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Financing Unemployment Insurance

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Following the Great Recession, most states' unemployment insurance (UI) trust funds became insolvent, requiring the states to borrow from the U.S. Treasury to finance benefit payments. This article describes the basics of UI financing and reviews the origins of the financial crisis facing the federal-state UI system. It then examines the main components of the UI payroll tax—the taxable wage base and the experience-rated payroll tax—and considers how these might be modified to avoid future widespread insolvency. We conclude with some speculative remarks on the future of UI financing.

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Note: An edited version of this paper is forthcoming in *National Tax Journal* 64, no. 1 (March 2014).

FINANCING UNEMPLOYMENT INSURANCE

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Abstract

Following the Great Recession, most states' unemployment insurance (UI) trust funds became insolvent, requiring the states to borrow from the U.S. Treasury to finance benefit payments. This article describes the basics of UI financing and reviews the origins of the financial crisis facing the federal-state UI system. It then examines the main components of the UI payroll tax—the taxable wage base and the experience-rated payroll tax—and considers how these might be modified to avoid future widespread insolvency. We conclude with some speculative remarks on the future of UI financing.

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I. INTRODUCTION

The Great Recession of 2007–2009 and its aftermath have posed the most serious challenge to unemployment insurance (UI) financing since state UI programs were established during the late 1930s. Since 2008, 36 of the 53 state UI programs have borrowed from the U.S. Treasury to finance benefit payments in the so-called regular state UI programs, the state-financed programs that typically pay up to 26 weeks of benefits to claimants. State program loans from the Treasury peaked in April 2012 at \$41 billion, larger than in any previous recession. In order to repay these loans, states have raised their UI payroll tax rates during a sluggish recovery, and their payroll tax rates will remain relatively high until states' UI trust funds are replenished. Nevertheless, if the recovery continues at its current modest pace, it seems likely that several large states will owe substantial amounts beyond 2015. Also, a recession in the next few years would return many state trust funds to insolvency and lead to further borrowing.

This article examines the financial problems facing the state UI systems and reviews possible ways of placing those systems on a more stable footing. In section II, we provide background on the UI system and briefly describe the mechanics of UI financing. In section III, we review the current state of UI trust fund solvency and how the current situation came about. In section IV, we consider the two main components of the UI payroll tax—the taxable wage base and the experience-rated payroll tax—and examine how these might be modified to avoid future widespread insolvency of the kind that accompanied the Great Recession. Section V offers a discussion and speculative remarks on the future of UI financing.

II. UI FINANCING BASICS

UI was established in 1935 under the Social Security Act, which created strong financial incentives for each state to create its own UI program. Specifically, the Federal Unemployment Tax Act (FUTA) levies a payroll tax on private employers, currently 6.0 percent of the first \$7,000 of each covered worker's annual earnings. The FUTA then forgives or "credits" 5.4 percent of that tax for employers in states operating a UI program meeting federal requirements (Blaustein 1993).¹ The main requirements were and are quite general: administer a UI program using "methods of administration ... reasonably calculated to insure full payment of unemployment compensation when due" [42 U.S.C. § 503(a)(1)] and raise revenues for that program through an experience rated payroll tax levied on (at least) the federal tax base, and whose maximum tax rate is no lower than 5.4 percent. Accordingly, UI payroll taxes have both a federal component (after the FUTA credit, 0.6 percent of \$7,000 for each employee) and a state component, determined by each state, that funds UI benefits administered by the state.

To qualify for the 5.4 percent FUTA credit, revenues from a state's payroll tax must be deposited in a *reserve account* or trust fund, held for that state by the U.S. Treasury and used solely to pay benefits under that state's UI program (Rubin 1983; Hildebrand 1995–1996). Otherwise the states have much freedom to set specific tax provisions and benefits. The result is a federal-state program or "partnership" in which each of the 50 states (plus the District of

¹ Nonprofit employers and state and local government employers do not pay FUTA taxes, although their employees are potentially eligible for UI. Rather than paying regular state UI payroll taxes, these employers usually reimburse the state for benefits paid to their former employees. Small farm employers and self-employed workers are wholly exempt from UI coverage.

Columbia, Puerto Rico, and the Virgin Islands) finances and administers its own UI program under federal guidelines and oversight.²

A. The Taxable Wage Base and Payroll Tax Rates

The latitude granted to states by the Social Security Act has led to marked differences among the states in most aspects of the UI program—financing, program solvency, eligibility, and benefit generosity. Subject to the federal minimum of \$7,000, states have set UI payroll tax bases (or “taxable wage bases”) that vary widely (USDOL 2013, chapter 2). Although the UI tax base is higher than the \$7,000 minimum in all but two states (Arizona and California), the UI tax base exceeded \$25,000 in just twelve in 2013 (Washington’s and Hawaii’s were highest, at \$38,200 and \$38,800). In these latter twelve, the base is adjusted automatically each year by indexation to the state’s average annual wage. The tax base was \$12,000 or less in twenty-two states, and in none of these was the tax base indexed. Of the 16 states that index, all but six (Iowa, Minnesota, New Jersey, North Carolina, North Dakota, and Oklahoma) are in the West (as defined by the U.S. Census Bureau), and of the 12 largest states, only New Jersey and North Carolina had 2013 tax bases greater than \$12,000 *and* indexed their base. Accordingly, state UI tax bases are much smaller than the Social Security base (\$113,700 in 2013). The implications of low state UI tax bases for UI trust fund insolvency following the 2007–2008 financial crisis will become clear below.

Tax rates applied to each state’s taxable wage base have two main components. The first and usually most important component is *experience rated* at the level of the employer, so in

² Revenues from the FUTA tax (the 0.6 percent remaining after the 5.4 percent credit) are deposited in federal trust accounts that finance the costs of administering UI at the federal and state levels, fund public employment services throughout the country, pay the federal share (one-half) of federal-state extended benefits, and provide loans to states that have exhausted their UI trust funds.

principle each employer's tax rate depends on the extent to which that employer has laid off workers who have received UI benefits (USDOL 2013, chapter 2). Experience rating was a hallmark of the UI law in 1935 and was originally touted as a way to distribute the cost of UI equitably among employers and to discourage employers from laying off workers (Blaustein 1993). It remains a unique feature of the U.S. system.

Implementing experience rating requires two steps. First, benefits paid to each UI recipient are "charged" to the recipient's former employer. This is done using administrative wage reports submitted quarterly by all employers, making it possible to identify the employer for whom each UI claimant worked in roughly the year before the UI claim (the so-called base period).³ Second, each employer's benefit charges are used to calculate a measure of layoff experience that can be mapped into a tax rate. Details and analysis of the two most important experience rating measures are discussed below.

Figure 1 shows three illustrative tax schedules to which an experience rating measure might be applied. Under a baseline tax schedule such as A, an employer's tax rate rises with layoff experience up to some maximum (τ_{\max}), which by federal law cannot be less than 5.4 percent. Such a tax cap is characteristic of all UI payroll tax schedules and limits the effectiveness of experience rating. In particular, the maximum has been shown to reallocate resources from low- to high-unemployment industries, as discussed later.

Tax schedules B and B' illustrate alternative tax schedules that a state could adopt if its trust fund became depleted. In fact, about half the states automatically adjust their tax schedules depending on the actuarial health of the state's UI trust fund (USDOL 2013). A few, like

³ When benefits are paid to a worker with multiple previous employers, most states charge benefits in proportion to the wages an employer paid during the base period, but thirteen charge only the most recent or principal employer, and five charge in reverse chronological order.

Colorado and Tennessee, do so by levying a constant percentage-point increase on all employers, shifting the tax schedule up in a parallel manner, as in the case of schedule B. But most states increase the payroll tax by a constant percentage on all employers, increasing the slope of the tax schedule and raising the degree of experience rating for employers on the sloped portion of the tax schedule, as in the case of schedule B'. New York takes this latter approach: in 2013 its law specified 12 payroll tax schedules, one of which is effective depending on the size of its UI trust fund relative to total payrolls in the state <<https://labor.ny.gov/ui/dande/title6.shtm#581>>. With a negative trust fund balance (as in 2013), tax rates range between 0.9 and 8.9 percent (the least favorable schedule); with a balance exceeding 5 percent of total payroll, taxes would range between 0.0 and 5.9 percent (the most favorable).

The experience rated component of the UI payroll tax is intended to cover benefits that can be traced or charged to an employer, but not all benefits can (or should) be charged. For example, benefits paid to workers who have quit with good cause, dependents' allowances, and emergency extended benefits are "noncharged" benefits. Benefits traceable to employers that have gone out of business are "inactively" charged. Those traceable to an employer at the maximum UI payroll tax rate are "ineffectively" charged; in this last case, a layoff is traceable to an employer but does not increase the employer's tax rate and result in larger payments to the UI trust fund. The second component of the UI payroll tax—a flat rate that is not experience rated and applies to all employers—covers these so-called socialized benefits. This flat-rate component is shown by the minimum rate (τ_{\min}) in Figure 1.

B. State Trust Fund Solvency

Unlike Social Security, UI is not a pay-as-you-go system, at least in principle. Rather, the intent of having each state place its UI payroll taxes in a trust fund with the U.S. Treasury is to “forward-fund” UI so that in a recession funds needed to pay benefits will be available and UI will serve as an automatic stabilizer (Advisory Council on Unemployment Compensation 1995, chapter 5).

The simplest measure of trust fund solvency is the *reserve ratio*—net trust fund reserves as a percentage of total payrolls—which can be calculated for each state individually or for all states aggregated. Figure 2 shows that the aggregate reserve ratio (the darker line) has trended downward over the last 50 years; indeed, in the years preceding the Great Recession, the aggregate reserve ratio was lower than it had been before any other recent recession. Figure 2 also shows a key reason for this decline: the tax revenues collected for UI (as measured by the UI “cost ratio,” or tax contributions as a percentage of total wages) trended down from 1.0–1.3 percent during the 1980s, to 0.5–0.8 percent during the 2000s (the lighter line).

Low and declining reserve ratios have three consequences. First, when unemployment rises in a recession, the trust funds of states with low reserves quickly become insolvent; these states must borrow (usually from the federal government) to pay UI benefits. For example, during and after the Great Recession, the trust funds of 36 states became insolvent, and these states borrowed in excess of \$40 billion from the federal government (Vroman 2011).

Second, states that borrow must ultimately repay the federal loans, usually with interest, which means raising above-normal revenues. As already discussed, in most states, tax rates rise automatically when trust funds become depleted, and states may add surcharges to repay loans.

Further, if loans are not repaid in a timely manner, the federal government assesses penalties through reductions in the FUTA tax credit. These reductions (which are effectively tax increases) may occur in a weak economy and a slack labor market (as they have during the Great Recession), placing a drag on recovery and hampering the ability of UI to act as an automatic stabilizer. A state that forward funds UI by building up adequate trust funds during a period of growth avoids such fiscal drag (Advisory Council on Unemployment Compensation 1995, chapter 5).

To avoid the FUTA tax penalties and the above-market interest rates charged by the Federal government on loans, several states have issued bonds in the private market and repaid their federal loans. Idaho, Illinois, Michigan, and Texas have all taken this approach. Although issuing private debt does not reduce a state's indebtedness, it may reduce the cost of servicing that debt, and it makes sense as a strategy to avoid the federal government's penalty charges on loans that are not quickly repaid.

A third consequence of insolvent state UI trust funds has been reductions in benefit amounts and maximum durations, reducing UI payouts and allowing UI trust funds to be replenished more quickly. For example, since 2009, eight states have reduced weekly benefit amounts or shortened the duration of benefits to less than 26 weeks to limit UI payroll tax increases and reduce the burden of repaying their loans (Vroman 2011; Lancaster 2013). These measures do reduce the cost of UI, but they also reduce the effectiveness of the UI program and its consumption-smoothing benefits.

III. ORIGINS OF THE CURRENT PROBLEM

The scale of state UI trust fund insolvency following the Great Recession reflected the combined effects of three factors—low pre-recession trust fund reserves, the unusual depth and duration of the recession, and the timing of the downturn. The combination of these factors could be characterized as a perfect storm in their effects on UI trust funds.

A. Low Pre-Recession Reserves

Figure 2 shows that the reserve ratio consistently exceeded 2.0 percent of payroll before 1973, but it has never reached 2.0 percent since. Three early periods of economic recovery were accompanied by large-scale replenishment of trust fund reserves (1961–1969, 1976–1979, and 1983–1989). Notably, between 1983 and 1989, the reserve ratio increased from –0.47 percent to 1.92 percent. Later recoveries have had much smaller increases in reserves. As a result, the reserve ratio was 0.79 percent of payroll in December 2007, the lowest ever for a pre-recession year.

An alternative measure of UI trust fund adequacy is the reserve ratio multiple (also called the high cost multiple), which is a ratio of two ratios. The numerator is the reserve ratio—reserves as percentage of payroll—the series shown in Figure 2. The denominator is the highest previous annual benefit payout rate, also expressed as a percentage of payroll. The Advisory Council on Unemployment Compensation (1995, chapter 5), among other groups, suggested that a pre-recession reserve ratio multiple of 1.5 (representing 18 months of benefits under very adverse conditions) should be considered adequate. The reserve ratio multiple was 2.22 percent in 1975, but it trended down over the following four decades, so that at the end of 2007 it was 0.36. Although aggregate net reserves totaled \$38.2 billion at the end of 2007, the associated reserve

ratio multiple of only 0.36 meant that the reserves represented only 4.3 months of benefits when paid at the highest-ever rate. The downward trend of trust fund reserves since the mid 1980s meant that state UI programs entered the Great Recession with historically low reserves.

B. The Deep Recession and Slow Recovery

The recession that started in November 2007 was the deepest and longest of the post–World War II period. Between 2007 and 2009, the national unemployment rate doubled from 4.6 percent to 9.3 percent, then increased to 9.6 percent in 2010. Although the unemployment rate had fallen slowly to 7.0 percent by late 2013, the labor market had by no means recovered by that time: the employment/population ratio, which was about 63 percent during 2005–2007, dropped to about 58.5 percent by the end of 2009 and remained close to that level through 2013. Moreover, the mean duration of unemployment reached 29.7 weeks in 2009, 34.7 weeks in 2010, and peaked at 40.7 weeks in 2011. It still exceeded 35 weeks at the end of 2013. Before the Great Recession, mean duration of unemployment had been as high as 20.0 weeks just once, in 1983.

The Great Recession, with its high unemployment and unusually long unemployment spells, caused a large and rapid increase in UI benefit payments, depleting state UI reserves and requiring most states to borrow from the federal government to cover benefits. Table 1 summarizes annual unemployment and UI benefits from 2007 to 2012, showing separately regular state benefits, federal emergency benefits (known as EUC08), federal-state extended benefits (the “standby” program that is intended to activate automatically in a slack labor market), and federal additional benefits. This last category resulted from a temporary program that added \$25 per week to the benefits paid to all UI recipients during most of 2009 and 2010.

During 2009 and 2010, total UI benefits (including federal emergency benefits paid to the long-term unemployed) were four times total benefits of 2007, and total benefits during 2011 were three times the 2007 total. All four payment types shown in the table contributed to these increases. During 2010 and 2011, payments from the two extended benefit programs exceeded regular UI benefits for the first time in the history of programs, which date back to 1958.

In addition to high benefit pay-outs, the slow recovery and low employment growth have led to reduced UI payroll tax revenues since 2008. In the decade before the recession, UI-covered employment grew at an annual average rate of 1.1 percent. If covered employment had grown by 1.0 percent per year after 2007, it would have reached 113.3 million in 2010, but actual covered employment was 103.4 million in 2012 (the latest year for which UI-covered employment data are available), a gap of nearly 10 percent. The Hamilton Project has estimated that, even if employment were to grow at the highest rate of the 2000s, this “jobs gap,” would persist until mid 2019 (http://www.hamiltonproject.org/jobs_gap/). Vroman (2011) estimated that the depressing effect on UI tax revenue during 2009, 2010, and 2011 averaged more than \$3.0 billion per year.

C. Timing of the Downturn

A third factor contributing to insolvency is that most states decide which of several UI payroll tax schedules to use for the upcoming calendar year based on trust fund reserves as of June 30. Net reserves on June 30 are usually similar to reserves at the end of the year, but this was not the case in 2008. Because UI payouts increased sharply during the second half of 2008 (roughly \$10 billion more than in the second half of 2007), the end-of-year balance in 2008 was \$10.7 billion lower than it had been six months earlier (\$29.0 versus \$39.7 billion). Thus,

employers in most states were taxed at relatively low rates during 2009 because very little of the late-2008 surge in benefits entered the calculations determining their 2009 tax rates (Vroman 2011).

IV. RESTORING TRUST FUND SOLVENCY

A. The Taxable Wage Base

The most widely discussed way to improve the UI system's finances is to increase the payroll tax base and index it to some measure of earnings (Woodbury and Simms 2011, 21–33). This could be done by states individually, or by Congressional action to increase and index the federal taxable wage base.

Increasing and indexing the taxable wage base is central to the long-term health of financing UI for two reasons. First, if earnings increase over time, then tax revenues must increase in proportion to earnings to fund benefits with a 50 percent replacement rate (unless the unemployment rate were to show a long-term downward trend, which it has not). Indexing the tax base to wage levels is the most direct way to accomplish this. Second, Vroman (2011) finds a high correlation between indexing the tax base and trust fund solvency: only 6 of the 16 state UI programs that indexed had to borrow from the federal government during the Great Recession, whereas 29 of the 35 that did not index needed to borrow.

Since the mid 1980s, 16 states have set the taxable wage base as a specified percentage of the state average annual wage. The percentages range from 50 percent (in North Carolina and Oklahoma) to 100 percent (in Hawaii and Idaho). The importance of automating the process of increasing the tax base stems from states' reluctance to enact increases except during financial crises. Figure 3 illustrates the situation using data from 1970 to 2012. During these years, the

federal UI tax base increased from \$3,000 in 1970 to \$7,000 in 1983, where it has remained since. The figure shows the simple average of the taxable wage base for the 16 states that index and for the 35 that do not. The average tax base for the indexed states was \$28,700. In contrast, the average for the 35 in 2012 was \$10,682, less than \$4,000 above the \$7,000 federal tax base.

Because states that index their wage base have higher ratios of the taxable wages to average wages, they also have higher reserve ratio multiples than states that do not index. On the eve of the Great Recession in December 2007, the simple mean of the average reserve ratio multiple for indexing states was 0.83, whereas it was 0.41 for states that do not index. As already noted, indexing states were far less likely to require U.S. Treasury loans during the Great Recession than were non-indexing states. This link between indexing and long-run state trust fund solvency is too obvious to overlook.

B. Tax Rates and Experience Rating

An alternative to raising the taxable wage base would be to increase tax rates; however, this alternative has received little attention, both because the federal government has little leverage over tax rates and because raising rates on an ever-shrinking base would not solve the UI system's long-term funding problems. Rather, most discussions of UI payroll tax rates have focussed on the degree to which they are experience rated.

All but three small states use either a benefit ratio or a reserve ratio formula to translate information on benefit charges into an employer's tax rate. Under the benefit ratio (BR) approach, benefits charged to the employer during the past three to five years (*charges*) are divided by the employer's average taxable payroll during the same period (*payroll*):

$$BR = \text{charges} / \text{payroll}$$

The BR then maps into a tax rate. The mapping may be direct, in which case an employer with benefit charges of \$10,000 and average taxable payroll of \$1,000,000 would face a tax rate of 1 percent.

The BR approach is simple and responds quickly to additional layoffs, but it has been criticized for two reasons. First, it appears to reflect a pay-as-you-go approach to financing UI, increasing an employer's tax rate only *after* layoffs have occurred, and not reducing the tax rate if an employer avoids layoffs; that is, it punishes "bad" behavior but does not reward "good" behavior. The BR system has also been criticized for having a short memory—that is, it appears to "forgive" an employer's layoffs after three or four years (Advisory Council on Unemployment Compensation 1996).

The main alternative to the BR approach is the reserve ratio (RR) approach, under which each employer has a specific reserve account to which all taxes paid are credited and from which all benefit charges are debited. An employer's RR then equals its reserves divided by average payroll in recent (usually the last three) years:

$$RR = \text{reserves} / \text{payroll}$$

A lower RR maps into a higher tax rate, but the mapping is not nearly as straightforward as with the BR system (see USGAO 2006, appendix II, for an example). The key to the RR system is that it has an infinite memory, so that a firm may build up reserves to the point where it pays the minimum tax rate even if it incurs substantial charges. This cannot occur under the BR system.

Two advantages of the RR approach are that it embodies the idea of forward-funding on which the UI system is nominally based, and it rewards "good" behavior (Advisory Council on Unemployment Compensation 1995). A third feature of the RR approach, the advantages of

which have been debated, is that an employer's tax rate responds slowly (if at all) to increased layoffs, with the result that tax revenues respond slowly when a state's trust fund becomes depleted (Tannenwald and O'Leary 1997). The implication is that employers are less likely to be hampered by tax increases in the early stages of a recovery, but a state's trust fund may be slow to recover following a recession.

1. Incomplete Experience Rating and Tax Equity

As shown in Figure 1, tax rates under both the BR and RR systems are capped at a maximum. The effects of this tax cap on tax equity have been studied extensively, and the empirical evidence suggests that incomplete experience rating leads to subsidization of unstable employers and industries by stable employers and industries, and a reallocation of resources to the unstable industries (see USGAO 2006 for a review). Subsidized employers (and industries) pay less in UI payroll taxes than their laid-off employees receive in benefits, whereas subsidizing employers pay more than their laid-off employees receive.

For example, Anderson and Meyer (1993) examine cross-subsidies by one-digit industry in 22 states during the 1980s and find that construction; manufacturing; mining; and agriculture, forestry, and fisheries are subsidized in most states, whereas finance, insurance, and real estate; trade; and services are usually subsidizers. Using a measure that gives an overall picture of the extent of cross-subsidization in a state over a given period of time—the subsidy/tax ratio—Woodbury (2007) estimates that about one-quarter (23 to 25 percent) of all taxes paid by employers in Missouri and Washington State from the mid 1980s through the mid 1990s were shifted from employers who effectively subsidized the UI system to employers who were subsidized (see the row labeled “Existing” in Table 2).

These estimates of the extent of cross-subsidization suggest some degree of inequity in the financing of UI, so it is also useful to estimate how changing the degree of experience rating would reduce cross-subsidization and affect UI financing more broadly. The most widely discussed way of increasing experience rating is to raise the tax cap. Table 2 shows the estimated effects of raising the cap by 50 percent and 100 percent, based on simulations using employer-level data (again from Missouri and Washington State from the mid 1980s through the mid 1990s). The estimates suggest that raising the payroll tax cap would reduce the subsidy/tax ratio by about 2 percentage points in Missouri, and by 2–3 percentage points in Washington. The results also suggest that, in both states, raising the tax cap would allow the entire tax schedule to shift down significantly without reducing overall revenues (see the $\Delta\tau$ columns): in Missouri, the schedule could shift down by about 11–19 percent, and in Washington by 7–9 percent. Not surprisingly, when employers who place a relatively large burden on the system are required to pay a larger share of the costs, the burden on other employers can be reduced.

2. Other Effects of Experience Rating

Two effects of experience rating on firms' behavior have also been discussed in the literature. First, if experience rating causes employers to reduce layoffs as intended, then incomplete experience rating should cause employers to substitute temporary layoffs for hours reductions when demand is slack (Topel 1984, Deere 1991, Card and Levine 1994). The evidence on this issue is substantial: Card and Levine (1994) estimate that, if UI payroll taxes were fully experience rated, the rate of temporary layoff unemployment would fall by about 50 percent in the trough of a recession and during the lowest demand months of the year. Topel (1990), in his cogent discussion of experience rating policy, has suggested that experience rating

could be increased, and efficiency improved, by uncapping payroll tax schedules, charging interest on negative balances in employers' reserve accounts, and reducing the number of non-charging provisions in states' regulations.

A second behavioral impact of experience rating has also been discussed, but only anecdotal evidence exists to support it: in principle, experience rating increases the employer's stake in UI and gives employers an incentive to monitor the system. This should improve enforcement of UI eligibility requirements and check the cost of the system to a degree that would not occur if the UI system were financed from general revenues and enforced solely by a government bureaucracy. But such a political economy argument has two sides: Vroman (2001) has criticized experience rating because it creates an incentive for employers to unfairly challenge the UI claims of their former employees, so as to prevent increases in their tax rate. It also creates a reason for employers to lobby against relaxed monetary eligibility requirements and more generous benefits. This argument suggests that reducing the role of employers in UI would eliminate an interest group that is perceived to have been effective in reducing the generosity of UI benefits.

V. THE FUTURE OF UI FINANCING

UI policy has been shaped by diverse parties at both the federal and state levels. State UI agencies are at the center of the UI program and are represented by the National Association of State Workforce Agencies (NASWA), which refers to itself as “the collective voice of state agencies on workforce policies and issues” (NASWA 2012). Employers have a financial stake in the system and have been represented by UWC—Strategic Services on Unemployment and Workers’ Compensation, a Washington-based membership organization (<<http://www.UWCstrategy.org/About-Us/Mission-Statement.aspx>>). The so-called federal partner in UI includes the U.S. Congress, the White House, and most directly the Office of UI, the Chief Economist, and regional offices of the USDOL (West and Hildebrand 1997, 548). These groups within the federal government have often held different views about the UI program, complicating matters for the states and employers. In addition, outside parties—worker advocates like the National Employment Law Project (NELP) and researchers in academe and think tanks—have expressed views and performed extensive research on the UI program. The interactions among these groups and parties have created a complex environment for the formation and conduct of policy.

From the standpoint of UI financing, the relationships among employers, the states, and the federal partner have been crucial. In particular, the federal-state “partnership” has led to uncertainty and confusion about where responsibility for an adequate UI system lies (Rubin 1990; O’Leary 2013). Congress has sent mixed signals about its willingness to ensure the viability of the federal-state UI system. On one hand, it has not acted to raise the taxable wage base or improve the UI system’s finances, and it has resisted calls for rigid federal standards on

eligibility and benefits. On the other hand, it has gradually increased the number of federal requirements (Hildebrand 1995–1996), extended benefits to greater lengths than in any previous recession under EUC08, and passed a 2009 legislative package known as “UI Modernization,” which gave states financial incentives to broaden eligibility for benefits. All these actions suggest a greater Congressional will to assert authority over UI.

For their part, most states (especially large ones) appear to be pulling back from a commitment to UI. The long-term decline in average UI tax rates (Figure 2) and states’ reluctance to increase the UI taxable wage base are clear evidence of this, and the most obvious outcome of this weakened support has been the insolvency of most states’ UI trust funds. In short, a distaste for payroll taxes and concerns about the work disincentives associated with UI—the unemployment created by UI, as Feldstein (1976) called it—seem to dominate the at the state level.

In addition, several states (Arkansas, Florida, Georgia, Michigan, Missouri, North Carolina, and South Carolina) have reduced the maximum duration of regular benefits to less than 26 weeks since 2010. These actions can be seen at least partly as a response to Congress’s apparent willingness to step in and finance emergency extended benefits whenever the labor market is weak. In effect, the states may be reading Congressional action as relieving them of the need to finance UI benefits for 26 weeks, which has been the norm since the early 1960s (Blaustein 1993, 302–306).

Whether this divergence between federal and state policy will lead to abandonment of the federal-state arrangement, and its replacement by a national UI system, is an open question. As Rubin (1990, 219) pointed out, “There are no ‘states’ rights’ limitations on the authority of

Congress to impose whatever provisions it wishes, or to substitute a national program for the present hybrid.” Indeed, a national system has had advocates from the start and would have several advantages—a pooled national trust fund (hence, broader sharing of unemployment risk), uniform coverage, consistent treatment of employers with multi-state operations, and potentially more efficient administration (West and Hildebrand 1997, 546–547).

Nevertheless, the federal-state UI system has proven remarkably durable and has its own advantages—decentralized policy authority and presumed greater accountability of state administrators to a state’s needs, a system that is potentially better suited to a state’s economic conditions, and the possibility for state-level experimentation. Moreover, the vested interests of the states in their systems and the near-certain aversion of Congress to another large federal bureaucracy would seem to make nationalization an unlikely prospect. However financially troubled the existing federal-state UI system may be, it seems likely to continue intact.

REFERENCES

- Advisory Council on Unemployment Compensation, 1995. *Unemployment Insurance in the United States: Benefits, Financing, and Coverage*. Advisory Council on Unemployment Compensation, Washington, DC.
- Advisory Council on Unemployment Compensation, 1996. *Defining State and Federal Roles in Unemployment Insurance*. Advisory Council on Unemployment Compensation, Washington, DC.
- Anderson, Patricia M., and Bruce D. Meyer, 1993. "The Unemployment Insurance Payroll Tax and Interindustry and Interfirm Subsidies." In James M. Poterba (ed.), *Tax Policy and the Economy*, volume 7, 111–144. MIT Press, Cambridge, MA.
- Blaustein, Saul J., 1993. *Unemployment Insurance in the United States: The First Half-Century*. W.E. Upjohn Institute, Kalamazoo, MI.
- Card, David, and Phillip B. Levine, 1994. "Unemployment Insurance Taxes and the Cyclical and Seasonal Properties of Unemployment." *Journal of Public Economics* 53 (January), 1–29.
- Deere, Donald R., 1991. "Unemployment Insurance and Employment." *Journal of Labor Economics* 9 (October), 307–324.
- Feldstein, Martin, 1976. "The Unemployment Caused by Unemployment Insurance." In *Proceedings of the Twenty-Eighth Annual Winter Meeting*, 225–233. Industrial Relations Research Association, Madison, WI.
- Hildebrand, Gerard, 1995–1996. "Federal Law Requirements for the Federal-State Unemployment Compensation System: Interpretation and Application." *University of Michigan Journal of Law Reform* 29 (1&2), 527–584.
- Lancaster, Loryn, 2013. "Changes in Federal and State Unemployment Insurance Legislation in 2012." *Monthly Labor Review* (March), 44–67.
- National Association of State Workforce Agencies (NASWA), 2012. *A History of the National Association of State Workforce Agencies*. NASWA, Washington, DC.
- O’Leary, Christopher J., 2013. "A Changing Federal-State Balance in Unemployment Insurance?" *Employment Research* 20 (January), 1–4.
- Rubin, Murray, 1983. *Federal-State Relations in Unemployment Insurance: A Balance of Power*. W.E. Upjohn Institute, Kalamazoo, MI.

Rubin, Murray, 1990. "Federal-State Relations in Unemployment Insurance." In Hansen, W. Lee, and James F. Byers (eds.), *Unemployment Insurance: The Second Half-Century*, 207–243. University of Wisconsin Press, Madison, WI.

Tannenwald, Robert, and Christopher J. O'Leary, 1997. "Unemployment Insurance In New England: Background and Issues." *New England Economic Review* (May/June), 3–22.

Topel, Robert H., 1984. "Experience Rating of Unemployment Insurance and the Incidence of Unemployment." *Journal of Law and Economics* 27 (April), 61-90.

Topel, Robert H., 1990. "Financing Unemployment Insurance: History, Incentives, and Reform." In Hansen, W. Lee, and James F. Byers (eds.), *Unemployment Insurance: The Second Half-Century*, 108–135. University of Wisconsin Press, Madison, WI.

U.S. Department of Labor (USDOL), 2013. *Comparison of State Unemployment Insurance Laws 2013*. Employment and Training Administration, Office of Unemployment Insurance, Washington, DC.

U.S. Government Accountability Office (USGAO), 2006. *Unemployment Insurance: States' Tax Financing Systems Allow Costs to Be Shared among Industries*. GAO-06-769. USGAO, Washington, DC.

Vroman, Wayne, 2001. "Low Benefit Reciprocity in State Unemployment Insurance Programs." Manuscript, The Urban Institute, Washington, DC.

Vroman, Wayne, 2011. "Unemployment Insurance and the Great Recession." Unemployment and Recovery Project Working Paper 2. The Urban Institute, Washington, DC.

West, Thomas, and Gerard Hildebrand. 1997. "Federal-State Relations." In O'Leary, Christopher J., and Stephen A. Wandner (eds.), *Unemployment Insurance in the United States: Analysis of Policy Issues*, 545-598. W.E. Upjohn Institute, Kalamazoo, MI.

Woodbury, Stephen A., 2007. "Reducing Cross-subsidies under the Unemployment Insurance Payroll Tax." Manuscript, W.E. Upjohn Institute, Kalamazoo, MI.

Woodbury, Stephen A., and Margaret C. Simms, 2011. "Strengthening Unemployment Insurance for the 21st Century: A Roundtable Report." National Academy of Social Insurance, Washington, DC. <<http://www.nasi.org/research/2011/report-strengthening-unemployment-insurance-21st-century-rou>>

Table 1
Unemployment and Annual UI Benefits, 2007–2012

	Number Unemployed (Million)	Unemployment Benefits (\$Billion)				Total
		Regular State	Emergency Extended	Federal-State Extended	Federal Additional	
2007	7.1	32.4	na	na	na	32.4
2008	8.9	43.1	7.8	na	na	51.0
2009	14.3	78.8	42.3	6.0	9.5	136.6
2010	14.8	58.6	66.0	9.2	10.3	144.0
2011	13.7	47.2	47.2	10.0	na	104.4
2012	12.5	43.1	35.7	2.9	na	76.5

Notes: “Regular State” refers to benefits from the state-financed programs that usually provide up to 26 weeks of benefits. “Emergency Extended” refers to the extended benefits financed by the federal government under EUC08. “Federal-State Extended” refers to extended benefits (usually financed jointly by the states and the federal government) that are intended to activate automatically in a recession. “Federal Additional” refers to the temporary program under the American Recovery and Reinvestment Act of 2009 that added \$25 per week to the UI benefit amount paid to UI recipients during 2009 and 2010.

Sources: Number unemployed from Bureau of Labor Statistics <www.bls.gov/cps/>; unemployment benefits from U.S. Department of Labor, Office of Unemployment Insurance, Unemployment Insurance Program Statistics <<http://www.oui.doleta.gov/unemploy/finance.asp>>.

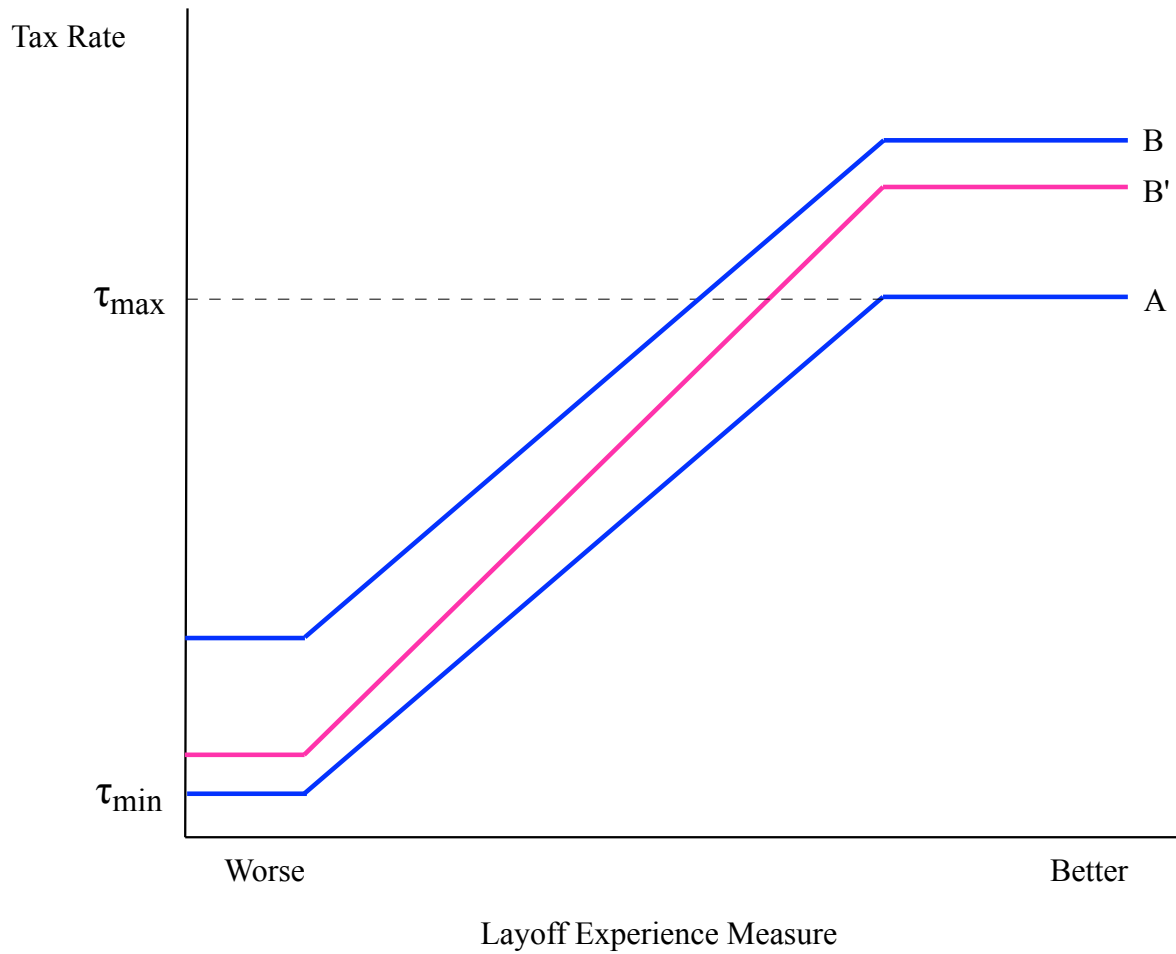
Table 2
Subsidy/tax ratios (S/T) and tax schedule shifts ($\Delta\tau$) under existing UI payroll tax systems and specified changes, Missouri (1985-95) and Washington (1991-1995)

Tax system	Missouri		Washington	
	S/T	$\Delta\tau^a$	S/T	$\Delta\tau^a$
Existing	23.2	0.000	25.1	0.000
Maximum tax rate increase:				
50 percent	21.1	-0.114	23.0	-0.066
100 percent	21.0	-0.191	22.3	-0.090
no cap	23.1	-0.332	21.9	-0.105
Sample size	12,322		14,777	
Population N	47,882		58,401	

Source: Woodbury (2007). Simulations assume no change in employers' layoff behavior resulting from changes in the payroll tax system, are based on balanced samples of employers active in all years (11 years in Missouri and 5 in Washington), and are normalized so that aggregate payroll tax revenues in a state equal aggregate benefit charges in the state over the years in question. Figures are weighted to reflect the population of employers active in all years.

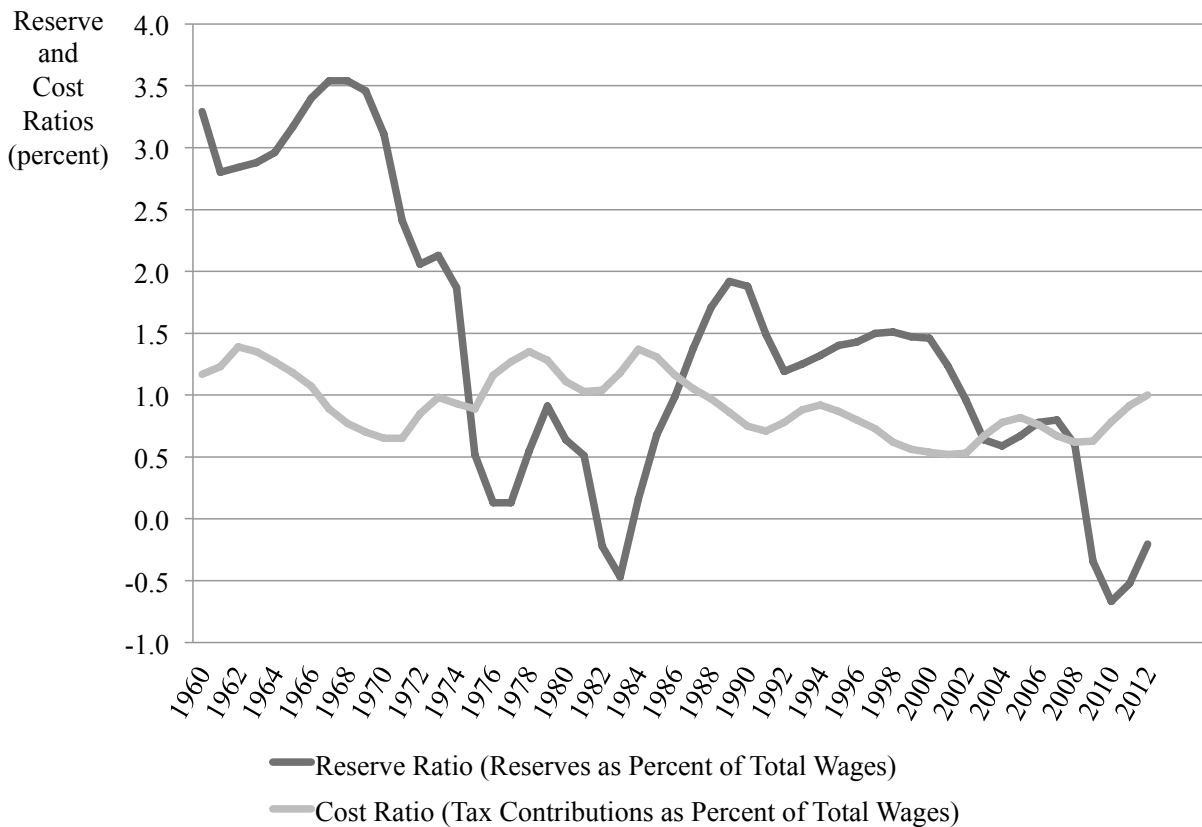
a. $\Delta\tau$ = percentage-point shift in the payroll tax schedule (relative to the existing system) consistent with equality between payroll tax contributions and benefit charges.

Figure 1
Illustrative UI Payroll Tax Schedules



Notes: Schedule A is a baseline tax schedule illustrating experience rating and the maximum tax rate. Schedules B and B' illustrate alternative schedules that a state might implement if its trust fund became depleted.

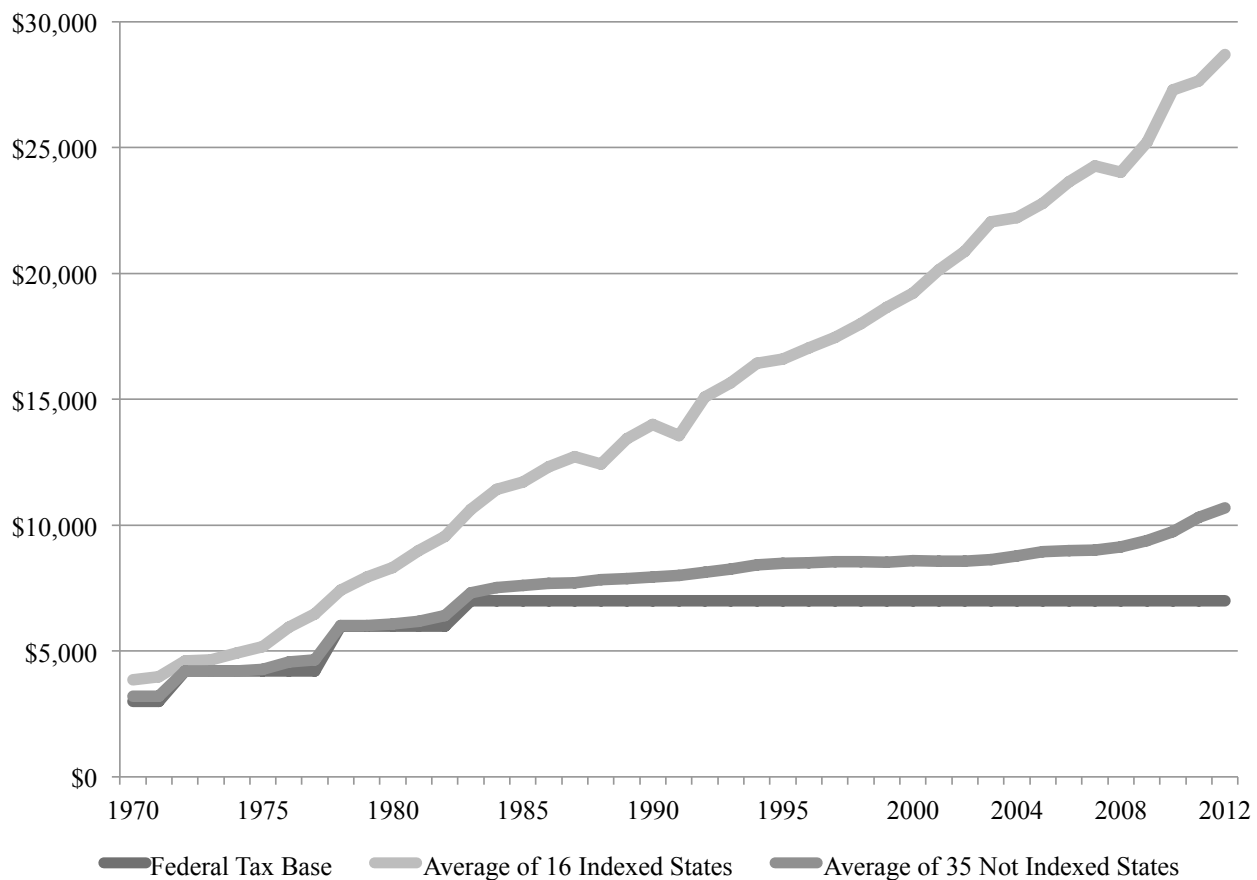
Figure 2
Aggregate UI Reserve and Cost Ratios, 1960–2012



Notes: The aggregate reserve ratio is the sum of all states’ year-end trust fund reserves as a percentage of all states’ total payrolls in that year. The aggregate cost ratio is the sum of all states’ regular UI tax contributions as a percentage of all states’ total payrolls (both over the same year).

Source: U.S. Department of Labor, Employment and Training Administration, Office of Unemployment Insurance, ET Financial Data Handbook 394 Report. <<http://workforcesecurity.doleta.gov/unemploy/hb394.asp>>

Figure 3
Federal and State UI Tax Bases, 1970–2012



Source: U.S. Department of Labor, Employment and Training Administration, Office of Unemployment Insurance, ET Financial Data Handbook 394 Report. <<http://workforcesecurity.doleta.gov/unemploy/hb394.asp>>