Unemployment Insurance, Work Disincentives, and the Canadian Labor Market: An Overview

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As Canadians stand on the threshold of the 70's they see on the horizon the outline of many brilliant changes and developments...developments which single us out as one of the world's most affluent peoples with a spiralling gross national product and a rising standard of living. Canada, however, is not a nation bent exclusively on technological progress and increased affluence. This country believes at least as much in a more equitable distribution of our national wealth and the fulfillment of the expectations and the potential of all our people.

— White Paper on unemployment insurance (Canada 1970, 3).

...but the government dole will rot your soul.

— Stan Rogers, "The Idiot," 1981. Used by permission.

The Canadian unemployment insurance (UI) program is large and complex, and it is no exaggeration to suggest that it influences the economic well-being of almost all individuals active in the labor force. During 1991, for example, $17.7 billion was paid to 3.66 million beneficiaries, while the great bulk of all paid employees and their employers contributed a total of $14.8 billion, up to $2,240 per employed individual. Estimates for 1992 and 1993 put the total

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benefits paid even higher, at $20 billion and $22 billion respectively, and total premiums at $18 billion and $19 billion. Benefits are paid not only to those suffering a job separation (either temporary or permanent), but also for sickness or maternity/parental leave, and for "job development" purposes (work sharing, training, and job creation). Thus, it should be no surprise that the effects of the program on the labor market are many and varied, and equally without surprise that almost everyone has an opinion about their nature and magnitude. Anecdotal evidence of the work disincentive effects of unemployment insurance is easy to come by: the tale of a claimant collecting benefits while vacationing in Hawaii, or in Banff, or in any number of other pleasant locales, is often heard and repeated. Unemployment insurance is clearly an element of the public's well-being, but also of its psyche.

Unfortunately, anecdote may be an overly powerful influence on the way in which many understand the labor market effects, particularly the work disincentives, of UI. When designed as "case studies," anecdotal evidence can be an important element of a research program, offering hypotheses worthy of testing on larger samples and illustrating the details in patterns of behavior that could only be hinted at by statistical analysis. On its own, however, it can be a questionable – even dangerous – basis for the conduct of policy because it offers no sense of the extent to which observed behavior can be generalized. If left with anecdote, or political imperatives based on anecdote, governments may simply pursue deficit cutting rather than implement structural changes that address ultimate policy goals or their unintended consequences. Good empirical research is important if we are to make good policy.

There is always a lag between the cutting edge of knowledge and the body of information available to policymakers. The most recent surveys of the labor market effects of UI were written during the early and mid-1980s for the Macdonald and Forget commissions (Canada 1985; Canada 1986, respectively). These summarized research that was done during the 1970s, and in some cases relied heavily on studies from the United States (Cousineau 1986).

There have since been many developments in the analysis of the work disincentives of UI in Canada, and the first objective of this paper is to synthesize this work. In fact, several surveys have recently been completed, and they should be viewed as complementary to the review offered in these pages.[1]

Some of the work done during the 1980s and 1990s continues the research agenda established in the 1970s, in the aftermath of the substantial reform of UI in 1971. I will refer to these studies as "macro-level" studies. They are characterized by the use of aggregate time series data – that is, information on economy-wide statistics over time – to examine the effect of changes in UI generosity on the level of the aggregate unemployment rate – in particular, the effect of the 1971 reform. Much of the motivation for this research is tied to macroeconomic concerns – specifically the conduct of noninflationary monetary and fiscal policies – and the results therefore offer little help to those charged with the appropriate design of UI, which is inherently a microeconomic task, and the domain of what I will refer to as "micro-level" studies. This is a much more eclectic body of research, one which for the most part is concerned with an analysis of information about individuals, and which attempts to recognize the inherently dynamic nature of the labor market as well as the complexity of UI's interaction with it. While I attempt to summarize both the macro-level and the micro-level work done since the early to mid-1980s, the emphasis is placed on the latter.

I should clarify what I mean by "work disincentives." My analysis does not deal with "cheating," "abuse,"or illegal activity of any sort, which public perception often confuses with labor market disincentives – by which I simply mean a change in the behavior of participants in the labor market. The availability, nature, or amount of UI benefits may alter the behavior of individuals and firms even when they follow all of the rules and laws pertaining to UI. By responding to UI, they are in their motivation and behavior

[1] See, for example, Myatt 1993a; Osberg 1993; Phipps 1993.

no different from, say, those taxpayers who make RRSP contributions in order to reduce their tax payments; in other words, they strive to maximize their economic well-being given the structure of the tax transfer system. "Disincentives" refers to the extent to which UI alters behavior – in particular, the extent to which there is a disincentive to work. The importance of these changes depends on how large they are, how large a fraction is unintended or unplanned for by policymakers, and how they relate, in the broader context, to what the UI program was intended to accomplish.

This implies that the literature surveyed in this paper is only half the story needed to devise good policy: it represents an examination of the marginal costs of UI, but those still need to be compared to the marginal benefits. Costs need to be weighed against benefits before any rational policy action can be advocated, but an evaluation of these sorts of tradeoffs requires an understanding of the goals of the UI program. The way in which we understand UI will have a great influence on how the disincentives literature should be interpreted. Thus, the second objective of this paper is to examine some competing interpretations of the nature of UI. I characterize and examine the assumptions of two extreme perspectives that have dominated and, at times, stymied the UI policy debate: government payments to the unemployed as "insurance" for unemployment, and government payments as an "income transfer" scheme. An appreciation of the assumptions underlying each view will help us to understand how these perspectives rationalize the public provision of UI, and how they interpret the significance of UI's labor market effects.

What do we know about the labor market effects of UI? We know a lot more than we once did, but not as much as many policy analysts have generally assumed. While those who view UI as insurance for unemployment have certainly overestimated the extent of the disincentives, those who view it as an income transfer program have understated them. The effect of UI on the level of the aggregate unemployment rate remains an unresolved issue, but is probably not very significant. Its effect on the behavior of

particular groups and submarkets is nonetheless important. The disincentive effects of UI appear to be concentrated in particular pockets of the labor market: the behavior of the large majority of the population is not affected at all, but that of a minority is significantly influenced. UI does have important effects on the workings of the labor market, the structure of industry, and how the burden of unemployment is distributed, effects that raise important matters of equity and efficiency.

Unemployment and Government Payments to the Unemployed: Two Views

In 1962, the Committee of Inquiry into the Unemployment Insurance Act (Gill Committee), established by the Diefenbaker government, summarized what was, and certainly still is, a commonly held view by stating that

> [t]he present unemployment insurance plan, although satisfactory enough in its basic structure, has by reason of amendments over the years departed unduly from insurance principles appropriate to such a plan. Undoubtedly each such amendment appeared justifiable at the time in terms of the social problem that the amendment was designed to meet, but as such amendments have accumulated, the insurance concept has been pushed more and more into the background. (Canada 1962, 105.)

At the same time, however, the Gill Committee was not at all sanguine about applying the insurance model as the sole basis for its policy recommendations:

> Although...we are convinced that a soundly conceived insurance plan has a prominent place in a program of support for the unemployed, we are equally convinced that an insurance plan cannot deal with the whole problem. Any attempt to make it do so forces such distortions that basic insurance principles cannot be maintained and the plan is pushed from amendment to amendment without any sound guiding principles on which decisions can be based. (Canada 1962, 4.)

Clearly, two different interpretations of the nature of unemployment, and hence of the design of UI, were being grappled with. This sort of tension has been at the core of debate ever since the program's inception, and it continues to the present. What are the assumptions on which each view is based? What is their understanding of the nature of unemployment? What rationale do they offer for the provision of UI by the public sector, and what guidance for its design? Are they still a relevant basis for the conduct of policy? If we can at least partially answer these questions, or simply come to a better appreciation of some of the possible answers, we will be in a better position to understand the empirical literature on the labor market effects of UI.

An Idealized Insurance Model

Most people would prefer a constant level of income to a situation in which their income fluctuates widely from year to year but on average is the same. Insurance is of value to such individuals. They would be willing to pay a small amount that can be budgeted for in order to alleviate the anxiety of facing a possibly large loss in the future. It is this desire that is the foundation for the development of a market in insurance.

The insurance market relies on the risk-pooling capabilities of insurers. A large number of like-minded individuals enter into an agreement with an insurer who builds up a fund by collecting premiums from them and, in turn, promises to pay them benefits should they suffer a loss in the future. By pooling a large number of similar individuals, the insurer makes the individual losses collectively predictable. Whether a given person will or will not suffer a loss cannot be known, but the average loss for a large group of such individuals can, if the group is sufficiently large, be known with certainty. Nobody, for example, can tell me whether I will be in a car accident the next time I drive to work, but a statistician (on the basis of the law of large numbers) can calculate a very accurate estimate of the number of accidents for people like me over the course of the next year. Based on such calculations, those who end

Box 1: *The Assumptions of an Idealized Insurance Program*

1. No moral hazards:
   a) the influence of the insured on the extent of loss is observable;
   b) the influence of the insured on the probability of loss is observable.
2. No adverse selection.
3. No correlation in the probabilities of loss.
4. Probabilities of loss are accurately calculable.

up experiencing a loss will have their premiums returned to them plus the promised level of benefits. The insurer's fund will at the same time be just large enough to make such payments. Even those individuals who do not experience a loss, and who do not therefore receive any insurance benefits, are better off because of the peace of mind that coverage has given them. Under the insurance contract, risk is reduced and losses are shared. Individuals substitute a small definite cost, the insurance premium, for a possibly large loss. This makes them less anxious about what the future holds and thereby increases their well-being. It should be emphasized that this model is concerned with welfare *ex ante* (that is, before individuals know whether they will suffer a loss) and not with welfare *ex post* (welfare after the loss has or has not been suffered). To put this in a slightly different way, the concern is with the stability of income, not with its adequacy.

There are four assumptions underlying this model, and these are summarized in Box 1. Assumption (1) suggests that any actions of the insured individual that change the expected loss are known to the insurer when the insurance policy is agreed to. A "moral hazard" occurs when the availability of insurance induces the individual to undertake actions that increase the expected loss, and when these actions are not observed by the insurer and used to adjust the structure of premiums or benefits. The expected loss can be influenced in two ways: through changes in the magnitude of the loss, or through changes in the probability of loss. For example,

an individual who has home insurance may, in the first instance, be more inclined to leave valuables in the house rather than rent a safety deposit box off the premises, or in the second instance be less likely to invest in a secure lock. Insurers will always be anxious to obtain as much information as possible on these sorts of activities in order to differentiate their premium rates according to them, to set appropriate levels for deductibles, or to write contracts contingent on them. If they did not obtain the requisite information, or if they could not, either because they lacked a sophisticated enough technology or because they are legally prohibited from being too intrusive, they would face the possibility of eventual bankruptcy, as benefit payments would surely exceed premium payments.

Assumption (2) recognizes that if individuals differ inherently in the probability of experiencing the loss being insured against, then these differences are known to the insurer, who can then group like individuals together and charge each group a different premium or exclude certain groups from coverage altogether. "Adverse selection" refers to a situation in which these inherent differences are not known to the insurer. For the sake of illustration, assume that there are two groups of potential insurance clients: low-risk individuals and high-risk individuals.[2] The insurer, however, cannot distinguish between them, and offers an insurance policy with premiums and benefits that reflect the average probability of loss for the entire population. If the high-risk individuals make up a significant fraction of the population, then this policy would drive the insurer into bankruptcy. High-risk individuals would receive more benefits and pay lower premiums than they would under an actuarially sound program, while low-risk groups would receive lower benefits and pay higher premiums. In effect, the high-risk individuals would be receiving a subsidy from the low-risk individuals, to the extent that the latter would perhaps be even worse off than if they had no insurance at all. If they had any choice in the matter, they would perhaps choose not to purchase insurance,

[2] This example is treated more formally in Rothschild and Stiglitz 1976.

leaving only high-risk groups in the market. It may actually be the case that, if low-risk individuals were not forced to join the program, high-risk individuals would also not purchase any insurance: their probability of loss may be so great or their income so low that an actuarially fair premium would be too high, and at that premium rate there simply would be no demand for insurance. In this way, an insurance market would fail to come into existence unless the low-risk group were coerced into participation. In this scenario, if an insurance program exists, its coverage must be universal.

Assumption (3) suggests that the probabilities of loss are independent between individuals. If there is a correlation in these probabilities – that is, if a large fraction of individuals tends to suffer the loss at the same time – the law of large numbers is not fully operable and the insurer is prevented from calculating the aggregate loss with complete certainty. The insurer's fund may not be large enough to pay benefits to a large number of claimants at the same time. If this is the case, full insurance would not be offered, or a market for insurance may not even develop. An extreme example of this sort of problem is the reluctance of insurers to offer home insurance to those living in a war zone; in such a case, all individuals are likely to make claims for damages at the same time and even the largest of insurance funds would have difficulty meeting these simultaneous claims.

Assumption (4) suggests that the individual probabilities are in fact correctly calculable. This can be done either by an appeal to logic, which is rare, or by an appeal to data on past experience. The insurer requires an accurate estimate of the chances that a loss will occur because this estimate is the basis on which the premium and benefit rates are set. If this probability is unknown or unknowable, the provision of insurance is impossible. Past experience is often an accurate guide to the future. For example, the life insurance market is governed almost entirely by estimates of the probability of death that are calculated from past rates of death. For the most part, this is appropriate because the rate of death changes only gradually over time. When circumstances change dramatically, however – as they did with the rise of AIDS – the past may not be an accurate guide to the future, and insurers will be scrambling to obtain as much information as quickly as possible in order to adjust premiums and benefits to reflect the new reality. If things change so rapidly that accurate forecasts of the future cannot be made, it becomes impossible to provide insurance.

Any contingency fulfilling these four assumptions may be examined in terms of the insurance model. In particular, if we suggest that this is the case for unemployment, it follows that payments to the unemployed may be considered as insurance. If this is so, however, then there is no rationale for the provision of UI by government; the private sector could operate the program on the same terms. An unemployment "insurance" program would entail the accumulation of a fund on an actuarial calculation and the movement of its purchasing power through time in a manner to maximize individual welfare *ex ante*. The program's solvency would be linked to the size of the fund, and as such there would be no rationale for the public provision of such a program.

Government Payments to the Unemployed as Insurance

Those who view government payments to the unemployed as insurance for unemployment accept the general thrust of the above model, but argue that assumptions (1) and (2) are most certainly violated. While insurance markets regularly deal with problems of moral hazard and adverse selection, when it comes to insurance for unemployment these problems are thought to be so severe that the private market will fail and, therefore, that UI should be provided by government and that the degree of intrusiveness required to monitor the behavior of the unemployed in order to eliminate the moral hazard is so great that only government should be entrusted with the requisite authority. Further, adverse selection would also prevent private provision, and government provision is therefore necessary to require compulsory participation.

This perspective is based on an understanding of the labor market as a very dynamic market subject to continual change, but also one in which unemployment is to some significant degree the result of individual choice and is voluntary in nature. Also, while the product and factor markets of individual firms as well as their production technologies are subject to random upswings and downswings, the responsibility for adjusting to these fluctuations, as well as the costs of adjustment, lies with the firms and workers affected. From this perspective, unemployment is frictional or structural in nature: it reflects the dynamic process of adjustment as labor moves between jobs, between industries, between skill categories, or between participation and nonparticipation in the market. Sectoral demand and supply is continually changing, but information on new opportunities is not perfect; therefore, adjustment takes time as information on the nature and location of new jobs is collected, as expectations are adjusted in light of this information, as individuals and families move to new regions to accept them, or as training is undertaken to develop the new skills necessary to qualify for them. This process implies that equilibrium in the economy-wide labor market will be associated with a positive rate of unemployment, one that reflects the frictions in information gathering and the nature of the economy's institutions that either encourage or discourage such adjustment. This rate of unemployment is usually referred to by economists as the "natural rate of unemployment."

UI, it is hypothesized, is one of the institutions that will influence the natural rate. The insurance model, recognizing the possibility of moral hazard and adverse selection, offers a framework for interpreting the effect of UI on individual decisions that determine the incidence and duration of unemployment spells. For example, we might think of the two facets of moral hazard – the magnitude of a loss and the probability of a loss – as referring, respectively, to individual behavior that changes the duration of a spell of unemployment and to behavior that alters the probability of becoming unemployed.

The duration of an unemployment spell is determined by two factors: the rate at which an unemployed individual obtains job offers, and the fraction of job offers deemed acceptable. UI may affect both in a manner that increases spell duration. Consider, first, the fraction of offers acceptable to the unemployed individual. By providing an assured stream of income during a spell of joblessness, UI lowers the cost of rejecting any given offer and thereby makes individuals more selective. This influence is measured by the replacement rate – the ratio of UI benefits to expected earnings in the prospective job. The higher the replacement rate, the lower the cost of continued job search and the longer the duration of a spell of unemployment.[3] UI may also influence the rate at which an unemployed individual receives job offers. The determinants of this rate include demand-side factors such as the state of the business cycle and the rate at which labor demand is growing both in general and for specific occupational/skill categories, but also supply-side factors such as the particular activities individuals undertake to solicit job offers. The latter are related to the labor market network that individuals are a part of, the sophistication with which they approach a job hunt, and the intensity with which they search for offers. Search intensity may be influenced by the availability of UI – in particular, by the number of weeks of benefits to which the individual is entitled. UI recipients may be inclined to search less intensively for a job offer than they otherwise would if they are eligible to receive UI payments for a lengthy period. Theory suggests that the closer individuals come to the exhaustion of their benefits, the more likely it is that their search intensity will increase.

Quite clearly, this vision makes sense only when individuals are in a position to make choices: accepting or rejecting job offers as they come along or are found, and relaxing or intensifying the pace of a job hunt. It may well be that an individual is willing to

[3] The positive side to this change in behavior is that UI permits individuals to search longer, and thereby increases the chances that they will find better jobs than they would otherwise. This may increase the duration of future employment and reduce the chances of another spell of unemployment.

accept any job, or that no job offers are being made regardless of how hard they are solicited. In these cases, the availability of UI will have no influence on the duration of unemployment. If moral hazard is to arise it must be because the duration of unemployment is determined to some significant degree by individual choice.

This is also true of the probability that an individual will become unemployed in the first place. Unemployment occurs for a number of reasons: those already employed may quit or experience either a permanent or temporary layoff, or those not in the labor force may decide to begin a job search. The most studied relationship has been that between UI and temporary layoffs. Feldstein (1976), for example, offers a view of unemployment as a part of the adjustment process undertaken by individual firms in response to changes in the price of the products they produce: it is firm-specific and not related to the business cycle. Workers are assumed to be permanently attached to a particular firm and subject to temporary layoffs when the product price is depressed. Any particular layoff may represent a spell of involuntary unemployment, but

> because workers remain with the same employer through several spells of unemployment, the frequency and duration of temporary layoffs must be regarded as part of the total package of compensation and conditions. In a competitive labor market, employers will have to offer the economically feasible combination of unemployment, wages, and conditions that *workers prefer*. (Feldstein 1976, 938; emphasis in original.)

From this longer-term perspective, unemployment is voluntary – part of the package that individuals have agreed to when accepting an offer of employment from a firm. Feldstein shows that an unemployment insurance program that offers a subsidy to a firm will magnify the extent of temporary layoffs when product prices are depressed, and induce layoffs that would otherwise not occur so that workers may take an "unemployment insurance holiday" (Feldstein 1976, 953). It should be stressed that it is not the

availability of UI that causes these effects, but the subsidy provided through it. This subsidy may occur for two reasons: because the income tax system taxes UI benefits at a lower rate than earned income, and because UI premiums are not set at actuarially fair rates – that is, not based on a correct calculation of the true probability of layoff.[4] By relying more on temporary layoffs and less on other adjustment mechanisms such as inventory accumulation, wage reductions, or changes in hours worked, firms are able to exploit such a UI program in order, in effect, to receive a wage subsidy.

Although they have been the most studied, temporary layoffs are not the only, or even the most important, reason for becoming unemployed. Individuals may also become unemployed because they have quit their job or because they have been permanently laid off. From the insurance perspective, there are some risks that would simply not be insured against because they are so strongly under the control of the individual insured: to quit "without just cause" might be one. To many, this is almost considered self-evident; the analogy would be to pay fire insurance benefits to arsonists. The academic literature, however, has paid very little attention to the effect of unemployment insurance on the tendency to quit a job, or for that matter on the incidence of permanent layoffs. In fact, some have suggested that UI will actually reduce the rate of both of these types of separations.[5]

[4] There would be no subsidy under an actuarially sound scheme in which UI income is taxed no differently from earned income. However, one can also imagine a combination of a scheme that was not actuarially sound and a tax rate for benefits greater than that for earned income that would not imply a subsidy.

[5] Gustman (1982, 89–91) suggests that the availability of UI may encourage firms to train their work force more intensively in skills that are of value only to them. This will occur if such training raises worker productivity more than their earnings so that not all of the return to the training is subject to increased UI premiums. In effect, firms substitute untaxed inputs for taxed inputs. The greater the degree of training, the lower the incentive for permanent layoffs, since firms will prefer not to lose employees in whom they have made substantial investments and from whom they expect future returns. Assuming that part of the return to the training is passed on to workers in the form of higher wages, quits will also fall: since training is only of value to the firm providing it, employees would face a wage cut if they were to find employment elsewhere.

Unemployment is a risk that varies tremendously according to a host of individual characteristics, and a believer in UI as insurance for unemployment might therefore expect that adverse selection will be a problem. It is important to note that only the unpredictable part of unemployment should be covered by a program based on a purely insurance model. For example, seasonal unemployment, which is perfectly predictable, is not appropriately included. Insurance improves well-being by eliminating anxiety about an unknown future; if it is known that an event is going to take place, individuals should plan for it by saving or by borrowing funds. A UI program based on the insurance model would on this basis alone exclude a large number of occupations or industries from coverage. Further, insurers can be expected to make use of all the information that they possess on the individual characteristics related to unemployment in order to differentiate premiums or exclude groups from coverage. Characteristics such as occupation, industry, gender, age, and region all suggest themselves as the basis for such discrimination. These characteristics do not, of course, fully determine the incidence or duration of unemployment; a significant role remains for unobserved differences between individuals and, therefore, premiums could not, even under the most extreme circumstances, be fully differentiated.

As a result of the lack of complete premium differentiation or exclusion of groups, at least two things may happen. First, there will be a reallocation of labor as individuals with high-risk characteristics seek employment in sectors with lower premium rates. This reallocation will involve movement of already employed individuals, but also flows of individuals who would otherwise not participate in the labor market. As Mortensen (1977) points out, the value of having a job increases because it implies an entitlement to UI, and this induces some nonparticipants to seek employment. Thus, UI causes changes in worker mobility and labor force participation decisions because the premium/benefit structure is not perfectly differentiated between risk categories. Second, mobility and the sectoral allocation of labor may be affected even if premiums and

benefits are perfectly differentiated. Burtless (1990) notes that the provision of insurance increases the attractiveness of the high-risk sector to some individuals who would otherwise prefer not to be employed in it. If the premium rates are the same, the riskier sector becomes even more attractive to these individuals. Offer accident insurance to skydivers and more people will decide to become skydivers; offer accident insurance to skydivers at the same premium rate as office workers and even more people will become skydivers. Likewise, the argument goes, with unemployment insurance and the distribution of individuals across industries and occupations.

What are the characteristics of an optimally designed insurance program for unemployment? Its coverage would be selective, not universal. Individuals subject to seasonal unemployment would be excluded, as well as new entrants or re-entrants to the labor market – that is, those not suffering a loss of employment earnings. Premiums would, to the greatest extent possible, be set at actuarially fair rates so that individuals or firms would not receive a subsidy through participation in the scheme. This would hold adverse selection in check as well as prevent excessive increases in temporary layoffs. Some groups – those with low incomes and very high probabilities of loss, and those with high incomes and very low probabilities of loss – may choose not to participate in the program. This would limit its scope even further. The benefit structure would include a host of features to limit the extent of the moral hazards. A deductible, in the form of a waiting period, would eliminate short spells of unemployment from coverage. This, in conjunction with an eligibility period, would prevent individuals from engaging in repeat cycles of employment and UI receipt. Further, the benefit rate would be set at some fraction of insured earnings depending on how sensitive spell durations are to the receipt of benefits. For this same reason, benefits would be paid for a fixed length of time rather than continuing indefinitely. If the job choices and job search intensity of each claimant cannot be perfectly monitored, then the rate of benefits would decline with the length of time spent on claim,

eventually becoming zero. To be able to set specific values on the various parts of the UI scheme requires an accurate understanding of all the disincentive effects and how they relate to each element of the benefit and premium structure.[6]

Government Payments to the Unemployed as an Income Transfer

The first possible retort to this vision of UI as insurance for unemployment is that it does not really offer a rationale for government provision of the program. While moral hazards and adverse selection may lead to market failures that prevent the private provision of UI, it does not follow that government could, *with the same information available to private insurers*, successfully provide the program. If government's knowledge of the moral hazards and adverse selection are in fact superior to private insurers', then this is a case for the public dissemination of information, not public provision. It is not even clear that public provision is a necessity if a universal UI program is desired. Universality, which becomes as much a goal in itself as it is a means to reduce adverse selection, requires government only to create and enforce a law that stipulates minimum levels of coverage, as is done, for example, in most markets for automobile insurance. While a model of UI as insurance for unemployment offers a framework that incorporates both the costs and benefits of insurance, and while in conjunction with some economic theories of how labor markets function it offers insights into program design, it nonetheless leads to one fundamental policy conclusion: UI should be provided by the private sector.

[6] Surprisingly, economic theorists have paid relatively little attention to UI as "insurance" for unemployment. Some of the contributions to this literature, from which the suggestions in this paragraph are gleaned, include: Baily 1978; 1977; Jones 1986; Rosen 1983; Shavell and Weiss 1979; and Stafford 1977. However, advocates of the insurance model as the basis for the design of UI can probably not do much better than to consult Watson (1948) as their guide for policy recommendations.

The logic of the model does not provide a strong case for public provision. Those debating the structure of particular features of UI from this perspective must ultimately accept this logic and call, before anything else, for privatization of UI.

On the other hand, those who view government payments to the unemployed as an income transfer scheme would suggest that the first two assumptions of the insurance model are inconsequential and that it is the latter two assumptions that are crucial. If we accept that large numbers of individuals tend to become unemployed at the same time and that the future is fundamentally unknown, we are in a position to entertain a model of UI that offers a clearer rationale for public provision, but a much less definite vision of its goals or design.

From this perspective, the major cause of unemployment is the business cycle and the failure of governments to provide full employment. During a recession, many individuals become unemployed simultaneously, and this will likely prevent the development of a broad-based private sector UI program. As Burtless has suggested, "the offer of unemployment insurance under such conditions would be akin to offering fire insurance in a crowded wooden city that lacked a fire department" (1990, 35). If UI were provided by the private sector, many individuals would not be fully insured and would be forced to rely on their savings or borrowing. In particular, if the high-risk groups in the economy are also the low-income groups, so that their savings are limited, and if capital markets are not willing to extend potentially large amounts of credit to unemployed workers, then many individuals will find themselves without reasonable levels of income during periods of unemployment. Government provision of UI is therefore required, but if the government program is to be something other than forced savings – that is, if it is to serve an insurance function at all – it must make participation of low-risk groups compulsory. A universal program, in this case, raises not just the possibility but the necessity of income redistribution between individuals of different risk classes. The existence of a fund based on actuarially sound premiums is no

longer the basis for the solvency of the program; rather, it is the authority of government to tax and transfer income between individuals that ensures program solvency.

By operating such a program, government must make two public policy decisions. First, the pooling of different groups requires a policy toward income redistribution. If the government could observe the characteristics of individuals perfectly, it could decide to set premiums according to expected loss, subject to some socially decided-on minimum income level – that is, it could attempt to be as neutral as possible and permit the distribution of income generated by the market to prevail. Alternatively, it could attempt to alter the income distribution according to broader societal goals. Either way, a public policy decision is required. This decision will depend on government's perception of the nature of unemployment and the strength of the disincentive effects, as well as what broader distributional goals are ultimately being pursued. The second policy choice concerns the existence of a fund. Since, under the income transfer approach, the fund is no longer the basis for program solvency, the program need not be operated on a cumulative basis. Financing could be done in this way if government were able to forecast the depth and length of business cycles, as well as trend developments in unemployment. Financing, however, could just as well be operated on a current basis, with income transferred directly to the unemployed from the employed. The existence of a fund is not a necessity. These two options imply that government has a choice to make between operating the program on an *ex ante* or an *ex post* basis, which therefore raises the necessity of making public policy decisions about the extent to which UI should be simply insurance or should incorporate elements of assistance as well.

This choice is much more limited when the fourth assumption of the ideal insurance model is dropped. The insurance model assumes that the insurer is able to form an accurate estimate of the probability and extent of loss. As mentioned, this often requires a stable environment so that past experience can be extrapolated to the future. This may be true in many insurance markets, but

questionable for unemployment. The onset, depth, and length of recessions are difficult to predict with the kind of accuracy required to operate a funded UI program. In the extreme, we might think of governments as being required to conduct public policy under complete uncertainty, using only rough rules of thumb based on the recent past. The operation of a UI program by the private sector would not be possible because there would be no basis on which to calculate actuarially fair premiums.

Likewise, precautionary savings on the part of individuals would be a very imperfect means of maintaining income through good times and bad: transfers from the currently employed to the currently unemployed would be required. The employed might agree to such transfers if they felt that they themselves could be unemployed in the future; that is, if the unemployed, in terms of their work ethic, were viewed as being no different from the employed, only in direr circumstances that could easily be reversed. We might think of the institution of a program of UI as the reflection of a social contract resulting from this situation, with the terms of the contract always open to be rewritten, depending on how the employed view their future prospects, the current state of their income, and projections for its growth. The program, however, must by necessity be concerned with welfare *ex post*. Government payments to the unemployed represent a system of transfer payments made in each of a succession of time periods to deal with the income needs of the unemployed as they occur. Their nature and extent are determined by an assessment of their efficiency costs as well as the values and resources of the community. The fact that they are made *ex post* creates the presumption that criteria other than actuarial soundness will determine their structure.

What is the nature of unemployment in an economy that violates these last two assumptions of the insurance model? It has a clear involuntary aspect. Recessions are times when jobs are scarce, when the unemployed generally accept the first job offer they receive, and offering income support through a UI program likely will not change the incidence or duration of unemployment

very much. Issues of disincentives are, as a result, of little importance in the design of UI. Adequacy of income, judged in the context of prevailing societal values and resources, is the basis for program design, and its design cannot be attempted without reference to these broader goals.

How should the responsibilities and costs of adjustment to involuntary unemployment be distributed? In the extreme, UI becomes a scheme in which the unemployed are paid compensation as victims of broader macroeconomic policy – in particular, the attempt to reduce inflation and the failure to maintain full employment. To some schools of thought, "full employment," like the distinction between voluntary and involuntary unemployment, has no meaning (Lucas 1978, 353–357). In fact, it is rarely given a clear definition by its advocates. The clearest statement probably belongs to Weldon:

> A commitment to full employment must mean that Canadians should be able to find jobs reasonably suited to their skills, jobs at going wage rates, somewhere near their homes, available without extended delays. The commitment would be so near absolute that occasions when it could not be respected would be extremely rare and would require compensation; and the commitment would accordingly be supported by extended, local, "microeconomic" intervention. (Weldon 1991, 114.)

This view, in sharp contrast to the insurance model, places the responsibility as well as the costs of adjustment on the public sector at large. The unemployed need not significantly retrain, accept wage cuts, or move to another location. Clearly, the notion of full employment is not a technical definition but is based on a value judgment of the extent of individual and societal responsibility in the face of adverse conditions, a value judgment that is easier to make if government policy or lapses in policy are the cause of persistent unemployment in the first place.

The Policy Debate

Guest (1985) offers a history of the development of social insurance in Canada as the outcome of the interplay between the insurance and the income transfer views, which he refers to as the "residual" and the "institutional" models. He summarizes the debate during the 1940s between Charlotte Whitton and Leonard Marsh over the rationale for and the original form of UI. This debate has echoed throughout the decades of the postwar era. It is evident in Eveline Burns's (1953) critique of the insurance principles put forward by Watson (1948) of the Unemployment Insurance Commission, and even more recently in the fractured 1986 report released by the Forget Commission or in the exchange between Osberg (1988) and Courchene (1988) over the future of the welfare state. At the heart of this debate, and the major reason for its longevity, are different interpretations of the nature of unemployment: the insurance model being rooted in an understanding of unemployment as structural and frictional in origin and voluntary in nature, and the income transfer model in an understanding of unemployment as cyclical and involuntary.

In a series of papers, Phipps (1990a; 1990b; 1991a; 1991b) offers a clear illustration of how the appropriate conduct of UI policy varies according to the nature of unemployment, the extent of the disincentive effects, and the income distribution goals pursued by society. She assumes that individuals choose how many weeks of the year to work and how many to spend at leisure, but her methodology permits them to be constrained in their choices. If the actual number of weeks of work is the same as the desired number, individuals are said to be unconstrained in their choice and any nonworking time is simply leisure time chosen by the individual. On the other hand, if (at the existing wage rate) the actual number of weeks worked is less than desired, individuals are involuntarily unemployed, forced to accept less work than they wish because of the scarcity of jobs. She suggests that the probability of being involuntarily unemployed is very high. An unmarried woman observed to be unemployed would prefer more weeks of work with

an 83 percent probability; an unmarried unemployed male would prefer more weeks of work with a 79 percent probability.[7] According to these estimates, the strong majority of observed unemployment is due to the scarcity of jobs, not to individual choice.

The high probability of involuntary unemployment implies that UI reform will not influence labor supply a great deal. Phipps is able to simulate the consequences of implementing the UI reforms suggested by the Macdonald Commission (Canada 1985), the Forget Commission (Canada 1986), and those actually put into place in November 1990.[8] The effect of each of these changes on the average annual weeks of unemployment, for those experiencing some unemployment, is summarized in Table 1. In the model that permits unemployment to be voluntary, the average number of weeks spent unemployed falls by about three to five weeks for single males, and by about three to four weeks for single females. These are significant changes, amounting to a reduction of about 15 to 25 percent. If involuntary unemployment is recognized, however, the reforms essentially have no effect on the duration of unemployment, and may even increase it slightly. Similar results are obtained for the incidence of unemployment.

What are the implications of these results for the conduct of policy? In the first instance, they make clear that the work disincentives of UI are not an important consideration when individuals are subject to involuntary unemployment. Phipps concludes one of her papers by stating that "the policy implication of [these findings] is

[7] The estimates for households consisting of couples are similar. If the husband is unemployed, the household is constrained with a 81 percent probability; if the wife is unemployed, the probability is 68.7 percent; if both members are unemployed, the chances that the household is constrained is 98 percent.

[8] The Macdonald Commission reforms are interpreted as being a decrease in the replacement rate from 60 percent to 50 percent; elimination of regionally extended benefits; an increase of the minimum eligibility requirement from 10–14 weeks to 15–20 weeks; and a requirement of two weeks of insured employment for one week of UI benefits. The Forget proposals involve annualizing the replacement rate; eliminating regionally extended benefits; fixing eligibility at 10 weeks of employment; granting a 50-week benefit period to those satisfying the eligibility requirement; and abolishing benefit repayment for high-income individuals.

Table 1: *The Effect of UI Reform Proposals on Length of Unemployment*

	Pre-Reform	Source of Reform Proposal: Macdonald Commission	Source of Reform Proposal: Forget Commission	Source of Reform Proposal: Bill C-21
	(average annual number of weeks unemployed)			
Single earners				
Males				
Voluntarily unemployed	19.1	16.2	14.2	
Involuntarily unemployed	21.9	22.7	22.0	21.8
Females				
Voluntarily unemployed	19.0	15.7	15.1	
Involuntarily unemployed	23.8	24.2	23.8	23.7
Married households				
Males				
Involuntarily unemployed	18.5	18.6	18.4	
Females				
Involuntarily unemployed	27.7	28.0	28.0	

Sources: Phipps 1990a; 1990b; 1991a.

that no large reduction in unemployment should be anticipated if UI generosity is reduced in a high-unemployment economy" (Phipps 1991a, 51). Her definition of involuntary unemployment, however, merits attention. It is very close to that offered by Weldon. Individuals are involuntarily unemployed if they desire more work at the wage rate they are accustomed to receive, and without making any adjustment in region of residence, occupation, and education, among other things. What this implicitly assumes is that there is no onus on individuals to adjust to unemployment in any other ways that may influence longer-term outcomes. (Are there jobs available, but at lower wage rates, in different occupations, or in different regions?) If the horizon of the individual was longer than assumed (one year), could we expect more adjustment to be undertaken and therefore less unemployment to be involuntary? How does UI influence these longer-term decisions?

Phipps also goes on to show that the evaluation of policy options must incorporate these findings into a broader framework that is able to weigh program costs against program benefits. How policy is evaluated will depend not only on the disincentive effects, but also on what we understand societal well-being to be. As an example, she evaluates the Forget proposals by using several alternative models of societal well-being, each of which depends on a different attitude toward the distribution of income. The Forget proposals are a good example to adopt because their intention was to eliminate many of the more generous income transfer elements of UI in order to transform it solely into an "insurance" program.

In the first model that Phipps examines, societal well-being is to be understood in a procedural sense. A particular distribution of income is better than any other if it is arrived at through voluntary transactions that are based on a just distribution of property rights: process, not outcome, is what matters. In this model, UI influences societal welfare by the extent to which it disturbs the income distribution that would be generated by the marketplace. If individuals are compelled to participate in a UI program, societal welfare will be reduced unless individual premiums correspond to the amount of benefits received. UI should mimic the market outcome as closely as possible without introducing elements of income distribution. In this model, the Forget proposals are unambiguously welfare improving. When unemployment is voluntary in nature, this occurs because disincentive effects are reduced, work effort increases, and the distribution of income is closer to what would have resulted from the free functioning of the market; when unemployment is involuntary, it occurs because individual benefit levels are brought in line with premium levels by paying fewer benefits to the long-term unemployed – those receiving an income transfer through the program.

In the second model, individual well-being is assumed to be determined only by the level of income, and society is only as well-off as its most disadvantaged members. In this model, government policy should give priority to those in poverty. Surprisingly,

this does not lead to an unambiguous assessment of the Forget proposals. When unemployment is voluntary, the Forget proposals are preferred to the status quo if society is willing to permit a certain amount of income inequality. This happens because, under the proposals individuals work more and therefore in many cases income levels rise. Since improvement of social welfare depends only on raising levels of income, reduced leisure is not considered to be a cost. As society becomes more and more intolerant to income inequality, however, this result is reversed: UI cutbacks to the poor become more and more detrimental. On the other hand, when unemployment is involuntary the status quo is always preferred to the Forget proposals. Since program cutbacks have no effect on work effort, their only effect is to reduce the incomes of the poor.

These results illustrate that the appropriate conduct of policy depends on how societal well-being is defined and what societal attitudes to income inequality are, on the nature of unemployment, and, finally, on the strength of the UI disincentives. The debate over the design of UI would be much more constructive if it were clear which of these issues is in contention. If we accept Phipps's finding that virtually all unemployment is the result of job scarcity, then we would be in a position to advocate restrictive UI reform only if we adopted the first approach to societal well-being. We must believe that the market is an end in itself and that the distribution of income it generates is inherently just. The argument for such reforms would of course be more subtle, and palatable, if unemployment is voluntary in nature and there are significant work disincentive effects of UI. A reduction in UI benefits in this case would improve work incentives and induce people to earn more income than they would otherwise receive. If UI disincentive effects are strong, however – and if we do not care too much about income equality – we are still able to use this reasoning to make the same restrictive recommendation under the second approach to societal well-being. Clearly, a great deal rests on the nature of unemployment and the extent of the work disincentives of UI, to which we now turn.

Micro-Level Studies

Micro-level studies of the labor market effects of UI, which in Canada began to be undertaken during the early to mid-1980s, reflect several important conceptual developments. The most general of these is the recognition that the labor market is dynamic, complex, and consists of very large numbers of individuals flowing through a potentially large number of different states. Atkinson and Micklewright (1991), for example, note that the labor market not only consists of three different states – employment, unemployment, and nonparticipation – but also that there are considerable differences in the behavior of individuals in these states. Those employed may have life-long careers or they may have insecure, deadend jobs on the margins of the labor market; the unemployed may be actively searching for work or not searching at all, either because they are expecting to be recalled or because they have already found a job to start at some future date; and nonparticipants may be sick, retired, caring for dependents, retraining, or too discouraged to continue a job search. Accordingly, UI can have a variety of influences that would be masked entirely in a static model of the labor market.

These influences arise not only because there are many possible labor market outcomes on which to have an effect, but also because the UI program itself is multifaceted. It may be misleading to speak of a change in UI "generosity," as if policymakers could pull on a single lever. The program has many different dimensions, each of which influences the program's benefits and each of which may alter a variety of labor market flows. Atkinson and Micklewright also suggest that the institutional complexity of UI makes it impossible to summarize program generosity with a single number. Eligibility and disqualification rules govern access to benefits, the definition of the replacement rate is rather amorphous, and benefit levels and durations vary according to a variety of rules.[9]

[9] With regard to the "replacement rate," they are able to offer plausible reasons for up to five different definitions according to the treatment of the income tax system – whether...

Table 2 offers an indication of the extent of the dynamics inherent in the operation of the Canadian labor market between 1976 and 1991. During an average month, there were 11.2 million employed individuals, 1.1 million unemployed, and more than 6.6 million nonparticipants. These averages, however, are the result of considerable month-to-month movements between each of the labor force states. About 200,000 people move from one labor force state to another every month. About 2 percent of the employed and about 3 percent of those not in the labor force become unemployed. A great many of the 1.1 million unemployed either find a job or stop looking for one every month: 235,000 (22 percent) become employed, and 183,000 (17 percent) become nonparticipants. These gross flows do not offer the type of detail to which Atkinson and Micklewright allude, but they nonetheless underscore the highly dynamic nature of the labor market.

Micro-level studies are quite eclectic in the topics addressed, the data used, and the methodology adopted. They all share a concern with examining the specific effects of specific UI parameters on specific labor market decisions of individuals. These can be conveniently organized by examining the types of labor market transitions presented in Table 2.

The transition from unemployment to employment or to nonparticipation determines the duration of an unemployment spell. As I have already suggested, both the rate of UI benefits (expressed relative to the wage rates in the jobs individuals are looking for), and the potential duration of benefits (the benefit entitlement) will influence the duration of UI spells. A high replacement rate and longer benefit entitlements may be expected to reduce the job-finding rate and increase the duration of time spent unemployed.

Note 9 - cont'd.

...marginal or average tax rates are used – and the manner in which individuals form expectations of the wage offers they will receive. When these alternatives are examined in a model of the duration of unemployment in the United Kingdom, they find, in contrast to the conventional wisdom, that the effect of the replacement rate does not appear to be robust. See Atkinson et al. 1984; and Atkinson and Micklewright 1985.

Table 2: ***Canadian Labor Market Flows, 1976–91***

Labor Force Status in a Particular Month	Labor Force Status in the Next Month: Employed	Unemployed	Not in Labor Force	Total
	(average monthly gross flows, in thousands)			
Employed	10,711	190	275	11,176
Unemployed	235	640	183	1,058
Not in labor force	245	216	6,160	6,621

Source: Adapted from Jones 1993, table 1.

The transition from employment to unemployment will be influenced by the eligibility rules of the program, as well as the way in which the program is financed. Eligibility rules will govern the extent to which individuals quit jobs and the extent to which firms – if they are not taxed according to the use their workers make of UI – rely on temporary layoffs. Less stringent eligibility rules will in both cases cause jobs to be shorter.

The generosity of the program as measured by the replacement rate and benefit entitlement and the availability of benefits as measured by the eligibility rules will influence the movement from nonparticipation to either employment or unemployment. Nonparticipants may be more inclined to seek work when they can qualify for generous UI benefits with only a few weeks of work: the greater the amount of benefits and the lower the eligibility requirement, the greater the flow into labor force participation.

All of these transitions – from unemployment to employment, from employment to unemployment, and from nonparticipation to unemployment or employment – will determine the tendency of individuals to engage in recurring cycles of employment and UI receipt: working for a short period in order to obtain a benefit entitlement, collecting benefits to exhaustion, and then repeating the process. Does UI lengthen unemployment spells? Does it shorten employment spells? Does it cause nonparticipants to seek employment for the sole purpose of collecting benefits? The following sections present the evidence on each of these issues, as well as on the degree of repeat use.

The Transition from Unemployment to Employment

Ham and Rea (1987) examine the duration of unemployment spells from data on male UI recipients between 1975 and 1980. Their analysis attempts to estimate the transition rate from unemployment to employment with a new firm. The major objective is to determine the influence of the replacement rate and benefit entitlement on this rate, but they offer a host of other insights. Administrative UI data on a sample of males for the period 1975 to 1980 are used. These data offer week-by-week information on an individual's activities while on a UI claim. Ham and Rea examine 1,058 unemployment spells drawn from 282 individuals. There are two reasons the number of spells exceeds the number of individuals. First, some individuals may be repeat UI claimants and therefore contribute more than one claim to the sample. Second, and more important, this discrepancy follows from how an unemployment spell is defined. Ham and Rea define an unemployment spell to be a continuous period of time spent on a UI claim with no reported employment. A spell is defined to end in the week that an individual reports any employment earnings. Over the course of a UI claim, an individual can in fact be in any one of five different states: (1) in the two-week waiting period, (2) in receipt of only UI benefits, (3) in receipt of UI benefits and employment earnings, (4) in receipt of only employment earnings, or (5) in receipt of neither benefits nor earnings. Possibilities (3) and (4) arise because claimants are permitted to work while on claim.[10] This will lead to a reduction of benefits only if employment earnings exceed 25 percent of the

[10] Possibility (5) arises if the individual is disqualified for some reason or repaying an earlier overpayment.

weekly benefit rate. Above this maximum, each additional dollar of earnings leads to an equivalent reduction in benefits, and eventually benefits fall to zero. Individuals who cease to receive benefits for this reason may, however, return to collect the unused portion of their entitlement at some point in the future.[11]

This type of dynamic is the major reason that the sample used by Ham and Rea has almost four times as many spells as individuals. Any week during a claim in which there is a report of employment is sufficient to signal the end of an unemployment spell; thus a single UI claim can lead to several spells of unemployment, depending on the number of separate occurrences of employment during the claim. This implies that no distinction is being made between full-time and part-time employment. In particular, an individual who has moved from UI to full-time employment is treated in the same manner as an individual who has obtained a part-time job but is still collecting UI.

Ham and Rea find that the average duration of an unemployment spell is about 15 weeks. Their major results are four in number. First, benefit entitlement influences the duration of unemployment spells, even for those individuals who do not exhaust their benefits. An increase in the potential duration of benefits of one week increases spell duration by one-quarter to one-third of a week. Second, aggregate demand – that is, the availability of jobs – also has an important effect on spell duration. An exogenous one percentage point change in the unemployment rate will increase spell duration by one-tenth to one-half of a week, depending on how it is measured.[12] Third, no relationship could be found between the replacement rate and spell duration. Fourth, the transition rate

[11] Between December 1973 and September 1977, claimants could only suspend the claim for a maximum of four weeks before having to forfeit their remaining entitlement.

[12] Ham and Rea (1987, table 4) use both the provincial unemployment rate and the US industrial unemployment rate as measures of aggregate demand. A one percentage point change in the former increases spell duration from one-tenth to one-fifth of a week depending on the estimation procedure, while changes in the former lead to an increase of one-third to one-half of a week. They also use the regional unemployment rate, but do not report the associated results.

itself depends on the length of the unemployment spell, displaying a U-shaped pattern: very high early in the unemployment spell when there is about a 15 percent chance of leaving unemployment in the next week, gradually falling to a minimum of 3 to 4 percent at about 20 to 25 weeks, and rising thereafter to 12 to 13 percent as the exhaustion of benefits is approached.[13] This suggests that male claimants tend to search more intensively for a job, or become more willing to accept any given job offer, as their benefit entitlement is used up.

In a 1992 paper, I also use administrative data to examine the transition from unemployment to employment, but my analysis adds to Ham and Rea's findings in several respects (Corak 1992a). First, a much larger sample that spans a longer horizon is used, and the analysis is conducted for both males and females.[14] Second, a broader definition of unemployment is used. In fact, it is more appropriate to refer to the variable that I analyze as the duration of benefit receipt. The duration of a "spell" is defined to begin with the week that the UI claim is initiated and to continue until an individual reports finding full-time employment. This recognizes in part the distinction that Atkinson and Micklewright make between the various types of jobs that UI recipients may end up finding. Third, I permit the influence of the variables determining the length of spells to vary over the course of the spell. In particular, I take Ham and Rea's finding that benefit entitlement will influence spell duration as a given, but define two phases to the spell: a pre-exhaustion phase and an exhaustion phase. The latter is defined to begin four weeks before the end of the individual's benefit entitlement.

I am able to replicate Ham and Rea's findings for males. The average duration of a period of benefit receipt is about 15 weeks, the replacement ratio does not influence spell duration, and a

[13] When benefit entitlement is held constant, Ham and Rea observe that the transition rate is L shaped, starting at 17 to 19 percent, falling gradually to 2 to 3 percent by week 25, and staying at about that level for the remainder of the spell.

[14] The sample consists of 32,550 claims, which represents roughly a 1 in 1,000 sample of all claims initiated at some time between mid-1971 and March 1990.

one percentage point increase in the unemployment rate – defined as the regional unemployment rate – causes a one-quarter of a week increase in spell duration. The results for females, however, are very different. The average duration of a spell is about 20 weeks, and the replacement ratio proves to be an important determinant of spell length while aggregate demand does not. Every five percentage point change in the replacement rate – for example, from 65 percent of insured earnings to 60 percent – implies a three-week change in spell duration. The spells of females are longer than those of males because females are more likely to find part-time employment and continue in receipt of benefits, whereas males are more likely to exit to full-time employment when they do find a job.

I also find that, as the exhaustion of benefit entitlement approaches – that is, when individuals are within four weeks of exhausting their benefits – the remaining spell duration is not influenced by any personal or program characteristics. Males and females are alike in this regard. While there is some tendency for individuals to search more intensively for jobs as benefit exhaustion approaches or to become more willing to accept the job offers that they do receive, it is not that great, and if an individual collects benefits up to four weeks from exhaustion he or she is likely to continue collecting until exhaustion. These results raise certain conundrums for the optimal design of policy. A cut in the replacement rate will likely improve females' incentives to find full-time employment, but it would at the same time only serve to reduce the adequacy of income support received by males without altering their incentives. Further, while cuts in benefit entitlement apparently will not influence the incentives or the income support of the broad majority of recipients, it will have an important effect on the income support of the minority of individuals who exhaust their entitlement. Since there are no personal or program characteristics that appear to influence the ability of exhaustees to find full-time employment, something other than a tinkering with the incentives that these individuals face is required to increase their chances of re-employment.

In summary, these studies find the replacement rate to have no effect on the duration of insured unemployment for males, but to have a strong effect for females; that benefit entitlement is an important determinant of spell length but so is the state of aggregate demand; that these effects are only operative during the early part of a UI claim; and that, while there is some tendency for UI recipients to search more intensively as exhaustion is impending, this tendency affects only a minority of claimants and is not that strong. Further, it should be stressed that both of these studies deal with the job finding rates for those individuals who have experienced a permanent separation and who are therefore searching for a job with a new employer. Temporary separations, however, account for a large fraction of employment separations and an even larger fraction of layoffs. For example, in 1988, temporary separations represented 41 percent of all separations and 58 percent of layoffs (Statistics Canada 1992, table 10). No studies in the Canadian literature explicitly examine the duration of unemployment insurance spells of those temporarily laid off.

The Transition from Employment to Unemployment

Access to UI benefits is determined jointly by the number of weeks of insured employment and the regional unemployment rate. For example, from 1978 to 1990, ten weeks of insured employment were required to qualify for benefits if the regional unemployment rate was more than 9 percent. For each percentage point decline in the unemployment rate, one more week of employment was required, to a maximum of 14 weeks when the regional unemployment rate was 6 percent or lower. This scale is called the Variable Entrance Requirement (VER), and was changed in November 1990 to a range of 10 to 20 weeks when the unemployment rate varied between 15 and 6 percent.[15]

[15] There are other provisions of the UI program that determine access to benefits. An "insured week of employment" is defined to include only paid employment of at least...

Christofides and McKenna (1993; 1992) examine the duration of jobs and attempt to estimate the influence of the VER. They examine the possibility that individuals remain employed only long enough to qualify for UI benefits, and they use a large sample of data from a longitudinal survey of the labor market conducted over the 1986-87 period. They note that, of all jobs ending or in progress over the course of these two years, those with durations that exactly meet the VER account for somewhere between 2.8 and 5.6 percent of their sample. While this is not insignificant, we can only consider a fraction of these to correspond to the disincentive effect associated with just satisfying the VER. Some jobs will be this long even in the absence of a disincentive effect, so a rather small fraction of all jobs is subject to the type of disincentive effect being examined.

A substantial proportion (70 to 80 percent) of jobs lasting 14 weeks or less is attributed to those not claiming to be students. Layoffs and separations due to "other" (noneconomic) causes are the major reasons these jobs come to an end. Those jobs that end because of quits are a less significant fraction of this total, and their contribution for those jobs 10 to 14 weeks in length is no different than for jobs outside this range. If a behavioral response to UI is occurring, it is not because individuals are quitting their jobs in order to obtain benefits. Christofides and McKenna go on to model individual job spells, holding a host of personal and job characteristics constant. Their results suggest that jobs ending on the week that the VER is fulfilled are 2.2 to 2.7 weeks shorter than they would otherwise be on the basis of all other characteristics. While this

Note 15 - cont'd.

...15 hours per week or earnings of at least 20 percent of the maximum weekly insurable earnings. This definition has the effect of excluding the self-employed (with the exception of fishermen) and some of the part-time employed from coverage. For most of the past 20 years, eligibility has been more stringent for new entrants and re-entrants to the labor force, as well as for repeat users of the program. The provisions for repeaters were eliminated in November 1990. Those quitting their jobs were subject to a penalty of up to six weeks of benefits if they could not offer a legitimate reason for having quit, but were excluded from coverage altogether in 1993. See Dingledine 1981; Canada 1990.

would seem to be a rather small effect, proportionately it is quite large because these jobs are rather short to begin with.

The VER was first introduced in December 1977. The legislation implementing it stipulated that it would be in force for only 36 months, after which it would change to a fixed requirement of 14 weeks unless extended by resolution of Parliament. Resolutions of this sort were proclaimed regularly throughout the 1980s. In 1989, however, the required legislation was introduced as part of Bill C-21, a package of more substantial reforms to the entire UI program. This bill, which was tied up in the Senate as a result of its battles with the House of Commons over the goods and services tax, failed to receive Royal Assent until November 1990. As a result, the eligibility requirement for all regions of the country was 14 weeks from January 6, 1990, to November 18, 1990, regardless of the unemployment rate. This development presented a unique opportunity to examine the effect of the eligibility rule on individual labor market behavior. It has been examined by at least two teams of researchers (Baker and Rea 1993; Green and Riddell 1993a).

Green and Riddell offer a careful comparison of the duration of jobs starting in 1989 with those starting in 1990. They examine those regions of the country that had an unemployment rate greater than 11.5 percent throughout the two years. Focusing on these high-unemployment regions ensures that the entrance requirement was the only element of the UI program that changed and, therefore, that any differences in job durations between the two years can be ascribed to it alone.[16] At the same time, their results and the adjustment processes they describe should be interpreted as applying to a high-unemployment environment. In these regions, those who were employed increased from 53.0 percent to 53.4 percent of the working age population between 1989 and 1990; Canada-wide,

[16] In these regions, the entrance requirement changed uniformly from 10 to 14 weeks, the longer requirements for UI repeaters were waived, and there were no changes in the amount of regionally extended benefits. The regions are: Fortune Bay/Gander, Cornerbrook/Labrador, Prince Edward Island, Cape Breton, Madawaska/ Restigouche, Gaspé, Northern Prairies, Kamloops, and Northern British Columbia.

there was actually a decline from 62.0 percent to 61.5 percent. Similarly, the unemployment rate fell from 12.7 percent to 12.5 percent, while it rose Canada-wide from 7.5 percent to 8.1 percent. These aggregate developments are suggestive of a change in the labor market behavior in these regions. Green and Riddell (1993a, 16-17) note that 4.3 percent of all employment spells that began in 1989 turned out to be exactly 10 weeks in length and, by examining how this distribution changed in 1990, they conclude that about 1 percent of all employment spells end exactly at the minimum number of weeks needed to qualify for UI because of the preferences of workers. The change in the VER also influenced those employment spells that were slightly longer than 10 weeks in length. They find that employment spells are less likely to be 10 to 14 weeks long and more likely to be 14 to 20 weeks long, and suggest that "individuals who had formerly been able to select 10 to 13 week (and, in particular 10 week) employment spells were forced under the new requirement into longer jobs that could not necessarily be terminated at exactly 14 weeks" (Green and Riddell 1993a, 18). They calculate that the 4 week increase in the eligibility rule is on its own responsible for a 0.4 percent drop in the unemployment rate and for a 1.5 week increase in the average length of employment.[17]

The authors also examine the process of adjustment underlying these developments. They note that those who quit their jobs do not reveal any tendency to do so at the time they have fulfilled the eligibility rule. It is only those employment spells ending in layoffs that have a tendency to be exactly as long as the length of time needed to qualify for UI benefits. In fact, they show that, in 1989, about 50.6 percent of all jobs in Canada ended in quits, but only 32 percent of the jobs in regions with high unemployment rates and only 6.9 percent of those 10 to 13 weeks in length did so (Green and Riddell 1993a, table 6). They also find that those individuals who left their jobs (for whatever reason) exactly at the time they qualified for UI had lower levels of education and were employed

[17] The respective elasticities calculated at the point of sample means are 0.087 and 0.098.

in the primary, food processing, and public sectors. They also tended to be employed by small businesses, and in nonunionized businesses. When the VER changed, the proportion of workers receiving UI did not change. Most individuals continued to work (rather than dropping out of the labor force), and the majority increased their weeks of work just beyond the new minimum eligibility requirement. Many of them changed industries, and more were employed part time.

These studies suggest that the employment durations of a small fraction of the total number of jobs ending, in the neighbourhood of 2 to 3 percent, are influenced by the availability and generosity of UI.[18] These jobs would be slightly longer in the absence of a UI disincentive effect. Individuals who have rather long jobs are not inclined to leave them in order to collect UI. Further, the decision to quit a job is not influenced by the availability of UI. The effect of the VER on employment durations seems to be strongest in marginal or insecure sectors of the economy – that is, seasonal industries consisting of small firms that hire unskilled labor. The human resource practices of firms in these sectors are responsible for layoffs that are timed to just meet UI eligibility rules. This lends support to Feldstein's 1976 model of the effects of a UI program that has a pattern of subsidies built into it. But it also has a broader interpretation that has a particular applicability to high-unemployment economies. Green and Riddell refer to this as the "community pressure" model and cite the description of the Newfoundland Royal Commission on Employment and Unemployment:

> Since jobs are so scarce, employers come under pressure from the community to qualify as many people as possible for UI. Although not always strictly adhered to, the informal rule is that once someone qualifies, he or she should be laid off and

[18] These percentages, when combined with the averages listed in Table 2, help put the absolute effect of the VER into perspective. For example, of the 190,000 individuals who, on average, moved from employment to unemployment every month, only 3,800 to 5,700 did so because of a VER-induced disincentive effect.

> someone else hired until that person in turn qualifies....This pattern of short periods of employment followed by long periods of unemployment...has covertly become the main form of income security in Newfoundland. (Cited in Green and Riddell 1993a, 11.)

The job creation decisions of governments are most surely also implicated in this pattern: governments may create jobs that just qualify the individual for UI. This is one mechanism of income support that keeps individuals from relying on welfare assistance, and therefore shifts the fiscal burden from the local and provincial levels to the federal. At the root of this pattern of behavior is the scarcity of jobs in the region of residence.

The Transition from Nonparticipation to Unemployment

Green and Riddell (1993b) also explore the effect of eligibility conditions on individual behavior, but in a much more specific case and with a greater emphasis on the transition from nonparticipation to unemployment. They observe that the reform of UI in 1971 allowed individuals to participate in the UI program until the age of 70, or until they received payments from the Canada/Quebec Pension Plan. On January 1, 1976, however, those 65 years of age and older were disentitled. The authors suggest that this policy change set up a "quasi-experiment" that permits an examination of UI entitlement on labor market behavior and, hence, an estimation of the extent of adverse selection. In fact, the disentitlement of this group coincided with a substantial drop in their unemployment rate. Throughout the period from 1961 to 1975, those 65 years and older experienced an unemployment rate of about 5 percent, but in 1976 this dropped suddenly to 2 percent and has been in the 1.5 to 2.5 range ever since. (Between 1975 and 1976, the economy-wide unemployment rate actually increased from 6.9 to 7.1 percent.) The participation rate of this group has been trending downward since the early 1960s, but in 1976 it also experienced a distinct drop.

These time series results suggest that this group is searching for a job only to establish UI eligibility.

Green and Riddell examine this possibility in much more detail by posing the question of whether the 1976 change is associated with more retirement and less unemployment, or whether there was a move to more stable jobs or occupations. Survey data on the annual labor force activity of individuals for 1975 – that is, before the disentitlement was put into effect – are compared with similar data for 1977, after it came into effect. Table 3 presents some of their descriptive results. Those who were both employed and unemployed for 52 weeks fell from 4.1 percent of the sample in 1975 to 1.4 percent in 1977, while those who reported 52 weeks of retirement rose from 72.6 percent to 77.6 percent. Older individuals were more prone to be retired and less prone to report some unemployment at any time during the year. This conclusion is reinforced by an econometric model of the probability of observing an individual in any one of these four states that controls for other individual characteristics – most notably industry of employment. Green and Riddell find that the probability of being employed for the entire year fell slightly between 1975 and 1977. This suggests that UI coverage did not cause many individuals to choose unemployment over employment. If this were the case, we would have expected to observe the probability of full-year employment to rise upon disentitlement as more people moved from a state of part-year unemployment. The probability of being employed and unemployed during the year fell quite dramatically between 1975 and 1977, especially for those employed in seasonal and services industries, those for whom unemployment is more or less a predictable event. At the same time, and reflecting this development, the probability of being retired for the entire year rose substantially.

Green and Riddell conclude that elderly workers are on the margin of the labor force and, as a result, the introduction of UI draws them into the labor force while its removal leads them to retire. About 25 to 30 percent of the elderly population is subject to this type of behavior. This offers evidence of the extent of adverse

Table 3: ***Labor Force Status of 66 to 69 Year Olds, 1975 and 1977***

	1975	1977
	(annual percentage distribution)	
Employed 52 weeks	13.6	11.6
Employed or unemployed 52 weeks	4.1	1.4
Retired part of the year	9.8	9.4
Retired 52 weeks	72.6	77.6

Source: Green and Riddell 1993, table 6.

selection for this group. Even so, the authors note that there are substantial numbers – particularly those employed in sales, services, and clerical occupations – who do not respond in this manner. Services sector workers appear to have maintained the number of weeks they were employed in 1977, but, in the face of disentitlement, relabeled nonemployment time as nonparticipation rather than employment. This is a group of "re-entrants," those who retire from their careers but find work in the services sector during their retirement. As a result, Green and Riddell (1993b, S143) suggest that "it is not clear that disentitlement of the whole group [that is, the entire population of elderly] is the appropriate response to the adverse selection problem." In this light, one policy option is to pay closer attention to the interaction of UI with other transfer programs geared to the elderly. In particular, an increase in the generosity of payments to the retired that is large enough to ensure that they escape poverty would reduce their need to rely on market and UI income and therefore to seek employment solely for the purpose of establishing a UI claim.

Green and Riddell's demonstration that UI may influence the flow of individuals from nonmarket activities to unemployment and employment relates to a very specific and rather small population. Card and Riddell (1993), however, examine the issue at a much broader level, and are much more sceptical of the influence of UI.

Their paper involves a comparison of behavior in the Canadian labor market with that in the United States. The main issue they address is the widening gap in the unemployment rates of the two countries. On the basis of an examination of both time series and individual data, they conclude that relative changes in the fraction of nonworking time that is reported as unemployment is the major cause of higher unemployment rates in Canada. Canadians, particularly women, are much more inclined to classify nonworking time as unemployment than their US counterparts. Card and Riddell notice a concentration of individuals who report 10 to 12 weeks and 20 weeks of employment,[19] which suggests that the relatively more generous UI program in Canada may be responsible. They note that, because of regionally extended benefits, the Canadian UI system became much more generous than that in the United States during the 1980s, but after an extensive analysis conclude that "the UI system itself is not the cause of the high level of unemployment at the close of the 1980s" (Card and Riddell 1993, 185). While Canadians have increasingly tailored their labor supply to the characteristics of the UI system – that is, work activity is increasingly clustering around the minimum UI eligibility requirements – this does not seem to have had a discernible aggregate effect, and it remains unclear whether it is due to the otherwise employed reducing their labor supply, or to those who would otherwise be nonparticipants finding minimum levels of employment.

Fortin (1993) develops their argument in slightly more detail by noting that it is the difference in the behavior of married women that is important. He finds that the difference between the aggregate unemployment rates of the two countries masks important underlying differences between the genders; that the difference between the unemployment rates of Canadian and US males during the 1980s is due to differences in aggregate demand; and, finally, that there is a long-lasting trend in the difference between the unemploy-

[19] The eligibility requirement for new entrants and re-entrants to the labor force is 20 weeks.

ment and activity rates of females, but particularly married females (they are both higher in Canada), which develops before the liberalization of UI in Canada and continues through the period of liberalization during the early 1970s, as well as afterward throughout the 1980s. Explanations other than (or perhaps in addition to) UI must therefore be offered to explain the gap between the unemployment rates of females in the two countries.

In particular, researchers have not entertained the possibility that at least part of the gap in the two unemployment rates is due to a statistical artifact resulting from a slight difference in the way the Canadian and US labor force surveys are conducted. Interviewers in the United States are permitted to use their discretion in posing a crucial question to respondents regarding their activities during the reference week. Respondents are asked what they were doing during the week, and the interviewer may then add: "working or something else?" "going to school or something else?" or "keeping house or something else?" It appears that women are more likely to be asked the last of these questions. If they answer that they were keeping house, they are not counted as unemployed even though they may in fact have been looking for work in addition to "keeping house." As a result, the unemployment rate of adult women in the United States has been underestimated by about 0.8 of a percentage point.[20] In Canada, men and women have been asked the same question since 1975, but while interviewers may probe respondents to some degree in order to clarify an answer, their discretion is much more limited.[21]

This difference in approach may not have had any consequences for the difference between Canadian and US unemployment rates when the participation rates of women were low. These participation rates, however, have been increasing significantly over

[20] Their participation rates have been underestimated by 1.3 percentage points. For all workers, the US unemployment rate is underestimated by 0.5 of a percentage point. See United States 1993, table 1.

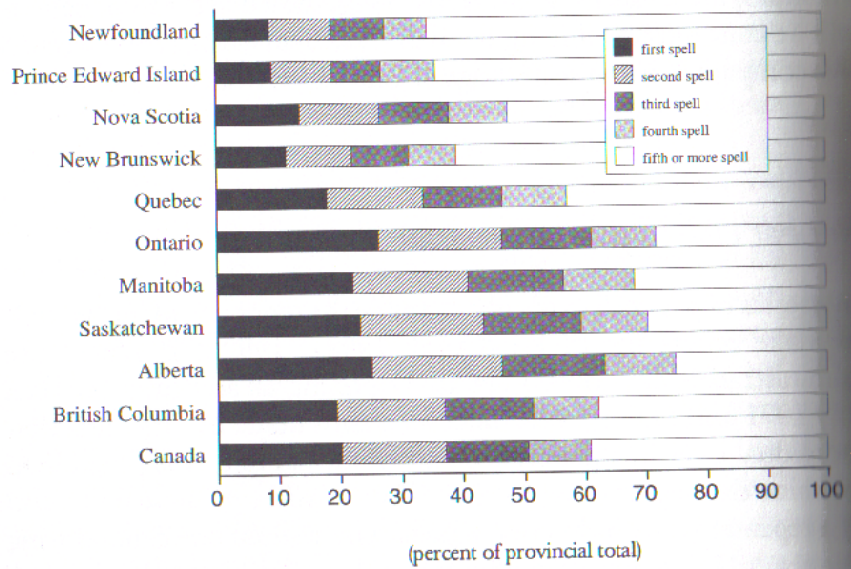
[21] In January 1994, the US questionnaire was redesigned and is now more comparable to the Canadian version.

the past two decades and, combined with different survey techniques, may be partly responsible for the gap in the two countries' unemployment rates. Certainly, the suggestion that the implications will be concentrated among women – particularly married women – is compatible with the findings of Card and Riddell and of Fortin.

Repeat Use of the UI Program

In a series of papers, I explicitly examine the tendency of individuals to make repeat use of UI (Corak 1993a; 1992b; 1992c). I use administrative data on UI claims beginning at any time between July 1971 and March 1990. Since all claims made by any particular individual over this period are part of the sample, it is possible to examine the degree of repeat use. The broadest possible definition of a repeater is any individual who had more than one claim during the nearly 18 years covered by the sample. For example, the data suggest that 1,827,990 claims were initiated at some point during 1989, but only 20.1 percent of these were initiated by individuals who were beginning their first claim: fully 80 percent of claimants were repeaters. In fact, 39.2 percent of the claims were initiated by individuals who were beginning their fifth or more claim. Figure 1 displays this distribution for the country as a whole, and for each province. There are very clear differences among the provinces. More than 90 percent of the claims made in Newfoundland and Prince Edward Island were made by UI repeaters. Of all the claims made by Newfoundlanders, 65 percent were made by individuals experiencing their fifth or more claim. A similar finding holds for Prince Edward Island and New Brunswick and to a slightly lesser degree for Nova Scotia. Ontario and the western provinces display a much lower, but nonetheless significant, rate of repeat use. In these provinces, 20 to 25 percent of claimants were first-time UI recipients, and 28 to 38 percent were in the midst of their fifth or more claim. I also found that a randomly selected UI claimant will experience another UI claim about once every four years.

Figure 1: ***Incidence of Repeated UI Use by Province, 1989***
(distribution of claims by sequence number)



Source: Corak 1993a, figure 2.

I also estimate the probability that any particular claim will be followed by another for the same individual within 14 weeks, within one year, and within five years as a function of a host of individual and program characteristics. The results suggest that, on average, the probability of experiencing another claim, respectively, for each period is about 20, 40, and 60 percent for males, and 13, 40, and 70 percent for females. The probability of being a repeater is determined by seasonal factors in the short term – claims that begin in the first quarter of the year are the most likely to lead to repetition and those that begin in the last quarter are the least likely – but by industry effects in the longer term. Claims supported by employment in the primary sector or construction are most likely to lead to repetition over periods as long as five years, while those originating in the services sectors are least likely. Fluctuations in labor demand associated with industrial structure are a major determinant of repeat UI use. This meshes quite readily with the findings of Green and Riddell (1993a) on the characteristics of individuals influenced in their employment decisions by the VER. However, the generosity of the UI program, as measured by the rate of weekly benefits and the duration of benefits, is not an important influence on the probability of repeating. The most influential variables on the probability of repetition are associated with an individual's past employment and UI history. Claims supported with short spells of insured employment (less than 52 weeks) are as much as 10 to 13 percent more likely to lead to another claim. Similarly, the probability of another UI claim increases with every past occurrence. The probability of having a third claim, given that the individual has already had two, is from 3 to 9 percent higher than the probability of having a second, given only one claim.

These results make clear that repeated interaction with the program seems to be the norm for a large fraction of claimants, which raises the possibility that these individuals have fallen into a "trap" of continued reliance on UI. Repeat use is a prediction of the insurance model, and the policy implication is that reductions in the generosity of UI – either through reductions in the benefit rate and the duration of benefits, or through increases in the eligibility requirements – will reduce the tendency of individuals to be repeat users. As I mentioned above, however, I find that benefit generosity is not an important influence on the tendency to be a repeater. Further, it is not clear why a claimant's employment and UI history would influence the likelihood of being a repeater. The insurance interpretation is that this relationship serves as a proxy for unobservable individual characteristics and therefore reflects an adverse selection problem. This leads to the policy implication that the benefit or premium structure of the program should be structured according to the number of times an individual has collected UI: that benefits should be reduced or premiums increased at the individual level with every repeat claim, much in the manner that

an individual's auto insurance premiums will be increased after he or she has experienced an accident.

An alternative interpretation, what I refer to as the "battered worker syndrome," argues that an individual's preferences or opportunities should not be considered as fixed through time – as is implicitly assumed in the insurance model – and there is therefore a possibility that labor market history determines future unemployment experience: a vicious circle may develop in which past UI participation creates the preconditions for future participation (Corak 1993a, 163, 171–173). This may happen because of both supply- and demand-side reasons. On the supply side, the number of times an individual has collected benefits may influence the predisposition to collect them in the future: collecting UI benefits may erase a stigma that is attached to their receipt, or it may lead to the individual's becoming more informed about the program and the ease with which benefits may be obtained. On the demand side, employers may use an individual's labor market history as an indication of reliability or productivity, and be less inclined to hire those with a history of short, intermittent employment spells and repeated bouts of unemployment. Individuals, through no fault of their own, may find themselves in marginal or insecure sectors of the labor market from which they cannot escape because access to "good" jobs is limited.

In order to determine which interpretation is correct, I examine the duration of successive UI claims (Corak 1993b). While the insurance model predicts that the UI program will be characterized by a great deal of repeat use, it also predicts that each successive claim will, on average, be the same length. In fact, the number of weeks of benefits collected tends to increase with each successive UI claim. Some of the findings are presented in Table 4. First-time claimants collect about 22 to 23 weeks of benefits, but this increases gradually with each successive claim. Those experiencing their fifth claim collect 25 to 27 weeks of benefits. The increase is particularly strong for females. These findings, and more formal tests based on an assessment of the stability of an econometric model of claim

Table 4: *Durations of Successive UI Spells, 1971–90*

	Claim Sequence Number	Average Number of Benefit Weeks Paid
Males	1st claim	22.9
	2nd claim	23.7
	3rd claim	24.2
	4th claim	25.0
	5th claim	25.2
Females	1st claim	22.4
	2nd claim	24.1
	3rd claim	25.3
	4th claim	26.5
	5th claim	27.0

Source: Corak 1993b, table 1.

duration, lead to the suggestion that an individual's labor market and UI history matters in a way that is not fully captured by the insurance model. With each occurrence of a UI spell, claimants are more likely to experience another claim that is even longer in length.

The observation that the industry of employment is an important determinant of the probability of repeat use suggests that any explanation of the degree of repeat use must be based not only on the supply side of the labor market but also on the demand side. There are no detailed examinations in the Canadian empirical literature of the effect of UI on the behavior of firms. This is a serious shortcoming, especially given its importance in the theoretical literature and the fact that UI taxes are not tied to program use. I have been able to take a small step toward filling this gap by linking administrative information on firms with a longitudinal sample of UI administrative data in order to examine the extent to which UI repeaters support their claims with employment from the same firm (Corak 1993c). I find that a significant fraction of those individuals making multiple claims over a 12-year period were employed by

Table 5: ***Total Number of Claims by Total Number of Different Firms, 1978–90***

Number of Claims per Individual	Number of Different Firms						Total Number of Individuals
	1	2	3	4	5	6	
	(thousands; row % below)						*(column % below)*
1	4,460 *100.0*						4,460 *39.8*
2	974 *39.7*	1,481 *60.3*					2,455 *21.9*
3	323 *21.6*	547 *36.7*	623 *41.7*				1,493 *13.3*
4	143 *15.5*	221 *24.1*	297 *32.3*	259 *28.2*			920 *8.2*
5	80 *13.6*	107 *18.3*	136 *23.3*	153 *26.2*	108 *18.5*		584 *5.2*
6	50 *13.1*	61 *16.1*	71 *18.8*	79 *20.9*	74 *24.1*	44 *11.7*	380 *3.4*
Total							11,208

Source: Corak 1993c, table 8.

only one firm. Table 5 presents some of the results.[22] The diagonal of the table presents the number of individuals who supported each of their claims with employment from a distinct employer. Of the 2,455,000 individuals with two claims over the period, 60 percent supported each claim with employment from two separate employers. In other words, about 40 percent of those individuals with two claims were employed with the same employer. The greater the number of claims over the period, the more likely that at least two claims were supported from the same employer. Only 11.7 percent of those individuals with six claims supported them with employment from six distinct employers. It appears that about 13 to 14 percent of those individuals with five or more claims support all

[22] Only the results for those individuals who experienced six or fewer claims over the period are presented. This represents 91 percent of the entire sample.

of their claims from the same employer. When the full tabulations are examined, this figure is 13.3 percent, 13.9 percent, and 14.1 percent for those with 7, 8, or 9 claims, and continues to rise gradually to reach 21.3 percent for those with 14 claims before falling to 17.0 percent at 15 claims. For individuals with 5 or more claims, it is always the case that at least 40 percent support their claims with employment from three or fewer employers. Extensive repeat use over a 12-year period is related, in some significant degree, to employment from the same firm. These results suggest that the behavior of firms and the long-term relationship that employees establish with their employers are important determinants of repeat UI use.

Macro-Level Studies

The 1971 liberalization of the UI program generated a great deal of interest among applied labor economists and macroeconomists for at least three reasons. First, it represented a substantial increase in the generosity of benefits. Second, the operation of the program during its first few years revealed that the federal government had grossly underestimated program participation and costs, and that the economy-wide unemployment rate was behaving in an unexpected manner. Third, many economists felt that the labor market effects of these program changes could be analyzed with the theoretical tools that were available to them – in particular, the concept of the natural rate of unemployment. The combination of an important change in public policy and a suitable analytical framework offered the impetus for applied research that was to span more than a decade.

The major issue being explored by macro-level studies of UI concerns the effect of the 1971 changes on the level of the aggregate unemployment rate. For the most part, the methodology involves relating aggregate time series data on the unemployment rate to some summary measure of UI generosity. This is done in a variety of ways, but the distinguishing characteristics of macro-level

research are the use of aggregate data, some aggregate summary measure of program generosity, and theoretical constructs that deal with individual decision processes to generate hypotheses concerning the behavior of such economy-wide statistics as the unemployment rate.

This latter point is particularly important, because there is a fallacy in applying microeconomic theory – which is appropriate for examining the decisionmaking process of individual firms and workers – to the behavior of economy-wide statistics. To illustrate this fallacy, consider an examination of the nature and strength of the relationship between UI generosity and the aggregate unemployment rate in which two opposing perspectives derived from micro-level theory are applied.

First, if we adopt a perspective that recognizes that the economy is made up of many markets, all of which interact and influence each other, then it is immediately clear that microeconomic reasoning – of the sort described on pp. 96–99 of this essay – offers a very partial view of the labor market. It does not deal with market relationships at all, only with the decisionmaking process of individuals, holding all market conditions constant, and only in the context of marginal changes in policy. But conditions will not necessarily remain constant when a major reform of a program as broad as UI is undertaken.

Albrecht and Axell (1984) develop a simple model to illustrate this point. In their model, unemployed individuals must decide on a minimum acceptable wage for themselves and search for an appropriate job offer, but firms must also make decisions concerning the wage rate that they will offer. The interaction of these labor supply and labor demand decisions leads to an equilibrium wage distribution and a natural rate of unemployment. Albrecht and Axell assume there are two types of individuals, those with a strong desire for employment and those with a strong desire for leisure, and a host of firms that differ according to productivity levels. This type of economy will support two wage levels: a high wage corresponding to the minimum acceptable wage of those individuals with

a strong desire for employment, and a low wage corresponding to the minimum acceptable wage of those individuals with a strong desire for leisure. The amount of unemployment in the economy increases as the fraction of firms offering the low wage increases. Individuals with a strong desire for leisure will accept the first job offer that comes along, but those with a strong desire for employment reject any low-wage offers they receive and continue searching until they have found a high-wage job. The greater the fraction of firms offering low wages, the longer the latter group will have to search and the higher the economy-wide unemployment rate.

Albrecht and Axell argue that, in such an economy, an increase in UI benefits does not necessarily imply a higher unemployment rate. In fact, they show that a selective increase in generosity to those most likely to be UI users (those with a strong taste for leisure) may cause the unemployment rate to fall. The increased generosity of UI reduces the effective labor supply to the low-wage sector and therefore causes more firms to offer the higher wage, which, in turn, reduces the length of time required to find a job. A selective increase of this sort may be precisely what happens when benefit rates are increased globally but are at the same time based on insurable earnings that are defined to have a maximum. An increase in the benefit rate would not greatly change the generosity of the UI program for those individuals with earnings greater than the maximum insurable level.

This view of the economy will appeal to those who view unemployment as a voluntary choice and government payments to the unemployed as insurance. Those with an opposing perspective, however, who view unemployment as involuntary and government payments to the unemployed as an income transfer, may reach a similar conclusion but via a different logic. If unemployment is involuntary – that is, if there exists a general excess supply of labor – then increases in the generosity of UI may affect the manner in which unemployment is distributed across the population but not have any effect on its level. If there is an excess supply of labor, firms will be filling job openings by hiring from a queue of available

applicants, so when a UI recipient passes over a job offer, that offer is still available to be filled by the next individual in the queue. UI recipients may turn down job offers and spend a longer time unemployed, but nonrecipients would then be in a position to accept these offers and, as a result, would experience shorter unemployment spells. In brief, there is simply a reshuffling of the burden of unemployment, without necessarily any change in the aggregate amount. This possibility has been noted by many analysts, but Burtless (1990, 86) has recently stressed its importance and suggested that, if "UI has an effect on the number of unemployed workers at all, it is only because uninsured workers are drawn into the labor market by the prospect of easier job finding."

Beliefs about the nature and strength of the relationship between UI generosity and the aggregate unemployment rate are strongly held, and researchers engaged in macro-level analysis often express surprise when they have uncovered a negligible or negative effect.[23] This is so for at least two reasons. First, they may have fallen victim to the fallacy described above of believing that theory unambiguously predicts a positive effect or, second, they may believe that there is a long-established consensus in the empirical literature that UI has in fact increased the unemployment rate. Since the results of the earliest studies have set the tone for much of the subsequent research, a brief discussion of some of the work done during the early to mid-1970s is required.

An influential paper by Grubel, Maki, and Sax (1975a) presented the first set of results addressed to the aggregate effect of UI. In beginning their study, the authors noted that the aggregate effect of UI is, in theory, ambiguous, stating that it "is essentially an empirical question whether the Canadian unemployment benefit program has on balance reduced or increased unemployment" (Grubel, Maki, and Sax 1975a, 175). They estimated a model of the Canadian labor market using the ratio of the average weekly UI payment to the average weekly wage, which they called the

[23] See, for example, Ford and Rose 1989, 10; Burns 1991, 46.

"replacement rate," as a measure of the program's generosity. They found that the 1971 UI reform contributed 0.8 percent to the unemployment rate during 1972 – that is, if the reform had not taken place, the unemployment rate would have been 5.5 percent rather than 6.3 percent – and that if there were no UI program at all or, more simply, if there were no disincentive effects associated with the program, the unemployment rate would have been 1.4 percentage points lower (4.9 percent rather than 6.3 percent). Green and Cousineau (1976), using several different approaches, reached very similar conclusions. Their results suggested that the 1971 reform added 0.4 to 0.7 percentage points to the unemployment rate, and if there were no UI program at all, the unemployment rate would have been 1 to 1.5 percentage points lower.

The limited consensus that emerged from these earliest studies was quickly broken when Grubel, Maki, and Sax (1975a) were forced to reconsider their results in the face of criticisms by Kaliski (1975) that their measure of UI generosity did not recognize that the taxation of benefits was also introduced with the 1971 reform. When they attempted to account for this, the estimate of the effect of the 1971 reform on the unemployment rate fell from 0.8 percentage points to a range of 0 to 0.5 percentage points (Grubel, Maki, and Sax 1975b). Thus, the 1971 reform may have had no effect at all on the unemployment rate.

The same approach has been used to explore essentially the same issue throughout the 1980s and into the 1990s. Table 6 lists seven studies released since 1987. Three different measures of program generosity are used. Landon (1987), and Keil and Symons (1990) slightly amend the replacement rate used by Grubel, Maki, and Sax (1975a) by using the ratio of average weekly benefit payments to average weekly wages multiplied by the percentage of the labor force covered by the UI program. Ford and Rose (1989) and Coe (1990) employ a statutory measure: the maximum weekly benefit rate as a percentage of insured earnings (as stipulated by legislation) multiplied by the proportion of the labor force covered. Finally, the remaining studies employ a comprehensive summary

Table 6: *Results of Macro-Level Studies of UI and the Labor Market, 1987–93*

Author	Measure of UI Generosity	Effect of 1971 UI Reform on Unemployment Rate
Landon 1987	replacement ratio weighted by fraction of labor force covered	no effect
Ford and Rose 1989	legislative replacement ratio weighted by fraction of labor force covered	no effect
Fortin 1989	comprehensive measure	0.6% increase
Coe 1990	legislative replacement ratio weighted by fraction of labor force covered	1.0% increase
Burns 1990	comprehensive measure	no effect
Keil and Symons 1990	replacement ratio weighted by fraction of labor force covered	1.2% to 1.9% increase
Myatt 1993	comprehensive measure	3.5% increase

measure of the program that was originally formulated by Fortin (1989) and that is defined as the product of three variables: (1) the proportion of the labor force covered by UI; (2) the ratio of net unemployment benefits to net wage (defined as 80 percent of the average weekly wage); and (3) the ratio of the maximum duration of benefits to the minimum number of weeks of work required to qualify for benefits. Three of the studies report that changes in UI generosity do not have a statistically significant effect on the aggregate unemployment rate, one study reports a moderate effect, while three studies report that the 1971 reform raised the unemployment rate by substantial amounts – anywhere from 1 percentage point to 3.5 percentage points. Further, there is no simple relationship between the measure of UI generosity used and the results obtained. Both the Keil and Symons and the Landon studies use the same measure but reach different results. This is also the case for the studies by Ford and Rose, and by Coe, as well as the three remaining studies that employ the comprehensive measure. In brief, the effect of UI on the unemployment rate is rather

ambiguous. In fact, it is probably even more uncertain than the results in Table 6 suggest. These are all point estimates: researchers rarely offer a range of values based on the extent of statistical uncertainty inherent in their models – that is, on the standard errors of their estimates. Policymakers can be much more confident of a result if it is tightly bounded rather than open to a great deal of uncertainty. (It is one thing to suggest that the UI effect is + 1.0 percentage point, plus or minus 0.1, and quite another to suggest that it is + 1.0 percentage point, plus or minus 1.) In conclusion, macro-level research conducted since the mid-1980s does not lead to a consensus on whether or by how much the 1971 reforms altered the aggregate unemployment rate.

Among the studies that do, however, show a positive relationship between UI and the unemployment rate in 1971, there is only slightly more agreement about the effect of subsequent UI program changes. Restrictive changes to the UI program were introduced in late 1977. On the basis of the published data in Fortin (1989, table A-2), the comprehensive index of program generosity was 0.202 in 1971 and rose to 2.3 in 1972. After rising to 2.7 and falling to 1.7, however, it was again 2.3 in 1984.[24] This suggests that, by 1984, the UI program was still contributing 0.6 percentage points to the unemployment rate – in addition to an estimated contribution of 0.05 percentage points before the introduction of the 1971 changes. Thus, the total contribution of the UI program to the aggregate unemployment rate in 1984 was about 0.7 percentage points. Coe's results suggest that the additional contribution was pretty well 1 percentage point throughout the period since 1972. In his view, the 1971 liberalization of benefits significantly increased the unemployment rate but the changes since have done little to reduce it. Similarly, Keil and Symons suggest that, on the eve of the 1977 restrictions, the additional contribution of UI to the unemployment rate was 1.9 percentage points, while in their aftermath it was

[24] Between 1972 and 1977, it remained constant at about 2.7, fell in the aftermath of the 1977 reform to 1.9, eventually reaching a low of 1.6 in 1981, only to increase during 1982 and 1983 to a maximum of 2.5.

1.8 percentage points, reaching 1.6 percentage points in 1981 and remaining at that level through to 1985, the last year of their analysis.[25] According to these studies, the UI program added anywhere from 0.7 to 1.6 percentage points to the unemployment rate during the mid-1980s.

In an influential paper, Milbourne, Purvis, and Scoones (1991) pursue a different dimension of the aggregate effect of the UI program. They note that the natural rate of unemployment may be affected by changes in program generosity, but that the introduction of regionally extended benefits in particular, by making benefit entitlement dependent on the level of regional unemployment rates, will introduce a sluggishness or persistence to the aggregate unemployment rate. The unemployment rate will be slow to return to its equilibrium level in the aftermath of a recession because it has also made the UI system more generous: a higher unemployment rate implies longer benefit entitlements, which induce longer spells of unemployment, which, in turn, contribute to higher aggregate unemployment rates. Milbourne, Purvis, and Scoones argue that this dynamic is responsible for the persistence of high unemployment rates throughout the 1980s in spite of strong output and employment growth. They offer a carefully reasoned microeconomic model, but test its implications with aggregate data. They estimate a model of the unemployment rate as a function of past unemployment rates and a variable that serves as a proxy for the Canada-wide average of the maximum duration of benefits for a minimally qualified individual.[26] Two alternative predictions of the unemployment rate are derived from the model. In one case, an interaction between UI generosity and the unemployment rate is

[25] One might reasonably argue that, while the 1977 changes reduced the replacement rate, they also changed the potential duration of benefits in a manner that implies increased generosity. However, Fortin is the only study that incorporates the duration of benefits into the indicator of UI generosity. Both Coe, and Keil and Symons use different versions of the replacement rate. On this basis it would be expected that Fortin's research should find the strongest effects.

[26] They also use a measure of the VER, but find that it has no explanatory power.

permitted; in the other, such feedback is ignored. The former prediction tracks the actual unemployment rate very closely, the latter not at all. On this basis, they conclude that the design of regionally extended benefits has introduced a persistence in the dynamics of the unemployment rate, and in a more general sense made the natural rate of unemployment depend on past rates of unemployment.

The analysis of Milbourne, Purvis, and Scoones has been important because it claims to offer an explanation for a number of unresolved macroeconomic developments. The first is the wide gap in the unemployment rates between Canada and the United States that first appeared in the aftermath of the 1981–82 recession and has since shown little change. As mentioned, the Canadian and US unemployment rates were very similar up to the early 1980s, but thereafter the Canadian rate has been about two percentage points higher. The second is that, while researchers have argued that the natural rate of unemployment in Canada has continued to increase throughout the 1980s, many of the factors that were thought to have caused its increase in the 1970s had reversed themselves. These included demographic developments as well as legislative developments; most notably, the generosity of UI was diminished throughout the mid- and late 1970s and again in the early 1990s. Milbourne, Purvis, and Scoones, in pointing out that the generosity of UI depends on the prevailing unemployment rate, suggest an important difference between the Canadian and US labor markets, one that causes the Canadian natural rate of unemployment to depend on the recent history of the macro economy. This suggestion claims to solve both puzzles. It also links their analysis to the literature on hysteresis – a situation in which economic trends and cycles cannot be sharply distinguished – that has gained a certain currency as an explanation of European developments.

Hysteresis implies that a cyclical shock, a shock that is temporary in nature, can have permanent effects.[27] This is a very danger-

[27] See, for example, Blanchard and Summers 1986.

ous possibility, for it implies that restrictive macroeconomic policies designed to increase temporarily the unemployment rate in order to reduce inflation will in fact cause a permanent increase in the natural rate of unemployment. Milbourne, Purvis, and Scoones offer a rationale for hysteresis in the Canadian labor market, and their work has provided an impetus for other researchers.[28] One implication of their model, however, is that the effects of macroeconomic shocks are symmetric: the permanent effects of a recession that are reflected in a persistently high unemployment rate or a higher natural rate of unemployment can be reversed by a policy-induced expansion of aggregate demand. Also, if a sharp rise in the unemployment rate increases UI generosity, a sharp fall will reduce it. In the Milbourne, Purvis, and Scoones model, the relationship between UI and unemployment is reversible. A great deal rides on this being so for the conduct of policy. It suggests, for example, that the disincentive effects of UI can be alleviated through macroeconomic policy without any institutional changes in the program itself. This implication is in contrast with the evidence I have provided in support of the battered worker syndrome. This syndrome suggests that macroeconomic shocks will have asymmetric consequences. A recession will cause a new cohost of individuals to become unemployed for the first time and thereby put them at risk of more frequent and longer spells of unemployment in the future – a risk that macroeconomic recovery may not reverse.

Corak and Jones (1992) and Storer (1993) have re-examined the Milbourne, Purvis, and Scoones hypothesis. Corak and Jones compare developments in the number of unemployed with the number of individuals actually in receipt of regionally extended benefits, the data for the latter being drawn from administrative files associated with the operation of the UI program. They offer, among other things, the information displayed in Table 7. The second column of the table presents the average monthly unemployment

[28] Fortin (1991) has also suggested that the Canadian labor market is hysteretic, and that this is associated with "something happening" in the early 1970s. A detailed review of the Canadian literature is offered in Jones 1992.

Table 7: *Dynamics of Unemployment and Regional Extended Beneficiaries, 1978-89*

	Unemployment Rate	Unemployment Gap	Change in Regional Extended Beneficiaries	Adjusted Unemployment Rate
	(percent)	*(thousands)*	*(thousands)*	*(percent)*
1978	8.3	87	– 12	8.4
1979	7.4	– 11	25	7.2
1980	7.5	0	– 10	7.6
1981	7.5	0	0	7.5
1982	11.0	417	93	10.2
1983	11.8	521	189	10.2
1984	11.2	456	150	10.0
1985	10.6	389	120	9.6
1986	9.5	258	96	8.7
1987	8.8	169	74	8.2
1988	7.8	40	55	7.4
1989	7.5	0	61	7.0

Note: Unemployment gap = $(UR_t - UR_{1981}) \times LF_t$, where UR_t refers to the unemployment rate in year t, and LF_t refers to the labor force; change in regional extended recipients = $RE_t - RE_{1981}$, where RE_t refers to the number of UI claimants receiving regionally extended benefits in year t; adjusted unemployment rate = $UR_t - (RE_t - RE_{1981}) / LF_t$. All data are expressed as annual monthly averages.

Source: Corak and Jones 1992, table 2.

rate, and clearly illustrates the persistence in the unemployment rate, which rose sharply in 1982 but did not return to its 1981 level until 1989. The third column, labeled the "unemployment gap," presents the number of unemployed greater than the level that would yield an unemployment rate equal to that of 1981, given the prevailing size of the labor force. In a simple accounting sense, this is the number of unemployed "responsible" for the persistence in the unemployment rate. For example, if there had been 417,000 fewer unemployed in 1982, the unemployment rate would have

been 7.5 percent rather than 11.0 percent. The "unemployment gap" is much higher than the increase in the number of regionally extended benefit recipients over the 1981 level, which is presented in the fourth column. It does not appear that the number of regionally extended benefit recipients is great enough to support a major role in determining the dynamics of the unemployment rate. This is substantiated by the data in the last column of the table, which presents an adjusted unemployment rate derived by assuming that all regionally extended benefit recipients are also officially unemployed and that their number does not change from the level in 1981. This adjusted unemployment rate continues to display persistence, falling below its 1981 level only in 1988. On the basis of this and other evidence, Corak and Jones (1992, 10) conclude "that there is no evident *direct* mechanism from regional extended UI benefits, as generated by the 1977 legislative changes, that could account for the increased persistence of Canadian unemployment in the 1980s."

These results suggest that, if one is going to argue that the feedback between unemployment and UI generosity exists and is strong enough to influence the dynamics of the aggregate unemployment rate, then it must be shown that longer benefit eligibility has increased the length of time spent in other benefit phases, rather than actually increasing the number of beneficiaries in receipt of regionally extended benefits. An assessment of this effect requires an explicit analysis of the transition from unemployment to employment, and a demonstration that the availability of UI has depressed it more in Canada than in the United States. Storer (1993) does this using similar surveys of displaced workers in each of the countries. He finds little difference in the patterns of moving from unemployment to employment, and goes on to suggest that the difference in the dynamics of the unemployment rates of the two countries is due to the relatively greater importance of the resource sector in Canada combined with a long-lasting downturn in commodity prices.

In summary, macro-level research conducted since the mid-1980s does not appear to offer conclusive evidence that changes in

the UI program since 1970 have increased the aggregate unemployment rate or altered its dynamics. This conclusion is not inconsistent with economic theory or with the empirical results produced in the 1970s. It should be noted that macro-level research is motivated by macroeconomic concerns, specifically the need to estimate the natural rate of unemployment in order to provide a basis for the conduct of noninflationary monetary and fiscal policies. Even if a strong positive effect of UI on the natural rate were discovered, this offers very little information to program designers. The use of aggregate summary measures of UI generosity cannot determine which aspects of the program are influencing individual behavior, or how they are doing so. Indeed, the finding that UI has no effect in the aggregate should not be taken to imply that it is not in fact having an effect on behavior. The efficiency and distributional consequences of the program could very well be quite great without there being any aggregate effect at all.

Summary

It is difficult to draw precise conclusions from this survey; indeed, my review runs the risk of missing many nuances in the original research. When these studies are considered together, however, several themes emerge.

First, there appear to be distinct differences in UI behavior by gender. For example, females experience longer periods of benefit receipt than males and the duration of their UI claims are strongly influenced by the replacement rate, while there appears to be no relationship between the duration of benefit receipt and the replacement rate for males. Further, flows from nonparticipation to unemployment and employment are important for females and part of the explanation of differences between the Canadian and US unemployment rates. Female employment durations appear to be bunched along the minimum eligible weeks required to collect benefits, and the availability of UI may be part of the explanation. Patterns of repeat use also vary between the genders. Over short

periods of time, males experience greater probabilities of being UI repeaters, but over periods as long as five years females are more likely to be repeaters, and while the duration of benefit receipt increases with each claim for both genders, the increases for females are particularly notable. As an illustration of the importance of these findings, consider the changes that have been made to the legislated replacement rate over the course of the past 20 years. (It has been reduced from 66 percent of previous earnings during the early 1970s to its current 57 percent.) There is no evidence to suggest that these changes have had any effect on the duration of UI claims of males. Their effect has likely been restricted to females, causing about a five-week reduction in the average length of their claims. Further, these changes have had no influence at all on the tendency of claimants to collect UI repeatedly.

Second, there is an involuntary component to unemployment and the UI experience of the unemployed. Over short periods, as many as 80 percent of unemployed individuals would prefer more hours of work than they have experienced in the past year. Aggregate demand is a strong influence on the duration of UI benefits for males, and those inclined to exhaust their benefits, of either gender, will do so without regard to any changes in personal or program characteristics.

At the same time, there is also a voluntary element to the UI experience. Some short jobs are slightly shorter than they would otherwise be because of the VER. The duration of receipt of benefits increases with the number of weeks of benefit entitlement and, at least for females, the replacement rate. The labor force participation decisions of some groups – most notably those, like older individuals, who have clear alternative income sources – will be influenced by the availability of UI. In its absence, these groups seem to be inclined to withdraw from the labor force altogether. It should be stressed, however, that there is no evidence to suggest that the decision to quit a job is influenced by the availability of UI. Thus, there is no support in the disincentives literature for the recent decision to exclude quitters from UI coverage. The disincentive

effect of the eligibility requirement occurs through the layoff decisions of firms and the job creation decisions of governments.

This leads to a fourth theme – namely, that the influence of the demand side of the labor market is probably very significant. Firm-initiated separations are an important cause of short jobs that are used to support UI claims, and repeat UI use is associated in some significant degree with temporary layoffs and recalls. In spite of these findings, the extent of subsidies generated by the program between industries, as well as between firms, has not been documented in a comprehensive manner, nor has the effect of these subsidies on the adjustment strategies used by firms been analyzed. Yet they likely represent a very important element of the disincentive effects of the program. There have in fact been important changes in the way the program is financed: general revenues play a much-diminished role, and there have been substantial increases in the rate of the payroll tax. With the exception of offering small firms a partial tax holiday, however, these changes have not been differentiated across firms or industries: all firms pay the same rate of taxes regardless of their layoff decisions. In the model of UI as insurance, these taxes would be different for each firm and set according to the amount of UI benefits for which they are individually responsible. Indeed, to the extent that there is currently a differentiation in the taxes paid, it exacerbates the degree of subsidization in the program: small firms have been found to be disproportionately responsible for the disincentive effects of the VER. The importance of the demand side of the market also extends to the role of government job creation, especially in high-unemployment regions. There is great need for more federal-provincial cooperation in the manner in which jobs are created and income support provided. In particular, the creation of short jobs in order to shift the burden of income support to the federal level, and the interaction between UI and provincially provided income support, deserve particular attention.

The fifth theme to emerge is that repeat use of the program seems to be quite extensive. To some large degree, this reflects the

fact that unemployment is heavily concentrated in particular segments of the labor market and that UI therefore is performing the task it was intended to accomplish by giving these groups needed income support. The labor market history of some claimants is, however, an important determinant of their future labor market experience. While this cannot be considered simply as an adverse selection problem, it has not been determined whether it is best explained by demand- or supply-side factors. This relationship nonetheless raises the possibility that temporary macroeconomic shocks may have an asymmetric effect on some individuals, causing them to become unemployed and perhaps fall into a trap of repeat UI use that is not easily reversed by economic recovery and expansion. This suggests the need for a rethinking of the way macropolicy and UI interact, as well as some sort of fundamental redesign of the benefit structure that would encourage the re-establishment of long-term attachment to employment. Neither the insurance model nor the income transfer model offers a conceptual framework for organizing thoughts around the possibility of an "active" rather than a "passive" benefit structure. Nonetheless, it has been suggested that, regardless of which perspective is adopted, the structure of the program could be tied to the number of times that an individual makes use of it (Corak 1993a). For first-time users, UI could fulfill a simple insurance role by providing income support; for second-time users (within a certain period of time) it could offer more active assistance designed to encourage the adjustments necessary to prevent individuals from falling into a trap of repeat reliance.

The sixth and final theme is that the aggregate implications of the micro-level findings are not clear. The ambiguity in the results of macro-level research might be interpreted as suggesting that the disincentive effects of the program come close to canceling themselves out in the aggregate. Micro-level research, however, does not explicitly detail how this happens. The effect of UI on the flow of individuals between nonparticipation and employment is probably part of the story. There is a need for a more explicit examination of the effects of UI changes on the behavior of nonparticipants and

those not eligible to receive UI. For example, what has been the effect of increased UI generosity on the job-finding rates of those not eligible to collect benefits or those close to exhausting their entitlement? If it is true that more generous benefits reduce the job-finding rates of those eligible for benefits, does this imply that job opportunities improve for all others? Furthermore, in judging the aggregate effects of UI from micro-level studies, it is important to keep in mind that not only are particular elasticities required but so also is knowledge of the proportion of the population being affected. The VER may have an important effect on the duration of jobs, but this effect is restricted to a small proportion of jobs that would otherwise still be quite short. The replacement rate may be important in determining benefit durations, but only for females who have suffered a permanent separation and conditional on having started a UI claim. The size of the populations affected by particular UI parameters needs to be detailed more explicitly. This information, along with estimated elasticities, would have to be used to obtain some sense of the aggregate implications of the findings.

Conclusion

Work disincentives are often viewed as *the* central issue of UI policy. A great deal of research has been done on the various aspects of this issue in Canada over the course of the past ten years, and certainly over the last two decades. My review of the literature is based on a twofold categorization: micro-level and macro-level. I have stressed that the labor market is a complex market, that UI is a large and complex program, and hence that we can expect UI to have many different effects on individual behavior and various labor market outcomes. Macro-level studies ask a simple question: what is the effect of changes in UI "generosity" on the aggregate unemployment rate? A review of this literature suggests that, perhaps contrary to the conventional wisdom, the question has not been unambiguously answered. This literature has not reached a consensus, and it appears incumbent on researchers who adopt this

methodology in the future to pay particular attention to the robustness of their results and to explain how and why they may differ from the estimates already available. Micro-level research is much more eclectic in nature, and attempts to examine the influence of particular UI parameters on particular labor market flows. A review of this literature finds that the Canadian UI program has significant effects on some individual decisions but very little effect on others, and that there are considerable gaps in knowledge that remain to be filled.

Kesselman (1993, 16) has stated that a "fundamental issue to be addressed when public policies have an effect on employment is the extent to which individuals should bear the responsibility for, and costs of, adjustment." This is a normative issue, and I have argued that to some important extent it is differences in how this issue is approached that characterize the competing perspectives that have motivated much of the postwar policy debate surrounding the Canadian UI program. Those who believe that UI should be insurance in the event of job loss view unemployment as structural/frictional in nature with an important voluntary component, and feel therefore that the responsibility for and the costs of adjustment lie at the individual level and must ultimately be dealt with through the functioning of the market; that UI has considerable potential to distort this process, and that it should be designed to be as neutral as possible. Those who believe that UI is of necessity an income transfer scheme view unemployment as the result of job scarcity and involuntary in nature, and feel therefore that responsibility for and the costs of adjustment lie at the societal level; that the disincentive effects are not great, and that UI should not be designed without reference to broader societal goals.

The program as it currently exists is an unhappy compromise between these visions. It fulfills an important insurance function, but is universal in its coverage and taxes all firms and individuals at the same rates regardless of their use of the program. From the income transfer perspective, the failure to guarantee full employment while at the same time granting the unemployed the right to

income support in their region of residence (and without requiring any other adjustments on their behalf) has created a host of labor market enclaves in which firms and communities ration the available jobs so that as many people as possible can (repeatedly) qualify for benefits.

This compromise has its roots in the attempt of the Gill Committee to acknowledge explicitly both the insurance and the income transfer models by recommending that UI be designed with a certain amount of flexibility built into it: during periods of high unemployment, it would act as an income transfer scheme; during periods of low unemployment, it would revert to a purely insurance scheme. The committee explicitly recognized two different types of unemployment, frictional/structural unemployment (that associated with the natural rate of unemployment) and cyclical unemployment. It argued that insurance was appropriate for the former, while an income transfer was appropriate for the latter. This philosophy formed the basis for the important reforms introduced in 1971, which represent the foundation of the program as it exists today. The greater the aggregate unemployment rate, the more generous the program: benefit entitlement (as a result of regionally extended benefits) increases, eligibility requirements (through the VER) ease, and financing (until recently) is drawn from general revenues. In this way, both the insurance and income transfer interpretations of UI are accommodated within the confines of a single program.

The difficulty is that neither voluntary nor involuntary unemployment can be defined solely in technical terms; their very definitions embody a value judgment with regard to the nature and extent of adjustment that the affected individuals must make. It is probably not difficult to believe that all unemployment is involuntary in the very short term when not enough time has gone by to make any sort of adjustment, but it is also not difficult to believe that most unemployment is voluntary in the very long term when enough time has transpired to change skills, region of residence, or wage expectations. A careful examination of the disincentive effects of the program is not, on its own, going to determine how to make

these value judgments, but at least it can help to take the debate out of the realm of anecdote and onto a firmer factual footing. That is probably no small step.

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