

Research Report



When the Tide Goes Out: Unemployment Insurance Trust Funds and the Great Recession Lessons for and from New England

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Lessons for and from New England

Introduction

The unemployment insurance (UI) program in the United States is a federal-state program that was established by the Social Security Act of 1935. Its primary objectives are: (1) to provide temporary, partial compensation for the lost earnings of individuals who become unemployed through no fault of their own and (2) to serve as a stabilizer during economic downturns by injecting additional resources into the economy in the form of benefit payments that are likely to be spent.

Each state, as well as the District of Columbia, Puerto Rico, and the Virgin Islands (collectively referred to as “the states”), operates its own UI program within federal guidelines. In these programs employers pay state taxes, which are in turn deposited in trust fund accounts maintained by the federal government. Monies in the accounts are then used to pay benefits to unemployed workers. Employers also pay a separate federal UI tax, which is used to support program administration, to pay for extended benefits in times of high unemployment, and to provide loans to states that have exhausted their trust funds.

Between the onset of the Great Recession in 2007:Q4, and 2011:Q2, at least 35 states borrowed from the federal government in order to continue paying UI benefits after depleting their trust funds. Among New England states, only Maine’s trust fund remained solvent throughout this period. By mid-year 2011, 30 states, including Connecticut, Rhode Island, and Vermont, continued to carry outstanding loan balances totaling a combined \$42 billion.¹ With principal and interest payments on these loans now

coming due, many states are raising taxes on employers, potentially slowing the economic recovery.

This paper examines why some state UI programs became insolvent and borrowed from the federal government during the Great Recession or its aftermath while others did not. It places special emphasis on the New England states, examining the solvency of their trust funds over time and reforms they have proposed or enacted. The paper draws on lessons from the states to identify options for policymakers that may help to strengthen UI trust fund solvency in future downturns.

Summary of main findings

There is a strong relationship between a state’s borrowing activity in or after the Great Recession and the financial status of its trust fund at the beginning of the downturn. When the tide of economic growth receded in the Great Recession, it became clear that some states were ill prepared for even a lesser downturn. The states that borrowed most heavily also faced higher unemployment, on average, than other states. All borrowing states had, on average, lower ratios of taxable to total wages than states without loans, but did not necessarily have more generous UI benefits.

Erosion of the taxable wage base—that is, the portion of an employee’s wages that is subject to UI taxes—appears to have been an important contributing factor to the solvency issues faced by many states, including those in New England. When the taxable wage base does not grow with average wages it can lead to a structural imbalance between taxes flowing into the trust fund and benefits flowing

out, as the latter are based on unemployed workers' previous earnings.

Examples from New England also illustrate how unbalanced reforms—that is, those that cut taxes without reducing benefits or those that increase benefits without also raising taxes—as well as low trust fund targets can lead to solvency problems.

Maine's ability to weather the Great Recession may be credited to reforms undertaken in the late 1990s, when the economy was performing well. The state raised its taxable wage base and introduced a new method of assigning employer tax rates that spreads contributions more evenly across employers and gives the state more control over the amount of revenue flowing into its trust fund in a given year.

These findings suggest that to strengthen UI trust fund solvency and reduce the risk of borrowing from the federal government in future downturns, states should consider: (1) increasing and indexing the taxable wage base; (2) avoiding unbalanced reforms; and (3) re-examining employer tax rates and trust fund targets.

Background on the UI Program

A brief summary of the mechanics of the UI program is in order. While states administer their UI programs within federal guidelines, they have flexibility in determining who receives benefits and how those benefits are calculated and financed. That said, most states adhere to some common principles, outlined below. Tables 1 and 2 summarize some of the key provisions of the six New England UI programs as of July 2011.

UI eligibility and benefits

To be eligible for UI benefits, an individual must be able to demonstrate an attachment to the labor market. States thus typically require some minimum level of earnings during a defined base period. This is known as monetary eligibility. States also impose non-monetary eligibility criteria. In most cases, for example, an individual must have lost his or her job through no fault of his or her own and must be actively seeking new employment.²

Those who quit their jobs without good cause or who are fired for misconduct are typically ineligible for benefits (or may be eligible only after a disqualification period), as are those not actively seeking new work.

For those who meet a state's eligibility criteria, weekly benefits are generally based on a percentage of an individual's earnings over a recent previous period, subject to a state maximum. As of July 2011, maximum weekly benefit amounts among the 53 state UI programs ranged from \$133 in Puerto Rico to \$625 in Massachusetts.³ Maine offered the region's lowest maximum weekly benefit at \$366. Some states, including Connecticut, Maine, Massachusetts, and Rhode Island, also offer additional benefits for unemployed individuals with dependents.

Most states will pay unemployment benefits for up to 26 weeks, although several states, including Massachusetts, have higher maximum durations.⁴ The benefits subject to these maximum durations are known as regular program benefits. During times of high unemployment additional weeks of benefits may be available beyond the normal states' maximums. Funding for extended benefits is typically shared by states and the federal government, although the federal government temporarily assumed full funding of the program under the 2009 American Recovery and Reinvestment Act (ARRA).⁵

UI financing

The majority of states, including all of the New England states, fund UI benefits solely by a tax on employers, commonly known as the SUTA (State Unemployment Tax Act).⁶ States have flexibility in establishing the tax base faced by employers and the tax rates paid on that base. Employers are taxed on each employee's wages up to a limit known as the taxable wage base. In 2011, state taxable wage bases ranged from \$7,000 to over \$30,000 nationwide. Among the New England states, bases ranged from \$12,000 in Maine and New Hampshire to \$19,000 in Rhode Island. Some states index their taxable wage bases so that these bases change automatically with changes in the state's average annual wage.

Table 1. Selected eligibility and benefits characteristics of New England UI programs as of July 2011

	Connecticut	Maine	Massachusetts	New Hampshire	Rhode Island	Vermont
(1) Base period (BP)	(1) First four of the last five completed calendar quarters; or (2) last four completed quarters	(1) First four of the last five completed calendar quarters; or (2) last four completed quarters	(1) Four completed calendar quarters preceding the first day of the benefit year; or (2) last three completed quarters, plus any weeks of work in quarter in which claim is filed	(1) First four of the last five completed calendar quarters; or (2) last four completed quarters	(1) First four of the last five completed calendar quarters; or (2) last four completed quarters	(1) First four of the last five completed calendar quarters; or (2) last four quarters; or (3) last three quarters plus any weeks of work in quarter in which claim is filed
(2) Earnings needed in BP to qualify	40 x WBA in BP	2 x AWW in each of two different quarters and total wages of 6 x AWW in BP	30 x WBA in BP and \$3,500 minimum in BP	\$1,400 in each of two quarters	(1) Greater than \$8,880 in BP; or (2) Greater than \$1,480 in at least one quarter and BP total greater than 1.5 x HQ and \$2,960	Greater than \$2,203 in HQ and greater than \$881 in total of remaining quarters
(3) Weekly benefit amount (WBA) formula	1/26 of the average of the two highest quarters	1/22 of the average of the two highest quarters	50 percent of AWW	1 to 1.1 percent of annual wages	4.62 percent of highest quarter	Sum of the two highest quarters divided by 45
(4) Maximum WBA, no dependents (\$)	555	366	625	427	566	425
(5) Maximum WBA, with dependents (\$)	630	549	937	427	707	425
(6) Maximum duration (weeks)	26	26	30	26	26	26

Source: Department of Labor Employment and Training Administration, "Significant Provisions of State Unemployment Insurance Laws Effective July 2011," and "Comparison of State Unemployment Laws, 2011." Supplemented by state sources.

Note: AWW = average weekly wage; HQ = highest-earning quarter; WBA = weekly benefit amount.

The tax rate that applies to the taxable wage base in any given state will vary by employer. Generally speaking, an employer's tax rate is determined on an annual basis and is based on two factors: (1) the employer's experience with the UI system and (2) the overall financial health of the state's UI program.

Based on the first factor, firms with a history of many layoffs will tend to pay higher rates than employers with fewer layoffs. This is known as the experience rating principle. Most states use one of two experience rating methods: the reserve ratio method or the benefit ratio method. The reserve ratio method considers an employer's entire history of contributions paid into the system and benefits paid to former employees. The benefit ratio method considers only the benefits paid to former employees over a shorter defined period, and not contributions into the system.

Once experience ratings are established, employers are assigned tax rates by one of two ranking methods, the array method or the fixed interval method. The array method uses a relative ranking system by which employers are assigned tax rates based on how their experience with unemployment compares with that of other employers. Under the fixed interval method, employers are assigned a tax rate associated with the range within which their experience rating measure falls. With this approach, an employer's absolute, not relative, experience rating matters.

The second factor influencing an employer's total tax rate is the overall financial health of the state's UI program. Typically, if a state's trust fund is facing insolvency, all employers will pay a higher rate than they would if the fund were in better shape. States often have automatic triggers that determine

Table 2. Selected financing characteristics of New England UI programs as of July 2011

	Connecticut	Maine	Massachusetts	New Hampshire	Rhode Island	Vermont
(1) Taxable wage base (\$)	15,000	12,000	14,000	12,000	19,000	13,000
(2) Minimum and maximum tax rates as percent of taxable wage base	1.9–6.8	0.86–7.95	1.26–12.27	1.1–9.5	1.69–9.79	1.3–8.4
(3) Minimum and maximum contributions per worker (\$)	285–1,020	103–954	176–1,718	132–1,140	321–1,860	169–1,092
(4) Experience rating method	Benefit ratio	Reserve ratio	Reserve ratio	Reserve ratio	Reserve ratio	Benefit ratio
(5) Employer ranking method	Fixed interval	Array	Fixed interval	Fixed interval	Fixed interval	Array
(6) Solvency adjustment mechanism	Add-on tax	Schedule	Schedule and add-on tax	Add-on tax	Schedule	Schedule

Source: Department of Labor Employment and Training Administration, "Significant Provisions of State Unemployment Insurance Laws Effective July 2011," and "Comparison of State Unemployment Laws, 2011." Supplemented by state sources.

Note: New Hampshire's minimum and maximum tax rates include a 1.0 percent emergency power surcharge for all employers and a 1.5 percent inverse rate surcharge for certain employers. Without these surcharges, rates in New Hampshire would range from 0.1 to 7.0 percent of the taxable wage base.

how tax rates will be adjusted in response to the system's overall solvency. Many states rely on a series of tax schedules with lower reserves triggering schedules with higher rates. Other states have supplemental rates that are added to employers' experience-driven rates.

The preceding discussion focuses on *state* UI taxes. As mentioned earlier, employers also pay a *federal* UI tax known as the FUTA, so named after the act creating the tax, the Federal Unemployment Tax Act. The FUTA currently has a statutory rate of 6.0 percent; however, employers can receive a credit for up to 5.4 percent, as long as their states conform to certain federal criteria. Thus, in normal times, most employers face an effective tax rate of 0.6 percent.⁷ Applying this rate to the federal taxable wage base of \$7,000 yields a federal tax of up to \$42 per employee per year.

UI accounting

As mentioned, the federal government maintains a trust fund account for each state UI program. Employer tax payments flow into the trust fund, where they earn interest. Benefit payments to unemployed workers flow out of the trust fund. The cumulative difference between a trust fund's inflows (plus interest earned) and its outflows represents the fund's balance or reserves. If a state UI program depletes its reserves and cannot cover current benefit payments with current tax

receipts, it is said to be insolvent.

FUTA tax receipts are divided among three accounts. Funds in these accounts are used to support UI administration, to pay for federally funded extended benefits, and to provide loans to states whose programs become insolvent.⁸ There are statutory maximums for how much each federal account can hold in reserves, and rules for how excess funds can be shifted among the accounts. If all three accounts hit their maximum reserves, the excess funds may be returned to states in what are known as Reed Act Distributions.⁹ If the reserves in the federal accounts are not sufficient to fund their intended activities, the UI program can borrow funds from the U.S. Treasury. Given the magnitude of state borrowing in the Great Recession, the program has had to borrow funds from the Treasury since FY 2009.¹⁰

By design, UI trust fund flows are not even over time (See Figure 1). In times of high unemployment, flows out of the trust fund will increase as more people lose their jobs and become eligible for unemployment benefits. At the same time, flows into the trust fund will decrease as taxes are being paid on fewer employees. Thus, in recessionary times, states typically begin to draw down their reserves. After a recession ends and employment picks up, outflows will typically decrease as there are fewer unemployed

persons receiving benefits. At the same time, inflows will increase—both because employers are paying taxes on more workers' earnings and because they tend to face higher rates as a result of experience rating and any automatic solvency adjustments. These coinciding phenomena provide states with the opportunity to replenish their reserves before the next downturn. This concept is known as forward-funding.

Flows into and out of a state's trust fund are also likely to be uneven over the course of any given year. Contributions tend to be uneven due to the timing of tax payments, whereas benefits may be inconsistent due to seasonal patterns in unemployment. These variations in flows can lead some state trust funds to experience temporary cash shortages if they lack sufficient reserves.

Borrowing from the federal government

States are required by law to continue paying UI benefits even if their trust funds become insolvent. In most cases, if a state's trust fund reserves are not sufficient to pay benefits it will borrow funds from the federal

government. Typically, a state is allowed to borrow funds on an interest-free basis so long as: (1) it repays the loans by September 30th of the same year and (2) it takes out no additional loans in the remainder of the calendar year. Loans that meet these criteria are known as "cash-flow" loans.¹¹

If a state's borrowing does not meet the above criteria, it may be subject to interest charges. By law, the money in a state's trust fund may not be used to pay interest on federal loans. Thus, states facing interest charges typically rely on one of three options: (1) levying a special tax or assessment on employers; (2) appropriating or transferring money from another governmental fund (such as the general fund); or (3) issuing bonds.¹² Employers in states that do not make their interest payments on time may face increased FUTA taxes, and the states themselves may lose federal funding for UI administration.¹³

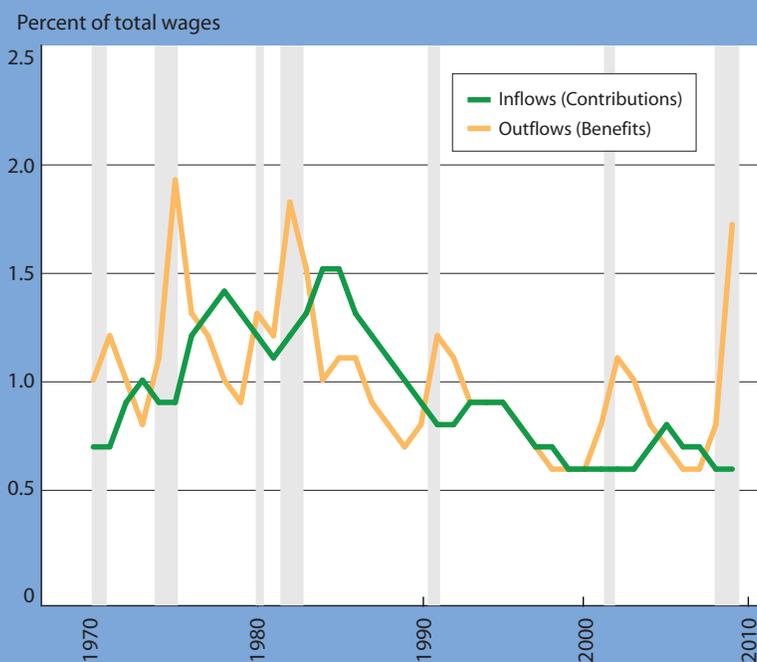
The UI program also uses the FUTA as a built-in mechanism for ensuring that states repay the principal on federal loans in a timely manner. If a state carries a loan balance for two years or more, employers must

pay higher effective rates on the FUTA tax. Specifically, employers will experience a reduction in the FUTA tax credits applied to the statutory rate equal to 0.3 percent (up to \$21 per employee) for each additional year the state carries a balance.¹⁴

UI Solvency and the Great Recession

During the Great Recession and its aftermath, at least 35 state UI programs (66 percent of all programs) depleted their UI trust funds, borrowing funds from the federal government in at least one quarter between

Figure 1. Trust fund flows relative to total wages, average of all state UI programs, 1970–2009



Source: Department of Labor Employment and Training Administration.
 Note: Shaded areas approximate official recessions, as set by the National Bureau of Economic Research.

2007:Q4 and 2011:Q2.¹⁵ Table 3 summarizes borrowing that occurred in the New England states. Some states, including Massachusetts and New Hampshire, borrowed only intermittently or for only a short period of time. However, most states that resorted to borrowing are still doing so, including Connecticut, Rhode Island, and Vermont. Some states are expected to continue borrowing for years into the future, as labor markets slowly recover.

Given the severe nature of the downturn and the related strain on state UI systems, the federal government waived interest on FUTA loans in 2009 and 2010, as part of ARRA. This waiver ended in 2011, and states with outstanding balances were required to make their first scheduled interest payments by September 30, 2011. Altogether, over \$1 billion in interest charges came due on that date.¹⁶

A survey conducted in the spring of 2011 found that the majority of states facing interest charges planned to finance them through assessments levied on employers.¹⁷ For example, Connecticut employers were required to pay a special assessment in August 2011 equaling roughly \$25 per employee to cover the state's \$30 million interest bill for the year. The state's labor officials have indicated that the special assessment will need to be in place for the next several years to pay

an estimated \$130 million in interest costs.¹⁸ Like Connecticut, Rhode Island is also relying on an employer assessment to fund interest charges, whereas Vermont included a provision for a general fund transfer in its FY 2012 budget to cover 2011 interest expenses.¹⁹

Employers in states that continue to have outstanding balances are also beginning to face FUTA credit reductions, increasing the tax they must pay to the federal government. Reduced FUTA credits were imposed on employers in early-borrowing Michigan in 2009, and in Indiana and South Carolina in 2010. Nineteen additional states were added to the list in 2011, including Connecticut and Rhode Island. Vermont, which did not begin borrowing until 2010, is expected to be subject to increased FUTA taxes in 2012.²⁰

Reasons for concern

Should we be concerned if state UI trust funds are depleted during economic downturns? There is clearly an argument to be made against allowing UI trust fund balances to grow too large, as this pulls resources out of the economy that could otherwise be put to productive use.²¹ That said, there are several reasons why states should strive to achieve, and maintain, UI trust fund solvency and avoid borrowing.

Table 3. Borrowing in New England in the Great Recession

	Connecticut	Maine	Massachusetts	New Hampshire	Rhode Island	Vermont
(1) First loan quarter	2009:Q4	NA	2010:Q1	2010:Q1	2009:Q1	2010:Q1
(2) Total loan quarters (2007:Q4–2011:Q2)	7	0	4	2	10	6
(3) Peak loan balance (\$) (2007:Q4–2011:Q2)	810 million	0	387 million	23 million	257 million	78 million
(4) Peak loan balance as percent of total quarterly wages	3.17	0	0.90	0.36	5.54	2.56
(5) Peak loan quarter	2011:Q2	NA	2010:Q3	2010:Q1	2011:Q1	2011:Q2
(6) Outstanding loan balance as of 2011:Q2 (\$)	810 million	0	0	0	222 million	78 million
(7) Plan for interest repayment	Employer tax	NA	NA	NA	Employer tax	General fund transfer
(8) First year for FUTA credit reduction	2011	NA	NA	NA	2011	2012

Source: Department of Labor Employment and Training Administration and individual state sources.

The primary reason for concern about UI trust fund insolvency is that it can negatively impact the stabilizing effects of the program and slow economic recovery. To address their solvency issues, states may be pressured to raise taxes on employers, reduce benefits, or pursue a combination of these measures. Either action could reduce the countercyclical effect of the program by pulling money out of the economy when it is most needed.²² Employers in states that borrow funds from the federal government may also face additional costs, such as special assessments for interest payments and FUTA tax credit reductions to cover the repayment of principal at a time when the economy is not yet back in full swing, potentially slowing recovery.

Another potential downside associated with prolonged borrowing is that interest assessments and FUTA credit reductions tend to affect all employers equally rather than following the experience rating principle. This increases subsidization of employers with the most extensive layoffs, raising questions about the efficiency of the system (See Box 1 for a discussion of efficiency and other criteria against which UI policy may be judged). Certainly some level of subsidization is desirable and necessary in any insurance system; however heavy subsidization can reduce incentives for employers to avoid layoffs.

While it may be easy to recognize the negative implications of prolonged trust fund borrowing, the shortcomings of cash-flow borrowing are less clear. One could argue that this short-term, interest-free borrowing is prudent, as it allows state UI programs to continue to meet their obligations without increasing taxes or reducing benefits. However, there are some potential downsides to states' maintaining reserve levels low enough to necessitate cash-flow borrowing. First, states forgo interest income they could otherwise use to pay UI benefits to claimants. Second, these states may be at greater risk of borrowing and its associated costs in the future when criteria for interest-free loans may be stricter or when the federal government may be unwilling—or unable—to adopt additional measures that reduce the burden on states.

Box 1.

Designing UI tax policy: Is solvency the only goal?

This paper argues that maintaining trust fund solvency should be an important goal for any UI tax system. However, solvency is not necessarily the only factor that policymakers should consider when designing or altering UI tax policies. In a 1997 report, economists Robert Tannenwald and Christopher O'Leary noted at least three other yardsticks by which such policies should be judged:

Economic competitiveness is commonly cited as a rationale for lowering UI taxes, the idea being that lower UI taxes will help a state to attract or retain employers that might otherwise locate elsewhere.

Allocative efficiency or neutrality is promoted when employers are required to pay taxes that reflect the social costs of the unemployment they generate. Experience rating does this to some extent by levying higher tax rates on employers with more extensive histories of layoffs.

Economic stabilization is one of the primary goals of the UI program and relates to the system's ability to inject money into the economy during economic downturns while at the same time keeping taxes low.

Policymakers might also wish to consider how UI tax policy changes promote or detract from other commonly accepted principles of a "good" tax system such as **simplicity** and **transparency**.

Unfortunately, these various goals cannot always be successfully pursued simultaneously. Low taxes may improve competitiveness, but can weaken solvency. A system that heavily taxes employers with a history of many layoffs may be efficient, but could be destabilizing if it results in bankruptcies among these firms. What this means for policymakers is that any efforts to reform UI tax policies will require a careful weighing of competing concerns and, ultimately, some trade-offs.

¹ Robert Tannenwald and Christopher J. O'Leary. 1997. "Unemployment Insurance Policy in New England: Background and Issues." *New England Economic Review*. Available at <http://www.bos.frb.org/economic/neer/neer1997/neer397b.pdf>.

Factors Associated with UI Solvency

To help states avoid federal borrowing in future downturns, it is worth trying to understand why some state trust funds experienced insolvency during or after the Great Recession while others did not. Were borrowing states simply hit harder by the downturn, or were their trust funds in worse condition to begin with? Do the states that retained their

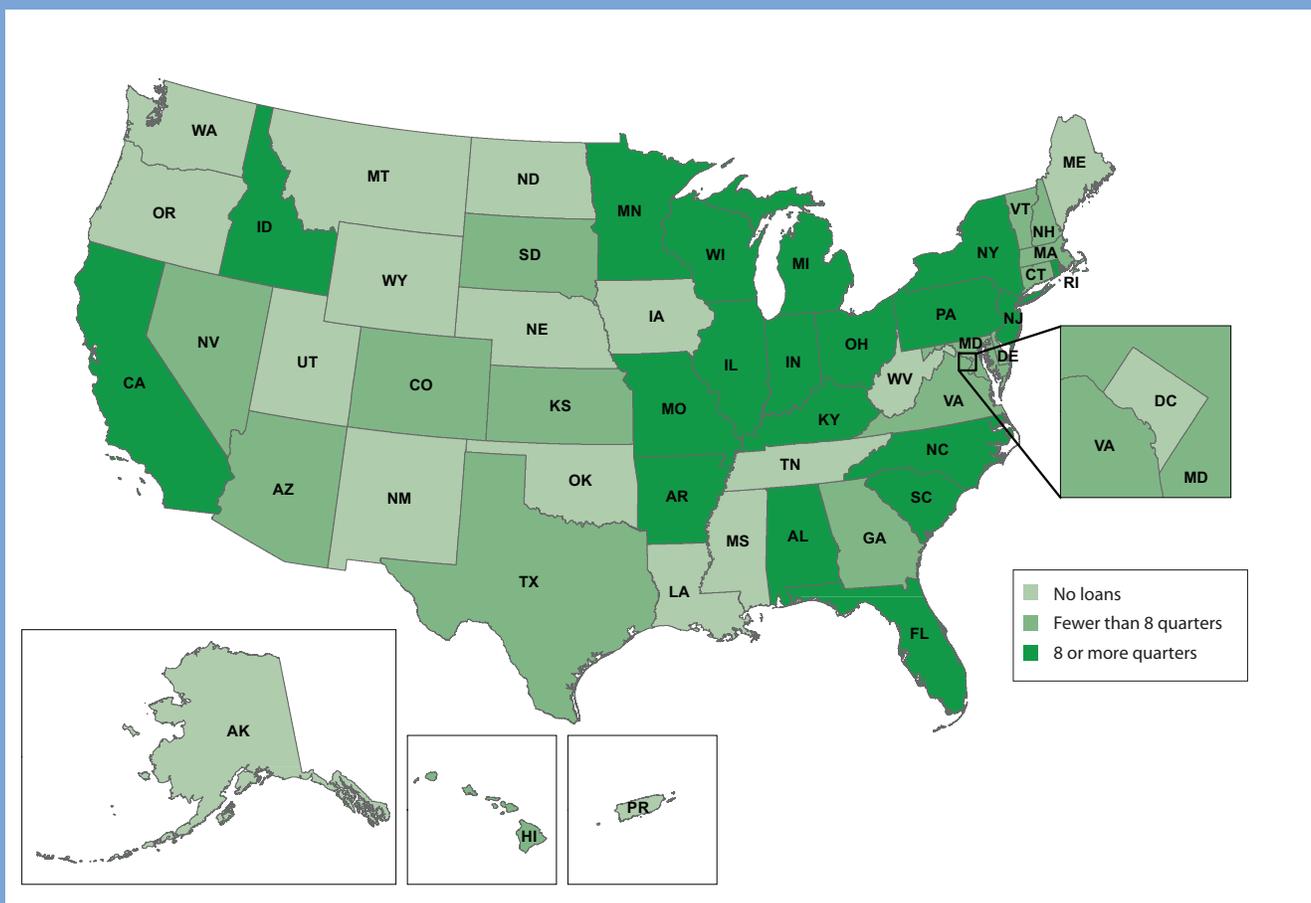
solvency throughout the period tend to provide less generous benefits to UI recipients, or levy higher taxes on employers?

To address these questions we used data from the U.S. Department of Labor’s Employment and Training Administration to classify states into three groups based on the extent of their borrowing: (1) those that borrowed heavily during or after the Great Recession (“heavy borrowers”), (2) those that borrowed less heavily (“light borrowers”), and (3) those that did not borrow.²³ We then compared the groups on several dimensions to see whether there were meaningful differences based on borrowing status.²⁴

Because there is no standard definition for “heavy” or “light” borrowers, we used two different classification systems. The first was

based on the duration of borrowing. Under this classification, we defined heavy borrowers as those that had an outstanding loan balance at the end of eight or more quarters between 2007:Q4 (beginning of the downturn) and 2011:Q2.²⁵ We selected eight quarters as the cut-off, as this interval represents the median borrowing duration among states that took out loans. Light borrowers were those that had outstanding balances in at least one, but fewer than eight quarters during the same period. This group includes states that were late to borrow and some that borrowed only intermittently. Finally, nonborrowers had no outstanding balances at any quarter-ends during the period. Figure 2 shows the geographic distribution of the three groups. With the exception of California and Idaho,

Figure 2. UI trust fund borrowing in or after the Great Recession, by duration of borrowing



Source: Department of Labor Employment and Training Administration.
 Note: Duration measured by the number of quarters between Q4:2007 and Q2:2011 in which state had an outstanding loan balance in peak quarter. The Virgin Islands, not pictured, fall in the heaviest borrowing group.

Table 4. Trust fund solvency heading into the downturn (2007:Q4)

	Reserve ratio	High-cost multiple	Average high-cost multiple
All states	1.36	0.54	0.78
By duration of borrowing			
No loans	2.37*#	0.91*#	1.21*#
Fewer than 8 quarters	1.17+#	0.53+#	0.88+#
8 or more quarters	0.60+*	0.22+*	0.33+*
By magnitude of borrowing			
No loans	2.37*#	0.91*#	1.21*#
Less than 3.3 percent	1.06+	0.50+#	0.83+#
3.3 percent or greater	0.64+	0.22+*	0.32+*
By New England state			
Regional average	1.55	0.51	0.90
Connecticut	0.76	0.23	0.54
Maine	3.19	1.12	1.64
Massachusetts	0.90	0.28	0.50
New Hampshire	1.08	0.43	1.16
Rhode Island	1.08	0.25	0.37
Vermont	2.28	0.72	1.21

Source: Author's calculations based on Department of Labor Employment and Training Administration data. Note: Maine was the region's only nonborrower and Rhode Island the region's only heavy borrower under both classifications. All other states were in the lighter borrower groups.

* difference from the light borrower group mean is statistically significant at the 0.05 level.
 + difference from the nonborrower group mean is statistically significant at the 0.05 level.
 # difference from the heavy borrower group mean is statistically significant at the 0.05 level.

used solvency measures: the reserve ratio, the high-cost multiple (HCM), and the average high-cost multiple (AHCM). The reserve ratio is the trust fund balance (net of any loan funds) calculated as a percentage of total wages for the most recent 12 months. It is essentially a measure of the insured risk. The HCM and the AHCM both attempt to capture how long a state's trust fund could pay benefits at some historically high rate without additional inflows. The two solvency measures are highly correlated. The HCM reflects how long a state could continue to pay benefits at a rate equal to the highest historical rate paid out for a 12-month period. An HCM value of 1 would mean the state's reserves could fund benefits at this high rate for one year. The AHCM, by contrast, captures how long a state could pay benefits at a rate equal to the average of the state's three highest calendar year benefit rates in the past 20 years (or period containing three recessions, if longer).

It was designed to reduce the impact that one outlying year may have on measures of trust fund solvency. In 1995, the federally established Advisory Council on Unemployment Compensation recommended an AHCM of 1 as a target level of solvency for state UI trust funds prior to recessions.²⁶

Table 4 shows the average reserve ratio, HCM, and AHCM across all state UI programs, by duration and magnitude of borrowing as of 2007:Q4, the quarter that the national recession officially started.²⁷ The table also shows values for each of the six New England states as well as the regional average. From this table we see that there is a strong relationship between trust fund solvency at the beginning of the recession and both duration and magnitude of borrowing. States that took out loans in eight or more quarters had an average AHCM of only 0.33—a third of the level considered adequate. States with less extensive borrowing were better positioned, with an average AHCM of 0.88, whereas nonborrowing states—the only group above the recommended threshold—had an average AHCM of 1.21. Differences between each pair of groups are statistically significant and similar patterns are observed when looking at the other two solvency measures.

Consistent with this pattern, Maine, the one state in the region to remain solvent, was in the best position heading into the downturn, and Rhode Island, the region's heaviest borrower, was the worst-positioned based on the AHCM. However, New Hampshire and Vermont each had respectable AHCM values at the start of the recession—greater than 1 and similar to the average for nonborrowing states—but ultimately depleted their trust funds.²⁸

Severity of the downturn

States experiencing higher or more prolonged unemployment during and after the recession may have been more likely to face insolvency, regardless of other factors. To capture the severity of the downturn in terms of unemployment, we considered the total unemployment rate (TUR) and the insured unemployment rate (IUR). The TUR is the “traditional” metric of unemployment,

measured as the number of people in a state who are unemployed (regardless of whether they are collecting UI benefits) divided by the number of people in the labor force in that state. The IUR measures UI claims relative to total employment covered by the UI program. For both unemployment rate measures we considered average rates over the 2007:Q4-to-2011:Q2 period and peak rates during the same period.

Table 5 summarizes these various unemployment measures. From the table it is clear that the heaviest borrowing states fared consistently worse than other states in the TUR and IUR measures, indicating some association, as expected, between the severity of the recession and borrowing activity. Interestingly, lighter-borrowing states did not fare appreciably worse, on average, than states that did not borrow.²⁹

Among the New England states, heaviest-borrowing Rhode Island faced the most severe labor market conditions. The Ocean State had a peak TUR of 12.6 percent (not seasonally adjusted)—almost three percentage points higher than the next highest state in the region and higher than the averages for other heavy-borrowing states. By contrast, Maine does not stand out as having performed considerably better during the recession than other New England states or nonborrowing states as a group.

Program generosity

To see whether borrowing during the Great Recession was associated with program generosity, we looked at two proxy measures: the average replacement rate and the regular program reciprocity rate. The average replacement rate tells us what percentage of a typical worker's former wage is replaced by unemployment benefits. It is calculated as the average weekly benefit amount divided by the average weekly wage.³⁰ The regular program reciprocity rate tells us what share of the unemployed population is receiving regular program UI benefits. In general, one would expect states with more generous benefit structures to have higher average replacement rates, and those with more generous (that is,

less restrictive) eligibility requirements to have higher reciprocity rates.³¹ For these measures, we considered average rates over the four quarters prior to the start of the recession, Q4:2006-to-Q3:2007.

Based on Table 6, there is little solid evidence to suggest that states that took out loans provide more generous benefits than nonborrowers. While the heaviest borrowing states had slightly higher average replacement rates than other states, the differences across the three groups are not statistically distinguishable from zero. The heaviest borrowing states did have significantly higher reciprocity rates, suggesting that these states may have more generous program eligibility requirements.

Rhode Island had the highest average

Table 5. Unemployment severity during and after the downturn (2007:Q4–2011:Q2)

	Insured unemployment rate		Total unemployment rate	
	Peak rate	Mean rate	Peak rate	Mean rate
All states	4.7	3.2	9.8	7.6
By duration of borrowing				
No loans	4.4#	2.9#	9.3#	7.2#
Fewer than 8 quarters	4.1#	2.8#	8.9#	6.9#
8 or more quarters	5.4+*	3.6+*	11.1+*	8.5+*
By magnitude of borrowing				
No loans	4.4#	2.9#	9.3#	7.2#
Less than 3.3 percent	4.0#	2.8#	8.8#	6.8#
3.3 percent or greater	5.6+*	3.8+*	11.4+*	8.7+*
By New England state				
Regional average	5.2	3.4	9.3	7.1
Connecticut	5.2	3.9	9.7	7.7
Maine	5.0	3.0	9.4	7.1
Massachusetts	5.4	3.7	9.4	7.2
New Hampshire	4.1	2.6	7.2	5.2
Rhode Island	6.0	4.0	12.6	9.9
Vermont	5.4	3.5	7.5	5.7

Source: Author's calculations based on Department of Labor Employment and Training Administration data and Bureau of Labor Statistics data.

Note: Peak rate refers to highest quarterly rate during the 2007:Q4–2011:Q2 period and mean rate refers to the average quarterly rate over the same period. Total unemployment rate not seasonally adjusted.

Maine was the region's only nonborrower and Rhode Island the region's only heavy borrower under both classifications. All other states were in the lighter borrower groups.

* difference from the light borrower group mean is statistically significant at the 0.05 level.

+ difference from the nonborrower group mean is statistically significant at the 0.05 level.

difference from the heavy borrower group mean is statistically significant at the 0.05 level.

**Table 6. Program generosity prior to the downturn
(2006:Q4–2007:Q3)**

	Average replacement rate	Regular program reciprocity rate
All states	36.6	35.9
By duration of borrowing		
No loans	36.0	32.7 [#]
Fewer than 8 quarters	36.2	33.7
8 or more quarters	37.4	40.8 ⁺
By magnitude of borrowing		
No loans	36.0	32.7 [#]
Less than 3.3 percent	35.8	33.7 [#]
3.3 percent or greater	38.0	41.6 ⁺⁺
By New England state		
Regional average	37.8	41.4
Connecticut	29.2	48.5
Maine	39.6	31.6
Massachusetts	37.5	49.5
New Hampshire	32.4	26.6
Rhode Island	46.2	46.3
Vermont	42.0	46.1

Source: Author's calculations based on Department of Labor Employment and Training Administration data. Note: Maine was the region's only nonborrower and Rhode Island the region's only heavy borrower under both classifications. All other states were in the lighter borrower groups.

* difference from the light borrower group mean is statistically significant at the 0.05 level.
 + difference from the nonborrower group mean is statistically significant at the 0.05 level.
 # difference from the heavy borrower group mean is statistically significant at the 0.05 level.

replacement rate in the region in the year prior to the downturn, and was around eight percentage points above the average for heavy borrowers. The Ocean State's reciprocity rate during this period was also higher than the average for other borrowing states.³² Maine had the region's third highest replacement rate, over three percentage points higher than the average for nonborrowers, but a below-average reciprocity rate.

Employer taxes

To gauge whether there is an association between borrowing activity and the level of taxes levied on employers we considered three different measures of taxation. The first is the ratio of taxable to total wages; it is meant to show how a state's taxable wage base stacks up against the state's average wages. The second measure is the average rate on taxable wages,

and the third, the average rate on total wages. These three measures, which also capture the four quarters prior to the recession's start, are summarized in Table 7.

One of the most striking observations in this table is that states that borrowed (regardless of how extensively) had a noticeably lower average ratio of taxable to total wages than nonborrowing states. This was somewhat balanced by higher average rates on taxable wages for the heaviest borrowers.³³ Average rates on total wages did not differ markedly by duration or magnitude of borrowing for nonborrowers and heavy borrowers, but light borrowers had slightly lower average rates.

Interestingly, Rhode Island's experience is not consistent with that of borrowing states as a group. Although the region's heaviest borrower, the Ocean State had a ratio of taxable to total wages during the downturn that was the highest among the New England states and higher than the average ratios for light and heavy borrowers. Maine had the region's second highest ratio of taxable-to-total wages. Commensurate with its high benefits, Rhode Island's average tax rates were among the region's highest, while Maine's were among the lowest.

Trust fund insolvency: Key lessons from the states

Based on the previous analysis, several factors appear to be associated with trust fund insolvency during or after the Great Recession. There appears to be a strong relationship between a state's borrowing and its trust fund's solvency position at the beginning of the downturn. The states that borrowed most heavily also faced more severe labor market conditions, in terms of unemployment rates. All borrowing states had, on average, lower ratios of taxable to total wages than states without loans, but borrowers, on average, did not necessarily have more generous programs.³⁴

A natural question stemming from these findings is *why* so many state trust funds were in poor condition heading into the downturn. An April 2010 report by the GAO addressed this question and concluded

that long-standing financing policies in the states—and not an expansion in benefits—deserved the brunt of the blame.³⁵ The GAO authors wrote:

Long-standing UI tax policies and practices in many states over three decades have eroded trust fund reserves, leaving states in a weak position prior to the recent recession. While benefits over this period have remained largely flat relative to wages, employer tax rates have declined. Specifically, most state taxable wage bases have not kept up with increases in wages, and many employers pay very low tax rates on these wage bases.

Between 1980 and 2009, roughly the period of focus of the GAO study, the ratio of taxable to total wages across all state UI programs fell relatively steadily from almost 50 percent to 35 percent, a decline of nearly one-third.³⁶ This was driven by states that did not index their taxable wage bases to average wages; among those that did not index in 2010, the average ratio declined from 47 percent to 25 percent. On average, non-indexing states changed their bases only four times over this 30-year period. It is easy to understand why such erosion in taxable wage bases is problematic. Because benefits are tied to wages, one would expect benefits to rise as wages grow. If a state's taxable wage base does not grow with wages, employer tax contributions into the trust fund will tend to grow at a slower rate than benefits flowing out of the trust fund.

The GAO report notes that states that index their taxable wage base to average wages have tended to face fewer solvency issues. Indeed, among states that indexed as of 2010, 41.2 percent borrowed from the federal government at least once since the Great Recession began, compared with 77.8 percent of non-indexing states. The report's primary recommendation is that the federal government should consider options to encourage states to raise and index their taxable wage bases.³⁷ Others have shared this outlook. Recent reports by Wayne Vroman, one of the nation's leading experts on unemployment

Table 7. Employer taxes prior to the downturn (2006:Q4–2007:Q3)

	Ratio of taxable to total wages	Average rate on taxable wages	Average rate on total wages
All states	28.3	2.24	0.74
By duration of borrowing			
No loans	34.1 ^{*#}	1.91 [#]	0.80
Fewer than 8 quarters	25.0 ⁺	2.01	0.59 [#]
8 or more quarters	25.6 ⁺	2.72 ⁺	0.79 [*]
By magnitude of borrowing			
No loans	34.1 [*]	1.91 [#]	0.80
Less than 3.3 percent	23.8 ⁺	2.00 [#]	0.58 [#]
3.3 percent or greater	26.8	2.81 ⁺⁺	0.82 [*]
By New England state			
Regional average	23.4	2.59	0.83
Connecticut	21.2	2.62	0.72
Maine	28.6	1.80	0.69
Massachusetts	24.5	3.82	1.18
New Hampshire	17.3	1.44	0.31
Rhode Island	29.9	3.34	1.37
Vermont	19.0	2.55	0.68

Source: Author's calculations based on Department of Labor Employment and Training Administration data. Note: Maine was the region's only nonborrower and Rhode Island the region's only heavy borrower under both classifications. All other states were in the lighter borrower groups.

* difference from the light borrower group mean is statistically significant at the 0.05 level.
 + difference from the nonborrower group mean is statistically significant at the 0.05 level.
 # difference from the heavy borrower group mean is statistically significant at the 0.05 level.

compensation, have also concluded that low taxable wage bases were mainly responsible for poor trust fund performance and advocated raising and indexing bases.³⁸

The GAO report also lays out several policy options for reforming UI tax rate structures that may improve UI trust fund solvency. Specifically, the report mentions that states could seek to do the following: (1) reduce the number of employers paying very low UI tax rates; (2) reduce large tax subsidies across employers and industries; (3) adjust state tax rates more frequently than annually, and raise solvency targets before implementing lower tax rates.

Focus on New England

Thus far the paper has attempted to draw lessons by comparing groups of state UI programs based on their borrowing

characteristics. The next section shines a closer spotlight on New England’s UI programs to see whether any additional lessons can be gleaned from within the region. What is the history of borrowing and trust fund solvency in each state? What role has the taxable wage base played? What reforms have the six states enacted in the past and how have they affected trust fund solvency since the start of the Great Recession? How are more recent reforms likely to affect solvency moving forward? Detailed narratives for the six states appear in Appendix B.

History of solvency

With the exception of New Hampshire, all of the New England states have had brushes with UI trust fund insolvency in the four decades prior to the Great Recession (see Table 8). Trust fund insolvency was particularly common in the 1970s, when the region was hit hard by recession. During this decade

all New England states but New Hampshire borrowed from the federal government in at least five different years. In contrast, only one New England state, Massachusetts, faced insolvency in the recession of the early 2000s.

In addition to being frequent borrowers, Connecticut and Massachusetts are notable in the region in that their UI trust funds tend to carry low levels of reserves in both good times and bad. During the height of the “Massachusetts miracle” in the 1980s, the Bay State’s peak HCM was only 0.63. Connecticut’s peak HCM during the entire period between 1971 and 2006 was only 0.45.³⁹ Chronically low reserves mean that these states are more susceptible to insolvency when downturns hit.

Why do these states tend to carry low reserves? In Connecticut, existing laws appear to prevent the trust fund from accumulating higher levels of reserves, whereas in Massachusetts, a tendency to “override”

Table 8. Financial strength of the New England states’ unemployment insurance trust funds: Recent history

	Connecticut	Maine	Massachusetts	New Hampshire	Rhode Island	Vermont
Years with loans						
1970–1979	8	5	5	0	5	6
1980–1989	6	3	0	0	4	6
1990–1999	2	0	3	0	0	0
2000–2006	0	0	2	0	0	0
Peak annual high-cost multiple						
1971–1979	0.28	0.56	0.78	2.14	0.96	1.02
1980–1989	0.27	0.94	0.63	0.89	0.92	1.35
1990–1999	0.45	0.81	0.58	0.89	0.81	1.70
2000–2006	0.41	1.24	0.55	0.75	0.60	1.51
Mean annual high-cost multiple						
1971–1979	0.03	0.21	0.26	1.14	0.23	0.15
1980–1989	0.10	0.43	0.50	0.77	0.35	0.44
1990–1999	0.15	0.45	0.25	0.76	0.44	1.44
2000–2006	0.27	1.12	0.24	0.60	0.42	1.18

Source: Department of Labor Employment and Training Administration.

Note: A state is counted as having had a loan in a given year between 1970 and 2000 if it had an outstanding loan balance as of the end of the year. From 2001 onward, when quarterly data are available, a state is counted as having had a loan in a given year if it had an outstanding loan balance at the end of any quarter during the year. This approach will fail to capture intra-year borrowing before 2001 and intra-quarter borrowing in later years. At least one New England state, Maine, took out loans in the early 1990s that are not captured in this table (see Vroman 2005). The high-cost multiple is a measure of how long a state’s trust fund could continue to pay benefits at a rate equal to their highest historical rate paid out for a 12-month period without additional inflows. Peak and mean annual high-cost multiple values are based on high-cost multiples at years’ end. Mean annual high-cost multiple values are the mean of the annual high-cost multiple for each decade and should not be confused with the average high-cost multiple, which is a separate solvency measure not available in the annual historical data. High-cost multiple values are not available for 1970.

existing laws is the more likely culprit. By statute, tax rates in Connecticut are set to maintain a fund balance equal to 0.8 percent of total wages, a low target by some standards. In Massachusetts, policymakers commonly elect to freeze employer tax rates at a lower schedule than called for by statute based on the health of the state's trust fund. These factors likely contributed to the poor status of the states' trust funds heading into the Great Recession.

Erosion of the taxable wage base

As in the nation as a whole, taxable wage bases in the New England states have also suffered erosion in recent decades (see Figure 4), likely contributing to solvency problems in the region. The decline was especially sharp in New Hampshire and Vermont, where the ratio of taxable to total wages declined by over 25 percentage points between 1980 and 2009 compared with a decline in the national average of 15 points. During this period, New Hampshire's taxable wage base grew from only \$6,000 to \$8,000, whereas Vermont's wage base remained unchanged at \$8,000 between 1983 and 2009. Labor officials in both states cited the decline in the taxable wage base relative to wages as a key contributing factor to the states' solvency troubles in the Great Recession.

The role of past reforms

Past UI reform efforts also affected state outcomes in the Great Recession. In Maine, reforms passed in the late 1990s have been credited with the state's relative success during the recent downturn, while elsewhere in the region past reforms were more detrimental to solvency.

Maine's reform legislation, enacted in 1999, coupled minor reductions in UI benefits with an overhaul of the program's financing. This overhaul included two major changes: (1) raising the taxable wage base and (2) introducing a new array method for assigning employer tax rates. The array method spreads tax contributions more evenly across employers and provides the state more control over the amount of revenue flowing into its trust fund in a given year. Because these changes

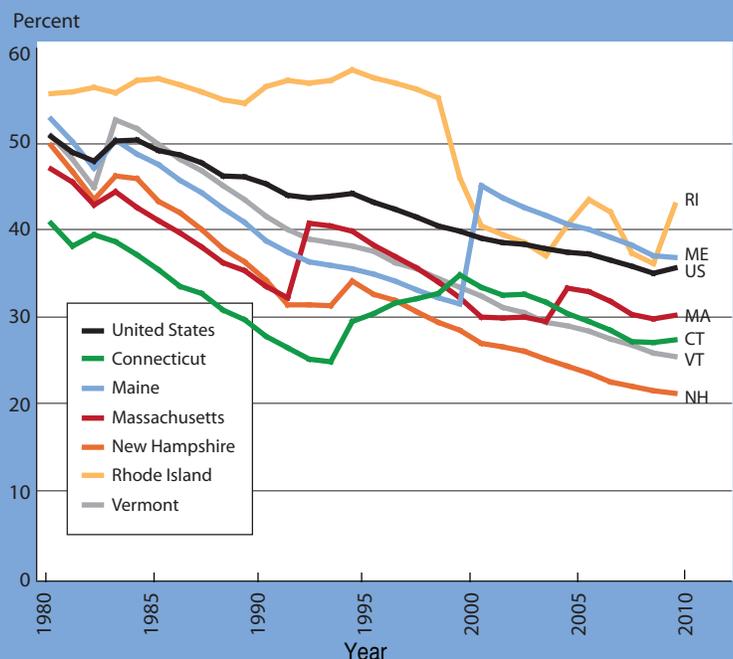
were adopted when the economy was thriving, the reform was less painful for employers and the state was able to build a cushion of reserves before the next recession hit.

Rhode Island's experience serves as a counterpoint to Maine's. In 1998 the Ocean State passed legislation that "de-indexed" its taxable wage base from average wages, lowering employer taxes considerably without yielding any corresponding changes to benefits. Although the tax reduction arguably enhanced Rhode Island's competitiveness, the unbalanced nature of the changes caused the state's trust fund solvency to suffer. Other states in New England, including Vermont and Connecticut, also enacted unbalanced reforms in 1990s and the early 2000s by increasing benefits or expanding eligibility without concurrent adjustments to taxes.

Reaction to the Great Recession

Since the onset of the Great Recession, three New England states, New Hampshire, Rhode Island and Vermont, have taken actions to address solvency. Among other

Figure 4. Ratio of taxable to total wages, New England state UI programs, 1980–2009



Source: Department of Labor Employment and Training Administration.

changes, New Hampshire and Vermont both raised their taxable wages bases, with Vermont also choosing to index its base to growth in wages going forward. Rhode Island also elected to index its taxable wage base to wages going forward and to subject the heaviest users of the UI system to a higher base than other employers. In addition, the Ocean State adopted numerous benefit reductions, aiming to bring the state's benefits more in line with those offered by other states.

Conclusions and Policy Options

Since the onset of the Great Recession many state unemployment insurance programs depleted their reserves at some point and borrowed funds from the federal government in order to continue paying benefits to unemployed workers. In New England, five of the six states faced short-run solvency issues during the downturn, and three continue to have outstanding federal loans. Only Maine, which engaged in significant reforms aimed at shoring up its trust fund a decade earlier, was able to weather the storm without borrowing from the federal government.

The severity of the Great Recession certainly played a large role in states' recent solvency issues. However, as this paper shows, on the eve of the downturn many state UI trust funds, including some in New England, were ill positioned to withstand even a milder recession.

While a state's aim should not necessarily be to build a UI trust fund sufficient to withstand even the most severe economic downturn, taking measures to strengthen long-term UI solvency from recent levels can help to promote the stabilizing impacts of the program and may limit borrowing and its associated costs in future downturns. With this in mind, there are several options New England states might consider, if they have not already done so:

1. Increase and index the taxable wage base

The erosion of taxable wage bases over the past few decades has been identified as a key contributing factor to the poor condition of

state UI trust funds both nationwide and in the region, heading into the recession. Between 1980 and 2009 the ratio of taxable to total wages nationwide declined by about 15 percentage points. In states like New Hampshire and Vermont, the decline was even steeper. Because benefits payments tend to grow with wage levels, this marked erosion of the taxable wage base likely contributed to a situation where benefits were flowing out of state trust funds at a faster rate than contributions were flowing in.

To reverse this erosion and strengthen UI trust fund solvency going forward, the GAO and UI expert Wayne Vroman have recommended that states increase their taxable wage bases and index them to changes in average wages. To mitigate the pain associated with a sudden increase in the wage base, states could consider phasing in changes slowly, or adjusting tax rates concurrently. Such actions would likely be less destabilizing during the recovery period, although they would have the drawback of reducing the immediate impact on solvency.

Three of the six New England states—New Hampshire, Rhode Island, and Vermont—have already raised their taxable wage base since the onset of the Great Recession, counteracting the erosion that had occurred in preceding years. Reforms in Rhode Island and Vermont also included some form of wage base indexing, which should strengthen solvency going forward. For the states that do not index, erosion could continue to weaken solvency in the future unless the states actively and regularly adjust their bases, (actions that may be subject to short-run political pressures) or ensure that employer rates are adjusted so as to keep pace with wage growth.

Whether or not states choose to adjust their taxable wage bases (or adjust them further) on their own may be a moot point, as some may be compelled to do so by the federal government. Some experts have recommended that Congress increase and index the federal taxable wage base, providing states a strong incentive to follow suit or risk losing FUTA tax credits. The President's deficit reduction plan would increase the

federal taxable wage base from \$7,000 to \$15,000.⁴⁰ Such a change would likely impact Maine, Massachusetts, New Hampshire, and Vermont, which currently have bases below that level. By itself, this could reverse some of the erosion that has occurred in these states, but without indexing, it would not fully address any long-run structural problems.

2. Avoid unbalanced reforms

Another, perhaps common-sense, take-away from this report is that, in order to promote trust fund solvency, states should avoid unbalanced reforms—that is, reforms that lower taxes without reducing benefits, or those that make benefits more generous without adjusting taxes.

Examples from the New England states illustrate how such unbalanced reforms can adversely affect solvency. Rhode Island is the primary case in point. In the late 1990s the state adopted reforms that reduced employer taxes without altering benefits; as a result, the state's UI trust fund soon began to decline and never recovered. As the example demonstrates, even if enacted when the economy is strong and UI trust funds are in good shape, unbalanced reforms can create structural problems that increase the risk of insolvency in the future.

A similar lesson may be drawn from states that frequently override the automatic solvency triggers in their programs, as Massachusetts has commonly done. While protecting employers from steep tax increases may be a worthy goal, such overrides, if not balanced by changes on the benefit side of the equation, can increase the risk of insolvency in the future by keeping reserve levels low. Policymakers must weigh these risks when contemplating such actions.

3. Re-examine employer tax rates and trust fund targets

When looking for ways to strengthen solvency, states should also consider re-examining how tax rates are structured and assigned to particular employers. For example, states may consider using an array method to assign employers to tax rates, as Maine did in

1999. Under the array method, employers are assigned tax rates based on their relative experience with layoffs in a manner that is designed to generate a target amount of revenue. This allows a state to more easily fine-tune the revenues flowing into its trust fund under changing conditions, arguably making it easier to achieve or maintain solvency, and potentially providing other benefits such as improved allocative efficiency. While this report does not demonstrate a conclusive link between the array method and solvency, it does provide some evidence supporting a relationship. Sixty-four percent of states using the array method heading into the Great Recession remained solvent during the downturn, compared with 26 percent of other states. Thus far, at least one state—South Carolina—has switched to an array method in reforming its system in the wake of the downturn.

In most states, employers' tax rates are based not only on their experience with layoffs, but also on the overall health of the state's UI trust fund. To maintain solvency during economic downturns, state policymakers should also re-evaluate whether the trust fund targets that dictate changes in tax schedules or other solvency adjustments are set high enough to allow the accumulation of sufficient reserves during good times. Although there may be no "ideal" target level, one commonly cited recommendation calls for states to aim for trust fund reserves sufficient to achieve an AHCM of 1. Indeed, states that avoided insolvency during the Great Recession—the only group to surpass this recommended threshold—had, on average an AHCM of 1.21. By contrast, Connecticut's experience illustrates how a relatively low trust fund target can contribute to chronically low reserves and increased susceptibility to insolvency.

As with other changes, policymakers contemplating changes in tax rates or their assignment, or modifications to trust fund targets, should carefully consider timing issues and implications for other UI policy goals.

Endnotes

- ¹ Trust fund loan balances as of July 7, 2011, per U.S. Department of Labor, Employment and Training Administration.
- ² Traditionally, eligibility hinged on the search for full-time employment. A number of states have since expanded benefits to part-time workers seeking part-time work. See National Employment Law Project. 2010. "Recovery Act's Unemployment Insurance Modernization Incentives Produce Bipartisan State Reforms in Eight States in 2010." New York, NY. Available at <http://www.nelp.org/page/-/UI/2010/modernization.update.pdf?nocdn=1>.
- ³ Comparative program details from U.S. Department of Labor Employment and Training Administration. Office of Unemployment Insurance. 2011. "Significant Provisions of State Unemployment Insurance Laws Effective July 2011." Available at <http://www.ows.doleta.gov/unemploy/content/sig-pros/2010-2019/July2011.pdf>.
- ⁴ Massachusetts, and under certain circumstances, Washington, have maximum durations of 30 weeks, and Montana has a maximum duration of 28 weeks. Recent reforms in some states have lowered the maximum duration below 26 weeks. See U.S. Department of Labor. Office of Unemployment Insurance. 2011. "Unemployment Compensation: Federal-State Partnership." Available at <http://www.ows.doleta.gov/unemploy/pdf/partnership.pdf>; and Pamela M. Prah. "As States Cut Unemployment Benefits, Higher Business Taxes Loom." *Stateline*. August 15, 2011. Accessed October 31, 2011, <http://stateline.org/live/details/story?contentId=593889>.
- ⁵ For a description of extended benefit programs, including Emergency Unemployment Compensation, available in and after the Great Recession, see Hannah Shaw and Chad Stone. 2010. "Introduction to Unemployment Insurance." Washington, DC: Center on Budget and Policy Priorities. Available at <http://www.cbpp.org/files/12-19-02ui.pdf>.
- ⁶ This sentence refers to the statutory incidence of the tax. Employers may pass some, or all, of the economic burden of the tax on to employees through reduced wages. Three states—Alaska, New Jersey, and Pennsylvania—also have a small tax that is directly imposed on employees.
- ⁷ Until July 1, 2011, the FUTA included a 0.2 percent surcharge, bringing the maximum rate to 6.2 percent, and the effective rate for most employers to 0.8 percent. Internal Revenue Service. "Employer's Tax Guide." Publication 15 (Circular E) for 2011.
- ⁸ The federal government also maintains an account for federal employees and two accounts associated with the Railroad Retirement Board. See U.S. Government Accountability Office. 2010. "Unemployment Insurance Trust Funds: Long-standing State Financing Policies Have Increased Risk of Solvency." GAO-10-440. Washington, DC. Available at <http://www.gao.gov/assets/310/303305.pdf>.
- ⁹ The Reed Act was enacted in 1954. The Department of Labor bases each state's share of Reed Act funds on the state's proportional share of FUTA taxable wages. Federal law restricts states to use these distributions to cover benefit payments and program administration. The most recent Reed Act distribution occurred in 2002. See GAO 2010.
- ¹⁰ Julie M. Whittaker. 2011. "Unemployment Compensation (UC) and the Unemployment Trust Fund (UTF): Funding UC Benefits." Washington, DC: Congressional Research Service. Available at <http://www.workforceatm.org/assets/utilities/serve.cfm?path=/sections/pdf/2011/UnemploymentCompensationUCandtheUnemploymentTrustFundUTFFundingUCBenefits2.pdf>.
- ¹¹ In September 2010, the U.S. Department of Labor's Employment and Training Administration announced a new rule introducing additional requirements for interest-free loans to encourage states to forward-fund their UI programs. The rule requires that a state do the following: (1) meet a solvency goal in at least one of the five years preceding the loan; and (2) have had no significant tax reductions in the years between when the solvency goal was last met and the year that the loan occurs. Implementation of the new rule is to be phased in starting in 2014. See U.S. Department of Labor Employment and Training Administration. "U.S. Department of Labor Announces Final Rule for Unemployment Compensation Program Funding Goals." News release. September 16, 2010. Accessed December 15, 2011 at <http://www.dol.gov/opa/media/press/ETA/ETA20101289.htm>.
- ¹² One state UI official noted that in many states it is difficult for state UI programs to access other state funds. Thus, while the second option is viable, it may not be common in practice. The decision of whether to issue bonds to repay UI debt hinges, at least in part, on the interest rate environment. States considering this option must evaluate the spread between interest rates charged by the federal government on borrowed UI funds and interest rates for state bonds, as well as other differences in borrowing costs. For a fuller discussion on the two types of borrowing, see Wayne Vroman 2011. "Unemployment Insurance and the Great Recession." The Urban Institute. Available at <http://www.urban.org/UploadedPDF/412450-Unemployment-Insurance-and-the-Great-Recession.pdf>.
- ¹³ National Employment Law Project. 2011. "Understanding Payment of Interest on Federal Loans to State Unemployment Trust Funds." Fact Sheet. Available at http://nelp.3cdn.net/2f0be3ad3bb06b5704_w1m6bnehw.pdf.
- ¹⁴ GAO. 2010.
- ¹⁵ For a point of comparison, in the previous 15-quarter period (2004:Q1–2007:Q3) there were seven states that had an outstanding loan balance in at least one quarter. Most of this borrowing appeared to be the wake of the early 2000s recession.
- ¹⁶ Sara Murray. "Benefits Tax Hits Businesses Twice—American Companies are Feeling the Pinch as States Struggle to Repay Federal Loans on Funds for the Jobless." *The Wall Street Journal*. September 29, 2011.
- ¹⁷ National Association of State Workforce Agencies. 2011. "State Unemployment Insurance Tax Survey." Washington, DC. Available at http://www.naswa.org/assets/utilities/serve.cfm?path=/sections/pdf/2011/UITaxRevenueSurvey_Apr2011.pdf.
- ¹⁸ Connecticut Department of Labor. "CT Unemployment Insurance Tax Employer Information Notice." September 2011. Available at <http://www.ctdol.state.ct.us/uitax/EmpInNotices/EmpInNotice0911.pdf>, and "Employers Begin to Pay Special Assessment to Collect Interest Due on Borrowed UI Funds." Press Release. July 22, 2011. Available at <http://www.ctdol.state.ct.us/communic/2011-7/7-22-11Specialassessment.pdf>.
- ¹⁹ Rhode Island Department of Labor and Training. "2011 UI and TDI Quick Reference." Available at <http://www.dlt.ri.gov/lmi/news/quickref2011a.htm>, and Vermont Legislative Joint Fiscal Office. 2011. "FY 2012 Budget Summary." Available at http://www.leg.state.vt.us/jfo/appropriations/fy_2012/FY%202012%20Budget%20Summary.pdf.
- ²⁰ U.S. Department of Labor Employment and Training Administration. "Actual and Potential FUTA Credit Reductions." Accessed February 2, 2012 at http://www.ows.doleta.gov/unemploy/docs/reduced_credit_states.xls.
- ²¹ Some might argue against allowing UI trust funds to grow too large because they are then an inviting target for policymakers who would like to expand program benefits. A 2011 working paper by Smith and Wenger provides some support for this notion. See Daniel L. Smith and Jeffrey B. Wenger. 2011. "If You Build It: State Unemployment Insurance Trust Solvency and Benefit Generosity." Available at SSRN: <http://ssrn.com/abstract=1952863> or doi:10.2139/ssrn.1952863. Policymakers might also be hesitant to allow a state's UI trust fund to grow large due to an impression that the resources could be diverted to other non-UI purposes; in reality, trust fund dollars may only be used to pay benefits and to repay principal on trust fund loans.
- ²² To discourage states from reducing benefits in the wake of the Great Recession, the federal government conditioned

its support for extended benefits on the provision that states not make changes to their benefits before July 1, 2012. See Rhode Island Public Expenditure Council. 2011. "Summary of Unemployment Insurance and Analysis of the Rhode Island Unemployment Insurance Trust Fund." Providence, RI. Available at <http://www.ripec.org/pdfs/2011-Unemployment-Ins.pdf>.

²³ The analysis in this section relies on quarterly data from Unemployment Insurance Data Base (UIDB) and other sources made available by the U.S. Department of Labor Employment and Training Administration, with the exception of unemployment data, which were obtained from the U.S. Department of Labor Bureau of Labor Statistics.

²⁴ Using three groups as opposed to two (borrowers versus non-borrowers) allows us to make stronger inferences about causality. For example, if the severity of the downturn played an important role in determining why some states were forced to borrow and others were not, we would expect to see the heaviest borrowers experiencing the most severe conditions, lighter borrowers experiencing less severe conditions, and nonborrowers experiencing the mildest conditions.

²⁵ This measure would not capture states that engaged in short-term borrowing but did not have an outstanding balance at any quarter-end during the period. This would tend to attenuate differences between borrowers and nonborrowers.

²⁶ The Council also recommended that the federal government provide financial incentives (through interest paid on trust fund reserves) to encourage states to maintain an HCM greater than 1. See Advisory Council on Unemployment Compensation. 1996. "Collected Findings and Recommendations, 1994-1996." Available at http://www.ows.doleta.gov/dmstree/misc_papers/advisory/acuc/collected_findings/adv_council_94-96.pdf.

²⁷ All averages presented in this paper are simple averages.

²⁸ For some states, including Rhode Island, the economic downturn started before 2007:Q4, the quarter the national recession officially began. It is therefore possible that some of these "early-entrant" states had depleted their reserves prior to Q4:2007. To address this possibility, we performed an alternate analysis that considered an early-entrant state's trust fund's solvency in the quarter that the state's downturn began as opposed to 2007:Q4. We approximated the start of a state's downturn using its coincident index published by the Federal Reserve Bank of Philadelphia, which is a broad measure of a state's economic activity. The results from this analysis are highly similar to those shown in Table 4, suggesting that UI trust funds in early-entrant states were also in generally poor shape when their own downturns began.

²⁹ We also considered the difference between these average and peak rates and the average rates over the four quarters prior to the recession. These difference variables, which attempt to account for the fact that some states have higher natural rates of unemployment than others, displayed similar patterns.

³⁰ The average replacement rate tends to be more informative than the average weekly benefit amount by itself, as the latter will be influenced by cost-of-living differences across states.

³¹ Because these measures are also impacted by the composition of the insured employed population, they cannot be viewed strictly as indicators of generosity.

³² Rhode Island did see a marked decline in its regular program reciprocity rate in the years after the downturn began, although this is not necessarily an indicator of changing program generosity. One possible explanation is that a large number of UI recipients in Rhode Island exhausted their regular program benefits and thus would no longer be counted in the rates numerator, even if they continued to receive extended benefits.

³³ It is unclear however, how much these higher average rates are driven by policy choices about rate structure as opposed to the experience rating of individual employers and the overall health of the trust fund.

³⁴ Logit regression analyses were conducted in order to get a better sense of the relative importance of these various factors in

their association with borrowing. The dependent variable in each model was a binary variable set equal to 1 if the state borrowed during or after the Great Recession, and equal to 0 if the state did not borrow. Independent variables included measures of solvency in 2007:Q4, the severity of the downturn, program generosity and employer taxes. The analyses suggest that, controlling for other factors, states with healthier trust funds heading into the recession and those that had higher ratios of taxable to total wages or higher average tax rates on taxable wages were less likely to borrow. States where the recession was more severe, or that had higher average replacement or reciprocity rates were more likely to borrow, all else equal. Among all of the variables, the estimated coefficients for the solvency measures were most consistently statistically significant. Based on standardized regression coefficients, which allow one to gauge the relative importance of the different independent variables, the ratio of taxable to total wages was commonly the most strongly associated with the probability of borrowing. See Appendix A for regression results.

³⁵ Some states, such as Vermont, did allow benefits to grow over this period. As discussed later in this report, the combination of benefit growth and financing policies in Vermont contributed to the state's recent UI trust fund insolvency.

³⁶ Historical annual data cited here and throughout the paper are from the *Unemployment Insurance Financial Data Handbook* (also known as the ET Financial Data Handbook 394), made available by the U.S. Department of Labor Employment and Training Administration.

³⁷ Increasing and indexing the federal taxable wage base would encourage states to follow suit so as to remain eligible for FUTA tax credits. States could also independently choose to modify their existing taxable wage bases, as some have recently done.

³⁸ Wayne Vroman. 2009. "Unemployment Insurance: Current Situation and Potential Reforms." Washington, DC: The Urban Institute. Available at http://www.urban.org/UploadedPDF/411835_unemployment_insurance.pdf and Vroman, 2011.

³⁹ Due to data availability, discussion of historical trust fund solvency measures focuses on the HCM versus the AHCM.

⁴⁰ Jennifer Burnett. "President's Deficit Reduction Plan Addresses Unemployment Trust Fund Solvency." The Council of State Governments Knowledge Center. September 21, 2011. Available at <http://knowledgecenter.csg.org/drupal/content/president%E2%80%99s-deficit-reduction-plan-addresses-unemployment-trust-fund-solvency>.

Appendix A. Regression Analysis Results

Table A-1. Logit model standardized regression coefficient estimates

Independent variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Solvency heading into downturn								
Average high cost multiple	-0.43*	-0.45*	-0.48*	-0.50*				
High cost multiple					-0.56*	-0.58*	-0.63*	-0.61*
Severity of downturn								
Peak total unemployment rate	0.37**				0.32**			
Mean total unemployment rate		0.37*				0.33**		
Peak insured unemployment rate			0.33				0.21	
Mean insured unemployment rate				0.51*				0.43**
Program generosity								
Average replacement rate	0.60*	0.60*	0.45**	0.56*	0.61*	0.62*	0.45**	0.58*
Average reciprocity rate	0.46*	0.49*	0.29	0.25	0.31	0.32	0.16	0.12
Employer taxes								
Ratio of taxable to total wages	-0.83*	-0.81*	-0.72*	-0.83*	-0.63**	-0.61**	-0.47	-0.63**
Average rate on taxable wages	-0.55**	-0.57*	-0.45	-0.62*	-0.41	-0.43**	-0.28	-0.46**
Number of observations	52	52	52	52	52	52	52	52
Pseudo R2	0.50	0.50	0.46	0.51	0.55	0.56	0.51	0.56

Source: Author's analysis based on Department of Labor Employment and Training Administration and Bureau of Labor Statistics data.
Note: Dependent variable in all models was a binary variable equaling 1 if the state borrowed in any quarter between 2007:Q4 and 2011:Q2 and 0 otherwise. The Virgin Islands were dropped from the regression analysis because data were not available on the total unemployment rate and average reciprocity rate.

* parameter estimate significantly different from zero at the 0.05 level.

**parameter estimate significantly different from zero at the 0.10 level.

Appendix B. State Narratives

Connecticut

Connecticut was the second state in New England to deplete its UI trust fund during the Great Recession, first borrowing from the federal government in 2009:Q4. The state has borrowed in each quarter since then, reaching a loan balance of \$810 million (3.2 percent of total wages) by the end of 2011:Q2. The state's Department of Labor projects that total borrowing could approach \$1 billion over the next two to three years.¹

Connecticut's UI program has a history of borrowing from the federal government during economic downturns, having taken out loans throughout much of the 1970s through the mid-1980s. The trust fund had hardly recovered when the state was forced to borrow again during the recession of the early 1990s. The state issued around \$1 billion in bonds in 1993 to repay this federal debt, taking advantage of the prevailing interest rate environment in the bond market.²

The 1970s' recession hit Connecticut, and the rest of New England, particularly hard, as did the recession of the early 1990s. The severity of these downturns can help to explain the state's UI borrowing during those periods. However, Connecticut's trust fund did not readily bounce back during boom periods, suggesting that there were other factors influencing the state's poor track record with solvency. Although the trust fund had a positive net balance at each year's end between 1995 and 2008, its HCM never exceeded 0.45 during this period. Heading into the Great Recession, Connecticut's solvency measures were among the lowest in the region and lower than the averages of states with similar borrowing duration and magnitude.

Connecticut's ratio of taxable to total wages declined sharply between the mid-1970s and the early-1990s, from 52.7 percent to 23.8 percent. Over the course of the 1990s, the state more than doubled its taxable wage base, from \$7,100 to \$15,000, where it has stayed since. This increase, combined with higher average tax rates after the early 1990s'

recession, probably helped Connecticut remain solvent during and directly after the early 2000s' recession, if barely so. Over the 2000s, the taxable wage base eroded again, with the ratio of taxable to total wages declining by 6 percentage points over the decade (from 32.3 percent to 26.3 percent), likely contributing to the trust fund's poor performance in the Great Recession.

Another likely reason for Connecticut's tendency towards insolvency and traditionally low reserve levels relates to the state's automatic solvency adjustments applied to employer tax rates. Each year an employer's contribution rate may be adjusted upward by a fund balance tax, alternatively known as the solvency tax. This tax is set to maintain a fund balance equal to 0.8 percent of total wages; however, by statute the rate may not be higher than 1.4 percent.³ With this cap in place, it may take several years for the fund balance to reach the target level of reserves following a recession.⁴ Furthermore, at 0.8 percent, the target itself is low by some standards and currently requires a level of reserves that is considerably lower than what would be necessary to achieve the recommended AHCM benchmark of 1.0.⁵

Since the late 1990s, Connecticut increased dependent allowances and broadened its eligibility criteria but did not enact any significant UI financing reforms to balance these changes. In 2011 the state's Labor Department proposed legislation that would increase the reserve goal from 0.8 percent of total wages to a level sufficient to achieve an AHCM of 1.0. This shift, if enacted, would essentially increase the target from about \$626 million to \$1.1 billion. In practice, the fund balance tax would be kept at its maximum of 1.4 percent until the new target was achieved, which would likely take at least until 2018.⁶ Connecticut's senate passed the measure with an amendment to phase in the new target over time, but the bill was tabled in the house in June 2011.⁷

Maine

Maine is the only New England state whose UI trust fund has remained solvent since the start of the Great Recession, despite the fact that the state's labor market conditions have not been markedly better than those in the rest of the region. Although Maine's UI system weathered this downturn more successfully than many, the state's trust fund has faced insolvency in the past, having borrowed from the federal government in the recessions of the 1970s, 1980s, and 1990s.

State officials credit the relative health of Maine's trust fund in recent years to changes made to the system in the late 1990s, a time when the economy was performing well and the unemployment rate was very low by historical standards.⁸ During this time of prosperity, the state's Labor Department predicted that the UI trust fund balance would be depleted in five years, even assuming no changes in taxes or benefits and no increase in the jobless rate.⁹ The compromise measure that was adopted in 1999 changed the benefit calculation to reflect an employee's two highest quarters of earnings rather than one and made two major changes to system financing: raising the taxable wage base and introducing a new contribution system that more accurately reflects an employer's experience with unemployment.¹⁰

The new legislation increased Maine's taxable wage base from \$7,000 (the level at which it had been since 1983) to \$12,000. Over the two decades prior to the reform, the state's ratio of taxable to total wages had fallen from over 50 percent to around 30 percent. The 1999 legislation increased this ratio to 44 percent; however, without any adjustment over the past decade, the ratio has since fallen back to around 36 percent.¹¹

With the 1999 reform, the state also shifted from a fixed interval method of assigning employer contribution rates to an array system in which employers are spread relatively evenly through an array of 20 tax rates based on their relative experience with layoffs. Under the old contribution system, employers were assigned to one of 33 tax brackets, but more than half were clustered in the lowest bracket.

The array system is designed so that each year approximately 5 percent of taxable wages are assigned to each tax rate, generating a targeted amount of revenue.¹² Under this approach, the state can better predict and control flows into its trust fund in response to changing economic conditions and the health of the fund, thereby promoting solvency.¹³ The array method of employer ranking may also improve allocative efficiency by spreading employers more evenly through a range of tax rates. However, this approach may be less transparent or predictable for employers, whose tax rate is determined not only by their own performance, but also by that of other employers.

Interestingly, seven of the eleven states using the array method (64 percent) remained solvent through the Great Recession versus only 26 percent of other states, a statistically significant difference. Given the small number of array states and the other factors potentially at play, it is hard to draw any strong conclusions from this finding.¹⁴ Yet it appears that the switch to the array method may have helped Maine weather the early 2000s' recession and the Great Recession more successfully than previous downturns.

While the content of Maine's reform efforts was important, timing also played a role. That the reform took place when the economy was doing well likely made the changes less painful—and more politically palatable—and helped the state to build a cushion of reserves before the next recession.

Massachusetts

Massachusetts borrowed intermittently during and after the Great Recession to address cash flow shortages. At its peak, the Commonwealth's trust fund carried a loan balance of around \$387 million, representing about 0.9 percent of total wages. The trust fund has largely operated in the black since 2011:Q1, a fact that state officials have attributed to improving economic conditions.¹⁵

The Massachusetts UI system has had several brushes with insolvency in the past, having borrowed from the federal government in the 1970s, 1990s, and again in the

early 2000s. Like Connecticut, the state tends to maintain a relatively low level of reserves, even during times of economic strength. Between 1980 and 2009 the state's year-end HCM averaged only 0.33. The peak year-end HCM during this period was only 0.63, and was achieved in 1985, around the height of the "Massachusetts Miracle."

One factor that has been linked to the Commonwealth's traditionally low levels of reserves has been the state's penchant for overriding the system's automatic solvency triggers.¹⁶ Massachusetts law stipulates that the schedule of tax rates in place for a given year is to be determined by the level of reserves in the trust fund, with lower reserves leading to higher tax rates for all employers. In many years, in economic times both good and bad, the state chose to implement a schedule with lower tax rates than called for by statute.¹⁷ Providing tax breaks to employers when the economy is performing well may enhance the state's tax competitiveness in the short term, but without corresponding adjustments to benefits, this practice undermines the forward-funded strategy of replenishing the UI trust fund. This can result in forgone interest income and puts the state at higher risk for borrowing in the future.

As in many states, the taxable wage base in Massachusetts has also suffered from erosion, which has likely also factored into the state's experience with insolvency. In 1980 the ratio of taxable to total wages was around 46 percent, but it has fallen over the years despite periodic increases in the base. In 2003 the state passed legislation that, among other things, increased the taxable wage base from \$10,800 to \$14,000 and modified the existing tax rate schedules. These changes, coupled with higher tax rates due to experience rating, meant that the state's average tax rate on total wages nearly doubled between 2002 and 2004. However, erosion of the new taxable wage base in more recent years and additional tax schedule overrides meant that the trust fund continued to be in poor condition when the Great Recession hit.

New Hampshire

Like many other aspects of its government, New Hampshire's UI system differs noticeably from those in the rest of the region and the nation, on a number of measures. In general, New Hampshire runs a smaller program with lower levels of contributions and benefits relative to wages than other states. One reason for this is surely the state's historically below-average unemployment rate, but policy choices also seem to have played a role.¹⁸

New Hampshire depleted its trust fund twice in the recent downturn, having taken out loans from the federal government in the first quarters of both 2010 and 2011.¹⁹ Unlike other New England states, New Hampshire did not have a prior history of extended borrowing; it was the only New England state that did not have an outstanding loan balance at year's end at any point in the previous four decades and it has historically had one of the region's most solvent UI trust funds. When recession hit in the early 2000s, New Hampshire had an AHCM of around 2.0, twice the recommended threshold. The AHCM dropped to around 1.4 after that recession and never returned to its previous levels, although it remained above 1.0 until late-2008.

A 2009 report from the New Hampshire Department of Employment Security recognized that the state's trust fund was likely to exhaust its reserves in the near future, due in large part to erosion of the state's taxable wage base over the years. Between 1980 and 2009 the base grew from \$6,000 to only \$8,000. As a result, the ratio of taxable to total wages fell from nearly 50 percent to 20 percent over this period. This decline was twice as steep as the U.S. average and steeper than that experienced by any other New England state. The report recommended a number of changes to shore up the system, with most reforms aimed at program financing rather than benefits.²⁰

The state consequently enacted legislation that broadly followed the recommendations laid out in the Department's report. Specifically, the legislation increased the taxable wage base from \$8,000 to \$14,000 over a period of three

years, created authority for an emergency surcharge (which was ultimately put into effect), and instituted new criteria for determining employer tax rates based on experience rating and the health of the trust fund. While the state did not make major changes to benefits, it did institute a one-week waiting period between approval of an unemployed individual's application for benefits and disbursement of the first benefit payment.²¹

Rhode Island

If New Hampshire has historically had the region's smallest UI program, Rhode Island has traditionally had higher levels of benefits and contributions relative to wages than other states in the region and the United States as a whole. Hardest hit among the New England states during the Great Recession, Rhode Island was the first New England state to exhaust its reserves. It began borrowing from the federal government in 2009:Q1 and has continued to borrow in every quarter since. The state's loan balance at quarter's end peaked in 2011:Q1 at \$257 million or 5.5 percent of total wages. The Rhode Island Department of Labor and Training estimated that, without any reforms, the trust fund would remain insolvent through 2017 and that Rhode Island employers would face \$294.5 million in higher taxes to repay interest and principal on the loans.²²

The Ocean State has also borrowed from the federal government to pay for UI benefits in the past. Rhode Island had outstanding loans from the federal government from the mid-1970s through 1983. The state rebuilt its reserves to some extent in the following years, reaching a maximum HCM of 0.92 in 1989 and providing some cushion when recession hit again in the early 1990s. Although the state remained solvent through the 1990s and early 2000s, its HCM never exceeded 0.6.

Some have blamed actions taken in Rhode Island during that period for the system's recent problems.²³ Legislation approved in 1998 repealed the state's flexible taxable wage base (computed as 70 percent of

the state average annual wage) in favor of a base that ranges from \$12,000 to \$19,000, depending on the level of the state's trust fund. Consequent to the new legislation, the state's taxable wage base fell by over \$6,000 over two years. The ratio of taxable to total wages, which had been stable in the vicinity of 55 percent for three decades, fell by nearly 15 percentage points over the same two-year period. There were no corresponding changes to benefits. Although the tax reduction arguably enhanced Rhode Island's competitiveness, the unbalanced nature of the changes caused trust fund solvency to suffer. The negative impact on solvency was not immediate because the changes took place during a period of economic expansion when total benefit payments were falling. However, the trust fund's HCM began to decline in the early 2000s and never recovered. By the end of 2007, when the Great Recession began, the HCM had fallen to 0.25.

Rhode Island enacted a set of reforms in 2011 aimed at addressing underlying financing issues as well as altering benefits. The reforms are projected to restore the state's trust fund solvency by 2015, earlier than projected under prior law, and to enable the trust fund to build healthy reserves going forward.²⁴ On the financing front, the state will once again index its taxable wage base, this time to 46.5 percent of the state's average annual wage, effective in 2012. In addition, employers subject to the state's highest tax rates will face a base that is \$1,500 higher than that faced by other employers in the state.

On the benefits side of the equation, Rhode Island legislators voted to reduce the maximum weekly benefit amount relative to the average weekly wage, to adjust the weekly benefit calculation to replace 50 percent rather than 60 percent of lost wages, to consider the average of the two highest quarters of earnings rather than the single highest, and to reduce the cap on maximum benefits.²⁵ These changes, slated to go into effect on July 1, 2012, aim to bring Rhode Island's benefits more in line with the rest of the country and the region.²⁶

Vermont

Vermont's trust fund exhausted its reserves and began borrowing funds in 2010:Q1. By 2011:Q2 the state's outstanding loan balance had grown to around \$78 million, or around 2.6 percent of total wages. In 2010 the Vermont Department of Labor reported that, absent reforms, the state would need to borrow to pay for unemployment benefits for the foreseeable future and that the level of borrowing could exceed \$284 million by 2014.²⁷

Vermont's UI trust fund began the 1970s in a strong financial position, but quickly deteriorated as the recession of that decade took hold. The state borrowed funds to pay UI benefits from 1974 to 1985. The solvency of the trust fund then improved considerably, with the HCM rising from 0 to over 1 by the end of 1988, and remaining above 1 through 2004. During much of this period Vermont's trust fund was in the best shape among the New England states, although the state's HCM began falling with the 2001 recession and has never returned to its earlier heights.

According to then-Labor Commissioner Patricia Moulton Powden, Vermont's path from being one of the nation's best-financed systems to insolvency was precipitated by choices made by the state in the late 1990s and early 2000s, coupled with the severity of the Great Recession.²⁸ As Powden said in 2010, "[T]he reason we're in this boat to begin with is that in 1998 we started indexing benefits to the average annual wage, and in 2002 we bumped those increases higher than a cost-of-living adjustment. We did nothing to adjust the income side of the equation." Furthermore, Vermont's taxable wage base remained unchanged at \$8,000 from 1983 through 2009, with the ratio of taxable to total wages falling from 51.4 percent to 24.4 percent over this period, a decline of more than 25 percentage points.

Facing pending insolvency in 2009, Vermont raised the taxable wage base to \$10,000 and froze the maximum weekly benefit at \$425, both stop-gap measures. The state passed more-comprehensive reforms at the end of the 2010 legislative session to put the

system on a path to solvency. This legislation called for increasing the taxable wage base to \$13,000 in 2011 and to \$16,000 in 2012. After the trust fund reaches a positive balance, the base will be adjusted upward annually, indexed to overall wage growth, but will drop by pre-specified amounts when the trust fund reaches certain thresholds. The legislation also included a number of other provisions, including changing the way maximum total benefit amounts are calculated, making it more difficult for individuals fired for misconduct to receive benefits, and reinstating a one-week waiting period.²⁹

Appendix B Endnotes

- ¹ CTDOL, September 2011.
- ² Rick McHugh. 2004. "Bond Financing for Insolvent State Unemployment Insurance Trust Funds." New York, NY: National Employment Law Project. Available at http://nelp.3cdn.net/03f85efcaa9c423b78_gjm6bnku9.pdf. According to economist Wayne Vroman, Connecticut's replacement rate decreased substantially after bonding, as the state moved to a two-high-quarter procedure for calculating weekly benefits. See Wayne Vroman. 2005. "The Recession of 2001 and Unemployment Insurance Financing." *Federal Reserve Bank of New York Economic Policy Review*. August. Available at <http://www.newyorkfed.org/research/epr/05v11n1/0508vrom.pdf>.
- ³ Connecticut Department of Labor. "An Employer's Guide to Unemployment Compensation." Accessed May 17, 2011 at <http://www.ctdol.state.ct.us/uitax/empl-guide.pdf>.
- ⁴ Once this target is met, or projected to be met, the law requires the fund balance tax to be lowered, thus providing no administrative flexibility to maintain larger fund balances. See General Statutes of Connecticut. Title 31. Chapter 567. Section 31-225-a. Accessed on February 16, 2012 at <http://www.cga.ct.gov/current/pub/chap567.htm>.
- ⁵ While there is no consensus among UI solvency experts on an acceptable ratio of reserves to wages, groups such as the National Employment Law Project, a labor advocacy group, believe that a pre-recession reserve ratio of at least 2.0 percent is desirable. See National Employment Law Project. 2010. "Understanding the Unemployment Trust Fund Crisis of 2010." New York, NY. Available at <http://www.nelp.org/page/-/UI/solvencyupdate2010.pdf?nocdn=1>.
- ⁶ Greg Bordonaro. "Fix for Unemployment Fund May Mean Decade-long Tax Bite." *Hartford Business Journal*. April 18, 2011.
- ⁷ Bill history for SB 988, accessed on October 20, 2011 at <http://www.cga.ct.gov>.
- ⁸ Mal Leary. "Maine Raises Unemployment Tax by \$54 Million." *The Bangor Daily News*. November 30, 2009.
- ⁹ Edward D. Murphy. "Unemployment Tax May Rise to Cover Deficit." *The Portland Press Herald*. March 17, 1999.
- ¹⁰ Stephan Burklin. "Health of Unemployment Trust Fund Mitigates Budget Pain," *Maine Watchdog*. April 8, 2011. Available at <http://maine.watchdog.org/2011/04/08/health-of-unemployment-trust-fund-mitigates-budget-pain/>.
- ¹¹ Maine uses the ratio of total to taxable wages to adjust employer contribution rates; thus, rates should adjust upward as the value of the taxable wage base relative to overall wages falls. An alternative to an indexed taxable wage base, this is also meant to safeguard against erosion of the trust fund over time. See Maine Revised Statutes. Title 26. Chapter 13. Subchapter 7. Section 1221. Accessed February 16, 2012 at <http://www.mainelegislature.org/legis/statutes/26/title26sec1221.html>.
- ¹² To eliminate the immediate solvency risk and jump-start the rebuilding of the trust fund, the statute initially set target revenue collections higher than would otherwise be called for by economic conditions, with the plan to lower them as the status of the trust fund improved.
- ¹³ Under the array method an employer who experienced a large number of layoffs might not see a rate increase if other employers also experienced heavy layoffs. Because higher rates paid by employers due to experience rating is one mechanism by which states are able to replenish their trust funds, array states may be more dependent on schedule changes—or other automatic solvency adjustments—than fixed interval states. See Tannenwald and O'Leary 1997.
- ¹⁴ To see whether this difference remained statistically significant when controlling for other factors, a second set of regressions was run that included as an explanatory variable a dummy set equal to 1 if a state used the array method in 2010 and 0 otherwise. While the variable's estimated coefficient had the expected positive sign in all cases, it was only statistically significant (at the 10 percent level) in one model. This suggests that factors other than the employer ranking method were more strongly associated with a state's probability of borrowing during or after the Great Recession.
- ¹⁵ Gillian Rich. "Mass. Jobless Fund in the Black." *The Boston Globe*. October 4, 2011.
- ¹⁶ Wayne Vroman. 2003. "Unemployment Insurance Financing Options in Massachusetts." Washington, DC: The Urban Institute. Available at http://www.urban.org/uploadedpdf/410922_UI_Financing_MA.pdf, and National Employment Law Project. 2003. "Falling Into the Same Trap Twice: Understanding Unemployment Insurance Financing and Trust Fund Solvency in Massachusetts." New York, NY. Available at http://nelp.3cdn.net/6b8c4715939eede1f0_rtm6iigxy.pdf.
- ¹⁷ While several states have frozen rates schedules in recent years, economist Wayne Vroman notes that only Massachusetts and Georgia have had a long history of doing so. According to Vroman, the Commonwealth opted for a lower schedule than called for by statute in 11 of the 12 years between 1992 and 2003, and this proclivity has continued in recent years. This practice has not been observed in the other New England states. See Vroman 2003 and Vroman 2011.
- ¹⁸ For example, New Hampshire has historically had low reciprocity rates compared with other states. A 2001 investigation by Wayne Vroman concluded that policy choices such as New Hampshire's high monetary eligibility requirements and activist stance in monitoring continuing eligibility for benefits are contributing factors. See Wayne Vroman 2001. "Low Benefit Reciprocity in State Unemployment Insurance Programs." Washington, DC: The Urban Institute. Available at http://www.urban.org/UploadedPDF/410383_State_UI_Full.pdf.
- ¹⁹ The seasonality of trust fund flows may explain why New Hampshire ran into trouble in these particular quarters, as the first few months of the year tend to be when monthly outlays are highest but revenues and net reserves are at seasonal lows. See Vroman 2011.
- ²⁰ New Hampshire Department of Employment Security. 2009. "Trust Fund Report."
- ²¹ New Hampshire Senate Bill 129. Accessed February 14, 2012 at <http://www.gencourt.state.nh.us/legislation/2009/SB0129.html>.
- ²² RIPEC, 2011.
- ²³ Philip Marcelo. "Chafee's budget proposes changes to jobless benefits." *The Providence Journal*. March 11, 2011.
- ²⁴ Rhode Island Department of Labor and Training. "National Organization Praises Rhode Island for Unemployment Insurance Reforms." Media advisory. August 15, 2011. Accessed February 16, 2012 at http://www.dlt.ri.gov/News_Releases/NR_081511.htm.
- ²⁵ The legislation also restricted eligibility for individuals receiving severance pay and tightened the criteria an individual must meet to overcome benefit disqualification. See Rhode Island Article 4. Accessed January 19, 2012 at <http://www.rilin.state.ri.us/billtext11/housetext11/article-004.htm>.
- ²⁶ RIPEC, 2011.
- ²⁷ Vermont Department of Labor. 2010. "Unemployment Insurance Reform Proposal." Available at http://labor.vermont.gov/Portals/0/UI/trust%20fund%20proposal%20january%202010%20_3_.pdf.
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The New England Public Policy Center was established by the Federal Reserve Bank of Boston in January 2005. The Boston Fed has provided support to the public policy community of New England for many years; NEPPC institutionalizes and expands on this tradition. The Center's mission is to promote better public policy in New England by conducting and disseminating objective, high-quality research and analysis of strategically identified regional economic and policy issues. When appropriate, the Center works with regional and Bank partners to advance identified policy options.

You can learn more about the Center by contacting us or visiting our website:

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