Unemployment Insurance (UI) serves a core purpose that is intuitive for both economists and noneconomists: it provides insurance against the risk of job loss. Because employment is the only or primary source of income for most families, job loss often delivers a financial blow that would be crippling absent any insurance. Moreover, the need to fund UI has important consequences for employers in the form of experience-rated taxes. In this brief, we outline principles for the optimal design of both the worker- and employer-facing aspects of UI, grounding these principles in the relevant literature.

Unemployment insurance protects workers against drastic declines in their incomes. But like any insurance, UI creates a moral hazard, distorting the labor market choices of workers. Balancing this moral hazard with the benefits of insurance is the first task for UI policymakers.

Somewhat less intuitive are the other considerations that underlie the optimal design of UI. In addition to the question of the overall generosity of UI benefits, how should payments be structured over the course of an unemployment spell? To what extent should UI accommodate transitions to any labor market statuses other than full-time traditional employment? Who should be eligible for UI? How should UI be funded, and to what extent should employers be penalized for layoffs? And how can UI best support labor market dynamism?

In this brief, we explore the implications of the research consensus—and descriptive evidence we present—for optimal UI design, with an emphasis on the worker- and employer-facing aspects of UI. We discuss several design principles, explaining how each applies to the relevant policy choices and what evidence is most relevant for policy decisions.

**HOW DOES UI WORK?**

In 2018, more than 140 million employees were covered by UI (i.e., they would be eligible if they were fired without cause and met other eligibility conditions). This constitutes most of the U.S. employee population (155.8 million in 2018), though the number of unemployed workers who are eligible for UI and receive benefits is a substantially smaller
fraction. Indeed, the number of UI recipients—essentially all of whom are recipients under regular state programs—is 1.8 million, slightly more than one-quarter of the unemployed. Across these 1.8 million recipients, average weekly benefits are $356, and the average duration of benefits is just over 15 weeks.

However, unemployment benefits in the United States are not available indefinitely. Most states cap the number of available weeks of benefits at 26, and an increasing number of states have implemented a maximum below 26. Although states with high unemployment tend to relax this cap (through the provision of extended and emergency benefits), UI remains a term-limited program for individual job seekers. Nearly 36 percent of recipients end up receiving the entire span of benefits they are entitled to.

Under federal law, a worker must have become unemployed through no fault of her own to be eligible for UI. Among such unemployed workers, eligibility requirements vary widely across states. However, for workers who are eligible to begin receiving benefits, continued receipt is conditional on job search and availability for work. Again, the definition of those conditions varies by state, but most states require that a UI recipient contact a minimum number of employers every week (Toohey 2017). The recipient must keep records of these contacts and in many cases provide them to state workforce agencies. Audits of worker reports suggest they are largely accurate, and worker search activity is responsive to variation in state search requirements (Toohey 2017).

**Experience-Rated Taxation to Fund UI**

Unemployment insurance benefits are primarily funded by state and federal taxes levied on employers. The federal tax rate, after offsetting credits, amounts to 0.6 percent on wages up to the federal wage base of $7,000 per employee.¹

The bulk of taxes, however, are collected by the state UI agencies. States set a payroll tax rate for each eligible employer, and the payroll tax is levied up to a tax base that ranges between $7,000 and $49,800 per employee per year (DOL 2019). The unique feature of the UI system in the United States is that payroll taxes are “experience rated”: the employer tax rate is tied to its layoff history. Although exact rules vary by state, all states implement the basic premise that an employer’s tax liability increases with the propensity for its workers to draw from the UI trust fund. The associated cost can be substantial. For example, according to a measure calculated by the U.S. Department of Labor, if a firm is responsible (through its layoff decisions) for necessitating the payment of UI benefits equal to 1 percent of the firm’s payroll, the firm’s cost per employee can rise by $400. Effects of the experience-rated tax schedule on the labor market have been studied extensively (Feldstein 1976, Topel 1984, Anderson 1993, Card and Levine 1994, Anderson and Meyer 2000, Ratner 2013), highlighting that experience-rated taxes shape labor demand. Although research in this area is needed, lower labor market turnover may inhibit beneficial churn in the labor market (such as a worker’s progress up the job ladder), potentially reducing average match quality and productivity.

**PRINCIPLE: FRONT-LOAD UNEMPLOYMENT BENEFITS TO MITIGATE MORAL HAZARD**

Most involuntary unemployment is caused by workers going through short unemployment spells, followed by either exit from the labor force or reemployment. (As explained below, however, long-term unemployment has become more common.) Figure 1 shows the share of involuntary unemployed workers who report different spell lengths within a given interval in 2018. Of the short-term unemployed, 72 percent have been unemployed for less than 12 weeks.

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¹ The credit against the federal tax rate is available to firms that are current on their UI taxes and operate in states with conforming UI systems, including states that have outstanding loans from the Federal Unemployment Insurance Trust Fund.
Typical UI benefits are paid in a fixed amount that continues until reemployment or benefit exhaustion, whichever comes first. The final week of benefits is the same amount as the first week of benefits. Although simple, this design comes with an important drawback: relative to front-loaded payout, such a system discourages participants from taking new employment. When contemplating reemployment, a UI recipient who has just started to receive benefits stands to lose most of the cumulative benefit he or she is entitled to. To the extent that worker search effort or reservation wages are relevant to the probability of reemployment, the flat benefit schedule generates moral hazard.

This consideration and others (such as the insurance value of UI and the effectiveness of worker search) are likely to change substantially during economic downturns. The appropriate UI benefit schedule during a time of low unemployment would not be optimal during a time of high unemployment. Accordingly, maintaining a flat schedule of benefits whenever emergency or extended benefits are triggered is likely desirable.

However, during tight labor markets, different benefit profiles are worth examining. One solution might be UI benefits that slowly diminish as the unemployment spell lengthens. This would balance the conflicting objectives of providing more insurance for the long-term unemployed and minimizing moral hazard. Because moral hazard would be diminished with this structure, total UI spending would optimally be set somewhat higher.

Most research on this topic—including Shavell and Weiss (1979), Hopenhayn and Nicolini (1997), and Fredriksson and Holmlund (2001)—finds that a diminishing profile of benefits would be optimal. The exact slope of the schedule depends on the empirical importance of, on the one hand, the diminution of moral hazard and, on the other hand, the reduction in insurance benefit associated with a steepening of the duration-benefit profile.

**PRINCIPLE: SMOOTH THE TRANSITION FROM UI TO WORK BY ALLOWING FOR PART-TIME WORK AND PARTIAL UI RECEIPT**

Job loss is often associated with large, persistent negative income shocks (Jacobson, LaLonde, and Sullivan 1993; Farber 1997). It can also lead to occupation and industry shifts, such as when mass layoffs occur in shrinking sectors.
(Baicker and Rehavi 2004). For many workers, this means that obtaining new employment is not a simple process. As workers reenter employment, they may find it necessary to take part-time work at first.

Figure 2 shows this is indeed the case. Defining part-time work as 29 hours or fewer in a week, we find (in a period of high unemployment) that unemployed workers often transition to part-time employment (at about 35–45 percent the transition rate to full-time employment). This suggests that beginning with part-time employment is an important reemployment mechanism.

**FIGURE 2**

Monthly Transition Probability
From unemployment to part- and full-time work

<table>
<thead>
<tr>
<th>Weeks of unemployment</th>
<th>Probability (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–14 weeks</td>
<td>14%</td>
</tr>
<tr>
<td>15–26 weeks</td>
<td>12%</td>
</tr>
<tr>
<td>&gt;26 weeks</td>
<td>10%</td>
</tr>
</tbody>
</table>

*Source:* Bureau of Labor Statistics (2009) and authors’ calculations using the IPUMS-CPS.

*Note:* Data are for 2009.

If UI makes no provision for this on-ramp to full-time employment, it may inadvertently discourage recipients from taking the most effective paths back to work. A simple solution is to smooth the transition from UI to work by allowing partial UI receipt during part-time employment, as proposed by Kugler (2015) and used at different times in states such as Georgia and North Carolina.

**PRINCIPLE: USE MINIMALLY RESTRICTIVE EARNINGS AND HOURS REQUIREMENTS FOR WORKER ELIGIBILITY**

Regular unemployment insurance is structured as an employer-funded benefit. The trust funds that pay for benefits are supported by experience-rated taxes on employment. Thus, benefits paid to workers are naturally reserved for people who were employed before unemployment (as opposed to those who enter the labor force and begin searching for work).

However, worker earnings history requirements could be loosened without abandoning the basic structure of the UI system. This would necessitate more funding for UI, which could be obtained either from increased experience-rated employer taxes or (preferably) from state general revenues. We consider the latter preferable because the additional UI

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2 This relationship is qualitatively similar throughout the most recent business cycle (not shown).
participants would have relatively low earnings and employment and as such would be a smaller part of the employer tax base.

What would the characteristics be of additional participants if eligibility restrictions were relaxed? UI recipients tend to be older and have higher incomes than unemployed people who do not receive UI. New recipients (if eligibility rules were relaxed) would also be less likely than current recipients to be white, married, and male.

PRINCIPLE: ACCOMMODATE LABOR MARKET CHURN, INCLUDING NONTRADITIONAL EMPLOYMENT

A rigid, permanent separation of people into labor force participants and nonparticipants is less and less reflected in labor market data, particularly for prime-age men. By one estimate, one-third of the decline in prime-age male participation since 1977 can be accounted for by the growing number of workers who frequently transition in and out of the labor force (Coglianese 2018). Today, many workers have erratic and volatile employment and earnings, and safety net institutions that fail to acknowledge this reality often serve their target populations poorly (Bauer, Schanzenbach, and Shambaugh 2018).

Because of UI’s earnings history requirements—including some states’ provisions that require earnings are dispersed throughout the base period—benefits are often unavailable to people who move in and out of employment or full-time employment. These requirements exclude some workers with intermittent labor force participation who would otherwise satisfy a total base period earnings requirement.

Supporting transitions from UI into successful self-employment should also be an objective of the UI system. A few states currently offer self-employment assistance as part of their UI system, which allows recipients to receive benefits while establishing their own businesses. Job search and availability requirements are suspended for UI recipients participating in self-employment assistance (DOL 2016).

PRINCIPLE: CONSIDER THE BENEFITS OF WORKER REALLOCATION WHEN DESIGNING UI TAXES

Much reallocation—the millions of hires and separations that occur every month—is economically and socially beneficial (Topel and Ward 1992, Mukoyama 2014). Layoffs tend to eliminate relatively low-quality job matches, allowing workers and firms to form new relationships that are more productive (Foster, Grim, and Haltiwanger 2016; Hershbein and Kahn 2018). Changes in UI or other policies that reduce layoffs through higher experience-rated taxes will generally also reduce hires (Ratner 2013), which, as an unintended side-effect, reduces the potential for improvements in match quality.

What do these considerations mean for the optimal experience-rated tax? One implication is that the optimal experience-rated tax should penalize employers by some amount below the full cost of expected UI spending associated with a layoff. In other words, the tax incurred by an employer after a layoff should generally be lower than the expected expenditures on UI for that worker.

PRINCIPLE: ADJUST EXPERIENCE-RATED TAXES TO SUPPORT HIRING OF WORKERS WITH HIGH EX-ANTE LAYOFF RISK

Very few employers hire workers with the explicit intention of laying them off (with the exception of seasonal hiring). Job turnover is costly (Muehlemann and Leiser 2018) and employers seek to avoid it, even absent experience-rated taxes. But experience-rated taxes, which penalize layoffs, could intensify employers’ desire to hire workers with low subsequent layoff risk.

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3 In unreported ongoing work, we calculate eligibility (as opposed to recipiency) using characteristic state rules applied to respondents in the Survey of Income and Program Participation. Preliminary results are similar to those shown here.
Indeed, easily observable demographic information is correlated with the probability of a layoff at the labor market level. Although these layoff probability differences are likely not the same as those that exist conditional on application to a particular firm, they are suggestive of an empirical role for the dynamic described above.

Some of the largest differences are associated with race and education. Black non-Hispanic workers are 60 percent more likely than white workers (the omitted race category in figure 3) to experience a layoff. Workers with a four-year college degree are nearly 80 percent less likely to experience a layoff than those without a high school degree (the omitted education category).
Discriminatory hiring practices may therefore increase when firms face additional incentives, generated by experience-rated taxation, to minimize the likelihood of future layoffs. Moreover, workers in groups with higher layoff risks typically have a harder time finding a job as well (Cajner et al. 2017). If a laid-off worker experiences a longer UI spell, that can in turn raise a firm’s experience rating more than a worker who is quickly reemployed. This may produce further incentives to hire workers from groups that typically have more favorable labor market outcomes.
CONCLUSION

Unemployment insurance protects more than 140 million workers from some of the worst consequences of job loss. By replacing a fraction of earnings while workers look for new employment, UI allows for smoother consumption during unemployment spells and an economy that is more resilient to negative shocks.

But UI also has a host of ancillary effects that require careful study, the results of which must be incorporated into the design of the program. UI affects employer behavior through its system of experience-rated employer taxes, affects worker search behavior and reemployment decisions through the timing and generosity of its unemployment-contingent benefits, and determines through its eligibility rules who is and is not protected from labor market reverses.

Economic theory and evidence regarding these issues yield useful insights into the optimal design of UI. Although the current program is well-functioning in many respects and accomplishes its core objectives, many opportunities are available to improve it. A better functioning UI program is one that can be more readily expanded in its generosity and reach to enhance the insurance that workers need when navigating a volatile labor market.
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ACKNOWLEDGMENTS

This publication was funded by Arnold Ventures.

The views expressed are those of the authors and do not indicate concurrence by other members of the research staff or Governors of the Federal Reserve Board of Governors, the Urban-Brookings Tax Policy Center, the Urban Institute, the Brookings Institution, their trustees, or their funders. Funders do not determine research findings or the insights and recommendations of our experts. Further information on Urban’s funding principles is available at http://www.urban.org/aboutus/our-funding/funding-principles; further information on Brookings’ donor guidelines is available at http://www.brookings.edu/support-brookings/donor-guidelines.

The authors thank Catherine Peng and Divya Vijay for excellent research assistance. The authors are also grateful to John Coglianese, Glenn Follette, Desmond Toohey, and Stephen Wandner for valuable insights.