployment compensation; or (B) provides that, in the case of an individual who would not otherwise be eligible for unemployment compensation under the State law because of the use of a base period that does not include the most recently completed calendar quarter before the start of the benefit year, eligibility shall be determined using a base period that includes such calendar quarter.

31. See Section 2003(B)(2) in <https://www.congress.gov/bill/111th-congress/house-bill/1/text>.

32. See Section 2003(g)(1), “Special Transfer in Fiscal Year 2009 for Administration,” in <https://www.congress.gov/bill/111th-congress/house-bill/1/text>.

33. See <https://oui.doleta.gov/unemploy/solvency.asp>.

34. See Table I.1 on page 8 of https://www.dol.gov/asp/evaluation/completed-studies/UCP_State_Decisions_to_Adopt.pdf. There have been no further federal reforms of UI since the ARRA.

35. See <https://www.apspayroll.com/resources/payroll-taxes-rates-and-changes/suta-wage-bases/>.

36. The other states or U.S. territories are Arizona, Puerto Rico, and Tennessee. See <https://www.apspayroll.com/resources/payroll-taxes-rates-and-changes/suta-wage-bases/>.

37. See White House (2017).

38. Per a change in 2013 to code CFR 606.32, the AHCM will be used as a solvency measure to determine whether a state qualifies for an interest-free loan for a federal advance after January 1 of a given year to cover unemployment insurance benefits if the loan is repaid by September 30 of the same year. See pages 1–3 in <https://oui.doleta.gov/unemploy/docs/trustFundSolvReport2019.pdf> and <https://www.law.cornell.edu/cfr/text/20/606.32>.

39. The CBO conducts the analysis by first raising the FUTA taxable wage base from \$7,000 to \$40,000 in 2019 where the wage base can be indexed to wage growth in future periods, while decreasing the FUTA tax rate from the current 0.6 percent to 0.167 percent. See <https://www.cbo.gov/budget-options/2018/54809>.

40. See https://www.nasi.org/sites/default/files/research/Unemployment_Insurance_Administration.pdf.

41. See <https://www.thebalancecareers.com/is-private-unemployment-insurance-worth-it-4161288>.

42. See <https://www.nolo.com/legal-encyclopedia/collecting-unemployment-benefits-california-32504.html>.

43. See https://oui.doleta.gov/unemploy/docs/stc_fact_sheet.pdf.

44. In Canada, workers taking up wage insurance saw substantial income increases (see Bloom et al. 1997); yet, consistent with evidence from reemployment bonuses in the United States (see Meyer 1995), the cost saving from lower UI spells from wage insurance in Canada was moderate. All estimates from the United States indicate that UI benefits do not affect wages, and UI benefits tend to lower wages for those with longer spells (see Schmieder and von Wachter 2016).

45. See the proposal in White House (2017).

46. *Ibid.*

47. See <https://www.ctdol.state.ct.us/TradeAct/ataa%20presentation2a.pdf>.

48. In the 1980s, the U.S. government experimentally evaluated reemployment bonuses that provided incentives to unemployed workers to find a job. While the bonus is not necessarily a function of past or future earnings levels, it also works through improving the attractiveness of finding a job.

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