# UI IN THE EARLY 21<sup>ST</sup> CENTURY—AN AMERICAN VIEW<sup>1</sup>

Jacob Alex Klerman<sup>2</sup>, November 2010, v1.0

Unemployment—actively seeking work, but unable to find it—is a pervasive and important facet of modern economies and their labor markets. In partial response, modern economies provide "Unemployment Insurance" (hereafter simply UI); i.e., cash payments to those who are unemployed and who meet other program eligibility criteria.

These two features—unemployment and unemployment insurance—are present on both sides of the Atlantic, in the last century and into this century. Details of unemployment and UI vary by place and time. With respect to place, the varying programs provide, policy environments and rich evidence for understanding policy effects. With respect to time, the situation is far from static. On both sides of the Atlantic, UI programs continue to evolve; in particular in response to short-term fiscal crisis, longer-term budget pressures and the ongoing economic development of what were formerly less developed counties.

This essay is an American response to three European papers on European UI systems (Grubb, 2011; Tatsiramos, 2011; Roed, 2011). The paper proceeds in five sections. Consistent with its role as an American response, the first section provides a brief overview of the American UI system and its recent evolution. The second and third sections present brief high-level reviews of the voluminous literatures on the economic theory of the effects of UI programs and the empirical evidence on those effects. The fourth section describes the current US macroeconomic environment and recent changes in UI policy. The final section attempts to identify some lessons for the US of the European experience and the papers presented in this session.

#### **American UI Programs**

Like many aspects of American social policy, American UI programs are a federal-state partnership. With their origins in 1935 New Deal legislation, federal statute sets the broad outlines of policy; states set their own policy within the latitude provided by the federal statute. In particular, states vary in their replacement rate and maximum duration of benefits; as well as the details of what it takes to qualify for UI benefits. The result is cross-state variation in policies which is nearly ideal of DiD/Difference-in-Differences analysis; i.e., the basic structure is common; only some details vary and those details vary

<sup>1</sup> Paper prepared for Chair's Discussion at the "Unemployment Insurance Programs" session at the Joint OECD/University of Maryland International Conference: "Labour Activation in a Time of High Unemployment", Paris, France, 14-15 November 2011.

<sup>&</sup>lt;sup>2</sup> Principal Associate and Senior Abt Fellow, Abt Associates, Cambridge, MA. 02138. USA. <u>Jacob\_Klerman@abtassoc.com</u>.

both across states and over time; and there is a long time-series of common data collection on very large samples.<sup>3</sup> We provide more details below.

The official U.S. Department of Labor (DOL) summaries of current state programs can be found at DOL (2011). Similar summaries going back several decades are available there or in articles in the house journal of the DOL, the *Monthly Labor Review*. Shaw and Stone (2010) provide an accessible narrative discussion.

At least compared to European UI programs, the most salient feature of the programs is their meagerness. OECD (2009) places the American programs dead last in generosity. In "normal times" (see below), the maximum duration of benefits is only about 26 weeks. The mean replacement rate—during the period that UI is paid—is slightly less than half (47% in 2009)—a target of half (or slightly more), but with a relatively low cap on payments.

Even these figures substantially overstate the generosity of the system. A requirement of recent employment makes even many job losers (about a quarter) totally ineligible. A requirement of sustained and substantial recent employment makes many more are eligible for benefits for considerably less than 26 weeks. In net, only about 40 percent of the unemployed are collecting UI—some were never eligible (e.g., recent entrants and reentrants, those who quit their jobs) and some have expended their UI eligibility, but have not found jobs' (http://www.doleta.gov/unemploy/chartbook/chartrpt.cfm).

Furthermore the stated replacement rate refers only to cash earnings (OECD, 2009). In the United States, health insurance is usually provided as an employee benefit. Thus, many employees also loose the health insurance when they lose their jobs. Under the federal COBRA (the Consolidated Omnibus Budget Reconciliation Act) provision, many of the uninsured can continue to purchase health insurance at their previous employer's group health insurance rate, but the payment is out-of-pocket to the former employee.

Another salient feature of American UI programs is their minimal activation component. In statute, there is a requirement to be available for and actively searching for work; in practice, this requirement is only very weakly enforced (e.g., Barron and Mellow 1979; St. Louis, et al., 1986). Funding for caseworkers to monitor job search is low. Other activities for the unemployed (e.g. training) are minimal, as is public funding for training more broadly in the United States.

Nominally, in most states, regular UI benefits are funded through taxes on employers. The tax is assessed as a percentage of wages up to a, relatively low, cap. Most economic analyses conclude that the actual incidence of the taxes is primarily on employees. Taxes are experience rated (employers with a history of more common and more expensive claims pay more)—but only partially. Taxes are paid into state trust funds, which then pay benefits. In the current recession, those trust funds are in serious financial difficulty, having borrowed significant funds from the federal government. Federal statute requires

<sup>&</sup>lt;sup>3</sup> But not the Card and Levine (2000) critique: DiD exploits within state changes in policy. Those changes in policy are likely to be endogenous—more generous as the unemployment rate rises. As a result, they are likely to overestimate any moral hazard. See Card and Levine's work on New Jersey for some empirical support for this critique.

increases in state UI taxes on employers in order to pay back those loans from the federal government to the states.

The main UI statute includes an Extended Benefit period for those who exhaust their period of benefits "during periods of high unemployment." This Extended Benefit program adds 13 more weeks to UI benefits (split federal/state funding) and states have an option to add an additional 7 weeks (pure state funding), for a total of 20; (http://workforcesecurity.doleta.gov/unemploy/extenben.asp).

During the current recession (and in other deep recessions), Congress has authorized Emergency Unemployment Compensation; but, this provision requires explicit renewal. Most recently, EUC was enacted on June 30, 2008, with several extensions and modifications since then. This EUCis totally federally funded (and recently has included federal funding for some traditionally split state/federal benefits).

The net result is that the current (through 2011) maximum duration of UI receipt is 99 weeks (i.e., nearly two years) "in states with high unemployment". The American Recovery and Reinvestment Act of 2009 (ARRA) also included a tax credit equivalent to 65 percent of the cost of COBRA health insurance. Finally, ARRA also increased the benefit slightly and exempted much of it from federal income taxes. Current authorization for these extensions have is temporary—expiring January 2012. So it seems appropriate to view it as part of the package of extended UI in this severe economic downturn, rather than as a permanent part of US UI programs.

## The Theory of UI

The simple argument for UI is that jobs are unavailable: Without UI, what will the unemployed "eat"/live on? Of course, this simple argument—like the canonical search models—implicitly ignores the possibility of saving and borrowing or spousal earnings. More generally, the broader eligibility for UI and the higher UI benefits, the higher will be consumption during unemployment.

A slightly more subtle argument would posit that in the absence of UI, the unemployed would have to take (nearly) the first job offered. With UI, they can search more carefully for a job; yielding better job matches; i.e., higher wages and longer job tenure. More generally, the broader eligibility for UI and the higher UI benefits, the higher will be wages when a job is accepted and the longer those jobs will last.

Up to concerns about cost of the resulting program, these two arguments—consumption and better job matches—both suggest more generous UI programs. However, a conventional moral hazard argument pushes in the other direction. UI—and more generous UI—makes unemployment more attractive relative to any particular job. We would therefore expect UI to lead to more job exits, fewer jobs job transitions, longer

\_

<sup>&</sup>lt;sup>4</sup> There is a moderate sized literature on these issues. On the effect of savings and UI on consumption smoothing of the uninsured see Gruber (1997, 1998, 2001) and Browning and Crossley (2001); on the effect of UI on savings see Engen and Gruber (2001); On the effect of UI on spousal employment (what used to be called the "added worker effect"), see Gruber and Cullen (2000).

unemployment durations, and higher UI program costs.<sup>5</sup> In fact, for some purposes it is useful to think of UI as leisure. Average search intensity is quite low–approximately an hour per day (Krueger and Mueller, 2010). Thus for those with a relatively high value of leisure, UI may be more attractive than the previous job. Thus, for some subset of those collecting UI (including those with unreported earnings), we would expect deferral of active job search until near the end of UI eligibility. For that subset, we would also expect deferral of the start of job offers to the end of UI.

In the formal literature, these simple insights are derived from (and motivated the development of) job search theory. The canonical model is sufficient to begin our discussion. People only search for jobs when unemployed and they become unemployed exogenously. Jobs arrive stochastically with a frequency that is affected by search effort. Search effort is costly. In this model, UI raises income (and therefore the "value") while unemployed. With higher income while unemployed, people can and do search longer, leading to better (higher wages, perhaps longer lasting) job matches. In addition, with higher wages people have less of an incentive to search, so they search less intensively. Thus, ceteris paribus, eligibility for UI and the size of the UI benefit lower search intensity and lengthen unemployment spells. When UI has a finite period, the unemployed search more intensively as they near the end of the period of UI. The higher is the probability of finding a job in a given period (with enough effort) the longer many of the unemployed will defer search and the later will the unemployed find jobs.

This is the canonical model. The crucial insight is to embed it in a government budget constraint. Consider a group of identical workers and a tax on earnings sufficient to cover the UI benefits (and any cost of administering the UI program). Now the polity faces a trade-off. Higher UI benefits provide more income support while unemployed; however higher UI benefits also induce moral hazard—the unemployment do not search as intensively as they would if UI benefits were not available.

In the absence of a way to distinguish those who "could" find a job from those who cannot find a job, the UI system must balance income support against moral hazard. There are no good answers. The optimal trade-off will vary with the magnitude of the moral hazard and the utility loss from low income. A moderate sized literature has tried to compute the optimal level of the UI benefit (Baily, 1978; Holmlund, 2001, 2006, 2007; Chetty, 2006, 2008). Those computations are quite sensitive to the details of the model; details at a level well beyond what his discussed in this simple overview.

The previous discussion implicitly assumes that it is not possible to distinguish those who can find a job (or have already found a job) from those who cannot find a job and therefore need the consumption safety net that UI provides. As in the welfare literature (Besley and Coate, 1992), one way out of this trade-off is to impose an "ordeal"; i.e., to raise the broadly defined "cost" of UI receipt, without lowering the cash UI benefit. With this approach, the cash safety net for paying bills is retained, but the attractiveness of UI relative to work is decreased. Since much of the value of UI receipt is increased leisure;

\_

<sup>&</sup>lt;sup>5</sup> It is important to note that Chetty's (2008) work suggests that liquidity constraints are as important as moral hazard. The more important are liquidity constraints, the less salient is the moral hazard argument and the higher would be optimal UI benefits.

one natural approach is to take away the leisure. Ways of taking away the leisure might include mandatory job search, job skills training, or even make work.

Finally and crucially, there is an emergent literature on the optimal pattern of UI benefits over the business cycle (Kiley, 2003; Sanchez, 2008; Andersen and Svarer, 2009; Landais, Michaillat, and Saez, 2010; Schmieder, von Wachter, T. and Bender, 2011; Kroft and Notowidgdo, 2011; but see Mitman and Rabinovic, 2011, who suggest the opposite). This literature confirms earlier conjectures that UI benefits should become more generous during recessions (e.g., Krueger and Meyer, 2002; in contrast to Ljunqqvist and Sargent, 1998, 2008)). Heuristically, the argument is that jobs are harder to find her recessions, so the moral hazard is less severe.

#### **Empirical Evidence on the Effects of UI Policy**

The empirical literature on the effects of UI policy is huge. Several recent and good reviews exist (Holmlund, 2006). The papers presented as part of this session augment that literature (Grubb, 2011; Tatsiramos, 2011; Roed, 2011). The discussion here provides only the highest level summary.

First, the evidence that the details of UI policy effects unemployment is overwhelming. High quality empirical studies consistently show that higher benefits and longer potential durations lead to longer UI spells. In addition, there is a consistent finding of increases in exit rates from insured unemployment towards the end of the eligibility window<sup>6</sup>. Evidence that offering bonuses to leave UI early lead to increased exit rates is also consistent with a latent ability to find a job for a fraction of the UI population (Meyer, 1995). A slightly thinner literature also suggests more entries into UI.

Evidence as to whether higher benefits and longer potential durations lead to better job matches—i.e., higher earnings and longer job durations— is mixed. Given the evidence of low search intensity (approximately an hour a day; Kruger and Mueller, 2010), it is certainly plausible that on the job search would be as effective as search among the unemployed.

Second, how big these disincentives to taking a job are is a matter of some debate. From one perspective, while the estimates are consistently statistically significant and in the right direction, their absolute magnitude seems small. Here Card and Levine (2000) is representative. They estimate that permanently extending UI from 26 to 39 weeks would increase the average duration of unemployment by only about 1.3 weeks. Similarly, Mofft (1985) and Meyer (1990) estimate that a 10 percent increase in the UI benefit leads to a increase of 4 to 8 percent in UI durations.

From a complementary perspective, we might ask what UI policy parameters informed workers would choose–knowing that they would pay the average value of the benefits in the form of lower wages. From that perspective, workers, trade the cost of the moral hazard against the insurance against inability to find a job. Analyses of this form come to widely different conclusions. Some studies suggest that UI is too generous; some suggest

\_

<sup>&</sup>lt;sup>6</sup> The exception is the negative finding for Austria Card, Chetty, and Weber (2007); but see the critique of those results in Grubb (2011) as related to the broader Austrian safety net.

that UI is not generous enough. The results appear to be sensitive to the realism of the specified models and unknown parameters.

Finally, there is moderate evidence that minimal activation programs—e.g., requirements to check in with a caseworker and provide evidence of active job search—can substantially lower the duration of unemployment and the unemployment rate. On this question, given the scarcity of such programs in the United States, the evidence for Europe is stronger than for the US.<sup>7</sup> There, the consistent result is that closer supervision, including penalties for failures to search was sufficient intensity or to accept offer jobs, leads to shorter UI durations.

Black at all (2003) provides evidence from the US. Since 1993, the United States has not reemployment worker profiling and http://www.doleta.gov/programs/wprs.cfm). That program is intended to identify those at risk of long UI spells and to provide them with limited training services. In practice, these services are primarily low cost job search and job preparation activities; intensive and expensive education training programs appear to be relatively rare. Black at all (2003) exploit the details of who is assigned to that program to generate a form of a random assignment trial of its impact. They find that the program decreases UI benefit receipt by 2.2 weeks and that the impact appears to be, not from the services themselves, but from notification of requirement to receive the services. Other American studies finding similar results of more rapid exit to employment with low intensity interventions include Corson and Decker (1989), Decker et al. (2000), and Ashenfelter, et al., (2000). This is also a plausible explanation of the findings of impacts of "Job Club" on employment and earnings in the welfare reform literature (e.g., Hamilton, 2002).

#### The Great Recession in the US and the Policy Response

Interest in these issues in this conference is prompted by the current macroeconomic situation United States, Europe and the rest the world. In 2008–2009, the United States experienced a sharp recession (see Figure 1); certainly the sharpest recession in a generation and perhaps since the Great Depression. About the same time, the US unemployment rate rose sharply, has remained high even after the recession ended, and is forecasted to remain high for several more years (see Figure 2).

van der Klaauw, and van Ours (2004) for the Netherlands; Geerdsen (2006) for Denmark. See also the reviews of the literature in the three papers presented in this session Grub, 2011; Roed, 2011; and Tatsiramos, 2011

<sup>&</sup>lt;sup>7</sup>. See Roed et al. (2008) for Norway and Swenden; Gorter and Kalb (1996) for the Netherlands; Dolton and O'Neill (1996) for the U.K.; Lalive, van Ours, and Zweimuller (2005) for Switzerland; and Van den Berg,

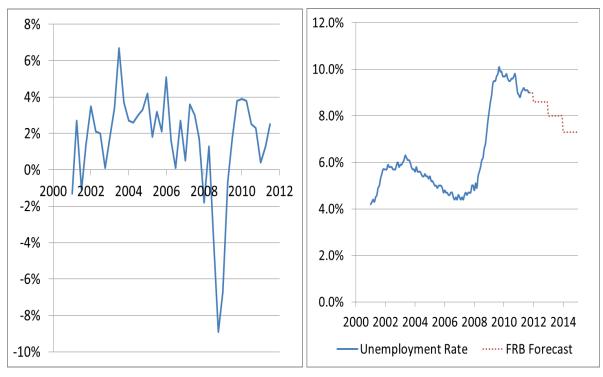


Figure 1 Real Chage in GDP

Figure 2 Unemployment

This increased unemployment has shifted the long term relative ranking of US and European unemployment rates. Historically, US UI rates have been well below comparable European rates. Using the OECD's Harmonized Unemployment Rate (<a href="http://stats.oecd.org/index.aspx">http://www.oecd.org/dataoecd/21/0/44743407.pdf</a>) to achieve rough alignment of definitions, the 2007 annual UI rate for the US was 4.6 vs. 7.3 for the EU countries. However, the American Great Recession has been more severe than in Europe, such that by 2009, the US harmonized rate slightly exceeded the EU rate (9.3 vs. 9.2).

Furthermore, Figure 2 plots the conventional unemployment rate; i.e., "People who are jobless, looking for jobs, and available for work are *unemployed*". Broader definitions imply much higher rates. Thus, the U-6 rate (Total unemployed, plus discouraged workers, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers) for October 2011 was 16.2; considerably above the convention rate (U-3) of 9.0.

As noted earlier, the United States responded by substantially increasing potential UI durations and with smaller policy changes which had the effect of raising the effective better placement rate. It should be noted that these changes to make UI more generous

UI Policy: An American Perspective — 7 —

<sup>&</sup>lt;sup>8</sup> See Bregger and Hauggen, 1995, for a careful discussion of these concepts. See <a href="http://www.bls.gov/webapps/legacy/cpsatab15.htm">http://www.bls.gov/webapps/legacy/cpsatab15.htm</a> for the raw data.

are in contrast to changes in Europe in the 2000s which made UI less generous (Grubb, 2011).

The extent to which these UI extensions have are themselves the cause of the high and prolonged the prolonged high unemployment is the subject of considerable academic debate. Everyone agrees that goal analyses find that that the extensions have lengthened UI durations and the aggregate unemployment rate. The point of contention is how large is that role. Those arguing for a major role for the UI extensions include Barro (2010) and Grubb (2011). Those arguing for only a minor role include Valetta and Kuang (2010) and (2011), Fujita (2011); and Howell and Azizoglu (2011). Recent and more careful microeconomic studies seem to estimate smaller impacts. This appears to be, in part, because the behavioral response to UI generosity is smaller as the macroeconomy worsens; and these more recent papers use more recent data—including some of the Great Rec oression

## **European Insights**

There are at least three possible interpretations of the recession and the associated and prolonged sharp increase in unemployment:

- Keynesian: Some have interpreted the recession and the associated unemployment as evidence of a lack of aggregate demand. There is wide agreement that the recession was induced by a speculative bubble in residential housing and to a lesser extent in commercial construction and financial assets. This interpretation suggests a policy response involving fiscal stimulus. The American Recovery and Reinvestment Act of 2009 provided a large fiscal stimulus. The recession has ended, but the recovery has not been robust, and unemployment remains high. Proponents of this position respond that the stimulus was not large enough and suggest a second, perhaps larger, round of stimulus funds
- *Policy Induced*: Others have argued that adjustments to the UI program converted a moderate real business cycle event into a deep recession with prolonged unemployment (Barro, 2010; Grubb, 2011). These observers point to the major extensions to maximum UI duration, and to lesser extent to the other expansions of the benefit (including the exclusion of the benefit from federal income taxes, and the subsidy to health insurance, purchase). This interpretation suggests that the appropriate policy response is undoing the expansions of the UI program. As we have noted, some of those changes will be implemented as the current legislation expires in early 2012. As noted at the end of the previous section, the correctness of this interpretation is the subject of a moderate sized literature. Consistent with our earlier review of the UI policy effect literature, most of those papers find a statistically significant impact of the increased maximum benefit duration, but that those increases explain some, but far from all, of the increase in the unemployment rate. Evidence of a substantial rise in and him unemployment is inconsistent with a very large role for this explanation.

• Neo-Classical Economics. A final possible explanation is that the United States has suffered a long-run declining competitiveness; where the speculative bubble of the mid 200s hid the recent phase of the unfolding of that loss and competitiveness. However, that same speculative bubble, would suggest that there is no status quo ante to which to return. The immediate pre-recession level of output, employment, and unemployment was the result of an unsustainable housing boom. Through that housing boom and accelerating during the recession, American manufacturing employment has disappeared at a rapid pace. This interpretation suggests that the appropriate policy response is a drop in earnings in order to restore competitiveness (e.g. to substitute domestic production for some current imports; or to increase imports).

Clearly the appropriate policy response depends on the cause the recession and the associate unemployment. It seems likely that all three explanations have some merit. We have already noted that inasmuch as the high unemployment rates are due to UI policy changes, undoing those policy changes should lead to lower unemployment rates.

We conclude with a complementary observation. Inasmuch as the neoclassical interpretation is correct, then it is also appropriate to make UI less attractive. In particular, note that if the neoclassical interpretation is correct, then—more than for frictional unemployment, or even unemployment due to a mild cyclical downturn—the jobs which the currently unemployed will find will often pay considerably less than the jobs which they held previously. Recall, however, that the nominal replacement rates are computed based on pay at the previous job. Thus, the appropriate—prospective—replacement rate will often be considerably higher than the nominal—retrospective—replacement rate. Scarring due to long unemployment durations is likely to exacerbate this problem of high prospective replacement rates; and such high replacement rates are themselves likely to extend unemployment durations.

Of course, the labor market is tight. Many of those searching for jobs will have trouble finding one. Thus making UI less generous will result in considerable hardship for some of the unemployed. Here the European experience is extremely insightful. That experience suggests that one approach to this dilemma would be for the United States to implement low intensity activation requirements.

One promising approach appears to be some low-level intervention. Following the programs described in Ashenfelter at all (1999), such intervention might begin with formal notification of the requirement for job search and of more intensive monitoring after some period of unemployment (perhaps 2 to 3 months). Everyone reaching that threshold duration would be called in for an in person meeting with a counselor and notified that a random sample of them would be required to present evidence of ongoing and intensive job search; where failure to provide that evidence would lead to a sanction (perhaps termination of UI; perhaps repayment of UI benefits received). Further study of the details of similar European and American programs and the existing evaluation evidence seems promising.

#### References

- Andersen, T. M. and M. Svarer. 2010. "Business Cycle Dependent Unemployment Insurance," IZA DP No. 5196.
- Andersen, T. M. and M. Svarer. 2009. "State Dependent Unemployment Bene.ts", Journal of Risk and Insurance, forthd coming.
- Ashenfelter, O., D. Ashmore, and O. Deschenes (2000): "Do Unemployment Insurance Recipients Actively Seek Work? Evidence From Randomized Trials in Four U.S. States", Journal of Econometrics, 125, 53-75.
- Baily, Martin N. 1978. .Some Aspects of Optimal Unemployment Insurance. Journal of Public Economics, 10: 379.402.
- Barro, Robert. 2011. "The folly of subsidizing unemployment," Wall Street Journal, August 302010, August 30.
- Barron, John M. and Mellow, Wesley. "Search Effort in the Labor Market." Journal of Hu-man Resources, Summer 1979, 14(3), pp. 427-41.
- Besley, Timothy and Stephen Coate. 1992. "Workfare versus Welfare: Incentive Arguments for Work Requirements in Poverty Alleviation Programs," American Economic Review, 82(1), 249-261.
- Black, Dan A., Je¤rey A. Smith, Mark C. Berger and Brett J. Noel. 2003. .Is the Threat of Reemployment Services more E¤ective than the Services Themselves? Evidence from Random Assignment in the UI System. American Economic Review, 93: 1313-1327.
- Bregger John E. Steven E. Haugen "BLS introduces new range of alternative unemployment measures" Monthly Labor Review October 1995, Vol. 118, No. 10
- Browning, Martin, and Thomas Crossley. 2001. "Unemployment Insurance Levels and Consumption Changes." J. Public Econ. 80 (April): 1–23.
- Card David, Raj Chetty, Andrea Weber 2007. "The Spike at Benefit Exhaustion: Leaving the Unemployment System or Starting a New Job?" American Economic Review, 2007, 97 (2), 113-118
- Card, David, and Phillip B. Levine. 2000. "Extended Benefits and the Duration of UI Spells: Evidence from the New Jersey Extended Benefit Program." Journal of Public Economics 78, pp. 107-138.
- Chetty, Raj. 2006. .A General Formula for the Optimal Level of Social Insurance.. Journal of Public Economics, 90: 1879.1901.
- Chetty, Raj. 2008. "Moral Hazard versus Liquidity and Optimal Unemployment Insurance." Journal of Political Economy 116(2, April), pp. 173-234.
- Corson, Walter and Decker, Paul T. "The Impact of Reemployment Services on Unemploy-ment Insurance Benefits: Findings from the New Jersey

- Unemployment Insurance Reem-ployment Demonstration." Unpublished manuscript, Mathematica Policy Research, 1989
- Decker, Paul T.; Freeman, Lance and Klepinger, Daniel H. "Assisting Unemployment Insurance Claimants: The One-Year Impacts of the Job Search Assistance Demonstration" Un-published manuscript, Mathematica Policy Research, 2000.
- Dolton, P., and D. O'Neill (1996): "Unemployment duration and the restart effect: some experimental evidence", Economic Journal, 106, 387-400.
- Engen Eric and Gruber, Jonathan. 2001 Unemployment Insurance and Precautionary Savings June 2001, Journal of Monetary Economics, 47(3), 545-579
- Fujita, Shiger. 211., "Effects of extended unemployment insurance benefits: Evidence from the monthly CPS," Working paper 10-35/R, Federal Reserve Bank of Philadelphia January 2011.
- Geerdsen, L. P. (2006) Is There a Threat Effect of Labour market Programmes? A Study of ALMP in the Danish UI system. The Economic Journal, Vol. 116, 738-750.
- Gorter, C., and G. R. J. Kalb (1996): "Estimating the effect of counselling and monitoring the unemployed using a job search model", Journal of Human Resources, 31, 590-610.
- Graversen, B., and J. van Ours (2006): "How to help unemployed find jobs quickly; experimental evidence from a mandatory activation program, Discussion Paper, Center, Tilburg University.
- Grubb, David. 2011. "Assessing the impact of recent unemployment insurance extensions in the United States," Working paper, OECD May 25 2011.
- Grubb, David. 2011. "Unemployment Benefits and Activation as Influences on Labour Market Outcomes." Paper presented at the Joint OECD/University of Maryland International Conference: "Labour Activation in a Time of High Unemployment", Paris, France, 14-15 November 2011.
- Gruber, Jonathan 1998. Unemployment Insurance, Consumption Smoothing, and Private Insurance: Evidence from the PSID and CEX May 1998, Research In Employment Policy, 1, 3-32
- Gruber, Jonathan and Julie Cullen. 2000. Does Unemployment Insurance Crowd Out Spousal Labor Supply? July 2000, Journal of Labor Economics, 18(3), 546-572
- Gruber, Jonathan. 1997. The Consumption Smoothing Benefits of Unemployment Insurance March 1997, American Economic Review, 87(1), 192-205
- Gruber, Jonathan. 2001. The Wealth of the Unemployed October 2001, Industrial and Labor Relations Review, 55(1), 79-94.
- Hamilton, Gayle. 2002. Moving People from Welfare to Work Lessons from the National Evaluation of Welfare-to-Work Strategies. MDRC. http://www.mdrc.org/publications/52/full.pdf
- Holmlund, Bertil. 2001. "Optimal Unemployment Insurance in Search Equilibrium"

- Journal of Labor Economics.
- Holmlund, Bertil. 2006. "Improving Incentives in Unemployment Insurance: A Review of Recent Research" Journal of Economic Surveys.
- Holmlund, Bertil. 2006. "Optimal Unemployment Insurance Design: Time Limits, Monitoring, or Workfare?" International Tax and Public Finance.
- Holmlund, Bertil. 2007. "Optimal Unemployment Insurance with Monitoring and Sanctions." Economic Journal.
- Howell, David R. and Bert M. Azizoglu, 2011. "Unemployment benefits and work incentives:The U.S. labor market in the Great Recession," Working Paper 257, Political Economy Research Institute, University of Massachusetts Amherst May 2011.
- Kroft, Kory and Matthew J. Notowidigdo. 2011. Should Unemployment Insurance Vary With the Unemployment Rate? Theory and Evidence. NBER Working Paper No. 17173
- Krueger, A. and B. Meyer (2002), "Labor Supply Effects of Social Insurance" in A. Auerbach and M. Feldstein, eds. Handbook of Public Economics Vol 4. North-Holland: Amsterdam.
- Kiley, M. T. 2003. "How Should Unemployment Bene.ts Respond to the Business Cycle?", The B.E. Journal of Economic Analysis and Policy. Topics, Vol 3, Issue 1.
- Krueger Alan B. and Andreas Mueller. 2010. "Job Search and Unemployment Insurance: New Evidence from Time Use Data." Journal of Public Economics, 2010, 94 (3-4), 298-307)
- Landais, Camille, Pascal Michaillat, and Emmanuel Saez. 2010. "Optimal unemployment insurance over the business cycle," working paper 16526, National Bureau of Economic Research November 2010.
- Lalive, R., J. van Ours, and J. Zweimüller (2005): "The Effect of Benefit Sanctions on the Duration of Unemployment", Journal of European Economic Association, 3, 1386-1407.
- Ljungqvist, L. and T. Sargent. 1998. The European unemployment dilemma, Journal of Political Economy, 106, pp. 514–550.
- Ljungqvist, L. and T. Sargent. 2008. Two Questions about European Unemployment, Econometrica, 76, pp. 1–29.
- Mazumder, Bhashkar, "How did unemployment insurance extensions affect the unemployment rate in 2008-10?," Chicago Fed Letter, April 2011, 285.
- Meyer, B.D., 1990. Unemployment insurance and unemployment spells. Econometrica 58 (4), 757–782.
- Meyer, B. D. 1995: "Lessons from the U.S. unemployment insurance experiments", Journal of Economic Literature, 33, 91-131

- Mitman Kurt and Stanislav Rabinovic. 2011. Pro-cyclical Unemployment Benefits? Optimal Policy in an Equilibrium Business Cycle Model. PIER Working Paper 11-010.
- Moffitt, R., 1985. Unemployment insurance and the distribution of unemployment spells. Journal of Econometrics 28, 85–101.
- Organization for Economic Cooperation and Development. 2009. "1. Part B: The Employment and Social Policy Response to the Jobs Crisis", in OECD Employment Outlook: Tackling the Jobs Crisis. http://www.oecd.org/dataoecd/27/40/45591607.pdf
- Røed, K., Jensen, P, and Thoursie, A. (2008) Unemployment Duration and Unemployment Insurance A Comparative Analysis Based on Scandinavian Micro Data. Oxford Economic Papers, Vol. 60, No. 2, 254-274.
- Røed, Knut. 2011. "Active Unemployment Insurance". Paper presented at the Joint OECD/University of Maryland International Conference: "Labour Activation in a Time of High Unemployment", Paris, France, 14-15 November 2011.
- Rothstein, Jesse. 2011. Unemployment Insurance and Job Search in the Great Recession. NBER Working Paper No. 17534
- Schmieder, J. F., von Wachter, T. and S. Bender . 2011. "The Effects of Ex-tended Unemployment Insurance Over the Business Cycle: Evidence from Regression Discontinuity Estimates over Twenty Years", Working Paper.
- Shaw, Hannah and Chad Stone. 2010. "An Introduction to Unemployment Insurance." Center for Budget and Policy Priorities. Washington DC. http://www.cbpp.org/files/12-19-02ui.pdf
- St. Louis, Robert D.; Burgess, Paul L. and King-ston, Jerry L. "Reported vs. Actual Job Search by Unemployment Insurance Claim-ants." Journal of Human Resources, Winter 1986, 21(1), pp. 92-117.
- Tatsiramos, Konstantinos, 2011. "Unemployment Insurance and Unemployment Dynamics in Europe." Paper presented at the Joint OECD/University of Maryland International Conference: "Labour Activation in a Time of High Unemployment", Paris, France, 14-15 November 2011.
- US Department of Labor. 2011. *Comparison of state unemployment laws*. http://workforcesecurity.doleta.gov/unemploy/comparison2011.asp
- Valetta, Rob and Katherine Kuang, "Extended unemployment and UI benefits," FRBSF Economic Letter, April 2010, 20 0 (12).
- Van den Berg, G. J., B. van der Klaauw, and J. C. van Ours (2004): "Punitive sanctions and the transition rate from welfare to work", Journal of Labor Economics, 22, 211-241.