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INSURANCE CLAIMANTS WORKING WHILE ON CLAIM

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Abstract: Subject to certain restrictions, the Canadian unemployment insurance (UI) system permits insurance benefit recipients to work and supplement the UI benefits. Although this provision has been in effect for many years, hardly anything is known about the extent to which it is utilized and what impact this has had on claimants' UI benefit period. The main objective of the provision is to encourage UI claimants to maintain some link with the job market, to facilitate their re-employment. The empirical analysis presented here confirms that the UI benefit period of insurance claimants working while on claim is substantially shorter than that of those who do not work while on claim.

Résumé: Sous réserve de certaines restrictions, le régime canadien d'assurance-chômage permettait aux prestataires de travailler et d'ajouter un supplément à leurs prestations. Bien que la disposition relative au traitement de gains pendant la période de prestations ait été en vigueur pendant plusieurs années, en vertu de la *Loi sur l'assurance-chômage* (maintenant *Loi sur l'assurance-emploi*), on sait peu sur la mesure dans laquelle elle a été utilisée et sur son incidence sur la durée de la période de prestations. La disposition visait principalement à encourager les prestataires à maintenir des liens avec le marché du travail pendant la période de prestations, afin de faciliter leur ré-intégration. L'analyse empirique confirme que la période de prestations des personnes qui travaillaient alors qu'elles recevaient des prestations est beaucoup plus courte que celle des prestataires qui ne travaillaient pas.

Subject to certain restrictions, the Canadian unemployment insurance system permits insurance recipients to work and earn an ancillary income. Under the previous Unemployment Insurance (UI) legislation, UI claimants were allowed to retain benefits if their earnings did not exceed 25% of those benefits. Claimants with earnings in excess of 25% were subject to a dollar-for-dollar

deduction in benefits.[1] This legislative feature is described as "earnings in unemployed periods" in the Unemployment Insurance Act. Under the new Employment Insurance (EI) legislation, which became effective July 1996, and the provision relating to earnings of claimants working while on claim from January 1997, the earning deduction rate was changed to 25% of the benefit or a flat figure of $50 weekly, whichever was higher.

Although this provision under the UI and EI acts has been in operation for many years, no evaluation of this legislative feature has ever been done. Hardly anything is known about the extent to which this provision is utilized, which if any specific groups of UI claimants more frequently make use of this rule, and what impact this legislative provision has had on their benefit period.

Presumably, the main objective of this provision is to encourage UI claimants to maintain some link with the job market so as to facilitate their re-employment. Incidentally, it also provides an opportunity to the UI claimant to supplement his/her income while on UI. This provision could, however, have the unintended effect of increasing the probability of part-time as opposed to full-time re-employment.[2]

The purpose of this study is to provide an analysis of the incidence of use of this provision; any observable trend over time; seasonality, if any; specific demographic groups that make use of this provision; variations across provinces; and an estimate of the impact of this legislative feature on the UI benefit period.

An evaluation of the impact of policy change due to EI reform is beyond the scope of this article, and hence it does not cover the EI reform period.

EVALUATION AND RELATED ISSUES

This study deals with the following evaluation and related issues:

- What is the size of the UI claimant population that makes use of this provision?
- Has the size of this claimant population changed over time (over the last one to five years, for instance)?
- Is there any seasonality in the use of this provision, so that more UI claimants have reported earnings in some months than in others?

- What are the main characteristics of this group? Do men make use of this provision more than women? Is it used more commonly in some regions than in others?
- Is it used more commonly by some age groups than others? Is it used more frequently by those claimants whose UI benefit levels or UI insurable earnings are comparatively low, to supplement their earnings, as might be expected?
- Do these earnings occur in the initial, middle, or late phase of a UI claim?
- Does the provision facilitate job search activity and re-employment? That is, does it reduce the UI benefit period of this group relative to those who do not work while on UI and have no reported earnings?
- Does it encourage re-employment into part-time rather than full-time jobs (unintended effect)?

DATA SOURCES AND METHODOLOGY

Two administrative data sources generated and maintained by Human Resources Development Canada (HRDC) are used for the present study: Monthly UI Claimant File and Status Vector (STV) File. These two data sources are merged to identify UI claimants who reported earnings during their UI benefit period.

Definition of the Incidence of Usage

The extent or incidence of usage of this provision can be defined in more than one way. As UI claims are a mixture of stocks and flows, either a stock measure or a flow measure may be used. Let us consider a case in which a UI claimant, while receiving benefits, works and reports earnings in the first two weeks of the month, has no earnings in the third week, and again reports earnings in the fourth week. Let us assume that we wish to focus on UI claimants who have been working and have reported earnings at a point in time (e.g., in a particular month).

The Monthly UI Claimant File is constructed by using claimant information and status on the 15th day of every month (to coincide with the Labour Force Survey date). If we use the Monthly UI Claimant File and wish to calculate what percentage of the claimant population had earnings reported in July 1995, this figure would be given by the number of UI claimants who had earnings reported on the

15th day of July 1995 (e.g., 120,000) divided by the total claimant population on that day (e.g., 800,000), which works out to 15%. This is the measure of the incidence of usage of the provision that has been adopted in the present study and can be described as the incidence of use at a point in time. This measure is used because it is simpler to understand and easier to interpret in an empirical analysis in the present context.[3] Claims that were not paid for any reason were excluded from the sample for analysis, so that claimants and beneficiaries can be used interchangeably in this report.

In addition to presenting some descriptive analysis, a multivariate logit regression (MLR) model is used to estimate the probability of the incidence of UI claimants with reported earnings. For regression analysis, cross-sectional instead of time-series data were used, as time-series data present complications, and the findings would be difficult to interpret.

An ordinary least squares (OLS) regression method is used to estimate the incremental impact of the provision relating to treatment of reported earnings. Each of the sampled UI claimants with an active claim in January 1995 was traced backward to the benefit period commencement and followed forward to the benefit vector termination to measure the benefit period of a given claim. The complete Monthly UI Claimant File has more than a million claimant records. As this is too large and not necessary for analysis, random samples were used for regression analysis.

The issue of unintended effect of the deduction of earnings in excess of the specified amount is not covered in this report due to data limitations.[4] Under the Canadian UI program, the benefit deduction rate due to earnings does not vary across provinces, and so it is not possible to estimate how variations in the earnings deduction rate would affect the job search behaviour of UI claimants, that is, the probability of re-employment in part-time jobs. In addition, administrative data do not allow a clear identification of UI claimants as obtaining part-time versus full-time re-employment.

DESCRIPTIVE ANALYSIS: SUMMARY OF FINDINGS

The following findings emerge from a descriptive analysis of the data. Unless otherwise stated, all figures refer to January 1996 active claims of UI regular beneficiaries.

There has been a slight upward trend in the incidence of UI claims with reported earnings. The size of this group increased from 10.2% in January 1991 to 12.5% in January 1994 and to 12.8% in January 1996. There has been no significant change since then; the percentage of UI claimants using this provision has changed only marginally, to 13.7% and 13.1% in January 1997 and January 1998, respectively. These percentages are reported only for the months of January to control for seasonality. This upward trend is consistent with the observed increase in non-standard employment generally, reported elsewhere (Lin, 1994).

There appears to be a regular seasonal pattern in the incidence of UI claims with reported earnings. These claims increase in the months of June and September. For instance, the number of UI claimants with reported earnings increased from 12.9% in January 1995 to 14.7% in June 1995. Similar increases are observed for the month of June in 1994 and 1991 as compared with January of the same year. The reason for this regular seasonal pattern is not entirely clear. However, a simple plotting of the part-time employment rates from the Labour Force Survey for several years shows that greater availability of part-time job opportunities in the months of June and September would probably be a key explanation.

Within the group of claimants with reported earnings, claimants with full benefits are a relatively small group, that is, the group whose earnings are below the 25% benchmark. The following was the distribution by categories in January 1996: full benefits, 12%; partial benefits, 44%; and no benefits, 44%. Between 1991 and 1996, the size of the No benefits group increased from 32.7% to 44%, and that of the Partial benefits group declined from 51.2% to 44%. Correspondingly, the size of the Full benefits group slightly declined from 16.1% in 1991 to 12% in 1996.

Women make use of this provision more extensively than men. For example, in January 1996 11.4% of men claimants had reported earnings; the figure for women was 19.2%. This distribution has not changed very much over time.

The incidence of claimants with reported earning was higher among older claimants. Among older claimants (55 and over), 22.1% had reported earnings, as compared with younger (15–24) and prime age claimants (25–54), with 12.5 and 14.2% respectively.

Among provinces, variations are not very large. However, proportionately larger numbers of claimants from Quebec and Nova Scotia had reported earnings than from other provinces. Relatively small numbers of UI claimants in Newfoundland had reported earnings. In Ontario also the figure was smaller than the national average. Some 13.8% of UI claimants in Quebec made use of this provision, as compared with the national average of 12.8%. Although the numbers vary, there has been very little change in this pattern across provinces over the last five years. Econometric analysis reported later does not confirm that UI claimants in Quebec make use of this provision more frequently than those in other provinces. When other factors are controlled for, this finding is reversed, as discussed later.

Claimants with relatively low levels of weekly UI benefits ($100 or less) make greater use of the provision than others. Whereas only 13.5% of UI claimants with average weekly benefits of $300 and over had reported earnings, 18.8% of those with lower average benefits of $100 or less had reported earnings.

UI claimants who are on claim for relatively long periods (21 weeks or longer) make use of this provision more than those who are on short-duration claims. Whereas 19.6% of UI claimants who were on long-duration UI claim had reported earnings, only 12.5% of UI claimants on shorter UI claim duration had reported earnings.

On average, UI claimants tend initially to work; in the middle phase of their claim there is some slack; and in the final phase (probably as they approach UI exhaustion), their numbers increase. The claim period of each claimant was divided into three equal phases. In phase 1, 19.1% of UI claimants were working, in phase 2 only 3.9%, and in the last phase 10.4%. Over 40% of UI claims with reported earnings occurred in all three phases. A multivariate logit regression model is used to estimate the probability of UI claimants making use of the provision in question.

EMPIRICAL MODELS AND REGRESSION ESTIMATE

The descriptive analysis presented above does not make any adjustments for a variety of demographic and other characteristics, such as labour market conditions, opportunities for part-time employment, and the UI benefit amount, which might be important factors influencing the usage of the provision. A multivariate logit regression model is estimated to control for these variables.

A binary dependent variable is used to estimate the probability of working while on UI. As is well known, the ordinary least squares (OLS) estimation technique is not efficient. A logistic regression method is more appropriate.[5] The following multivariate logit regression model was estimated to obtain the probability estimates for utilization of the provision relating to earnings during the insurance benefit period under the UI Act:

$$(1) \qquad \log [\, P_i / (1-P_i)] = X_i \alpha + \beta_i Y_i + \varepsilon_i$$

where

- P = probability of the individual working while on UI claim; 1 if the individual was working and had reported earnings while on UI, 0 otherwise
- X = standard demographic variables including age, sex, and region of residence (dummy variables)
- Y = average weekly UI benefit level (dummy variables)
- e_i = error term

A cross-sectional analysis is done by merging the Monthly UI Claimant File and the UI Status Vector File for January 1996. A 3% random sample of active claims for the month of January 1996 was selected for model estimation, which yielded 47,241 claimant records.

UI CLAIMANTS WITH EARNINGS: PROBABILITY ESTIMATES

The following major empirical findings emerge from the multiple logit regression model (see Table 1).

Econometric estimates confirm that females are more likely than males to work and report earnings while collecting UI benefits. The probability of females working while on UI is 9.2% higher than that for males, other things being the same. Availability of more part-time jobs for women would probably explain this phenomenon.

Econometric estimates also confirm that older UI claimants (55 and over) use the provision more extensively than the younger and prime age claimants. Greater availability of part-time jobs for older workers could be the reason for this as well. Prime age claimants are less likely than younger claimants to work while on UI.

Logit regresssion analysis does not confirm the finding from the raw data that a higher percentage of claimants in Quebec work and report earnings than those in other provinces. In fact, when other factors are controlled for, the incidence (probability) of UI claimants working is lower in Quebec than in Ontario by 4.0% (see Table 1).

Econometric analysis confirms that the probability of working while on UI is higher for UI claimants with a lower weekly UI benefit rate than for those with a higher benefit rate. The probability of UI claimants with weekly UI benefits of $100 or less being employed is slightly higher (1.1%) than in the case of those with higher benefit levels. This means that the majority of UI claimants work while they are on UI to supplement their low UI income. Thus, any change in the exemption rule could have income distributional implications.

Table 1
Logit Regression Estimates of the Incidence of Working while on UI Claim

Variable	Parameter Estimate	Standard Error	Probability Estimate
Intercept	2.46	0.05	—
Young (15–24), control	—	—	—
Prime age (25–54)	-0.13	0.04	-1.8
Older (55 and over)	0.63	0.05	8.9
Male, control	—	—	—
Female	0.65	0.02	9.20
Atlantic	0.01	0.04	X
Ontario, control	—	—	—
Quebec	-0.28	0.03	-4.0
Manitoba	-0.05	0.08	X
Saskatchewan	-0.12	0.09	X
Alberta	-0.01	0.07	X
B.C.	0.00	0.04	X
High weekly UI benefits ($201 or more), control	—	—	—
Low weekly UI benefits ($200 or less)	0.08	0.03	1.1
Benefit duration (1 to 20 weeks), control	—	—	—
Benefit duration (20 weeks and over)	-0.53	0.03	-7.50
-2Log L	38,423	—	—

Note. ***X*** **means that the estimated coefficient is not statistically significant, and a probability estimate is not reported. A dash means that it is not applicable.**

Contrary to what the raw data indicate, UI claimants who are on short-duration UI claim (20 weeks or less) are more likely to work than those whose UI claim duration extends beyond 20 weeks.

INCREMENTAL IMPACT

Does the provision relating to working while on UI claim have any impact on UI claimants' benefit period?

As already pointed out, the provision is expected to improve the re-employment prospects of UI claimants who work and report earnings (there is no way of identifying claimants who work but do not report earnings). If this provision does improve re-employment prospects of UI claimants, we would expect that the benefit period of claimants who worked while on UI would be shorter. Thus, this section addresses the following issue: Was the UI benefit period of the working UI claimants shorter than that of the comparison group? The UI benefit period is considered here as the outcome measure, and UI claimants who did not work while on UI are treated as the comparison group.

To estimate the incremental impact of using the legislative provision relating to working while on claim under the UI Act, an ordinary least squares regression model was used, with total UI benefit period (weeks) pertaining to a given active claim as the dependent variable. The independent variables used consisted of dummy variables for age, sex, region of residence, average weekly benefit rate of the claimant, and a dummy for UI claimant with reported earning. The region of residence of the claimant was expected to serve as a proxy for labour market conditions, including the demand for part-time employment, which provides opportunities for earning supplementation to the UI claimant.

Random samples of 10% were selected from the monthly UI claimant files. After some data cleaning, this yielded a sample of 157,141 claimant records. In the logit multivariate regression model used to analyze the incidence of the usage of reported earnings while on claim, UI claims that were active in January 1996 were selected. But for estimating the impact of the provision on UI benefit period, active UI claims in January 1995 instead of January 1996 were selected, because the maximum benefit period of 50 weeks had to elapse between the benefit period commencement and the benefit vector

termination in order to be able to capture impact of the provision on benefit period.

A multiple regression model was estimated using cross-sectional data from January 1995, which is considered as the benchmark estimate. The following main findings are derived from that data (see Table 2).

The average UI weeks of benefit paid was 27.5 weeks for all UI claimants who were on active claim in January 1995.

After all factors are controlled for (age, sex, and region of residence), the benefit period of the working UI claimants was 6.1 weeks shorter. This means that on average there was a 22% reduction in UI benefit period for this group as compared with the control group of non-working UI claimants.[6]

The above estimate is a cross-sectional one and is based on one time point, January 1995. It is important to examine whether the estimate would be different if we select a different cross-section. With a view to checking on this, a number of regressions were run with different cross-sections.[7]

The results are summarized in Table 3. It is clear that although the estimates vary quantitatively, the range of variation is rather small. It can be safely concluded that the provision reduces the UI benefit period by about 22%.

INCREMENTAL IMPACT BY REGION

To analyze and examine variations in the incremental impact of the program feature across regions, the sample of active UI claims in January 1995 was used to run regressions for each region separately with the same variables as at the aggregate national level. Results are summarized in Table 4. The use of earnings provision while on claim reduced the total UI benefit period in all five regions, and the impact was statistically significant in all cases. In terms of the absolute reduction in UI benefit period, the largest effect was in Quebec (8.1 weeks) and the smallest was in the Prairies (3.2 weeks). Relative to the average UI benefit period in each region, the impact was also the largest in Quebec (a reduction of 29.1%), followed by the Atlantic provinces (a reduction of 24.9%). The impacts were moderate in Ontario and B.C. (17.7% and 19.2%, respectively). The

Table 2
Regression Estimates of the Impact of the Provision Relating to Working while on Claim on UI Benefit Period, Selected Cross-sections

Variable	January 1995 (Benchmark)	January 1994	January 1993
Intercept	5.4	6.6	6.7
	(22.7)	(26.2)	(26.2)
Young (15–24) control	—	—	—
Prime age (25–54)	-.56	-.58	-.41
	(-5.4)	(-5.6)	(4.6)
Older (55 and over)	-1.00	-.18	.36
	(-7.0)	(-1.2)	(2.6)
Male, control	—	—	
Female	1.5	1.6	1.4
	(20.7)	(21.7)	(20.1)
Atlantic	.0	.50	.9
	(0)	(4.6)	(8.9)
Ontario, control	—	—	—
Quebec	-1.5	-1.5	-.98
	(-16.8)	(-17.0)	(-11.8)
Manitoba	0.3	-0.9	-.57
	(1.6)	(-4.6)	(-2.9)
Saskatchewan	-0.3	-1.1	-1.5
	(-1.4)	(-4.7)	(-7.1)
Alberta	-0.4	-0.3	-.54
	(2.6)	(-1.9)	(-3.9)
B.C.	-2.0	-2.2	-2.1
	(16.6)	(-18.0)	(-19.2)
High weekly UI benefits ($201 or more), control	—	—	—
Low weekly UI benefits ($200 or less)	1.30	1.21	1.12
	(14.1)	(13.0)	(12.9)
Claimants without reported earnings, control	—	—	—
Claimants with reported earnings	-6.10	-7.20	-6.60
	(-77.5)	(-90.8)	(-93.9)
Mean, dependent var.	27.4	31.3	32.1
Adjusted R^2	.26	.28	.28

Note. Separate regressions were run for the following cross-sections: 1993 (January, April, July, October), 1994 (January, April, July, October), and January 1995. Regression coefficients for the UI benefit period of claimants with reported earnings were fairly stable. Regression results for the months of January in 1995, 1994, and 1993 are reproduced above. The numbers shown in parentheses are *t* values of the regression coefficients.

Table 3
Regression Estimates of the Effect of Working while on Claim on the UI Benefit Period

Cross-section	Coefficient on UI Benefit Period of Claimants with Earnings (Weeks) (A)	Mean UI Benefit Period of the Total Sample (Weeks) (B)	(A) as Percentage of (B)
January 1993	-6.6	32.1	-20.6
April 1993	-6.6	33.0	-20.0
July 1993	-7.5	32.6	-23.0
October 1993	-7.8	34.1	-22.9
Mean, 1993	-7.1	32.9	-21.5
January 1994	-7.2	31.3	-23.0
April 1994	-7.2	31.8	-22.6
July 1994	-7.8	30.7	-25.4
October 1994	-4.6	34.7	-13.2
Mean , 1994	-6.7	32.1	-20.9
January1995 (Benchmark)	-6.1	27.5	-22.2

Note. Several cross-sections of data have been used in separate regressions to be able to arrive at robust estimates. Column 1 shows how the incremental impact of the provision relating to reported earnings varies across selected data points. For example, in January 1995 it is estimated that this UI provision reduced the benefit period of the sample of UI claimants by 6.1 weeks (column 1), which works out to a reduction of 22.2% (column 3) as a percentage of the mean UI benefit period (column 2).

Table 4
Regression Estimates of the Effect of Working while on Claim on the UI Benefit Period, by Region, January 1995

Region	Coefficient on UI Benefit Period of Claimants with Earnings (Weeks) (A)	Mean UI Benefit Period of the Total Sample (Weeks) (B)	(A) as Percentage of (B)
Atlantic	-7.4	29.7	-24.9
Quebec	-8.1	27.8	-29.1
Ontario	-4.8	27.0	-17.7
Prairies	-3.2	26.4	-12.1
B.C.	-4.8	25.0	-19.2
Simple mean	-5.7	27.2	-20.6

Note. Interpretations of the results are similar to those presented in Table 3.

impact was statistically significant but quantitatively small at 12.1% in the Prairies.

CONCLUSION

This study has analyzed the incidence of use of the provision relating to UI claimants working while on claim, and estimated the impact of this legislative feature on the UI benefit period.

There has been a slight upward trend in the incidence of UI claims with reported earnings. Women more than men, older claimants more than the prime age or younger claimants, make greater use of this provision. Claimants with relatively low levels of weekly UI benefits ($100 or less) also make greater use of the provision.

The data also suggest that the legislative provision relating to reported earnings while on claim has an impact on UI claimants' benefit period. The provision is expected to improve the re-employment prospects of UI claimants who were working and had reported earnings. If it does do so, we would expect that the benefit period of claimants working while on UI would be shorter. In fact, using a regression model, and after the relevant factors were controlled for, the benefit period of working UI claimants was 6.1 weeks shorter than that of the control group of non-working UI claimants.

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NOTES

1 If a claimant has "earnings in respect of any time that falls in a week of unemployment that is not in his waiting period, the amount of those earnings that is in excess of an amount equal to twenty-five per cent of the claimant's weekly benefit rate shall be deducted from the benefit payable to the claimant in that week" (see UI Act, 1970-71-72, c. 48, s. 26). This limited exemption applies to UI regular claimants only. For other types of UI benefits, namely sickness and maternity, there is a dollar-for-dollar deduction from UI benefits for any earnings.

2 Under the American UI program, there is a similar provision, popularly known as the "part-time disregard rule." It allows UI claimants to earn up to a maximum amount at a part-time job with no deduction in benefits. In the U.S., the UI program is administered at a state level, and the maximum earnings with no deduction in benefits varies across states. For a detailed review of this legislative provision under the American UI system, see Kiefer and Neuman (1979).

3 The percentage of the claimant population with at least one week of reported earnings over the entire claim period has been found to be approximately 40%.

4 For an empirical analysis of whether the part-time disregard rule under the American program has any effect on the job search behaviour of UI beneficiaries, see Kiefer and Neuman (1979). Because under the American system the disregard amount varies across states, this provides an opportunity to estimate the impact of a variation in the disregard amount on the incentive to move into part-time as opposed to full-time re-employment. Kiefer and Neuman found evidence suggesting that individuals in states with a high disregard were more likely to work at a part-time job during some point in their covered unemployment spell than individuals in states with a low disregard. A more recent study, using a hazard function, found that "an increase in the disregard significantly increases the part-time re-employment hazard … during approximately the first three months of joblessness" (McCall, 1996). This means that during the first three months of unemployment, a higher disregard amount strengthens the UI claimant's incentive to move into part-time re-employment. The author further reported that an increase in the disregard did not affect the overall re-employment probability.

5 For a technical discussion of the rationale for using the logit regression method in this type of analysis and the statistical properties of the functional structure, see Maddala (1983).

6 Note that all UI benefit recipients may not have found re-employment after the claim ended. Some could have withdrawn from the labour force.

7 For more detailed regression results and other details, see Roy (in press).

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