The Effect of Unemployment Insurance on the Economy and the Labor Market

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Summary

In December 2010, Congress passed the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312), which among others things temporarily extended the Emergency Unemployment Compensation (EUC08) program at an estimated cost of $56.5 billion—the eighth time EUC08 was extended. Before each vote, there were calls from some to end the program, arguing that the Unemployment Insurance (UI) program increases unemployment and does not stimulate the economy. It has been argued that UI subsidizes unemployment and creates a disincentive to look for a job, thus increasing the duration of unemployment. Some assert that this will increase the unemployment rate, reduce the production of goods and services, and reduce economic growth. Others emphasize the traditional view that UI and extending UI benefits during economic downturns serves as an economic stimulus, puts money into the economy, and helps create jobs. Since unemployment is likely to remain relatively high throughout 2011, further extensions of the EUC08 program could be considered by the 112th Congress. This report examines the effect of the Unemployment Insurance program on the economy and the labor market.

Total Unemployment Insurance benefit payments increase automatically during recessionary periods as the unemployment rate increases and unemployed workers apply for benefits. Total benefit payments decrease during economic expansions as unemployed workers return to work. UI payments provide an automatic counter-cyclical fiscal policy expansion that dampens fluctuations in economic activity, which is often enhanced by temporary legislation. Consequently, the UI system is said to be part of the automatic stabilization tools of the government that boost economic output during recessions.

But a higher level of Unemployment Insurance benefits appears to increase the duration of unemployment spells, thus increasing unemployment. One recent study, however, suggests that this may be mostly due to a liquidity effect (i.e., UI benefits allow unemployed workers, who would have to reduce consumption levels without benefits, to maintain consumption levels while unemployed), which reduces the pressure to find a new job quickly, rather than to moral hazard (i.e., disincentive effect) and concludes that the optimal level of UI benefits could be close to its current level. Furthermore, the UI system may reduce the duration of unemployment spells of individuals not eligible to receive UI benefits. Overall, the various studies indicate that the UI system has an indeterminate effect on the unemployment rate.

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Outlays for UI have increased from $41.7 billion in 2008 to $159.0 billion in 2010. Since unemployment is likely to remain relatively high throughout 2011, further extensions of the EUC08 program could be considered by the 112th Congress with a potentially significant effect on the budget deficit.[4] This report examines the effect of the Unemployment Insurance program on the economy and the labor market.

The State of the Labor Market Since 2007

In the Current Population Survey, the government survey used to estimate the official unemployment rate, individuals 16 years or older are classified into one of three labor force states: employed, unemployed, and not in the labor force (NILF). An individual without a job is considered unemployed if he has looked for a job in the past four weeks, otherwise he is considered not in the labor force.[5] Employed and unemployed make up the labor force. Individuals can become unemployed because they lost their job and begin searching for a new job, because they are new to the labor force (e.g., a recent school graduate) and begin looking for

[1] EUC08 was created by the Supplemental Appropriations Act of 2008 (P.L. 110-252). This is the eighth time that Congress has created a temporary federal program to extend unemployment insurance benefits during an economic downturn.

[2] See, for example, Alex M. Brill, *Unemployment Insurance: Considerations for Extending Benefits*, American Enterprise Institute, Testimony before the Subcommittee on Income Security and Family Support of the Committee on Ways and Means, April 10, 2008; James Sherk, *Extended Unemployment Insurance Benefits: The Heritage Foundation 2010 Labor Boot Camp*, The Heritage Foundation, WebMemo no. 2759, Washington, DC, January 14, 2010, http://www.heritage.org/Research/Labor/wm2759.cfm; and Robert Barro, "The Folly of Subsidizing Unemployment," *The Wall Street Journal*, August 30, 2010.

[3] See, for example, Till von Wachter, "Unemployment Insurance and the Long-Term Effects of Layoffs," Presentation at the Economic Policy Institute, Washington, DC, May 25, 2010; and Andrea Orr, *Extending Unemployment Insurance is a Fiscally Responsible Thing To Do*, Economic Policy Institute, Washington, DC, May 28, 2010, http://www.epi.org/analysis_and_opinion/entry/extending_unemployment_insurance_is_the_fiscally_responsible_thing_to/.

[4] The Blue Chip consensus forecast has the unemployment rate remaining at about 9% throughout 2011 (Blue Chip Economic Indicators, vol. 36, no. 2 , February 10, 2011). The Federal Reserve Board forecasts that the unemployment rate will be 8.8% to 9.0% in 2011 (minutes of the Federal Open Market Committee, January 25-26, 2011, http://www.federalreserve.gov/newsevents/press/monetary/fomcminutes20110126.pdf).

[5] Research suggests that the unemployed are behaviorally different from individuals not in the labor force. See Christopher J. Flinn and James J. Heckman, "Are Unemployment and Out of the Labor Force Behaviorally Distinct Labor Force States?" *Journal of Labor Economics*, vol. 1, no. 1 (1983), pp. 28-42.

a job, or because they begin looking for a job after a prolonged absence from the labor force. How an individual becomes unemployed affects her eligibility for UI benefits.

People become unemployed for several reasons (see **Table 1**). Just before the onset of the 2007-2009 recession (November 2007), about half of the unemployed were unemployed because their job ended involuntarily through a temporary layoff (13.6%) or other employer action (36.9%)—denoted as "job losers" in the table. By December 2010 (a year and a half after the end of the recession), job losers accounted for over 60% of the unemployed. The share of the unemployed who voluntarily left a job ("job leavers") decreased from 10.6% in November 2007 to 6.3% in December 2010. Individuals who were not in the labor force and then started looking for a job are classified as unemployed; they are considered "reentrants" (who held a full-time job before) or "new entrants" to the labor force. The proportion of the unemployed who are reentrants or new entrants fell from 39% to 32% between November 2007 and December 2009.

Table 1. Composition of the Unemployed

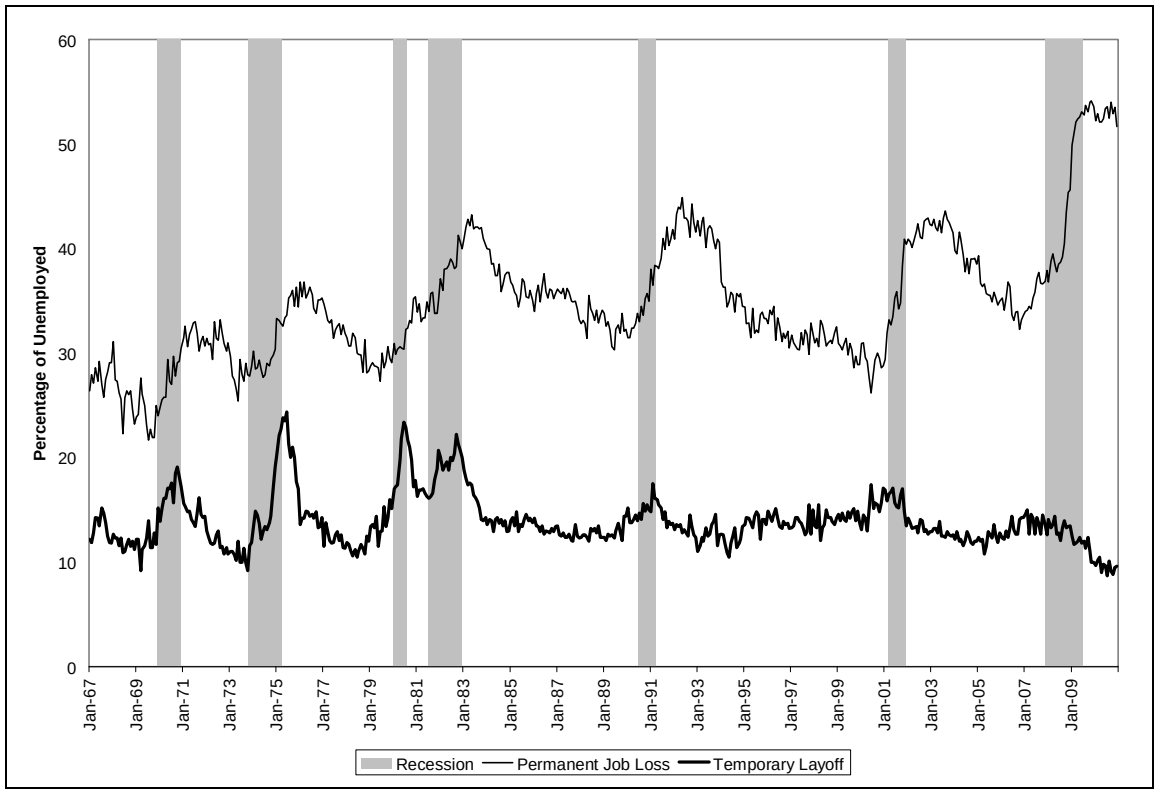
	November 2007	December 2010
Job losers	50.5	61.3
Temporary layoff	13.6	9.6
Permanent job loss	36.9	51.7
Job leavers	10.6	6.3
Reentrants	29.6	23.4
New entrants	9.3	9.0

Source: Bureau of Labor Statistics.

The proportion of the unemployed on temporary layoff has not followed the same pattern over the 2007-2009 recession as it has over previous recessions. **Figure 1** displays the trend in the proportion of the unemployed on temporary layoff (the bottom heavy line) and permanent job losers (the top thin line). In recessions before 2000, temporary layoffs would increase dramatically (or spike) in the recession and then rapidly decline during the subsequent recovery (this pattern was somewhat muted during the 1990-1991 recession). During the 2007-2009 recession, there was no spike in the percentage of the unemployed on temporary layoff—the percentage actually decreased during the recession.

Permanent job losers as a percentage of the unemployed increased to an unprecedented extent during the 2007-2009 recession (the increase during this recession was larger than during any previous recession after 1967). The number of unemployed experiencing a permanent job loss increased by 217% between December 2007 and June 2009 (the official end of the recession).

Figure 1. Temporary Layoffs and Permanent Job Losses, 1967-2010



Source: Bureau of Labor Statistics.

The absence of a spike in temporary layoffs in recessions after 1990 may help explain why recent economic recoveries were characterized as jobless. Before 1990, after the end of a recession temporarily laid-off workers were typically recalled to work by their former employers fairly quickly, thus reducing the unemployment rate. Those who permanently lost their jobs would, in most cases, eventually find a new job, thus helping to gradually reduce the unemployment rate during a recovery. After 1990, it appears that as temporary layoffs became less important to the rise in unemployment during the recession, recalls to former employers have had a much smaller effect on the fall in unemployment during the recovery.

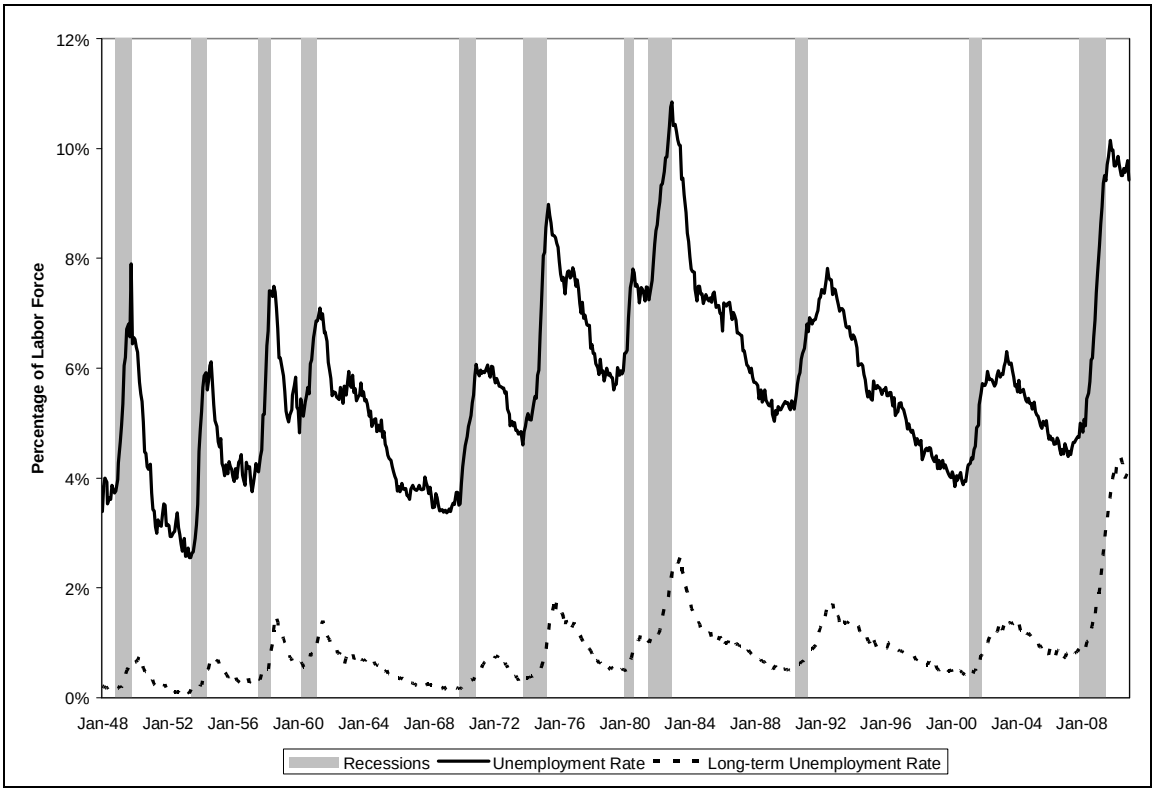
Another distinguishing characteristic of the 2007-2009 recession is the high proportion of the unemployed who have been out of work for more than 26 weeks (see **Figure 2**).[6] The percentage of long-term unemployed attained a post-WWII high shortly after the end of the 2007-2009 recession (see the dashed line in **Figure 2**)—over 40% of the unemployed have been jobless for 26 or more weeks since July 2009. Part of this increase can be explained by the large increase in the ratio of unemployed to job openings. Before the 2007-2009 recession there were about 1.7 unemployed workers per job opening.[7] By July 2009 (the first month after the end of the

[6] For more information on the long-term unemployed, see CRS Report R41179, *Long-Term Unemployment and Recessions*, by Gerald Mayer and Linda Levine.

[7] The number of unemployed workers per job opening is calculated using Bureau of Labor Statistics data on the number of unemployed (from the Employment Situation reports) and the number of job openings (from the Job Openings and Labor Turnover Survey). Both are available at http://www.bls.gov. For more information, see Mark deWolf and Katherine Klemmer, "Job Openings, Hires, and Separations Fall During the Recession," *Monthly Labor* (continued...)

recession), there were over 6 unemployed workers per job opening; the figure was 4.7 in December 2010.[8] During the 2001 recession and subsequent recovery, the number of unemployed workers per job opening never surpassed 2.2.

Figure 2. Unemployment Rate and Long-tern Unemployment Rate, 1948-2010



Source: Bureau of Labor Statistics.

Key Features of the UI Program

The Unemployment Insurance (UI) program is a joint federal-state program that is financed by federal and state payroll taxes.[9] The program incorporates three levels of benefits:

- regular Unemployment Compensation (UC) in which the federal government provides broad guidelines for benefits coverage and eligibility, and benefit determination, with the specifics left to the states;

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Review, vol. 133, no. 5 (May 2010), pp. 36-44.

[8] Over the course of the 2007-2009 recession, the number of job openings fell by almost half and in December 2010 still remained about 30% below the November 2007 level.

[9] For more details on financing, see CRS Report RS22077, *Unemployment Compensation (UC) and the Unemployment Trust Fund (UTF): Funding UC Benefits*, by Julie M. Whittaker.

- the Extended Benefit program, which extends unemployment benefits to unemployment workers in a state if certain adverse economic conditions exist in that state; and
- the Emergency Unemployment Compensation (EUC08) program, which was created by the Supplemental Appropriations Act of 2008 (P.L. 110-252) and is a federal temporary program to extend unemployment compensation during the recession and weak labor market.[10]

Over the past 40 years numerous studies have examined the effect of the Unemployment Insurance program on the labor market. These studies have generally focused on the transitions from one labor force state to another and how the UI program changes incentives for workers and employers. The main features of the program that affect incentives regarding labor market transitions are (1) eligibility based on reason for unemployment, (2) the potential duration of benefit receipt, (3) the benefit level, and (4) the financing of the program.

Workers who have attained a minimum of wages and employment in covered work over a base period are generally eligible for benefits if they become unemployed.[11] The minimum and base period varies among the states. Furthermore, different states have different rules regarding workers who voluntarily leave an employer. For example, workers leaving an employer for good cause are not disqualified from receiving benefits, but what constitutes good cause does vary somewhat from state to state. Consequently, not all unemployed workers are eligible for UI benefits and the proportion who are ineligible varies from state to state. In mid-December 2010, about 14 million were unemployed and about 8.9 million people were claiming UI benefits.[12]

Regular UC benefits are generally payable for up to 26 weeks. Under the Extended Benefit program, benefit receipt is automatically extended for up to an additional 13 weeks (20 weeks in some cases) depending on the state's economic conditions. Lastly, benefits are extended for an additional 34 to 53 weeks under EUC08 depending on a state's economic conditions.[13]

Unemployment compensation benefits are generally based on a worker's wages in covered employment over a base period.[14] The minimum and maximum benefit level varies from state to state, but within the minimum and maximum, most state benefit formulas yield a benefit level that replaces about half the average weekly wage up to the maximum benefit. The maximum weekly benefit varies from state to state—from $235 in Mississippi to $625 in Massachusetts.[15]

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[10] For further details see CRS Report RL33362, *Unemployment Insurance: Programs and Benefits*, by Katelin P. Isaacs and Julie M. Whittaker; and CRS Report RL34251, *Federal Programs Available to Unemployed Workers*, coordinated by Katelin P. Isaacs.

[11] See U.S. Department of Labor, Employment and Training Administration, *Comparison of State Unemployment Insurance Laws*, available at http://www.unemploymentinsurance.doleta.gov.

[12] The number of unemployed is reported in U.S. Department of Labor, Bureau of Labor Statistics, *The Employment Situation, December 2010*, News Release, January 7, 2011; and the number claiming UI benefits is reported in U.S. Department of Labor, Employment and Training Administration, *Unemployment Insurance Weekly Claims Report*, News Release, December 30, 2010.

[13] See appendix A in CRS Report RL33362, *Unemployment Insurance: Programs and Benefits*, by Katelin P. Isaacs and Julie M. Whittaker for a summary of the potential duration of UC receipt.

[14] See CRS Report RL33362, *Unemployment Insurance: Programs and Benefits*, by Katelin P. Isaacs and Julie M. Whittaker.

[15] Department of Labor, Employment and Training Administration, Significant Provisions of State Unemployment Insurance Laws Effective January 2011, http://www.workforcesecurity.doleta.gov/unemploy/content/sigpros/2010-(continued...)

The maximum weekly benefit is close to or less than the average weekly wage in many states, suggesting that the wage replacement rate is less than 50% for many unemployed workers, especially those who had higher earnings. For the U.S., the average weekly benefit is about 34.2% of the average weekly wage; this ratio varies from 25.8% in Louisiana to 53.9% in Hawaii.[16] In calculating the benefit level, all states disregard some earnings during unemployment to provide some incentive to recipients to accept short-time or part-time employment while searching for permanent employment. The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) created Federal Additional Compensation (FAC), which provided a $25 weekly benefit supplement to UI recipients. The authorization for the benefit supplement expired in May 2010.

The regular UC program is funded at the federal and state levels by a tax on payroll. The state payroll tax is experience rated in that an employer's tax rate is based on the amount of benefits paid to former employees, up to a maximum established by state law. Because of the maximum rate, the experience rating is said to be imperfect—the marginal tax rate does not increase as the amount of benefits paid to former employees increases. Furthermore, the federal tax is 0.8% on the first $7,000 of earnings ($56 per worker), which has not changed since 1983. It has been argued that this imperfect experience rating could provide an incentive to some firms to layoff workers.

Unemployment Insurance as an Automatic Economic Stabilizer

Aggregate Unemployment Insurance benefit payments increase automatically during recessionary periods as the unemployment rate increases and decreases during economic expansions. UI payments provide an automatic counter-cyclical fiscal policy expansion that dampens fluctuations in economic activity, which is often enhanced by temporary legislation (e.g., EUC08). Consequently, the UI system is part of the automatic stabilization tools of the government that boost economic activity during recessions.

Over the past 40 years, several studies have examined the impact of the UI system on the economy. A 1991 study prepared for the Department of Labor summarized much of the early scholarly literature.[17] On average, the early studies estimate that the decline in gross domestic product (GDP) during a recession would have been about 15% greater if the UI system had not existed. Based on simulations using an econometric model of the U.S. economy, the authors of the study conclude that the effect of the UI system on the economy was two-thirds as large in the 1980s as it was in the 1970s. Their simulations, however, were based only on the regular UI program and did not consider the extended benefits program.

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2019/January2011.pdf.

[16] See Department of Labor, Employment and Training Administration, Unemployment Insurance Data Summary, 3rd Quarter 2010, http://www.workforcesecurity.doleta.gov/unemploy/content/data_stats/datasum10/DataSum_2010_3.pdf.

[17] Bruce H. Dunson, S. Charles Maurice, and Gerald P. Dwyer, *The Cyclical Effects of the Unemployment Insurance (UI) Program: Final Report*, Department of Labor, Unemployment Insurance Occasional Paper 91-3, Washington, DC, 1991.

Subsequent studies reach different conclusions. In a study using a different econometric model, Lawrence Chimerine, Theodore Black, and Lester Coffey find that the GDP declines during recessions would have been 17% deeper in the absence of the UI program.[18] They further find that the stabilizing effectiveness of UI has not diminished since the 1970s.

In a more recent study, Wayne Vroman examines the stabilization role of the UI program during the 2007-2009 recession using a third econometric model.[19] He finds that the UI program (regular and extended) closed 18.3% of the GDP shortfall caused by the recession. He also finds that the extended benefits through the Extended Benefits program and EUC08 played an important role in this stabilization effect.

Effect of Unemployment Insurance on the Labor Market

Changes in the rates of transition between the labor force states will affect the unemployment rate, and the UI system can affect these transition rates. Many analysts have focused solely on the behavior of individuals. For example, in his 1976 Nobel lecture, Milton Friedman argued that the natural rate of unemployment was increasing, due, in part, to unemployment insurance reducing the incentive of the unemployed to seek work.[20] This suggests that the effects of the UI program fall on workers or on the supply-side of the labor market. Other scholars have suggested some of the features of UI financing can also affect employers or the demand-side of the labor market.

On the supply-side of the labor market, the standard economic model used to analyze the effect of UI is the job search model. The model postulates that an unemployed worker searches for a job and accepts a job offer if the wage offered exceeds her reservation wage. The reservation wage is the lowest wage an unemployed worker is willing to accept and is influenced by income received while unemployed (e.g., public assistance, unemployment compensation, asset income, and access to credit) and by income of other family members. An individual's efforts looking for a job affect the rate at which job offers arrive and the wage rate offered. The receipt of UI benefits tends to increase the reservation wage, which in turn can decrease the probability that a wage offer will exceed the reservation wage, and it could reduce job search effort. The state of the economy can affect the rate at which wage offers are received and affect job search effort.

Through these effects, UI benefits are said to have an disincentive effect on a worker's job search and thus increase the duration of unemployment (the length of time unemployed). This duration effect is often cited as an example of moral hazard—that insuring a worker against the income loss due to unemployment actually increases unemployment. For example, Jonathan Gruber

[18] Lawrence Chimerine, Theodore S. Black, and Lester Coffey, *Unemployment Insurance as an Economic Stabilizer: Evidence of Effectiveness Over Three Decades*, Department of Labor, Unemployment Insurance Occasional Paper 99-8, Washington, DC, 1999.

[19] Wayne Vroman, *The Role of Unemployment Insurance as an Automatic Stabilizer During a Recession*, Department of Labor, ETAOP 2010-10, Washington, DC, November 16, 2010.

[20] Milton Friedman, "Nobel Lecture: Inflation and Unemployment," *Journal of Political Economy*, vol. 85, no. 3 (1977), pp. 451-472.

observes that "UI has a significant moral hazard cost in terms of subsidizing unproductive leisure."[21]

Effect on the Duration of Unemployment

Many of the studies examining the effect of UI benefits on the duration of unemployment focus on the rate at which individuals leave unemployment.[22] Furthermore, most studies use administrative UI data, which have accurate data on the level of UI benefits, the previous wage rate, and the length of time benefits are received. The studies generally find that a 10% increase in UI benefits (measured as the ratio of the benefit payment to the wage before unemployment and called the replacement rate) leads to an increase in the duration of unemployment by 0.5 to 1.5 weeks.[23] Work by Alan Krueger and Andreas Mueller suggests that the reason for the lengthened unemployment spell is due to the inverse relationship between time spent looking for a job and UI benefit generosity.[24]

The potential duration of UI receipt may also affect the length of time unemployed. A few studies have examined how extended benefits affect the duration of unemployment, and all report that extending the potential duration in which a recipient can collect UI benefits increases the amount of time the average recipient receives benefits.[25] There is no consensus on the magnitude of the impact, however, with some suggesting a 13-week extension of benefits increases unemployment by one week and others suggesting up to a 2.5-week increase. Rob Valletta and Katherine Kuang, however, find that unemployment durations after December 2007 increased similarly for both unemployed workers receiving UI benefits and those unemployed ineligible for UI benefits.[26] This suggests that extended UI and EUC08 may have had a limited impact on lengthening the duration of unemployment spells in the 2007-2009 recession.

Many unemployment spells begin with the worker being laid off because of slack demand for the employer's output. In the past, many laid-off workers were recalled by their former employer after receiving UI benefits for a period of time. Research suggests that the recall expectations of UI recipients affects their job search behavior and thus the likelihood of finding a new job. For

[21] Jonathan Gruber, *Public Finance and Public Policy*, 2nd ed. (New York: Worth, 2007), p. 395.

[22] Technically, these studies employ "hazard" models that estimate the effects of characteristics of the individual, the economy, and UI benefits on the hazard rate—the probability of leaving unemployment at a point in time given being unemployed up to that time.

[23] See, for example, Raj Chetty, "Moral Hazard versus Liquidity and Optimal Unemployment Insurance," *Journal of Political Economy*, vol. 116, no. 2 (2008), pp. 173-234; Bruce D. Meyer, "Unemployment Insurance and Unemployment Spells," *Econometrica*, vol. 58, no. 4 (July 1990), pp. 757-782; and Gary Solon, "Work Incentive Effects of Taxing Unemployment Benefits," *Econometrica*, vol. 53, no. 2 (March 1985), pp. 295-306.

[24] Alan B. Krueger and Andreas Mueller, "Job Search and Unemployment Insurance: New Evidence from Time Use Data," *Journal of Public Economics*, vol. 94, no. 3-4 (April 2010), pp. 298-307. Since UI receipt is not recorded in the data, Krueger and Mueller had to infer UI eligibility based on the reason for unemployment and part-time/full-time status on the previous job, which could affect their finding.

[25] See Lawrence F. Katz and Bruce D. Meyer, "The Impact of the Potential Duration of Unemployment Benefits on the Duration of Unemployment," *Journal of Public Economics*, vol. 41, no. 1 (February 1990), pp. 45-72; David Card and Phillip B. Levine, "Extended Benefits and the Duration of UI Spells: Evidence from the New Jersey Extended Benefit Program," *Journal of Public Economics*, vol. 78 (2000), pp. 107-138; and Stepan Jurajda and Frederick J. Tannery, "Unemployment Durations and Extended Unemployment Benefits in Local Labor Markets," *Industrial and Labor Relations Review*, vol. 56, no. 2 (January 2003), pp. 324-348.

[26] Rob Valletta and Katherine Kuang, "Extended Unemployment and UI Benefits," *FRBSF Economic Letter*, no. 2010-12, April 19, 2010.

example, Lawrence Katz and Bruce Meyer found that those expecting to be recalled were much less likely to find a new job than those who had no recall expectations.[27] Furthermore, those expecting to be recalled were much more likely to leave unemployment by being recalled by their former employer. Unemployment due to temporary layoffs, however, now appears to be less significant than in the past. Since the recovery of the 2007-2009 recession could be characterized as a jobless recovery like the previous two recessions, recall by a former employer may be unlikely and unemployment durations could remain long.[28]

A job loss is accompanied by earnings loss and a reduction of income. Jonathan Gruber estimated that in the absence of unemployment compensation, the consumption of the unemployed would fall by 22% because of reduced income.[29] This potential fall in consumption is over three times the actual fall in consumption of the unemployed with unemployment compensation (6.8%).[30] Gruber uses his research findings and calculates that the socially optimal replacement rate for UI benefits would probably be considerably less than the average replacement rate of individuals in his sample (42.6%) under what he considers plausible values of individuals' attitudes toward risk. Subsequent research, however, suggests that the values for risk attitudes considered plausible by Gruber are probably too low.[31] Consequently, the optimal UI replacement rate (the ratio of the benefit payment to the wage before unemployment) may be closer to the average of 43%.

One of the possible reasons for the large consumption smoothing effect of UI is the unemployed are liquidity constrained—that is, they do not have access to assets, loans, or other income to help smooth their consumption over bad times. Furthermore, this could be an alternate explanation for the effect UI benefits have on the duration of unemployment. The primary explanation is usually one of moral hazard—the "price" of leisure is reduced so individuals work less and increase their leisure.[32] Raj Chetty examined the role of these two alternatives in explaining why UI benefits increase the length of time unemployed.[33] He finds that a 10% increase in the UI benefit would decrease the conditional probability of leaving unemployment by 5.3% (lengthen an unemployment spell by about one week). He further estimates that the liquidity effect accounts for about 60% of the UI effect on lengthening unemployment durations. This result has implications for the effect of the UI program on social welfare. Chetty concludes that UI benefits have a welfare-enhancing consumption smoothing effect (i.e., allows the unemployed to maintain

[27] Lawrence F. Katz and Bruce D. Meyer, "Unemployment Insurance, Recall Expectations, and Unemployment Outcomes," *Quarterly Journal of Economics*, vol. 105, no. 4 (November 1990), pp. 973-1002.

[28] For more information on jobless recoveries, see CRS Report R40798, *Unemployment and Employment Trends Before and After the End of Recessions*, by Linda Levine.

[29] Jonathan Gruber, "The Consumption Smoothing Benefits of Unemployment Insurance," *American Economic Review*, vol. 87, no. 1 (March 1997), pp. 192-205.

[30] This is consistent with two recent studies showing that UI and the temporary expansion enacted in ARRA were very effective in reducing poverty among unemployed workers. See Wayne Vroman, "The Great Recession, Unemployment Insurance and Poverty," presented at conference on Reducing Poverty and Economic Distress after ARRA, Washington, DC, January 15, 2010 (revised April 2010); and Arloc Sherman, *Despite Deep Recession and High Unemployment, Government Efforts—Including the Recovery Act—Prevented Poverty from Rising in 2009, New Census Data Show*, Center on Budget and Policy Priorities, Washington, DC, January 5, 2011.

[31] Robert B. Barsky, F. Thomas Juster, and Miles S. Kimball, et al., "Preference Parameters and Behavioral Heterogeneity: An Experimental Approach in the Health and Retirement Study," *Quarterly Journal of Economics*, vol. 112, no. 2 (May 1997), pp. 537-579.

[32] In economic terms, UI induces a substitution effect by distorting the relative price of leisure and consumption, thus reducing the incentive to look for a job.

[33] Raj Chetty, "Moral Hazard versus Liquidity and Optimal Unemployment Insurance," *Journal of Political Economy*, vol. 116, no. 2 (2008), pp. 173-234.

consumption levels) and a welfare-reducing moral hazard effect (i.e., work disincentive effect) and suggests that a replacement rate of 50% is near to the optimal economic welfare enhancing level.[34]

Effect on Post-Unemployment Labor Market Outcomes

The receipt of UI benefits allows unemployed workers additional leeway in their search for new employment. Consequently, it could reasonably be expected that the quality of the new employment would be positively affected by the receipt of UI benefits. Few studies, however, have examined this possible effect; two post-unemployment outcomes have been examined: the post-unemployment wage and the duration of the post-unemployment job.

While not definitive, research has suggested that UI benefits have a positive effect on post-unemployment wages. Ronald Ehrenberg and Ronald Oaxaca found that the receipt of UI had a positive effect on the post-unemployment wages of older workers but not younger workers (i.e., under 25 years of age).[35] John Addison and McKinley Blackburn also find a positive effect on post-unemployment wages, but the effect is not statistically different from zero.[36]

One study examined the effect of UI benefits on the duration of the post-unemployment job. Mario Centeno estimates that a 10% increase in UI benefits increases the duration of subsequent employment by about two weeks.[37]

These results are consistent with the argument that UI increases labor productivity and facilitates the efficient allocation of resources. In a model of the U.S. economy, Daron Acemoglu and Robert Shimer show UI may encourage workers to seek higher productivity jobs and encourage firms to create these jobs.[38] They further show that these positive effects of UI benefits outweigh the standard moral hazard costs (i.e., lengthened unemployment duration). They suggest "that a decrease in the generosity of UI from its current U.S. level would not only decrease welfare but also reduce the level of output."[39]

Spillover Effects on the Uninsured

Most of the studies examining the effects of the UI program have limited the focus to insured individuals—unemployed workers receiving UI benefits or workers who would be potentially eligible to receive benefits if they were to become unemployed. Theoretical models of the labor market suggest that the effects of the UI program could spill over and affect unemployed workers

[34] Ibid., p. 221.

[35] Ronald G. Ehrenberg and Ronald L. Oaxaca, "Unemployment Insurance, Duration of Unemployment, and Subsequent Wage Gain," *American Economic Review*, vol. 66, no. 5 (December 1976), pp. 754-766.

[36] John T. Addison and McKinley L. Blackburn, "The Effects of Unemployment Insurance on Postunemployment Earnings," *Labour Economics*, vol. 7, no. 1 (January 2000), pp. 21-53.

[37] Mario Centeno, "The Match Quality Gains from Unemployment Insurance," *Journal of Human Resources*, vol. 39, no. 3 (Summer 2004), pp. 839-863.

[38] Daron Acemoglu and Robert Shimer, "Productivity Gains from Unemployment Insurance," *European Economic Review*, vol. 44 (2000), pp. 1195-1224.

[39] Ibid., p. 1196.

who are not covered by the program.[40] One study has empirically examined this issue and finds that a 10% increase in the UI benefit leads to about a one week reduction in the unemployment spell of an uninsured unemployed worker.[41] One possible explanation for this finding is the chances an uninsured unemployed worker finds a job may increase as the insured unemployed reduce their effort searching for a new job.

Effect on Job Quits

Individuals quitting a job without good cause may be ineligible to receive UI benefits for part or all of their unemployment spell. Some studies have examined the effect of the UI program on workers' quit behavior. In a study examining this feature of the UI program, Gary Solon found that the disqualification of quitters from receiving UI benefits has no discernable impact on quit rates.[42]

Effect of the Method of Financing

The UI program is financed primarily by a payroll tax on employers.[43] At the state level, the tax is experience rated, but the experience rating is imperfect and the tax does not increase uniformly as the number of compensated unemployed rises. This feature of financing can provide an incentive to firms to hoard workers (i.e., hold an excess inventory of workers) in good times and temporarily lay them off during economic downturns. Using data from the 1980s, David Card and Phillip Levine find a negative correlation between the degree of experience rating and the rate of temporary layoffs.[44] They further find that increases in the degree of experience rating are associated with a dampening of seasonal fluctuations in temporary layoffs.

Temporary layoffs generally increase dramatically over the course of a recession. During the 2007-2009 recession, however, the proportion of the unemployed on temporary layoff actually decreased slightly (from 12.6% in December 2007 to 11.8% in June 2009). It is possible that the role of imperfect experience rating in increasing unemployment may be somewhat less important now than it has been in the past.

Concluding Remarks

Evidence is mounting that the labor market behaved differently during and after the 2007-2009 recession from recessions before 1990. The percentage of unemployed on temporary layoffs did not spike in the recent recession while the percentage with permanent job losses greatly

[40] See, for example, James W. Albrecht and Bo Axell, "An Equilibrium Model of Search Unemployment," *Journal of Political Economy*, vol. 92, no. 5 (1984), pp. 824-840.

[41] Phillip B. Levine, "Spillover Effects Between the Insured and Uninsured Unemployed," *Industrial and Labor Relations Review*, vol. 47, no. 1 (October 1993), pp. 73-86.

[42] Gary Solon, "The Effects of Unemployment Insurance Eligibility Rules on Job Quitting Behavior," *Journal of Human Resources*, vol. 19, no. 1 (Winter 1984), pp. 118-126.

[43] For more details, see CRS Report RL33362, *Unemployment Insurance: Programs and Benefits*, by Katelin P. Isaacs and Julie M. Whittaker.

[44] David Card and Phillip B. Levine, "Unemployment Insurance Taxes and the Cyclical and Seasonal Properties of Unemployment," *Journal of Public Economics*, vol. 53 (January 1994), pp. 1-29.

increased. Furthermore, the proportion of the labor force who have been unemployed for 26 weeks or more has reached a post-WWII high. Some analysts have suggested that the UI system has contributed to the current labor market problems of unemployed workers and high unemployment rates.

The UI system is part of the automatic stabilization tools of the government that boost economic output and employment during recessions. But a higher level of Unemployment Insurance benefits appears to increase the duration of unemployment spells, thus increasing unemployment. One recent study, however, suggests that this may be mostly due to a liquidity effect (i.e., UI benefits allow unemployed workers, who would have to reduce consumption levels without benefits, to maintain consumption levels while unemployed), which reduces the pressure to find a new job quickly, rather than to moral hazard (i.e., disincentive effect) and concludes that the optimal level of UI benefits could be close to its current level. Furthermore, the UI system may reduce the duration of unemployment spells of individuals not eligible to receive UI benefits. Research also suggests that it is possible the UI program increases productivity by allowing unemployed workers the opportunity to search for and find high productivity jobs. Overall, the various studies indicate that the UI system has an indeterminate effect on the unemployment rate.

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