

AN ASSESSMENT OF THE CANADIAN UNEMPLOYMENT INSURANCE PROGRAM

by

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M.A. major paper presented to the Department of Economics of
the University of Ottawa in fulfillment of requirement ECO7997

Ottawa, Ontario

May, 1985

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1. INTRODUCTION

Unemployment Insurance is one of the largest programs operated by the federal government. The total program costs for 1984 are expected to be \$11.2 billion, which includes \$10.0 billion in benefits paid to the unemployed and the balance for interest and administration. These expenditures will be financed by \$7.8 billion from employer and employee premiums and by \$2.9 billion from the federal government to pay for regional extended benefits and benefits to fishermen. The deficit of \$.5 billion will be covered by a loan from the federal government bringing the accumulated deficit of the UI account to \$4.4 billion. In 1984, 12 million workers contributed to UI. In 1983, 3.39 million unemployed received UI benefits.¹

Under the current financing arrangement this large deficit in the U.I. account will have to be financed by future private sector premiums and this has resulted in calls to contain the costs of the program.

Other observers of the U.I. program have noted that the program can create obstacles to labour market adjustment and cause an inefficient allocation of resources among industrial sectors. Studies have suggested that the program may create disincentives for working and job search and cause certain individuals to work just long enough to

¹ Source, Canada Employment and Immigration Commission, Administrative Data

qualify for benefits. The program may also discourage labour mobility among regions and encourage employers to overuse layoffs as a means of adjusting to changing levels of activity.

This paper will attempt to address these concerns by reviewing some studies that have been undertaken in the UI area both in Canada and the United States. The results of these studies will be used to come to some conclusion on a desirable design for the Canadian UI program.

The first section of the paper describes how the present program has evolved and how the present program works. The second section examines what economic theory has to predict about the effect of UI on behavior. The fourth and fifth sections examine the empirical evidence. The sixth section outlines some options for reform that have been proposed by other authors. The final section draws together the material covered and makes a recommendation on a more optimal program design.

2. EVOLUTION AND DESCRIPTION OF THE CURRENT PROGRAM

A. Evolution of the Current Program

From the beginning of Unemployment Insurance in 1940 the program has had two main objectives;

- a) to provide income protection for workers suffering temporary income interruptions, and

- b) to facilitate the best possible match between unemployed workers and available jobs.¹

UI came into being as a result of society changing its attitude towards the unemployed. Unemployment was now viewed as being something outside the control of the individual.

Up to 1971 the income protection role was given greater emphasis and after 1971 the labour market objective was given greater emphasis.(5) In the beginning UI was meant to respond to cyclical and frictional unemployment but over the years it has also become a response to seasonal and structural unemployment. For most people UI is a temporary income protection plan while for others such as fishermen it has become a kind of guaranteed income plan. Indeed over the years UI has come to assume the role of a social program rather than a strict economic or labour market program.

The original program was meant to be based on strict insurance principles. Workers expecting to experience recurrent unemployment, such as seasonal workers, or workers with a large degree of job security, such as civil servants, were not covered.

Unemployment Insurance also has a role to play as an automatic stabilizer. In general UI increases disposable income when growth is slow and reduces disposable income when growth is strong ((6) page 32).

¹These objectives are stated in the November 8, 1984 Economic Statement by Michael Wilson, Minister of Finance, (31), see also ((5), Chapter 16)

During the 1940's coverage was gradually increased from 42 per cent of the labour force 50 per cent.(5) However, the insurance principle was still adhered to and, when coverage was extended to seasonal industries, workers were required to meet special conditions if they collected benefits in the "off season".

During the 1950's coverage expanded considerably. The level of earnings covered was increased and winter seasonal benefits for people who exhausted or could not qualify for regular benefits were established.

During the decade of the 1960's there was greater legislative stability than during the previous two decades. Most of the changes made were to adjust contributions and benefits to changes in earnings and living costs. ((6) page 5)

The UI Act passed in 1971 introduced a more generous programs design. Coverage was increased to insure about 96 per cent of salaried and hourly-paid workers, excluding the self-employed, compared to 80 per cent before 1971. Sickness, maternity and retirement benefits were introduced. Entrance requirements were lowered and benefit rates and availability were made more generous. Benefits became payable in phases based on a combination of work attachment and national and regional unemployment rates. ((6) page 5)

The expanded features of the 1971 Act combined with higher unemployment rates resulted in a significant increase in program costs. From 1970 to 1975 annual program costs rose from \$730 million to over

\$3.3 billion. The federal government's share rose from \$164 million in 1970 to over \$1.7 billion in 1975. Questions were raised about the effect of the program on work incentives. ((6) page 5)

During 1975 changes were made to contain the expansion of the program and to ensure a more positive effect on the labour market. Without the post-1975 changes, the cost of the program in 1980 would have been \$6.6 billion instead of \$4.8 billion. The federal government cost would have been \$3.7 billion (55 per cent of the total) instead of \$1 billion (22 per cent of total costs). Since the 1971 Act the costs of UI have been increasingly shifted to the private sector or to employee and employer premiums. ((6) page 6)

Up to 1971 there was a movement towards greater expansion of the program, while after 1971 there was an attempt to retrench. Entrance requirements, the number of weeks of insurable employment needed to qualify for benefits, were initially 30 weeks of employment in the 104 week qualifying period. In 1971 only 8 weeks of employment were required to qualify for regular benefits. In 1977 a variable entrance requirement was introduced based on the regional unemployment rate. ((6) page 6)

B. Description of the Current Program

About 95 per cent of all workers in Canada are protected by unemployment insurance. Jobs covered by UI are called insurable employment. To be insurable, workers must be employed by the same employer for at

least 15 hours a week, or must make at least \$85 a week in 1984. Neither the self-employed nor workers over age 65 can insure their earnings. Self-employed fishermen are covered by special arrangement.

To get regular benefits a person must have worked in insurable employment for at least 10 to 14 weeks in what UI calls the "qualifying period". The qualifying period is the last 52 weeks or the period since the start of a claimant's last UI claim, whichever is the more recent. The number of weeks needed varies between 10 to 14 weeks depending on the unemployment rate where the claimant lives. This is called the variable entrance requirement. ((6) page 107)

Claimants who have collected benefits in the last year and who file another claim may have to work up to six weeks longer than they needed for their first claim. The number of additional weeks depends on how many weeks of UI they received the first time. This does not affect claimants who live in regions where the unemployment rate is over 11.5 per cent.

New entrants to the labour force or re-entrants who have been out of the labour force for more than one year need to work at least 20 weeks in order to qualify for benefits.

Everyone on regular UI must be able to work and be looking for another job. In addition to regular benefits UI pays special benefits to people who cannot work because of illness, injury, or pregnancy.

Regular benefits are payable in three successive phases. In the first phase one week of benefits is paid for each week of insurable employment up to a maximum of 25 weeks. In the second phase or labour force extended benefit phase, one week of benefits is paid for every two insurable weeks over 25. In the third phase or regional extended benefit phase, two weeks of benefits are paid for every .5 per cent that the regional unemployment rate exceeds 4 per cent. ((6) page 107)

All benefits are subject to a two week waiting period. The overall maximum is 50 weeks of benefits in the 52 week benefit period. Claimants are disqualified from receiving benefits for up to six weeks for quitting jobs without just cause, being fired for misconduct or refusing suitable employment.

The benefit rate is 60 per cent of average insurable earnings in the qualifying period.

The UI program is financed on a tripartite basis through contributions from employer and employee premiums and the federal government.

Premium, or private sector, revenues absorb the cost of benefits in the initial and labour force extended phases, sickness, maternity, special severance and work sharing benefits, as well as the cost of administering the UI Act which includes the National Employment Service.

The federal government pays the cost of regional extended benefits, the cost of benefits for self-employed fishermen that is in excess of premiums paid by fishermen, and the cost of extended benefits for those taking approved training or work sharing or job creation projects.

TABLE 1
BENEFIT AND PREMIUM COMPONENTS, UI
1984

Maximum Insurable Earnings Per Week	\$425
Maximum Weekly Benefits (60% of above)	\$255
Average Weekly Benefits (January 1984 average)	\$162
Weekly Employee Premium Rate (per \$100 insurable earnings)	\$2.30
Weekly Employer Premium Rate (1.4 times employee rate)	\$3.22
Maximum Annual Employee Contribution	\$509
Maximum Annual Employer Contribution	\$712

Source: CEIC

TABLE 2

COST OF UI, FISCAL YEAR 1982-83
(millions of dollars)

Receipts

Government Contributions	2,148
Employer/Employee Premiums	5,039
Interest Received	2
TOTAL	7,189

Disbursements

Benefits	9,677
Administration	791
Interest Paid	10
TOTAL	10,478

Annual Balance -3,289

Source: Dept. of Finance, Social
Policy Division

3. THEORETICAL ASPECTS OF UI'S EFFECT ON BEHAVIOR

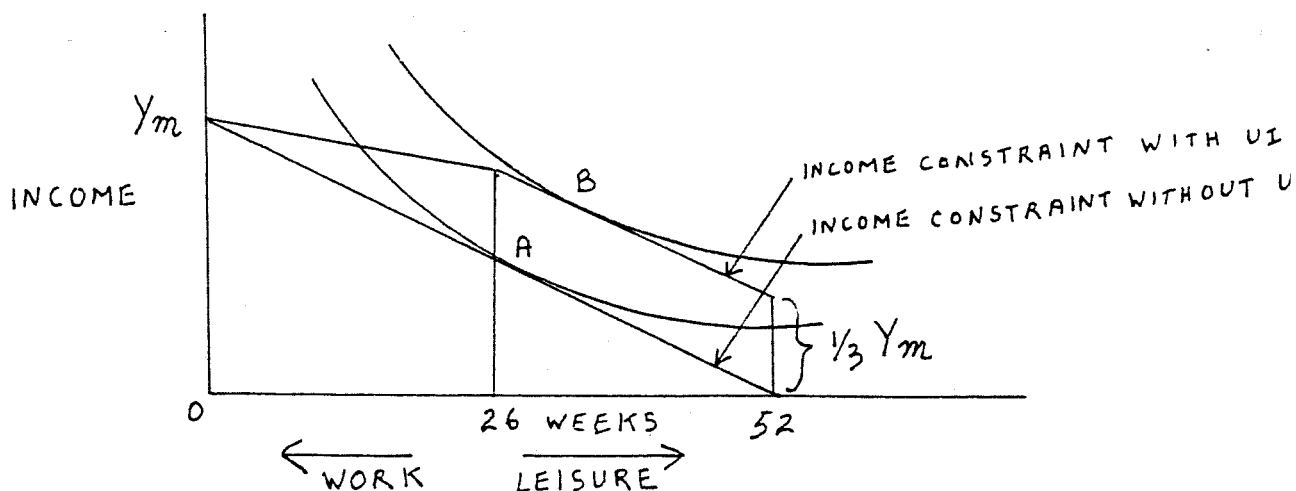
UI may have an affect on four different aspects of labour market behavior which are the incentive to work, job search, mobility, and job stability.

A. Work Incentives

The work-leisure choice framework can be used to analyse the effect that UI will have on work incentives. The impact of UI can be seen with a simple example which gives a recipient two thirds of his weekly pay for a maximum period of half a year (26 weeks). ((17) page 37)

This scheme is illustrated in figure 1, which uses a one year time frame. We will assume that the individual is eligible for UI. If the individual does not work at all (52 weeks leisure) then his income will be two thirds of his weekly earnings times the 26 weeks he is eligible to receive UI. At 52 weeks of leisure the existence of UI causes his income constraint to shift vertically upwards by one third of his maximum yearly income. He reaches his maximum yearly income where leisure equals zero in the figure. The one third height comes from the fact that without working he can collect two thirds of his earnings for one half of a year. Moving to the left from the point of 52 weeks leisure the person can work and collect his UI benefits as well as his earnings for a maximum period of 26 weeks. Therefore his UI income constraint line is parallel to the income constraint line without UI between 52 and 26 weeks of leisure. Working beyond 26 weeks however he will no longer be able to collect UI because he cannot legally collect UI and work at the same time. Therefore work beyond 26 weeks will not increase his income as fast as before. This is reflected by the smaller slope of the income constraint between 26 and 0 weeks of leisure.

FIGURE 1
WORK INCENTIVE EFFECTS OF UI



It can be seen from the above figure that the existence of UI moves the equilibrium from point A to point B where the person works less. Thus UI acts as a work disincentive.

Clearly the income of an unemployed worker is higher in the presence of a UI program. Economic theory predicts that when income rises and leisure is a normal good that the amount of leisure consumed will increase. Therefore the higher the benefits provided by UI, or the higher the income replacement ratio of the program, the less people will wish to work. This is called the income effect of the program.

In the presence of a UI program the person returning to work after being unemployed will only receive as a net gain the difference between his wages and the UI benefit that he foregoes. Therefore the value of work is lower in the presence of a UI program. This gives the worker an incentive to take more leisure because the value of working is less. This is called the substitution effect. Only the income effect is shown in figure 1 because of the shape of the utility function used and because of the particular UI scheme depicted.

The income and substitution effects of the UI program reduce the incentive for workers to return to the labour market speedily. In this sense, the program acts to slow down desirable labour market adjustments.

A speedy adjustment is not necessarily efficient if a worker accepts a job that is not worthy of his talents.

During the period that a worker is searching for employment, there is a loss of output for the economy. If however that longer search period results in a better match between the workers qualifications and the requirements of the job, then there can be economic benefits large enough to compensate for the output loss caused by a longer search period. The comparison of these benefits and costs would indicate how generous the UI program should be.

B. Job Search

To see how search theory applies to labour market behavior we will construct a simple model.(22)

We will assume that the probability distribution of wages is known to the worker and also that there is "search with recall", that is the worker can always stop searching and go back and accept the best wage offer he has received so far; for this reason "search with recall" is the best model to employ in a labour market context. Also search is sequential and only one wage offer can be sampled at a time.

A worker will search until the marginal cost of searching is equal to the marginal benefit of searching.

Let $MC = C$ (a constant per search),

where MC is marginal cost

The marginal benefit is the benefit of one more search only, that is we do not need to consider the possibility of two, three, or more searches. From the theory of search with optimal sample size, such

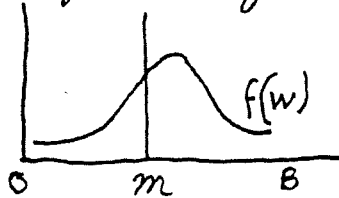
as occurs when sampling occurs simultaneously (mailing out job resumés), we know that the marginal benefit declines as the sample size increases. Therefore if the marginal benefit of one more search is not worth the cost (c), then the expected benefit from additional searches will not be worth (c) either.

$\therefore MB = E(m) - m$ where $m =$ current best wage offer so far
and $E(m) =$ expected best offer after another search

a person will search until $m \cdot c = MB$ or $c = E(m) - m$
and $E(m) = m \cdot \int_0^m f(w) dw + \int_m^B w f(w) dw$

$\int_0^m f(w) dw =$ probability of picking a wage less than or equal to current best offer

$\int_m^B w f(w) dw =$ expectation of wages greater than m



search will stop when $c = E(m) - m$ $c = m \int_0^m f(w) dw + \int_m^B w f(w) dw - m$

but $m = m \times 1 = m \times \int_0^B f(w) dw$

$$= m \times \left(\int_0^m f(w) dw + \int_m^B f(w) dw \right)$$

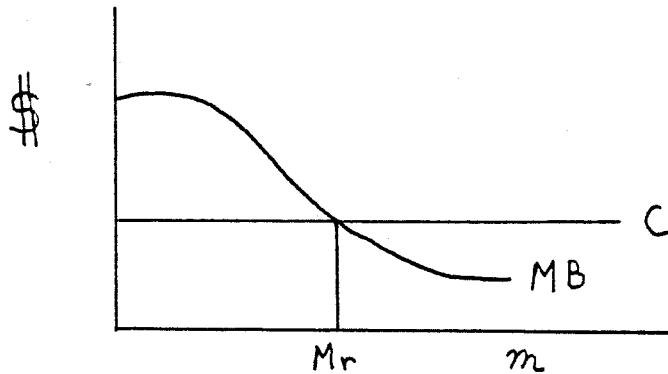
$$= m \int_0^m f(w) dw + m \int_m^B f(w) dw$$

Therefore: $c = \left[m \int_0^m f(w) dw + \int_m^B w f(w) dw \right] - \left[m \int_0^m f(w) dw + m \int_m^B f(w) dw \right]$

$$\therefore c = \int_m^B (w - m) f(w) dw$$

(e.g. $MB = \int_m^B (w - m) f(w) dw$)

The wage (w) which satisfies the above is the reservation wage. If a person receives an offer of that wage (or better), he/she they will stop searching. Given knowledge of (c) and the distribution of wages $f(w)$, it is possible for an individual to determine his reservation wage.



If $M > Mr$, then $MB < C$ and search should stop.

If $M < Mr$, then $MB > C$ and search continues,

where Mr is the reservation wage

Note that if the cost of search (c) falls, the reservation wage will increase and the time spent searching must therefore increase. UI decreases the cost of search and therefore acts to increase the time spent looking for a job.

Therefore, we see that labour supply theory, based on income and substitution effects, and search theory predict the same thing. That is that the existence of UI will lengthen the period of unemployment.

Labour supply theory predicts that UI is an incentive to leisure and a disincentive to work with attendant social costs associated with the loss of output and income caused by the additional period of unemployment. Search theory predicts that UI will raise the expectations

of the unemployed and encourage them to accept jobs that are more in line with their qualifications. Therefore, there are gains in terms of earnings, productivity, and job stability. The costs associated with the additional unemployment are offset by these gains.

The above arguments concerning the predictions of labour supply theory and search theory assume that the individual has a choice between work and leisure. In reality this choice is not always there. For instance a disabled person may not be able to find a job or a person in a very high unemployment area may not be able to find a job. Therefore the conclusions of search theory and labour supply theory apply only to a subset of the labour force.

C. Worker Mobility

Mobility in the labour force can mean either occupational mobility, regional mobility, or industrial mobility.

If the gains of moving to another occupation or another region exceed the costs of moving, then workers will have an incentive to move. The gains from moving are defined as the discounted value of the income differential between an existing location and a new location for the remainder of the working life. The wider this differential, the greater the incentive to move.

UI contributes to mobility from high unemployment regions to low unemployment regions by subsidizing the cost of moving. In this sense, UI contributes positively to labour market adjustment. In the absence of UI the cost of the move would need to be financed from other sources.

On the other hand UI has the effect of lowering the income differential associated with moving and in this way it does not encourage mobility and positive labour market adjustments. Because the UI program pays higher benefits in high unemployment regions, it may act to deter movement out of these areas and into low unemployment areas. The program may also cause a movement of UI claimants into high unemployment regions, because benefits can be collected for a longer period.

D. Job Stability

The effect of UI on job stability has two aspects, the effect on workers and the effect on employers.

The presence of UI may cause people who would otherwise remain outside of the labour force to join the labour force and work long enough (14 weeks) to qualify for UI. This behavior is not consistent with desirable labour market adjustment. In this sense UI may act to attract workers to short term, unstable jobs and not to encourage workers to look for more productive, stable jobs.

By working a minimum of 14 weeks, a worker becomes eligible for 16 weeks of benefits equal to 60 per cent of previous earnings. From the individual's point of view, he is getting the equivalent of a "free ride" and he is being subsidized by the other contributors to the program.

In addition UI may encourage workers to depend continuously on the program. That is, UI may become a permanent part of their lifestyles. Their skills may only qualify them for low paying, unstable jobs and, because of the subsidy they receive, they will have no incentive to better their qualifications in order to obtain a better paid and more satisfying job. For instance, a reduction in UI benefits could cause some workers to take more than one job throughout the year and cause a shift of resources into more permanent jobs.

In addition UI may encourage industries to alter their production patterns in order to absorb this type of manpower. These industries would be encouraged to provide unstable and seasonal employment. UI provides unstable industries with UI benefits that are greater than the contributions that they make to the program. In this way, industries that provide stable employment subsidize industries that provide unstable employment. In the absence of UI, unstable industries would need to pay higher wages in order to attract workers. Their higher production costs would make them raise their prices and this would cause a contraction of the industry and resources would be reallocated to other industries, assuming a full employment world. In this way, UI acts to misallocate resources from stable industries to unstable ones.

The existence of UI has also caused some government job creation programs to be designed in a way to provide participants with just enough work to qualify for UI.

4. EMPIRICAL EVIDENCE FROM PREVIOUS STUDIES

This section will examine the impact of UI on the duration of unemployment, job search, post-unemployment earnings, and job stability, interregional migratory flows, and short term unemployment and employment spells.

A. Duration of Unemployment

There have been many studies of the impact of UI benefits on the duration of unemployment conducted in Canada and the U.S.

The studies done in the U.S. have used micro-data to analyze the relationship. The research in the U.S. has been facilitated by the fact that there are 50 state programs, which vary according to income replacement ratios and other important criteria. It is thus possible to see what impact different program parameters have.

In Canada this work has been facilitated by the major revisions to the UI program which took place in 1971. These changes increased the coverage, lowered the entitlement requirements, and increased the benefits. Before the changes the earnings replacement rate was 43 per cent, after the changes the earnings replacement rate was 66.6 per cent.

The following table shows the results of these studies.

TABLE 3
IMPACT OF AN INCREASE IN THE UI
EARNINGS-REPLACEMENT, RATIO ON DURATION
OF UNEMPLOYMENT, CANADA, UNITED STATES

<u>Canadian Studies</u>	<u>Additional Weeks of Unemployment</u>
Green & Cousineau (16)	1.4
S.A. Rea (27)	1.5
D. Maki (23)	2.0
F. Lazar (21)	2.0
<u>United States Studies</u>	
Chapin (10)	.4
Marston (24)	1.0
Ehrenberg & Oaxaca (13)	1.5
Classen (11)	1.1
Holen (19)	1.0
Burgess & Kingston (4)	1.0

Source: (12) The Canadian studies measure the impact on a claimant of increasing the earnings replacement ratio from 43 per cent to 67 per cent. The US studies measure the impact of raising the ratio from 50 to 60 per cent.

In the case of the Canadian studies Green and Cousineau estimated that the overall impact of the 1971 changes increased unemployment by two additional weeks. Rea obtained an estimate of four weeks. Overall impacts would include the effects of lower entrance requirements etc.

Cousineau (12) draws the conclusion from the above results that, when the earnings replacement ratio is 50 per cent, every 10 per cent variation leads to a change of one week in the duration of unemployment for UI claimants.

B. Job Search

In assessing the UI program it is important to know how the intensity of search is affected by the UI program and whether the program acts to increase post-unemployment earnings and job stability.

On the question of post unemployment job stability, a study is available for the U.S.. Classen (11) found that there was no link between the level of UI benefits and subsequent job stability. The method used was to examine the relationship between UI benefits and the number of jobs held during the two year period following the return to work.

Cousineau (12) estimates that the 1971 revisions to UI, net of retrenchments since then, cost the UI program an extra one billion dollars in terms of foregone output in 1984. This amount is arrived at

by using the product of the average weekly wages (\$200) times the extra 1.5 weeks spent in search times the number of U.I. beneficiaries (3.39 million in 1983). It therefore becomes necessary to see if these enrichments to the program provide any benefits in return for the investment of this one billion. The 1.5 estimate above is obtained by subtracting .5 (for the retrenchments since 1971) from the earlier estimate of 2 obtained by Green and Cousineau.(16) The above approach excludes the aggregate demand effects of UI.

In another study conducted in the U.S., Barron and Gilley (1) concluded, using a sample of 1,166 UI claimants, that if the benefit period is prolonged by one month or if the earnings-replacement ratio is increased by 8 per cent, there is a reduction of 6.5 per cent in the average number of hours devoted each week to job search. It is therefore seen that enriched benefits do not cause more intensive job search. Enriched benefits increase search duration but this is offset by less intensive search. The overall affect is slightly positive in terms of search time. Thus the longer duration of unemployment is practically offset.

Burgess and Kingston (4) found that post unemployment earnings increased by 7.9 per cent as a result of increases in UI benefits. Classen (11) found that post-unemployment earnings increased by 0.0 per cent as a result of an increase in UI benefits.

Holen (19) conducted a study using 20,000 observations on UI claimants scattered across five states of the United States that had different regulations for UI. The effect of UI variables on the post-unemployment wage was determined by using the OLS regression method. Her findings were that higher benefit levels cause higher post-unemployment earnings, longer entitlement increases unemployment and causes increases in UI benefit payments, and increases in the level of work-test enforcement reduce the duration of compensated unemployment.

The above study isolated the impact of UI variables from labour market and individual differences that also affect post-unemployment earnings by regressing post-unemployment earnings on sex, previous earnings, education, occupation, unemployment rate, city, number of quarters of previous earnings, in addition to the UI variables, such as weekly benefit amount, and potential duration.

The coefficients obtained in the regression for the above variables measure their impact on post-unemployment earnings. A positive coefficient for weekly benefit amount in the above regression would indicate that post-unemployment earnings increased as UI benefits increased. For example a coefficient of .1 would mean that if benefits increased by \$10, post-unemployment earnings would increase by \$1.0.

Holen (19) also found that placement assistance had the effect of reducing the duration of unemployment by one week.

A Canadian study by Hasan and Gera (18) examined the productivity and duration of job search. The study employed the Labour Force Tracking Survey, 1978, conducted by the Department of Industry, Trade and Commerce. The sample covers individuals who were laid off or who voluntarily quit as a result of a plant shutdown or a cutback in production. Information was collected on labour force experience for the years from 1973 to 1978. The total sample consisted of 12,302 observations.

The study found that workers who quit made a wage gain while those workers who were laid off suffered a loss. The study used regression techniques to examine the relationship between duration of unemployment and post-unemployment wages. The dependent variable used was the post-unemployment wage in real terms divided by the pre-unemployment wage in real terms. Independent variables used were age, education, duration of employment, occupation, location, and duration of unemployment.

In the aggregate the coefficient of duration of unemployment was found to be negative. Therefore an additional week of search reduces post-unemployment wages relative to pre-unemployment wages. In other words, the productivity of additional search time was negative.

Different results emerge, however, when the sample is split into two groups of those who searched less than or equal to 15 weeks, and of those who searched more than 15 weeks. When the data is separated as described, search is found to be productive for all those job seekers

able to find another job within the first 15 weeks of their search. This means that wage gains were obtained by those whose search duration was less than 15 weeks. For females searching more than 15 weeks, search productivity is negative. For males longer spells of search are just as productive as shorter ones. Over-all, the results show that additional search time does not produce a gain in wages.

C. Interregional Migration

Over the period 1971-76, the pattern of out-migration from the Atlantic Provinces to the rest of Canada reversed itself so that there was now in-migration from the rest of Canada to the Atlantic Provinces. This change coincided with the major reform of the UI program which took place in 1971. This has prompted concern ((6), page 40) that the enrichment of benefits hampers positive labour market adjustment by inducing people to remain in high unemployment areas. Although other economic factors played a role, the expansion of federal transfers including UI must have had an influence.

D. Short-Term Unemployment and Employment

In a U.S. study, Benham (2) examined the impact of UI on the distribution of unemployment durations. He considered employer incentives as well as employee incentives. Using the benefit replacement rate to measure the incentive on employees, the study found that States with larger benefit replacement rates in their UI programs had longer mean unemployment durations. In terms of incentives to employers, the study used the UI tax rate spread, which is the difference between the

maximum UI tax rate that an employer has to pay and the minimum UI tax rate he has to pay. These tax rates vary from the minimum to the maximum depending on the employers lay-off history. Employers with a history of high labour turnover face higher UI tax rates under the UI laws. This system of varying the tax rate based on lay-off history is called "experience rating".

The above study found that in those states where there was little "experience rating", as measured by the spread in tax rates, the unemployment duration distributions exhibited higher relative frequencies of short duration unemployment. The method adopted by the study used regression with duration as the dependent variable. The independent variables were, the benefit replacement rate, tax rate spread, and demographic variables. The method employed allows for the incentives of UI on employers and employees to be separated out.

In the United States most states have "experience rated" UI programs. Also in the U.S. the cost of the program is entirely born by a payroll tax on employers. There still occurs a subsidy from low lay-off employers to high lay-off employers because the systems are not completely "experience rated". This is because there is a maximum limit on the UI tax rate.

In another U.S. study, Feldstein (15) states that UI acts as an inducement for firms to lay off workers for short spells. In the absence of UI, firms would be reluctant to lay off workers for short

spells in response to demand fluctuations for fear of losing their workers to other firms. In the presence of UI workers would have less incentive to find alternate employment, rather they would simply wait out their period of temporary layoff. In his study Feldstein finds that UI increases the amount of temporary lay-off unemployment.

In another U.S. study Topel (30) found that the lack of complete "experience rating" in the American UI system accounts for one quarter of all lay-offs that occurred in the sample that he employed. His conclusion is that methods of financing UI have an important effect on the incidence of unemployment.

E. Summary

For this section, we have seen that increasing the earnings replacement ratio has the effect of increasing the duration of unemployment. In addition a more generous program over-all has the effect of increasing the duration of unemployment.

We have also seen that a more generous program reduces the intensity of job search. There is no conclusive evidence that post-unemployment earnings or job stability improve as a result of longer search duration.

There is also good reason to believe that a more generous program has the effect of causing people to remain in high unemployment regions.

Also, we have seen that the absence of experience rating has the effect of increasing short-term unemployment.

A Canadian study by Grubel, Maki, and Sax (28) found that the 1971 changes to the UI legislation caused the measured rate of unemployment in Canada to increase by .8 per cent. In their study, the authors factored out the effects of changes in aggregate demand by including an aggregate demand variable as an independent variable in the regression equation used. They used a simultaneous equation approach, where the unemployment rate was regressed against the benefit replacement rate, percentage change in GNP, UI entitlement factors, and other variables.

In the previously cited study by Maki (23), a variable to measure the cyclical variations in economic activity was also used in the regression equation employed. The regression models used by Rea (27), and Green and Cousineau (16), also included variables to take account of changes in economic activity. The above would support the proposition that aggregate demand factors have been considered in the model specifications.

A related study by McIlveen and Sims (25) used the Statistics Canada gross flow data to analyze the flow components of unemployment in Canada between 1964 and 1973. They found that the incidence of unemployment among secondary labour force groups increased sharply between 1964 and 1973 while the duration of unemployment rose for all groups. This would suggest that the 1971 revisions to UI has modified behaviour.

5. EMPIRICAL EVIDENCE FROM CEIC STUDIES

The empirical results in the previous section have been mainly derived from journal articles and publications prepared by professional economists. The evidence presented in this section is mainly derived from administrative data and surveys conducted by the Canada Employment and Immigration Commission, which administers the UI program.

In 1982 there was an annual average of 1,137,707 beneficiaries of Unemployment Insurance. Of this number 33% were below age 25, 47% were between age 25 and 44, and 20% were 45 to 65 years of age. The average duration of benefit period was 23 weeks for those under 25 years and 21 weeks for those over 25.¹

A 1976 survey of UI claimants (9), conducted by Canada Employment and Immigration, found that for two-thirds of claimants UI was their main source of income while unemployed. 12 per cent of claimants relied primarily on the earnings of another family member and 10 per cent relied mainly on savings or on borrowing. Sixty per cent of claimants did not cut down on household expenses and 90 per cent had no difficulty paying bills on time. Less than 5 per cent had to borrow from the bank or sell possessions to finance their unemployment. The above illustrates UI's major role in income protection.

¹Statistics Canada 73-001 and 73-201.

UI acts to shift the cost of unemployment away from high unemployment, low income groups to groups with low unemployment and high incomes. In addition UI shifts the cost of unemployment from high unemployment regions to low unemployment regions. In 1979 the Atlantic Provinces received a net transfer of one billion dollars from Ontario and the Prairie Provinces.(6)

In 1976, CEIC conducted a survey of ex-claimants of UI.(9) The survey showed that three-quarters of the claimants who returned to different jobs after their claim reported higher wages than in their pre-claim job. This evidence suggests that UI is successful in its labour market adjustment role. The survey also found that two-thirds of the job changers found their new job more interesting.

A 1976 CEIC survey of UI exhaustees (7) examined the pre- and post-exhaustion labour force experience of exhaustees. Exhaustees are defined as claimants who are still on claim when their entitlement ends, have no job, and cannot qualify for a new claim as a result of working while on claim. The survey found that two-thirds of exhaustees found work at some time in the six months following exhaustion. 56 per cent found work within six weeks after exhaustion and 60 per cent worked for at least four of the six months after exhaustion. These results seem to imply that UI benefits may have caused some people to remain voluntarily unemployed, seeking work only after the benefits had expired. The survey also found that a large proportion of exhaustees had only marginal labour force attachment.

In 1978, when the 10 to 14 week variable entrance requirement was introduced (previously the entrance requirement was 8 weeks), 87 per cent of those affected in the Atlantic Region found the extra two weeks of work needed to qualify. In addition 40 per cent of those affected in the rest of the country found the additional weeks of work they needed in order to qualify. When the entrance requirements for new entrants and re-entrants was raised to 20 weeks in 1979, there was a sharp increase in the number of claimants applying with exactly 20 insurable weeks. The above results suggest that the current entrance requirements could be raised and that people would find the extra work.(6)

In 1979 fifty-five per cent of regular claimants reported insurable employment while on claim. Also over 20 per cent of claimants in the Atlantic Region who finished one claim were eligible to establish a new claim immediately. Half of this number actually did establish a new claim. This data indicates that there is work available and that higher basic entrance requirements would encourage work attachment.(6)

The impact of higher entrance requirements would be felt most strongly by minor attachment claimants (claimants who establish a claim with less than 20 weeks of insurable employment). In 1979 minor attachment claimants made up 16 per cent of the total claimant population. However, minor attachment claimants made up approximately 30 per cent of the claim population in the Atlantic Region.(6)

Under the present provisions, only ten weeks work are required in order to qualify for 42 weeks of benefits in parts of the Atlantic Region. Since seasonal employment is very high in the Atlantic Region,

these provisions can act to support seasonal employment/unemployment patterns. Seasonal workers may therefore have little incentive to work more than ten weeks since this guarantees income for the rest of the year.

UI administrative data show that minor attachment claimants in high unemployment areas have the longest benefit durations. This combination of short work attachment and long benefit duration causes a cycle of dependency, which can be illustrated by the high rate of repeat claims. In 1979, 72 per cent of claimants in the Atlantic Region were repeat claimants compared to approximately 47 per cent elsewhere in Canada.((6), page 50)

At present UI claimants are allowed to work and earn up to 25% of their weekly benefits without reducing their benefits. Above 25%, their benefits are reduced by the amount that they earn. Before 1971 claimants could keep 50% of their earnings without having their benefits taxed back. When the 50% was changed to 25% in 1971, the proportion of claimants reporting earnings remained unchanged at 40 to 50 per cent. This indicates that higher allowable earnings does not induce more claimants to work just enough to claim both their full earnings and their full benefits. The CEIC task force found that in 1977, 85 per cent of those working while on claim earned in excess of 25% of benefits. At present part-time work while on claim can be used to establish another claim. This provides an incentive for claimants to work while on claim.(6)

Under the current program, benefits under initial phase of the three phase benefit structure can be paid at any time in the 52 week benefit period. This ensures that claimants who obtain work during the initial benefit phase will not lose any of their benefits but will receive them later on. This feature of the program encourages claimants to work.

CEIC administrative data show that the number of voluntary quits increased from 91,000 in 1970 to 255,000 in 1972 as a result of changing the maximum period of disqualification for voluntary quitting from six to three weeks. Voluntary quits rose from 5.4 per cent to 12.4 per cent of initial claims. In 1976 the disqualification period was raised back to six weeks. The number of voluntary quits declined as a result of this change. From the above, it can be seen that the penalty imposed has a strong impact on voluntary quitting.

6. OPTIONS FOR REFORM -

The 1981 CEIC Task Force on UI, which authored the report "Unemployment Insurance in the 1980's", (6) concluded that the UI program must be modified to strengthen its labour market objectives. Specifically the Task Force recommended as possible separate reforms:

- elimination of the longer entrance requirements for new entrants, re-entrants, repeaters, and special benefits (sickness, maternity, and retirement),

- adoption of a single entrance requirement of 15 to 20 weeks based on the regional rate of unemployment, (at present the entrance requirement is 10 to 14 weeks),
- reducing the three phase benefit structure to a single phase based on weeks worked and the regional unemployment rate,
- removing limits on the availability of regular, sickness, and maternity benefits, to permit them to be drawn at any time in the benefit period,
- raising the benefit repayment rate on high income claimants from 30 to 50 per cent to increase the redistributive effects of the program,
- reducing the duration of benefits, particularly for claimants with shorter job attachments,
- reducing the spread of benefits available in low and high unemployment areas, to decrease the program's negative impact on mobility,
- increasing the penalties for job quitters without just cause to encourage stronger job attachment.

The Task Force used a UI micro-simulation model to estimate the effect of the above proposed changes to the UI program. These estimates are shown in the following table. The simulation model uses

the historical claimant information as a base and applies to each individual the set of options which is to be analyzed. The changes which result are compared with the historical information and the changes are tabulated. The aggregation of changes for all individuals shows the total impact of an option, such as changing the waiting period.

TABLE 4
FINANCIAL IMPACT OF THE PROPOSED
CHANGES TO THE UI PROGRAM (\$Millions 1983.84)

	<u>ELEMENT</u>	<u>PRIVATE</u> <u>SECTOR</u>	<u>GOVT.</u>	<u>TOTAL</u>
1.	15-20 week variable entrance requirement	- 50	-125	-175
2.	regionally differentiated single phase benefit structure ¹		-225	-225
3.	doubled disqualification period for voluntary quitting	-150	- 40	-190
4.	streamlined maternity benefits	+140		+140
5.	elimination of retirement benefit	- 20		- 20
6.	minimum insurability replaced by minimum qualification	+ 10	+ 2	+ 12
7.	uniform treatment of separation earnings ²	+ 77		+ 77
8.	new formula for determining maximum insurable earnings	+133	+ 24	+157
9.	increasing benefit repayment rate from 30% to 50%	- 28	- 5	- 33
	Total Impact (net of overlap)	+115	-335	-220

¹ the duration of benefits is less generous.

² separation payments would not be considered insurable nor taken into account for benefit purposes.

Source: CEIC "Unemployment Insurance in the 1980's".(6)

To limit the amount of UI benefits retained by high income people, claimants with annual net incomes over 1.5 times the maximum annual insurable earnings (\$33,150 in 1984) must currently repay 30 per cent of their UI benefits.

In the above table the new formula for maximum insurable earnings would use a 3 year moving average of average wages and salaries instead of the present 8 year moving average.

Kesselman (20) has proposed a system of ER (experience rating) for the Canadian UI program. Under ER an industry that received larger UI benefits than it paid in premiums would face larger premium payments. Under the current program, firms with unstable or seasonal employment patterns receive a subsidy from other industries. This subsidy results in a misallocation of resources from stable industries to unstable industries. Kesselman argues that ER would provide firms with an incentive for employment stabilization, improve employer participation in benefit administration, reduce program abuse from collusion and voluntary quits, and improve the social insurance principles of the program.

The following table shows the relative cost ratios for the UI program by industry and by province. The cost ratio is defined as the total UI benefits received by a group divided by the total premiums (employer and employee) paid by that group divided by the overall cost ratio for the insured population as a whole to arrive at relative cost

ratios. If the relative cost ratio for a group is far above the average of 1.0, it indicates that that group is a net gainer from the pooling through UI of the financial risk of unemployment.

TABLE 5
RELATIVE COST RATIOS BY INDUSTRY
AND PROVINCE, 1979

<u>INDUSTRY</u>	<u>RELATIVE COST RATIO</u>	<u>PROVINCE</u>	<u>RELATIVE COST RATIO</u>
Agriculture	1.5	Newfoundland	3.57
Forestry	5.09	P.E.I.	3.11
Fishing & Trapping	2.1	Nova Scotia	1.62
Mining	.67	New Brunswick	2.41
Manufacturing, Non-Durables	1.24	Quebec	1.47
Manufacturing, Durables	.87	Ontario	.65
Construction	2.46	Manitoba	.63
Transportation	.58	Saskatchewan	.6
Communications	.36	Alberta	.36
Utilities	.15	British Columbia	1.0
Finance, Insurance, Real Estate	.75		
Education	.38	Canada	1.0
Retail Trade	.84		
Recreation	1.67		
Business Services	.91		
Personal Services	1.4		
Total, All Industries	1.0		

Source: Based on UI Administrative Data

The above table shows the extent to which some industries are subsidized by other industries.

Kesselman (20) analyzed 1973 data and found that one quarter of the private sector's cost of UI represented a subsidy from industries with stable employment to industries with unstable employment. The industry that gained the most by far in subsidies was construction. Kesselman estimated the subsidy in 1973 to be \$250 million.

Kesselman (20) argues that the tripartite financing of the Canadian UI system does not pose any problems for experience rating. In 1981 the employer share of the program was 47.5 per cent. Thus, even though complete ER would not be possible, there is enough leverage to make it work. A possible difficulty with ER is that some employers might have difficulty in stabilizing their employment levels. To this objection Kesselman argues that despite seasonal and cyclical swings many employers have substantial opportunities to stabilize their employment. Firms could adopt inventory policies, work sharing rather than lay-offs, diversify product lines, and transfer personnel.

In addition Kesselman (20) argues that the increased administrative cost of adopting ER would be paid back several times over by eliminating benefit overpayments. Benefit overpayments result from employer errors in completing Record of Employment forms. These forms are required to establish a claim. Some of these forms are filled out incorrectly in order to maximize UI benefits to employees.

Some critics object to UI being paid to second or third earners in high income families. These critics propose that UI should be paid to these families based on a total family income definition. Therefore, if the family's income was sufficiently high, even after one of the family members experienced an interruption of earnings, no UI benefits would be paid. Variations to this scheme include an adjustment to take account of family size, and the application only to claimants who are not the main earners. Proponents of the scheme argue that the

large increase in the number of multi-earner families in recent decades provides a built-in income protection when one family member becomes unemployed.

The following data would support the proposition that claimants who are not the principal wage earners of the family represent large users of the UI program and that they receive benefits larger than the premiums they pay. Children living with their parents and married women with children comprised 35% of UI beneficiaries in 1980.

TABLE 6
RELATIVE COST RATIOS BY FAMILY STATUS (1980)

	<u>Relative Cost Ratio</u>	<u>Distribution of Claimants</u>
Single Persons - Men	1.17	6.4
- Women	.49	8.0
Men with Spouse	.82	11.8
Wife with Spouse	.9	9.9
Men with Spouse and Children	.8	23.3
Women with Spouse and Children	1.87	15.7
Men with other Household Member	1.15	1.5
Women with other Household Member	.9	4.3
Children and Married Children living with their parents		
- Men	1.7	10.8
- Women	.9	8.3
		<u>100</u>

Source: 1981 Survey of Consumer Finance, Statistics Canada.

7. CONCLUSION

The empirical evidence we have examined has shown that the incentive to work is negatively correlated with the generosity of the UI program. We have also seen that the productivity of search time

declines as the duration of unemployment lengthens. In addition we have seen that increasing the penalties for voluntary quitting can have a positive impact.

Surveys conducted by CEIC, described in section 5, show that a large number of UI beneficiaries chose to be voluntarily unemployed. Towards the end of the 1970's, the annual average number of exhaustees was in the 400,000 to 500,000 range.(7) The surveys carried out (7) show that a large proportion of these exhaustees returned to work shortly after exhausting their claims. These results cast doubt on the seriousness of some exhaustees in carrying out their job search obligation while collecting UI benefits. In addition in 1976 only 4 per cent of exhaustees had to rely on social assistance. The surveys also show that beneficiaries are able to acquire extra weeks of employment and that a large proportion work while they are on claim. Finally the program acts to support seasonal employment/unemployment patterns in the Atlantic Region.

The foregoing evidence would support the conclusion that the labour market objectives of the program should be strengthened and that the current program is overly generous.

For this reason it is the conclusion of this study that three changes to the current program would be particularly advantageous.

These changes are:

1. increasing the variable entrance requirement to 15-20 weeks,
2. introducing a regionally differentiated single phase benefit structure with a reduced benefit period,
3. doubling the disqualification period for voluntary quitting.

All of the above changes would cause greater labour force attachment. We have seen from Table 4 that the implementation of these changes would result in savings of \$590 million in 1983/84. This saving would reduce the financial pressure on the federal government and the private sector. It is interesting to note that some of the items that increase the cost of the program in Table 4 have already been implemented such as enhancements to maternity benefits as well as measures related to coverage and treatment of earnings.

The reduced financial pressure on the federal government would reduce the borrowing requirements of the government and this would reduce interest rates, which would stimulate investment. Also, the stronger work attachment would create a more efficient economy by increasing the output produced by a given labour force.

The stricter entrance requirements and benefit structure proposed would reduce the subsidy from low unemployment to high unemployment industries and this would achieve some of the benefits of experience rating. Seasonal employers would have to extend the duration

of employment in order to attract workers. Premiums paid by a seasonal sector would increase and benefits paid fall through reduced benefit durations. A stricter entrance and benefit structure would achieve most of the advantages of "experience rating" and would reduce the subsidy from stable industries to unstable industries. Therefore it is my conclusion that "experience rating" should not be adopted in Canada. In addition "experience rating" would be difficult to administer and the affected seasonal industries are more predominant in Canada.

Employers as a group are concerned about the payroll tax burden of financing the program and object to the automatic escalation of maximum insurable earnings and premium rates. They object to the more social aspects of the program, such as training and maternity benefits.(29) Increasing the variable entrance requirement to 15-20 weeks and a single phase benefit structure with shorter duration would reduce the cost of premium payments to employers.

Employees and their representatives are alarmed by the large cumulative deficit in the UI account, which they and employers will eventually have to pay back with interest by future premium payments. They are against expansion of the social features of the program. Under the current arrangements, a deficit in the UI account is financed by a loan from the federal government, which must eventually be paid back by future premiums.¹

1. Internal discussion paper prepared by CEIC.

The foregoing would suggest that employer and employee groups would be in favour of retrenchments to the UI program. They would like to have the insurance principles of the program more strictly adhered to.

A family-income-based UI program would increase the administrative complexity of the program. In particular, the monitoring of family status and family income would cause problems. In addition, this system would depart from the social insurance aspect of the present individual based system by introducing a needs test into the benefit calculation. In any case, the introduction of stricter entrance and benefit duration changes would have the effect of reducing the amount of benefits going to higher income families, where some family members have only a marginal labour force attachment.

The income protection role of UI will probably become increasingly important in the future because technological change will cause structural changes in the economy. For this reason there will continue to be a need for a UI program. This does not mean to say, however, that changes cannot be made to improve the operation of the program. In particular, longer periods of work in order to qualify and reduced benefit durations would improve labour market adjustment and increase economic efficiency. There would be an increase in production from the available labour force. The impact of these design changes would be most severe in the Atlantic Provinces, where benefit durations are longest and work attachment the lowest. Special measures would need to be implemented in this region, where the program has become for some a form of guaranteed annual income.

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