Unemployment Insurance and
The Unemployment Rate

Kathleen Classen Utgoff

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UNEMPLOYMENT INSURANCE AND THE UNEMPLOYMENT RATE

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This paper was prepared for
a conference on

Economic Indicators and Performance:
The Current Dilemma Facing Government and Business Leaders

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INTRODUCTION

Few numbers are better known or less understood than the unemployment rate. Movements in the unemployment rate are watched like a patient's thermometer chart; an increase elicits banner headlines and immediate cries for expansionary fiscal and monetary remedies. These cries are likely to be heeded because nothing strikes fear into the heart of an incumbent politician like a surge in unemployment. When unemployment rises, even normally conservative legislators vote for public employment programs and potentially inflationary fiscal deficits to forestall accusations of political malpractice by would-be replacements.

We are now recovering from a period of unusually high unemployment rates. There is no doubt that some of the rise in unemployment was a direct result of problems in the economy: higher oil prices, changes in foreign exchange rates, bad weather, and fluctuations in the money supply. There is general agreement that all of these shocks resulted in at least some unemployment. There is a great deal of debate, however, about how much unemployment would exist when the economy is in a healthy state. What unemployment rate signals that the economy should be left alone lest inflation result from too much meddling?

Many people argue that we cannot now achieve the low rates of unemployment experienced in the past because the economy has changed; unemployment rates in the neighborhood of six percent do not necessarily mean that something is wrong. According to the proponents of this view, attempts to decrease unemployment below
the new higher "natural" rate using fiscal and monetary tools will only exacerbate inflation in the long run with no lasting impact on unemployment. Fiscal and monetary tools are believed to be successful only in hastening the economy back to normal when a shock has occurred. There is a growing belief that once the normal ("natural") level has been reached, only programs that alter the basic structure of the economy can lower unemployment.¹

A reason usually given to explain high rates of unemployment is that unemployment insurance (UI) has become more generous over time.² One link between the two is well-known: people will stay out of work longer the more they are paid to do so; the longer each person stays out of work, the more people will be out of work at any one time (the higher the unemployment rate).

The news media have had a heyday over supposed abuse of the unemployment insurance system. There is no doubt that some golf pros winter on UI and many UI checks are sent to Michigan auto-workers in Florida but, real abuse of the UI system is not the important link between UI and the unemployment rate. Getting rid of all the "cheaters" would not even come close to erasing the impact that UI has on the unemployment rate.

There are other links between UI and the unemployment rate. It is crucial to understand all these links in order to assess the

¹Changes in minimum wages, union laws and wage subsidies are examples of such programs.

²Other reasons include changes in the demographic composition of the work force and work-registration requirements for recipients of social welfare programs.
UI program and that is the purpose of this paper. What follows is a discussion of three ways that UI is believed to effect the unemployment rate: through its effect on the unemployed; through its effect on employers and through its power as a counter-cyclical program.

UI AND THE UNEMPLOYED

The Theory

The very simple theory that the more UI they get, the longer people will stay out of work, received surprisingly little attention until very recently. Before 1970 almost all references to UI in economic literature talk about it as only an ideal example of a counter-cyclical program. This view of the UI system came out of an environment where unemployment was perceived to be largely due to a malfunctioning economy, something outside the control of the unemployed individual. According to this view, the unemployed were simply wasted human resources.

Beginning in the 1960s there emerged a "new view" of unemployment in which it is recognized that the unemployed individual himself plays an important part; he weighs the costs and benefits of remaining unemployed and acts accordingly. For him, one of the benefits of remaining unemployed is the opportunity to find a better-paying job, more in line with his talents. When job opportunities are uncertain, unemployment need not be viewed as a waste of resources; it may be necessary if one is to gather infor-
mation. An efficient labor market does not imply zero unemployment any more than an efficient housing market implies no empty apartments.

This "new view" of unemployment and the concepts of optimal search highlighted the incentive effects of UI because UI is an easily recognized benefit of remaining unemployed that shifts the cost-benefit tradeoff in favor of more unemployment.¹

The Evidence

Academic interest in empirically testing the new models of search, together with the sudden spurt in unemployment that occurred in the middle seventies, created a boom industry in studies that tried to measure the effects of UI on the unemployed. The statistical task of measuring the impact of UI is not an easy one and some fault can be found with almost any study. The standard way of measuring these effects is to find a statistical relation between differences in the length of unemployment, observed among individuals, to differences in the level of unemployment insurance benefits, holding other factors constant. The key issue has been the last clause - holding other things constant. If important factors are ignored, the resulting measurements may be incorrect.

An example of this problem is the attempt by some researchers to infer the effect of UI by comparing the insured unemployed with

those who are not covered by the UI system (see, for instance, Marston [13]). But, a worker is not covered by UI either because he hasn't had enough work experience (a new entrant) or because he worked in an industry not covered by UI, often a highly unstable one like agriculture.¹ Since previous work experience and the industry to which a worker is attached have such a large influence on unemployment, the difference between the length of unemployment for those who are covered and for those not covered by UI cannot be ascribed only to the incentive effects of unemployment insurance.

Another approach has been to compare the average length of unemployment (or the unemployment rate) for UI-covered individuals in different states that have different UI levels (see, for instance Holen and Horowitz [10]). When this technique is used, someone always claims that it is not differences in UI that cause differences in unemployment but the reverse: States with innately high levels of unemployment raise benefit levels.

Yet a third approach has been to take individual records from claimants within a state and relate their unemployment experiences to UI levels (see, for instance, Classen [3]). This kind of approach can also cause trouble because, within a state, the major cause for differences in UI levels is previous earnings and, the more people make when they work, the sooner they go back to work.

¹Recent changes in UI laws have led to coverage for workers in any industry who have sufficient work experience.
Thus, it is easy to confound the effects of earnings capability and UI.

What is surprising, given the difficulties inherent in measuring the effects of UI, is the general agreement among the various studies. Although each can be, and has been criticized for its particular flaws, almost all statistically sound studies of UI have found that people behave in predicted ways when they get UI.

The results can summarized as follows:

- More UI per week leads to longer unemployment (Classen [3])
- The more weeks that UI is paid, the longer people will stay out of work (Holen [10])
- More liberal UI leads to higher unemployment rates (Horowitz [12])
- People behave very differently when they stop getting UI: they often find jobs or drop out of the labor force. (Marston [13]).

The statistical evidence indicates that a $10 (in late 1960 dollars) increase in UI leads to about a one week increase in the duration of unemployment. Even a one week increase in the average duration of unemployment can have a significant effect on the unemployment rate. For instance, at recent peak rates of unemployment, an increase of one week in the average duration would cause the unemployment rate to go up by four-tenths of a percentage

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1Inflation will have lowered this one week/$10 figure somewhat but the tax free nature of benefits together with the automatic increase in tax rates caused by inflation tends to offset the decline from inflation.
This increase is not the result of UI "cheating." The UI law says that claimants should be able and available for work and actually seeking work. It does not say that claimants have to act as if they weren't getting UI. UI recipients can be more selective in looking for work, looking at fewer jobs per week and requiring a higher wage, and yet, still be entirely within the law. Small though these adjustments may seem, they can have a pronounced effect on the unemployment rate.

There is no doubt that recent changes in the UI system have substantially increased the amount of UI available to the unemployed person. Coverage has been extended to virtually all wage and salary workers. In addition, recession programs have significantly increased the number of weeks that benefits were paid and cut down the earnings requirements for benefit eligibility. These changes, combined with the inability of most UI offices to adequately screen and check claimants during a period of heavy claims means that the UI program almost certainly contributed a substantial amount to the increase in unemployment that occurred in the middle seventies.

Defenders of the UI system claim that you cannot look only at the increase in the average duration of unemployment to assess the

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1If \( U \) is the average unemployment rate for the year and \( AD \) is the average duration per year and \( I \) is the percent of the labor force experiencing any unemployment, then \( \frac{dU}{dAD} = \frac{I}{52} \). In 1975, the incidence of unemployment \( (I) \) was 20.2 (from the U.S. Bureau of Labor Statistics, Work Experience of the Population, 1975, (Washington, D.C.: G.P.O., 1975)). Thus, a one-week increase in the average duration would increase the unemployment rate by \( (20.2)/52 \) or .04.
impact of an increase in UI. They claim that UI helps people find better jobs and that this gain should be included in any assessment of the UI program. There are two points that should be made about this oft-heard contention. First, unless workers keep their UI-induced better jobs longer, the hypothesized effect of UI on jobs accepted does nothing to mitigate the positive effect of UI on the unemployment rate. The only empirical study of UI that looked at this issue (Classen [3]) found that workers did not keep their jobs longer when they got more UI.

Second, even if workers do find better jobs because of UI, and the statistical evidence is very mixed on this issue, this effect cannot necessarily be considered a benefit of the UI program. The recent search theory literature has made it clear that some unemployment devoted to searching for a job can be a good thing. But, even if some search is a good thing, more is not always better. If the wage is a reflection of the value of what a worker produces, then his foregone income is the same as the cost of unemployment to society -- foregone output. The private gains to search are also the same as the social gains.

Unemployment insurance puts an end to the equality of the private and social cost of unemployment. If a worker could earn $200 a week, society loses $200 worth of output each week that he does not work. If the worker gets $100 in UI, he acts as if unemployment was costing him only $100 a week (or less when taxes are considered). Since UI reduces the private cost of unemployment below the social cost of unemployment, it induces too much unem-
ployment. Any increase in search that results from more UI could be socially inefficient.

Suppose, for instance, that it is now early May and that an unemployed construction worker can expect to work for six months, until late November. He must choose between a job starting now at $300 a week and a job starting a week from now that uses his skills better and pays $310 a week. (Without UI, he chooses to start now because 26 times $300 ($7800) is more than 25 times $310 ($7750). If he gets $100 a week in UI, however, he will make the opposite choice because he now gains $50 by waiting the extra week. In terms of social efficiency, he should start immediately because his forgone output is greater than the additional output from waiting a week for the higher-paying job. With UI, a worker makes a socially inefficient choice because he does not bear all the costs of remaining unemployed.

UI AND EMPLOYERS

Most empirical studies of the incentive effects of UI have concentrated on how it affects job searchers. Although this is an important issue, it is by no means the whole picture. Many of the unemployed are not looking for jobs; they are on layoff and will return to their former employers when recalled. One recent paper on temporary layoffs (Feldstein [6]) estimated that as many as 50 percent of the people entering unemployment in a week are on
temporary layoff.\footnote{This does not mean that half the unemployed are temporary layoffs because layoffs have a shorter duration of unemployment than job searchers.} Although when they return to work is up to the employer, this does not mean that we can ignore temporary layoffs in determining the effect of UI on the unemployment rate. The current structure of the UI program in the United States increases both the incidence and duration of layoffs. Since layoffs are a very substantial component of unemployment, the effects of UI on employer decisions about layoffs may be more important than the effects of UI on unemployed job-searchers.

The Theory

It is not unemployment insurance itself that affects employer layoff decisions but the specific financing methods of the current system. Employer responses to UI that affect the unemployment rate arise from three features of the UI tax system: (i) it subsidizes firms with stable employment at the expense of unstable firms, (ii) employees pay no tax on UI benefits, and (iii) the tax is levied on only the first $6000 of wages for each employee.

The Intra-firm Subsidy

For most of its 42-year history, the UI system in the United States has financed benefits through a tax on employers. The state tax rate on an individual firm is determined by the firm's past experience with layoffs and turnover. Stable firms that rarely send workers to the UI office pay low rates and unstable firms with
frequent layoffs and higher turnover pay higher rates. But, there is a minimum and maximum tax rate in each state so that unstable firms (in construction, for instance) consistently pay less than their employees receive in benefits, and stable firms (in the finance industry, for instance) consistently pay more in taxes than their employees receive in benefits. This financing arrangement acts like a tax on employment stability and as a subsidy to unstability. Thus, stable firms contract and unstable firms grow, causing more unemployment.

**Tax-free Benefits**

Even if all firms were perfectly experience-rated, the current system of UI would still encourage layoffs because UI is tax-free. Unemployment insurance is one form of compensation in a job. A dollar in UI benefits is worth more to a worker than a dollar in wage income because wages are taxed. The only way that employers can offer the benefits of tax-free UI is to actually lay workers off so that they can collect benefits. Thus, UI encourages more and longer layoffs. UI is like any other fringe benefit in this respect: the higher the tax rate, the more firms will compete by offering tax-free forms of compensation to attract employees. Firms are willing to compete in this fashion because they can reduce wages for hours worked when UI is available for layoff periods.
The Taxable Wage Base

An employer pays his assigned UI tax rate on only the first $6000 of each employee's earnings. This means that the total tax bill is a function of turnover. If two workers fill a $12,000 slot each year, one starting in January and the other starting in June, then the tax paid is twice what it would be if only one employee held the slot for the entire year. Thus, the fact that only the first part of each employee's wages are taxed tends to give employers the incentive to reduce turnover. This effect of UI may or may not have an impact on the unemployment rate. On the one hand, less turnover can decrease the unemployment rate by reducing the flow into the unemployed pool. On the other hand, a dynamic economy with some turnover probably reduces employment by opening up slots for new entrants. Thus, although UI probably has some effect on the unemployment rate because it reduces turnover, the net effect is ambiguous.

The Evidence

Compared to the amount of empirical work that has been done on the effects of UI on the unemployed, very little empirical work has been done on the effects of UI on employer decisions. What work does exist strongly supports the contention that employers respond to UI incentives: An increase in the degree to which employers pay their share of UI taxes (experience rating) does reduce layoffs.

Some states have slightly higher taxable wage bases.
(see Brechling [2]) and the level of the taxable wage base does
effect the level of turnover (see Brechling and Jehn [1]). There
is also some evidence (see Feldstein [7]) that an increase in
benefits will increase the number of workers on temporary layoff.
Clearly, these results indicate that employers do respond to the
incentives inherent in the UI tax system. More work needs to be
done on this issue, however, before we can assess the strengths of
this potentially important channel through which UI can affect the
unemployment rate.

It is interesting to note that the original framers of the UI
system believed that the structure of UI taxes would reduce layoffs
and hence, unemployment. According to this early view, since
employers were threatened with higher UI tax rates when they laid
off workers, the UI system would reduce layoffs. In their book,
Unemployment Insurance in the American Economy [8] Haber and Murray
state that "the original basic purpose of experience rating was to
provide an incentive for the regularization of employment" (p.
337). According to this early view, the introduction of the UI
system would reduce layoffs because it was at least partially
experienced rated. This directly contradicts the theoretical basis
of work like Feldstein's [7] which implies that the introduction of
UI, with its significant lapses from perfect experience rating,
caused additional layoffs. In short, one view says that UI reduces
layoffs and the other view says that it increases layoffs.

The differences between these two views can be traced to
differences in beliefs about what happens to wages when UI levels
are increased. The view that the current system of UI reduces layoffs results from the implicit belief that wages are not affected by UI; the UI tax is borne by the employer and the only way he can avoid the tax is to reduce layoffs and other separations that lead to benefit collection.

The view that the current system of UI increases layoffs results from the belief that employers can lower wages when UI is available. Thus, those employers who can lower wages because of UI, without paying for the full tax cost (unstable firms) can expand at the expense of firms that pay more than their share (stable firms).

One study (Classen [4]) tried to determine whether the availability of UI affects wages. This study analyzed hourly wages in the construction industry and found that holding UI levels constant, construction workers are paid more when they work, if they can expect frequent spells of unemployment, and that UI acts as a substitute for higher wages that compensate for frequent spells of unemployment. This finding means that workers pay for unemployment insurance in the form of lower wages and thus, it supports the theory that the current system of UI adds to layoffs and hence, unemployment.
UI AS A COUNTER-CYCLICAL TOOL

The Theory

Until about ten years ago, the major connection between UI and the unemployment rate was believed to be UI's beneficial effect on unemployment through its counter-cyclical power. UI is supposed to keep unemployment from becoming contagious in a recession by putting money into hands of the unemployed. Many people who believe that UI also provides some very troublesome incentives think it is still an indispensable program because of its presumed counter-cyclical power. The opening paragraph on unemployment compensation from the 1976 Economic Report of the President summarizes this belief very well:

The recession of 1974-75 has again demonstrated that the unemployment compensation system is one of our most important counter-cyclical tools. As workers are placed on a layoff, benefits begin immediately .... This provision of purchasing power to the unemployed is of substantial importance in promoting economic recovery....(p. 106).

Figure 1 shows the ratio of benefit payments to taxes since 1947. It also shows the unemployment rate for all workers. Benefit payments do exceed taxes during recessions and taxes exceed benefit payments during booms. In this sense, UI is counter-cyclical. But whether or not it is counter-cyclical in the sense that UI lessens the severity of recessions is an entirely different matter. UI can lessen the severity of recessions only if it increases the spending of recipients.
FIG. 1: UI OUTLAYS AND RECEIPTS OVER THE CYCLE

Sources:  
Benefit outlays — Survey of Current Business (Table 2.1)  
Tax receipts — Survey of Current Business (Table 3.11)  
Sum of employer contributions (state and federal) plus personal contributions  
Unemployment Rate — Economic Report of President, January 1977 (Table B.29)  
Troughs — National Bureau of Economic Research
The Evidence

The widely-held belief that UI has counter-cyclical power has been subjected to very few direct empirical tests. Most studies that purport to do this have focused on UI benefit payments and UI taxes over the cycle. They have assumed, or calculated with a Keynesian-multiplier model, that benefits increase national income if they increase the government deficit in a recession.

One more recent study (Classen [4]) looked directly at the connection between UI receipt and spending. This study found evidence that workers reduce their private savings when they are employed if they know that UI will be available to help them during periods when they are not employed. The evidence from this study indicates that when a worker with UI becomes unemployed, he does not spend more than a worker without UI, but he does spend less out of his private savings. To the extent that UI substitutes public savings for private savings it cannot be an effective counter-cyclical program.

Of course, UI may still play a very important role in deep recessions when the unemployed would run out of private savings. But, this role for UI is undocumented and there is no evidence that any significant portion of the unemployed in recent recessions have used up all their savings.

\[^1\]For a review of these studies, see Hamermesh [9].
SUMMARY AND CONCLUSIONS

There are three links between UI and the unemployment rate: (i) the effect that UI has on the unemployed, (ii) the effect that UI has on employer decisions and, (iii) the ability of UI to prevent contagious unemployment by putting money into the hands of the unemployed.

The first link has received a good deal of attention recently; studies in this area provide very strong evidence that the availability of UI leads people to prolong their spells of unemployment.

The second link has received comparatively little attention, although it may be just as important as the first since many unemployed are on temporary layoff. The duration of unemployment for this group depends largely on employer decisions. The studies that do exist indicate very clearly that employers do respond to UI tax incentives and that by and large these incentives are to increase the incidence and duration of layoffs. The effect that UI has on employers almost surely increases the unemployment rate but a measurement of the magnitude of this effect awaits further research.

Virtually no research has been done on the ability of UI to reduce unemployment because of its counter-cyclical power. The assumption that UI increases the spending of the unemployed may not be true if the availability of UI acts as a substitute for private savings.
Clearly, UI has an important influence on the unemployment rate. Recent changes in the UI program probably contributed substantially to unemployment in the middle seventies. Measuring the magnitude of the effect of UI on the unemployment rate is a research topic that should be pursued further so that we can anticipate changes in the unemployment rate when UI laws change and so that the UI program can be altered to reduce its adverse impact on unemployment.
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