

# UI

## *Studies of the Interaction of UI and Welfare Using the COEP Dataset*

by Martin Browning,  
Stephen R. G. Jones and  
Peter Kuhn,



Human Resources  
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Développement des  
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UI, Income Distribution  
and Living Standards



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**by Martin Browning,  
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Peter Kuhn**

McMaster University

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## **Unemployment Insurance Evaluation Series**

Human Resources Development Canada (HRDC), in its policies and programs, is committed to assisting all Canadians in their efforts to live contributing and rewarding lives and to promote a fair and safe workplace, a competitive labour market with equitable access to work, and a strong learning culture.

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## *Table of Contents*

<b>A</b> Abstract .....	7
Introduction .....	9
1. The Data .....	10
2. Welfare Take-up and Program Substitution .....	11
3. Welfare Usage Following UI Exhaustion .....	16
4. Conclusion .....	25
Appendix: Additional Tables .....	26
Bibliography .....	34
List of UI Evaluation Technical Reports .....	35

## List of Tables

Table 1	Percent Beginning UI Claim by First Interview . . . . .	12
Table 2	Percent Beginning Welfare Claim by First Interview . . . . .	13
Table 3	Coefficient on Cohort Dummy Linear Probability Model of UI Take-up by First Interview . . . . .	14
Table 4	Coefficient on Cohort Dummy Linear Probability Model of Welfare Take-up by First Interview . . . . .	15
Table 5	Time Series of (Household) Social Assistance Incidence in COEP Data . . . . .	16
Table 6	Demographic Profiles of Exhaustees and Comparison Groups . . .	17
Table 7	Economic Profiles of Exhaustees and Comparison Groups . . . . .	18
Table 8	Outcomes for Exhaustees in COEP Data . . . . .	19
Table 9	Demographic Profiles of Exhaustees by Outcome . . . . .	20
Table 10	Economic Profiles of Exhaustees by Outcome . . . . .	21





## Abstract

Effective at the beginning of April 1993, Bill C-113 made two changes to Canada's regular Unemployment Insurance system. For most individuals, benefits were cut from 60 to 57 percent of insurable earnings. However, individuals who, according to Human Resources Development Canada, either voluntarily quit their jobs without cause or were dismissed, had their benefits cut to zero. This paper addresses the effects of these policy changes on *welfare* take-up and re-employment, building on earlier work by Crossley and Kuhn (1994) on UI take-up effects following Bill C-113. The paper consists of two component studies that address the two key parts of an assessment of UI and welfare interactions. The first study uses data collected shortly after the separation to examine whether the disentanglement of VQs from UI produced some sort of corresponding increase in welfare take-up. The second study uses information from later in the unemployment spells to examine whether incentive effects and the relative generosity of Social Assistance programs operate to influence transitions (around the time of UI exhaustion) from unemployment to employment and to welfare.

The first study examines UI and Social Assistance take-up rates in the COEP data. We found a substantial February to May decline in UI take-up among VQs with little re-employment success and a coincidental rise in welfare take-up among the same group that was at least of equal magnitude and probably larger. This result was robust to conditioning on cross cohort differences in the interval between separation and the first interview and in other personal and economic variables. This suggests that for this group the Canadian UI and welfare programs may act as close substitutes, that the incentive and income distribution effects of Bill C-113 may have been mitigated by the availability of a substitute program, and that the examination of UI in isolation from other social programs is highly problematic.

The second study begins by documenting the mean pattern of welfare use in various periods before, during and after a UI claim, and provides evidence on the demographic and economic characteristics of exhaustees, compared to all UI claimants and all persons experiencing separations. Next, it looks at the range of outcomes undergone by exhaustees — re-employment, recall to the old job, Social Assistance and neither employment nor welfare — and examines how these outcomes vary with demographics and past and current economic variables. Finally, a set of linear probability models is estimated that seek to understand the factors that determine the probability of these various outcomes for the exhaustees. In this, we employ a measure of *predicted Social Assistance entitlement* to characterize the benefit of a move on to welfare and we employ both the local unemployment rate and the pre-separation wage to characterize, respectively, the probability of finding a job and the payoff that such a job would yield. Overall, it was found that, while these incentive effects were to some degree present for the wage and the probability of employment, with higher wages and lower unemployment both raising the chances of moving into a job, such effects were not present for the welfare entitlement imputation. Only better Social Assistance data, ideally from administrative records and at the regional level appropriate within each province, would enable determination of whether the results of this study of exhaustees are a consequence of any deficiencies in the present imputation process.



# E



*The goal of this paper is to address the effects of policy changes on welfare take-up and re-employment, building on earlier work on UI take-up effects following Bill C-113.*



## Introduction

*The resulting data set, including merged administrative records pertaining to the concurrent and past use of the UI system, has come to be called the Canadian Out of Employment Panel (COEP) survey.*

Effective at the beginning of April 1993, Bill C-113 made two changes to Canada's regular Unemployment Insurance system. For most individuals, benefits were cut from 60 to 57 percent of insurable earnings. However, individuals who, according to Human Resources Development (HRD) Canada, either voluntarily quit (VQ) their jobs without cause or were dismissed had their benefits cut to zero. The goal of this paper is to address the effects of these policy changes on welfare take-up and re-employment, building on earlier work (Crossley & Kuhn, 1994) on UI take-up effects following Bill C-113. The paper consists of two studies. The first study uses data collected shortly after the separation to examine whether the disentanglement of VQs from UI produced some sort of corresponding increase in welfare take-up. The second study uses information from later in unemployment spells to examine whether incentive effects and the relative generosity of Social Assistance programs operate to influence transitions from unemployment to employment and to welfare.

Section 1 of the paper briefly summarizes the main characteristics of the data used in the two studies. Section 2 then reports on the first study, outlines a framework for analysis and presents evidence on the interactions of UI with welfare early after the separation. Interestingly, among the affected population, welfare take-up rises by about the same amount that UI take-up falls, thus mitigating both the incentive and income-distributional effects of the UI disentanglement. At least for the group of workers affected by the April 1993 UI disentanglement, this suggests that UI and welfare may be fairly close substitutes, and that estimates of the effects of further cutting the UI program on provincial welfare expenditures need to take this into account. Section 3 then reports on the second study where the focus shifts to UI claimants who exhaust their UI eligibility. Although the structure of the present data does not permit a quasi-experimental analysis of this issue (since length of eligibility did not alter following Bill C-113), we exploit variation in welfare level by province and family type to model the relative attractiveness of welfare and re-employment. We then study the influence of these measures of attractiveness on the probability of being re-employed (in a new job or after recall to the old job) and on receiving Social Assistance at an interview date after UI exhaustion. These results do not yield strong evidence of incentive effects, at least for the decision to claim social assistance. Finally, Section 4 summarizes our results and offers a suggestion for further work.

## 1. The Data

Partly in order to examine the effects of Bill C-113 on labour markets, Human Resources Development Canada (HRD) commissioned a panel survey of individuals separating from their jobs about one month before (January 31 through March 13, 1993 — “Cohort 1”) and one month after (April 25 through June 5 — “Cohort 2”) the effective date of the Bill. The resulting data set, including merged administrative records pertaining to the concurrent and past use of the UI system, has come to be called the Canadian Out of Employment Panel (COEP) survey.

The sampling frame for the COEP is the population of individuals receiving a Record of Employment (ROE) form in one of the two window periods, and having a Social Insurance number ending in “5”. Canadian employers are required to issue an ROE form whenever a job separation occurs. Aside from ROEs issued for participation in a Work Sharing program, apprenticeship, and retirement at age 65, ROEs for all separation reasons were sampled. Of the approximately 6 million annual job separations for which ROEs are issued, and of the approximately 12,000 separations sampled overall in the COEP, about half are for reasons of “short work” (SW) as reported by the employer, about 15 percent are “voluntary departures” (VQ), or quits, while the remainder consist of a wide variety of codes, including 18 percent labelled “other” (the second largest single category of separations). In the first study for this paper, described in Section 2, we shall focus largely on the VQ group. Indeed, since we are interested primarily in the effects of UI changes on individuals who quit into unemployment here, workers who reported that they “quit to take another job” are excluded from the analysis as well. In the second study, described in Section 3, we use separations in the VQ, dismissal, short work and other groups, provided that a UI claim was initiated. We also use all separations as an appropriate comparison group.

To date, individuals in the COEP sample have been interviewed three times, approximately 25, 40 and 60 weeks after their job separation occurred. In the first study of this paper, we employ information from only the first interview, for which the response rate was 70 to 75 percent. Using demographic and other information available for the whole population from HRD administrative data, sampling weights have been calculated by Ekos Research Associates which adjust for nonresponse, sample attrition, and for the deliberate oversampling of UI claimants in the survey. In the second study, we also employ information drawn from the second and third interviews, seeking to address the welfare related behaviour of persons who have exhausted their UI entitlement.



*... the February to May fall in the UI claim rate is almost exactly matched by a coincident rise in the welfare claim rate.*

## 2. Welfare Take-up and Program Substitution

This study, which builds on earlier work by Crossley and Kuhn (1994), examines whether the UI disentanglement of job quitters in April 1993 led to an increase in welfare take-up. To address this question, a similar methodology is used to that earlier paper. Note, however, that our information about welfare take-up is somewhat less detailed than our information about UI take-up. We do not know when in the separation-interview 1 interval welfare use begins, but only whether there is welfare use in the interval. We have no information about welfare application (as opposed to take-up). Finally, welfare is observed only on the household, rather than individual level. Thus we must simplify the analysis, relative to that earlier paper, in order to apply it to the issue of welfare purposes.

The details of this process are as follows. First, we ignore the “application stage” of take-up modelled in Crossley and Kuhn (1994). Second, we define the interval of interest as lasting from the separation date to the date of the first interview. Because the interval so defined will be, on average, longer for the second cohort, we condition on interval length for much of the analysis. In order that our UI and welfare take-up analysis be strictly comparable, we report the analysis of UI take-up by this adjusted procedure, in parallel with our welfare results.

### UI and Welfare Claim Rates at the First Interview

Table 1 reports UI claim rates for various groups at the first interview and shows an apparent substantial drop in the claim rate of both re-employed and non-re-employed VQs, when changes in the application rate of non-re-employed VQs are taken into account. Also, the Table reports the claim rates for non-VQs. Looking across the first three rows, the claim rate of non-VQs does not seem to change significantly from February to May.

Table 2 repeats this analysis for welfare (rather than UI) take-up. The most striking result here is the 10 percentage point rise in the welfare take-up rate of VQs with little employment across cohort. Comparing the fifth row of these two Tables (VQs not re-employed) we note that the February to May fall in the UI claim rate is almost exactly matched by a coincident rise in the welfare claim rate (-10.3% vs. +10.6%).

**Table 1**  
**Percent Beginning UI Claim by First Interview**

	Cohort 1	Cohort 2
<b>1. Non VQs</b>		
a) re-employed by first interview	0.480 (0.500) 2,527	0.434 (0.496) 2,441
b) not re-employed	0.560 (0.497) 1,277	0.584 (0.493) 1,510
c) total	0.505 (0.500) 3,804	0.484 (0.500) 3,951
<b>2. VQs</b>		
a) re-employed by first interview	0.177 (0.382) 402	0.113 (0.318) 290
b) not re-employed	0.405 (0.492) 276	0.302 (0.460) 203
c) total	0.259 (0.438) 678	0.177 (0.382) 493

*Notes:*

1. Top number in each cell is the mean.
2. Standard deviation in parentheses.
3. Bottom number in each cell is the number of observations.
4. All calculations use the sampling weights provided by Ekos Research Inc.

*For this group the Canadian UI and welfare programs may act as close substitutes, that the incentive and income distribution effects of C-113 were largely mitigated by the availability of a substitute program.*

## Regression Analysis

We now turn, as in the earlier paper, to the estimation of linear probability models of claim rates. Here we are attempting to control for not only seasonal factors, but also, and perhaps most importantly, for differences in the elapsed time since separation at the first interview. As before, we discuss only the results from linear probability models which were estimated (rather than logits or probits) in view of problems of over-determination that can arise in rich specifications given the small sample sizes.

Table 3 reports coefficients on the cohort 2 dummy in linear probability models of UI take-up with different specifications of covariates. Focusing on VQs, we note the following: comparing column 1 with column 2, controlling for elapsed time strengthens rather than weakens the cohort effect. This is true for both the re-employed and the not re-employed. Thus the effect noted in Table 1 is not an artifact of differential interval lengths. Moving across columns 2 to 4, there is a 10% February–May drop in claim rate for both the re-employed and not re-employed that is robust to specification. Only in column 5, with the inclusion of a UI eligibility control, is this effect diminished. We interpret this as indicating that some, but by no means all of the reduction in claim rate is the spurious result of cross cohort differences in UI eligibility.

**Table 2**  
**Percent Beginning Welfare Claim by First Interview**

	Cohort 1		Cohort 2	
<b>1. Non VQs</b>				
a) re-employed by first interview	0.0534 (0.225)		0.0571 (0.232)	
	2,527		2,441	
b) not re-employed	0.0947 (0.293)		0.122 (0.327)	
	1,277		1,510	
c) total	0.066 (0.249)		0.0787 (0.269)	
	3,804		3,951	
<b>2. VQs</b>				
a) re-employed by first interview	0.105 (0.308)		0.0825 (0.276)	
	402		290	
b) not re-employed	0.180 (0.385)		0.286 (0.453)	
	276		203	
c) total	0.132 (0.339)		0.151 (0.358)	
	678		493	

*Notes:*

1. Top number in each cell is the mean.

2. Standard deviation in parentheses.

3. Bottom number in each cell is the number of observations.

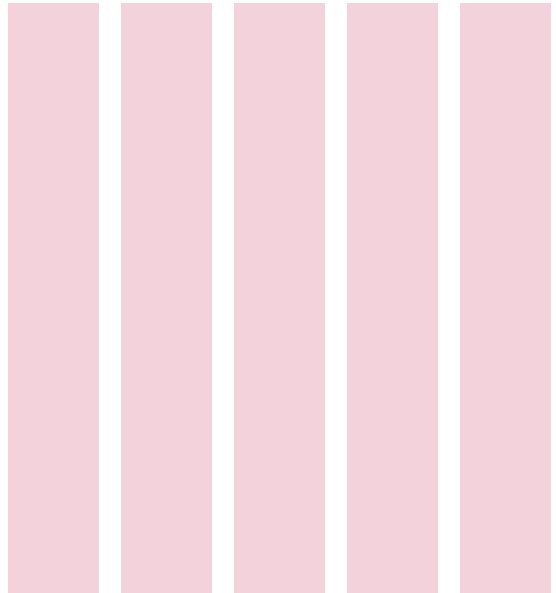
4. All calculations use the sampling weights provided by Ekos Research Inc.

Table 4 reports the parallel analysis of welfare take-up. Focusing on non-re-employed VQs (column 5), we note that the February–May rise in welfare take-up apparent in Table 2 is not diminished by adjusting for cross cohort differences in elapsed time from separation at interview 1 or in personal characteristics. In fact, the effect is considerably strengthened. Comparing column 5 of Tables 3 and 4 suggests that the decline in UI take-up was accompanied not by an equal rise in welfare take-up but by a considerably larger rise in welfare take-up.

In this section we performed a parallel analysis of UI and welfare take-up by the first interview of the COEP data. We find a substantial February to May decline in UI take-up among VQs with little re-employment success and a coincident rise in Welfare take-up among the same group that was at least of equal magnitude and probably larger. This result was robust to conditioning on cross cohort differences in the interval between separation and the first interview and in other personal and economic variables. This suggests that for this group the Canadian UI and welfare programs may act as close substitutes, that the incentive and income distribution effects of C-113 were largely mitigated by the availability of a substitute



program, and that the examination of UI in isolation from other social programs is highly problematic.





Clearly, although welfare eligibility is determined by household circumstances, it is driven to an important degree by the job separation experienced by the COEP interviewee.

Specification	(1)	(2)	(3)	(4)	(5)
<b>1. Non-VQs</b>					
a) re-employed by first interview	-0.0249 (0.0198) 3,338	0.00408 (0.0275) 3,338	0.0074 (0.0274) 3,338	0.0160 (0.0271) 3,338	0.0447 (0.0258) 3,338
b) not re-employed	0.0519 (0.0274) 1,972	0.0851* (0.0315) 1,972	0.0871* (0.0316) 1,972	0.0860* (0.0311) 1,972	0.0808* (0.0282) 1,972
c) total	0.0025 (0.0159) 5,310	0.0300 (0.0203) 5,310	0.0329 (0.0202) 5,310	0.0380 (0.0199) 5,310	0.0519* (0.0189) 5,310
<b>2. VQs</b>					
a) re-employed by first interview	-0.0429 (0.0275) 497	-0.133* (0.0509) 497	-0.102 (0.0546) 497	-0.116* (0.0544) 497	-0.0809 (0.0534) 497
b) not re-employed	-0.0703 (0.0529) 352	-0.118 (0.0680) 352	-0.108 (0.069) 352	-0.108 (0.0664) 352	-0.060 (0.0616) 352
c) total	-0.0638* (0.0259) 849	-0.1445* (0.0425) 849	-0.1130* (0.0434) 849	-0.1200* (0.0439) 849	-0.0865* (0.0410) 849

**Specifications:**

Cohort dummy only

(1) Plus control for time elapsed since ROE separation date at first interview.

(2) Plus age and gender controls.

(3) Plus controls for visible minority, spouse present, education and province.

(3) Plus visible minority, spouse present, spouse labour supply, province, pre ROE wages and tenure, UI eligibility, previous UI experience.

**Notes:**

1. Heteroskedasticity consistent standard errors in parentheses.

2. A star indicates statistical significance at the 5% level.

3. Bottom number in each cell is the number of observations.

4. All calculations use the sampling weights provided by Ekos Research Inc.

Specification	(1)	(2)	(3)	(4)	(5)
<b>1. Non-VQs</b>					
a) re-employed by first interview	-0.0002 (0.0090)	0.0237 (0.0124)	0.0241 (0.0123)	0.0242* (0.0123)	0.0238* (0.0121)
	3,338	3,338	3,338	3,338	3,338
b) not re-employed	0.176 (0.0174)	0.0264 (0.0187)	0.0266 (0.0184)	0.0324 (0.0176)	0.0335 (0.0183)
	1,972	1,972	1,972	1,972	1,972
c) total	0.0067 (0.0084)	0.0201* (0.0099)	0.0209* (0.0099)	0.0241* (0.0097)	0.0224* (0.0098)
	5,310	5,310	5,310	5,310	5,310
<b>2. VQs</b>					
a) re-employed by first interview	0.0114 (0.0314)	0.0348 (0.0420)	0.0250 (0.0446)	0.0294 (0.0453)	0.0198 (0.0446)
	497	497	497	497	497
b) not re-employed	0.0978 (0.0511)	0.155* (0.0572)	0.161* (0.0582)	0.200* (0.0574)	0.175* (0.0525)
	352	352	352	352	352
c) total	0.0293 (0.0271)	0.0705* (0.0337)	0.0708* (0.0344)	0.0884* (0.0345)	0.0679* (0.0338)
	849	849	849	849	849
<p><i>Specifications:</i>  Cohort dummy only.  (1) Plus control for time elapsed since ROE separation date at first interview.  (2) Plus age and gender controls.  (3) Plus controls for visible minority, spouse present, education and province.  (3) Plus visible minority, spouse present, spouse labour supply, province, pre ROE wages and tenure, UI eligibility, previous UI experience.</p> <p><i>Notes:</i>  1. Heteroskedasticity consistent standard errors in parentheses.  2. A star indicates statistical significance at the 5% level.  3. Bottom number in each cell is the number of observations.  4. All calculations use the sampling weights provided by Ekos Research Inc.</p>					

### 3. Welfare Usage Following UI Exhaustion

This study addresses the evidence on the use of Social Assistance following exhaustion of UI benefits. We first document the mean pattern of welfare use in various periods before, during and after a UI claim and provide evidence on the demographic and economic characteristics of exhaustees, compared to all UI claimants and all persons experiencing separations. Next, we look at the range of outcomes undergone by exhaustees — re-employment, recall to the old job, Social Assistance and neither employment nor welfare — and we examine how these outcomes vary with demographics and past and current economic variables. Finally, we estimate a set of linear probability models that seek to understand the factors that determine the probability of these various outcomes for the exhaustees. In this, we employ a measure of predicted Social Assistance entitlement to characterize the benefit of a move on to welfare and we employ both the local unemployment rate and the pre-separation wage to characterize, respectively, the probability of finding a job and the payoff that such a job would yield.

#### Patterns of Welfare Use

We begin by summarizing the “time series” behaviour of usage of Social Assistance, examining the proportions of the COEP sample that report receipt of Social Assistance in various phases around the key separation. These results for all separations and for the subsample of UI claimants are reported in Table 5.

	Percentage of All Separations	Percentage of UI Claimants
Prior to separation	3.7	3.1
Separation to first interview	7.2	6.0
First interview to second interview	4.4	2.7
At second interview	2.5	1.6
Second interview to third interview	5.6	5.4
Third interview	3.6	3.9

*Note: All calculations use sampling weights supplied by Ekos Research Inc.*

Welfare use prior to job separation is about 4% overall and about 3% for the UI claimant sample, figures which roughly double to 7% and 6% respectively in the phase after the separation and before the first COEP interview. Between the first and second interviews, welfare use drops back to 4% overall and 3% for the claimants and, at the point in time of the second interview, these figures are both around 2%. Between the second and third interviews, the percentages are higher

<sup>1</sup> Clearly, higher quality Social Assistance figures — based on more accurate assessments of entitlements or on relevant administrative records — would improve the present analysis.

at 6 and 5, while at the date of the third interview the figure is 4%, both overall and for the UI claimant sample. Clearly, then, although welfare eligibility is determined by household circumstances, and so is affected by other incomes in the household, it is driven to an important degree by the job separation experienced by the COEP interviewee.

## Characteristics of UI Exhaustees

To examine the potential link between UI exhaustion and use of Social Assistance, we focus on a sample of potential exhaustees from the COEP dataset. This sample consists of UI claimants who (i) were in the first post-separation spell of insured unemployment at interview two, and (ii) were scheduled to exhaust UI eligibility, based on the benefit period termination date from the administrative records, prior to interview three. To understand the nature of this group, prior to conducting our more formal econometric analysis, we begin by looking at the potential exhaustees mean characteristics and those for two comparison groups: the sample of all separations and the sample of all UI claimants. Tables 6 and 7 present these results.

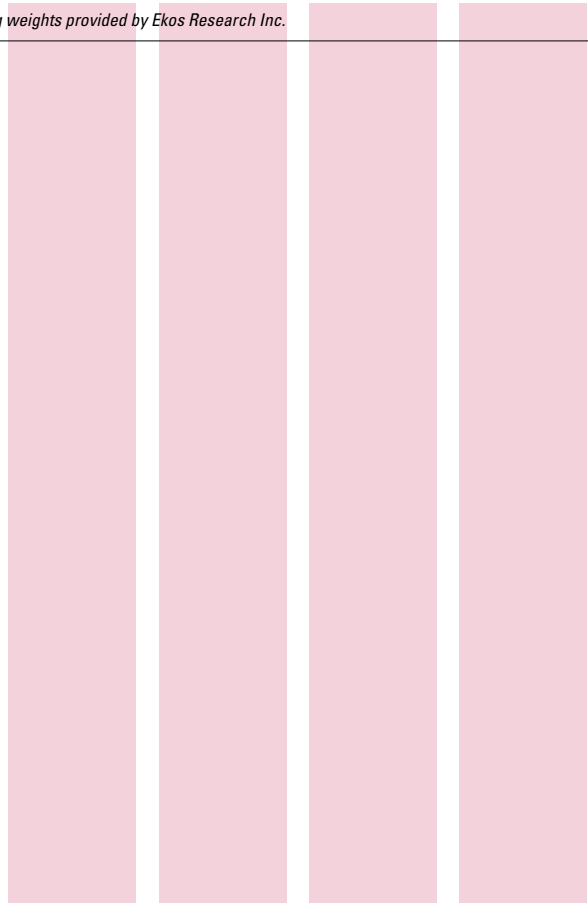
**Table 6**

	Exhaustees	All Separations	All UI Claimants
Male	0.46	0.56	0.53
Age	38	36	37
Visible minority (dummy)	0.18	0.16	0.15
Spouse present (dummy)	0.63	0.58	0.64
Young children in household (dummy)	0.22	0.19	0.21
Newfoundland (province dummies)	0.061	0.026	0.037
Prince Edward Island	0.002	0.009	0.008
New Brunswick	0.034	0.037	0.047
Nova Scotia	0.039	0.046	0.052
Quebec	0.270	0.260	0.290
Ontario	0.390	0.350	0.350
Manitoba	0.035	0.029	0.025
Saskatchewan	0.024	0.033	0.030
Alberta	0.066	0.100	0.073
British Columbia	0.075	0.110	0.082
Territories	0	0	0
Elementary school only (education dummy)	0.054	0.050	0.062
Some high school	0.230	0.230	0.230
High school graduate	0.360	0.340	0.330
Some college	0.075	0.088	0.089
College graduate	0.072	0.090	0.093

2 The small group that is both employed and in a household reporting receipt of Social Assistance enters into the Social Assistance group for this analysis.

Trade	0.064	0.065	0.068
Some university	0.056	0.044	0.041
Undergraduate degree	0.064	0.061	0.056
Postgraduate work	0.017	0.020	0.018
Professional certification	0.009	0.014	0.011

*Note: All calculations use sampling weights provided by Ekos Research Inc.*



**Table 7**  
**Economic Profiles of Exhaustees and Comparison Groups**

	Exhaustees	All Separations	All UI Claimants
Wage in pre-separation job (\$ per hour)	9.77	11.18	10.87
Tenure in pre-separation job (months)	36.10	36.60	39.60
Expected recall (1st interview, dummy variable)	0.43	0.55	0.60
Weekly hours spouse worked at separation	16.30	14.30	16.50
Spouse employed at second interview (dummy)	0.70	0.69	0.70
Social Assistance received by household at 2nd interview (dummy)	0.32	0.46	0.44
Previous UI use (weeks, 1985 to separation)	46.10	54.50	56.30
No previous UI use (1985 to separation, dummy)	0.33	0.26	0.24
Cohort 2 (dummy)	0.46	0.47	0.45
Voluntary quit or dismissal (dummy)	0.12	0.15	0.07
UI payments (converted to yearly \$)	13,141.00	13,961.00	13,963.00
Social Assistance entitlement (imputed, \$ yearly)	13,201.00	13,150.00	13,068.00
Local unemployment rate (UI region)	12.80	12.50	12.50

*Note: All calculations use the sampling weights provided by Ekos Research Inc.*

There are a number of demographic variables on which the exhaustee group differs in an interesting way from the separation and the claimant groups. Exhaustees are 46% male, compared with 53% for the claimants and 56% for the separations, and are slightly older and more likely to be visible minority members than those in the comparison groups. Regionally, exhaustees are more concentrated in Newfoundland than the separation and claimant groups, though this is not true for the rest of Atlantic Canada. If anything, the exhaustees have slightly more education and qualifications than the reference groups, with 36% of exhaustees being high school graduates (34% for separations, 33% for claimants), although the exhaustees have a lower incidence of professional certification (0.9%, compared with 1.4% and 1.1% for the respective comparison groups).

In terms of differences in the economic variables, both past and current, Table 7 reveals that exhaustees had lower mean wages on the pre-separation job, had lower expectations of recall (at the first interview date), and had lower receipt of Social Assistance by the household at interview two. Interestingly, the exhaustees had a higher incidence of past UI use (33%, compared with 26% and 24% respectively) and a smaller mean number of weeks of past UI receipt (46, compared with 55 and 56 respectively). The Social Assistance data we employ is based on extrapolation of complete data for entitlement depending on family structure and province in 1980, together with some incomplete data for 1988 and 1993. For sake of clarity, these data are reproduced in Table A.1 of the Appendix.<sup>1</sup> The

exhaustees were very similar to the whole sample (and the UI claimant sample) for this imputed Social Assistance figure, based on province and family situation. Also, the local unemployment rate (in January 1994, the modal month of second interviews) in the UI region is slightly higher for the exhaustees than for the comparison groups (12.8% compared to 12.5% for the separation and the claimant samples), but this difference is certainly not large.

### Outcomes for the UI Exhaustees

We next address the pattern, correlates and determinants of observed outcomes for the exhaustees in the sample. The base group here numbers 822 observations, so it should be kept in mind that sampling errors certainly attach to these means. The outcomes we consider are re-employment (either in a new job or by recall to the old job), Social Assistance recipients, both new and continuing (new meaning those receiving Social Assistance at interview three who were not receiving it at interview two), those in employment who are also in a household receiving Social Assistance, and those neither in employment nor receiving welfare.

Percent re-employed by third interview	33.5
Percent recalled by third interview	3.5
Recall as a percent of re-employment	10.5
Percent receiving Social Assistance at third interview	11.2
Percent taking up Social Assistance (receiving Social Assistance at third interview but not at second interview)	7.8
New take-up as a percentage of Social Assistance incidence at third interview	69.2
Percent re-employed and receiving Social Assistance at third interview	1.0

*Note: All calculations use the sampling weights provided by Ekos Research Inc.*

One third of the exhaustees are employed at interview three, of whom about 10% have been recalled to the former job. Eleven percent of the exhaustee group are in receipt of Social Assistance, with about 1% of the exhaustees overall being both employed and in a household receiving welfare. About 70% of the welfare recipients at interview three were not receiving Social Assistance at interview two, this being a measure of the pure take-up following exhaustion.

To explore the correlates of these outcomes for the exhaustees, we examine the demographic and economic profiles of the exhaustees categorized by the four principal outcome groups: re-employed, recalled, on Social Assistance, and neither employed nor on Social Assistance.<sup>2</sup> Unweighted, these groups number 272, 27, 88 and 470, respectively. Table 9 reports the means of the demographic variables for these four groups while Table 10 similarly details the economic profiles.

	Re-employed	Recalled	Social Assistance	Neither Social Assistance nor Re-employment



Male (dummy)	0.57	0.58	0.51	0.38
Age	36	40	37	39
Visible minority (dummy)	0.17	0.26	0.15	0.20
Spouse present (dummy)	0.67	0.83	0.29	0.67
Young children in household (dummy)	0.24	0.34	0.18	0.21
Newfoundland	0.046	0.130	0.041	0.072
Prince Edward Island	0.000	0.000	0.000	0.004
Nova Scotia	0.024	0.024	0.042	0.050
New Brunswick	0.032	0.046	0.010	0.040
Quebec	0.280	0.170	0.310	0.250
Ontario	0.410	0.560	0.430	0.380
Manitoba	0.035	0.075	0.012	0.039
Saskatchewan	0.030	0.000	0.019	0.021
Alberta	0.077	0.000	0.026	0.068
British Columbia	0.068	0.000	0.110	0.072
Territories	0.000	0.000	0.000	0.000
Elementary school only (education dummies)	0.027	0.030	0.048	0.070
Some high school	0.210	0.130	0.270	0.250
High school graduate	0.360	0.560	0.370	0.350
Some college	0.092	0.000	0.057	0.680
College graduate	0.079	0.031	0.034	0.740
Trade	0.076	0.064	0.055	0.057
Some university	0.057	0.000	0.053	0.054
Undergraduate degree	0.080	0.190	0.089	0.050
Professional certification	0.007	0.000	0.012	0.009
Postgraduate Study	0.018	0.000	0.013	0.017

Note: All calculations use the sampling weights provided by Ekos Research Inc.

*The entitlement for welfare plays no significant role in the determination of the probability of re-employment.*

	Re-employed	Recalled	Social Assistance	Neither Social Assistance nor Re-employment
Wage in pre-separation job (\$ per hour)	10.190	12.000	7.97	9.850
Tenure in pre-separation job (months)	34.700	55.500	20.70	39.800
Expected recall (1st interview, dummy)	0.420	0.830	0.40	0.450
Weekly hours spouse worked at separation	18.000	25.800	3.90	17.600
Spouse employed at 2nd interview (dummy)	0.740	0.720	0.50	0.690
Social Assistance received by household at 2nd interview (dummy)	0.067	0.035	0.47	0.057
Previous UI use (weeks, 1985 to separation)	41.700	45.800	47.00	48.300
No previous UI use (1985–present, dummy)	0.320	0.350	0.34	0.330
Cohort 2 (dummy)	0.420	0.450	0.43	0.470
Voluntary quit or dismissal (dummy)	0.096	0.009	0.18	0.130
UI payments (converted to yearly \$)	14,110	16,098	11,335	12,856
Social Assistance entitlement (imputed, yearly \$)	13,465	15,854	12,647	13,206
Local unemployment rate (UI region)	12.300	12.000	12.10	13.200
Weeks from 2nd interview to benefit exhaustion	13.300	13.000	13.20	13.700
Weeks from benefit exhaustion to 3rd interview	6.600	6.900	6.70	5.700

In terms of the demographics, men are somewhat more likely to be re-employed or recalled than women, although there are no large differences by age. Presence of a spouse in the household is naturally lowest in the Social Assistance group (29%, compared with 67%, 83% and 67% for the three other respective groups) but it is interesting that young children are also least likely to be present for this group (18%, compared to 24%, 34% and 21%). Provincially, Social Assistance recipients are slightly concentrated in Quebec (which accounts for 31% of welfare recipients compared to 28% of the re-employed) and Ontario (43% of welfare recipients but 41% of the re-employed), as well as somewhat in BC and Nova Scotia. Finally, the differences in the skill and education variables are typically quite small among these four outcome groups, though there is some weak indication that the final two columns in Table 9 (those on welfare and those neither on welfare nor in employment) tend to be made up of those with lower levels of formal education. The economic variables summarized for the four exhaustee outcome groups in Table 10 reveal larger differences across the columns. Those in employment (whether new employment or recall) had higher pre-separation wages than those



on Social Assistance and than the “neither” group, and those on Social Assistance had the lowest mean tenure in the old job. Recall expectations at the first interview were naturally highest for those who did end up being recalled (83%, compared to 40–45% for the other three groups). However, neither the incidence nor the mean weeks of previous UI use differ significantly across these groups. The imputed Social Assistance figures are highest for the recall and re-employed outcome groups (\$15,854 and \$13,465, respectively), reflecting their family situation and their regional concentrations, while the imputation is lowest on average (\$12,647) for the group that ends up receiving welfare. There is little difference for the local unemployment rates across the groups, except for those unfortunate persons neither employed nor on welfare who face local unemployment rates that are a full percentage point higher on average.

### **Determinants of Outcomes for UI Exhaustees**

Finally, we turn to the estimation of a sequence of models of the determination of these outcome variables for the exhaustees. As noted above, our goal is to use the imputed Social Assistance measure to characterize the attractiveness of welfare and to use the pre-separation wage and the local unemployment rate to characterize the attractiveness (and likelihood) of employment. We take this past wage as the best guide to immediate wage prospects. We proceed by examining a set of five estimating equations, each adding to the preceding specification, and we address the determinants of the three central outcomes: employment, recall, and social assistant. These results are reported in Tables A.1 to A.3, in the Appendix, using a linear probability model (Huber regression with robust standard errors) which was followed in view of some of the small sample sizes for these exhaustee samples. Where investigated, a logistic specification yielded little difference in the results.

### **Re-employment**

The five specifications employed are detailed in Table A.1, which gives the re-employment results. We begin in specification one, with an intercept and two durations, the length of the period from interview two to exhaustion and the length of the period from exhaustion to the third interview. Neither duration measure is significantly different from zero and the two coefficients are clearly very similar in magnitude. The second specification adds the imputed Social Assistance entitlement, the past wage and the local unemployment rate. The length of the post-exhaustion period becomes significant, a longer period raising the probability of re-employment. A higher old wage raises the chance of re-employment while, sensibly, a higher local unemployment rate lowers this probability, both of these effects being significant at the 5% level. However, the coefficient on the Social Assistance entitlement variable is small and very insignificant (Huber *t*-statistic of -0.1).

Specification three adds age and sex variables to specification two and, in this broader model, only the local unemployment rate, the duration since exhaustion and being male exert significant effects of the probability of re-employment. The former two effects operate as in specification two, while being male raises the probability of re-employment with a coefficient of 0.14. The Social Assistance entitlement measure remains very small and insignificant. Specification four adds education and qualifications variables, provincial dummies and variables for the presence of a spouse and children. Here, significant effects remain local labour market conditions and being male while new effects worth noting are the presence of a spouse,

*Cutting one program does appear, in this case, to have had measurable implications for expenditures of others; clearly these effects need to be taken into account in the design of social security reform.*



which raises the probability of re-employment, and two of the provincial effects (being in Prince Edward Island lowers the conditional chance of re-employment, being in Alberta raises it).

Finally, specification five replaces the education and qualifications variables from specification four by measures of tenure on the pre-separation job, a measure of recall expectations, a dummy variable for spouse employed at interview two and the spouse's weekly hours at separation, a dummy variable for Social Assistance receipt at interview two and a measure of UI benefits. In this final specification, the local labour market and the sex variables have the same significant effects as in earlier models while the old job tenure measure yields significant coefficients of around 0.2 on the dummy variables with tenure in the ranges 3–6 months and over 6 years. There are also a few significant provincial dummy variables, conditional on the local unemployment variable having already been included. Once again, though, the entitlement for welfare plays no significant role in the determination of the probability of re-employment.

### **Recall to Former Job**

The set of explanatory variables and the sequence of specifications for the determinants of recall match those for re-employment, so the discussion of Table A.2 can be correspondingly more brief. Neither duration is significant in specification one but both the old wage and the Social Assistance entitlement are significantly different from zero in specification two. The wage effect is small but positive, perhaps since accepting a recall offer is more attractive at a higher wage, but the welfare entitlement variable is positive and significant. This means that a higher entitlement raises the probability of acceptable recall, which might be thought unusual. However, it may simply reflect omitted characteristics (especially family structure) that are correlated with recall prospects and that raise the entitlement from Table A.4. We return to this below. Specification three adds the age variables but the only significant effect remains the Social Assistance entitlement variable, still with a point estimate around 0.05.

Our suspicion about the origin of this anomalous entitlement effect seems to be borne out in specification four where a richer set of explanatory variables acts to lower the welfare entitlement coefficient (and raise its Huber standard error), rendering it insignificant. Here, there are some weak effects from some levels of education and some provinces. Finally, the Social Assistance entitlement effect is still more insignificant in specification five in the final column of Table A.2.

### **Social Assistance**

Finally, we report the linear probability model results for the determinants of Social Assistance in Table A.3. The first specification has neither duration measure significant, while in the second numerical column both the old wage and the local unemployment rate enter significantly. Having a higher past wage lowers the probability of welfare, as might be expected from the informal theory of relative attractiveness sketched above, but a lower local unemployment rate tends to raise the probability of welfare, which is surprising in view of that theory. In the second numerical column, the welfare entitlement measure is negative and insignificantly different from zero.

Addition of the age dummy variables in specification three leaves the wage,

unemployment, and welfare entitlement effects essentially unchanged, with all of the age variables having a negative sign (the omitted group is 15 to 24), and with the age 25–34 dummy variable being significant. Specification four leaves the negative effect from the past wage but removes the significant local unemployment variable. It also gives some indication that education variables matter, with positive significant effects for some high school, high school graduates, some university and university graduates. Additionally, the presence of children significantly raises the conditional probability of Social Assistance, while the presence of a spouse significantly lowers it. However, the Social Assistance entitlement variable still has a small and insignificant negative coefficient.

Finally, specification five maintains the significantly negative past wage effect and finds uniformly significant negative effects for the four age dummy variables. Being on welfare at interview two significantly raises the conditional probability of welfare at interview three, although most of the other variables enter insignificantly into the equation. Once again, the imputed welfare entitlement is insignificant, although in this case the small point estimate is positive.

## 4. Conclusion

This paper has reported the results of two studies on the interaction of UI and Social Assistance. The first focused on VQs who may have been disentitled from UI by the changes introduced in Bill C-113 and found that a decline in take-up of UI in the “After” cohort, relative to the “Before” control group, was coupled with a coincidental rise in welfare take-up that was probably somewhat larger in overall magnitude. Cutting one program does appear, in this case, to have had measurable implications for expenditures of others; clearly these effects need to be taken into account in the design of social security reform. The second study addressed UI exhaustees and studied whether their post-exhaustion behaviour was significantly affected by incentives represented by imputed Social Assistance entitlement and measures of these individuals’ employment prospects, controlling for other relevant factors. Overall, it was found that, while these incentive effects were to some degree present for the wage and the probability of employment, such effects were not found for the welfare entitlement imputation. Only better Social Assistance data, ideally from administrative records and at the regional level appropriate within each province, would enable determination of whether the results of this study of exhaustees are a consequence of any deficiencies in the present imputation process.

## Appendix: Additional Tables

	Specification				
	1	2	3	4	5
Constant	-0.025 (0.201)	0.051 (0.221)	0.051 (0.221)	-0.252 (0.338)	-0.319 (0.349)
Weeks, 2nd interview to exhaustion	0.019 (0.012)	0.018 (0.012)	0.019 (0.011)	0.022 (0.013)	0.038* (0.015)
Weeks, exhaustion to 3rd interview	0.019 (0.010)	0.021* (0.010)	0.020* (0.010)	0.025 (0.015)	0.036* (0.013)
Social Assistance entitlement (\$10,000 per year)	—	-0.005 (0.047)	-0.028 (0.048)	-0.004 (0.066)	-0.066 (0.108)
Pre-separation wage (\$ per hour)	—	0.010* (0.004)	0.008 (0.005)	0.008 (0.005)	-0.005 (0.007)
Local unemployment rate	—	-0.013* (0.005)	-0.014* (0.004)	-0.019* (0.007)	-0.025* (0.008)
Age: 25–34 (15–24 is omitted dummy)	—	—	0.019 (0.072)	0.006 (0.072)	0.046 (0.107)
Age: 35–44	—	—	0.047 (0.076)	0.021 (0.074)	0.092 (0.111)
Age: 45–54	—	—	-0.127 (0.080)	-0.144 (0.079)	-0.138 (0.119)
Age: 55–64	—	—	-0.130 (0.087)	-0.125 (0.090)	-0.081 (0.128)
Male	—	—	0.136* (0.043)	0.162* (0.044)	0.201* (0.062)
Visible minority	—	—	—	-0.008 (0.056)	-0.062 (0.065)
Some high school (elementary school only is omitted dummy)	—	—	—	0.154 (0.100)	—
High school graduate	—	—	—	0.152 (0.100)	—
Trade	—	—	—	0.199 (0.117)	—
Some college	—	—	—	0.178 (0.120)	—
College graduate	—	—	—	0.213 (0.122)	—
Some university	—	—	—	0.189 (0.128)	—
Undergraduate degree	—	—	—	0.127 (0.132)	—
Professional certification	—	—	—	-0.042 (0.178)	—
Postgraduate work	—	—	—	0.076 (0.171)	—

**Table A.1 (continued)**  
**Linear Probability Models of Re-employment at Third Interview: Exhaustees**

	Specification				
	1	2	3	4	5
Newfoundland (Ontario is omitted dummy)	—	—	—	0.185 (0.126)	0.317* (0.156)
Prince Edward Island	—	—	—	-0.366* (0.123)	-0.213 (0.136)
Nova Scotia	—	—	—	-0.094 (0.095)	-0.028 (0.131)
New Brunswick	—	—	—	-0.039 (0.119)	0.089 (0.182)
Quebec	—	—	—	0.128 (0.067)	0.125 (0.093)
Manitoba	—	—	—	0.015 (0.101)	0.058 (0.119)
Saskatchewan	—	—	—	0.053 (0.138)	0.024 (0.178)
Alberta	—	—	—	0.211* (0.092)	0.280* (0.103)
British Columbia	—	—	—	-0.006 (0.077)	-0.081 (0.102)
Young children in household	—	—	—	-0.043 (0.055)	-0.042 (0.062)
Spouse present	—	—	—	0.108* (0.047)	0.025 (0.125)
Cohort 2	—	—	—	0.009 (0.065)	—
Pre-separation tenure: 3–6 months (0–3 months is omitted dummy)	—	—	—	—	0.221* (0.094)
Tenure: 6–12 months	—	—	—	—	0.176 (0.092)
Tenure: 1–3 years	—	—	—	—	0.056 (0.087)
Tenure: 3–6 years	—	—	—	—	0.080 (0.094)
Tenure: > 6 years	—	—	—	—	0.203* (0.098)
Expected to be recalled	—	—	—	—	0.085 (0.058)
Weekly hours spouse worked at separation	—	—	—	—	-0.002 (0.064)
Spouse employed at interview 2	—	—	—	—	0.098 (0.072)
Household received Social Assistance at interview 2	—	—	—	—	0.076 (0.155)
No previous UI (1985 to separation, dummy)	—	—	—	—	0.000 (0.064)
Previous UI (weeks, 1985 to separation)	—	—	—	—	0.000 (0.001)
UI benefits (converted to \$ 10,000s yearly)	—	—	—	—	0.109 (0.080)

*Notes:*

1. All calculations use the sampling weights provided by Ekos Research Inc.
2. A star (\*) indicates significance at the 5% level.



**Table A.2**  
**Linear Probability Models of Recall at Third Interview: Exhaustees**

	Specification				
	1	2	3	4	5
Constant	0.053 (0.078)	-0.026 (0.092)	-0.031 (0.089)	-0.062 (0.113)	-0.093 (0.167)
Weeks, 2nd interview to exhaustion	-0.001 (0.004)	-0.003 (0.004)	-0.003 (0.004)	-0.002 (0.005)	0.001 (0.008)
Weeks, exhaustion to 3rd interview	0.000 (0.004)	-0.000 (0.004)	-0.000 (0.004)	0.002 (0.005)	0.008 (0.006)
Social Assistance entitlement (\$10,000 per year)	—	0.049* (0.023)	0.053* (0.023)	0.046 (0.025)	0.042 (0.047)
Pre-separation wage (\$ per hour)	—	0.005* (0.002)	0.004 (0.003)	0.004 (0.002)	0.003 (0.004)
Local unemployment rate	—	-0.001 (0.002)	-0.001 (0.001)	-0.007 (0.004)	-0.008 (0.005)
Age: 25–34 (15–24 is omitted dummy)	—	—	0.002 (0.025)	-0.002 (0.023)	0.036 (0.024)
Age: 35–44	—	—	-0.001 (0.027)	-0.005 (0.026)	0.027 (0.030)
Age: 45–54	—	—	-0.026 (0.023)	-0.010 (0.022)	-0.027 (0.030)
Age: 55–64	—	—	0.048 (0.044)	0.063 (0.041)	0.047 (0.045)
Male	—	—	0.007 (0.020)	0.013 (0.019)	0.002 (0.028)
Visible minority	—	—	—	0.022 (0.025)	0.002 (0.027)
Some high school (elementary school only is omitted dummy)	—	—	—	0.034 (0.024)	—
High school graduate	—	—	—	0.069* (0.026)	—
Trade	—	—	—	0.067 (0.037)	—
Some college	—	—	—	0.040 (0.024)	—
College graduate	—	—	—	0.036 (0.027)	—
Some university	—	—	—	0.022 (0.023)	—
Undergraduate degree	—	—	—	0.140 (0.074)	—
Professional certification	—	—	—	0.043 (0.033)	—
Postgraduate work	—	—	—	0.008 (0.023)	—

**Table A.2 (continued)**  
**Linear Probability Models of Recall at Third Interview: Exhaustees**

	Specification				
	1	2	3	4	5
Newfoundland (Ontario is omitted dummy)	—	—	—	0.145 (0.100)	0.155 (0.103)
Prince Edward Island	—	—	—	-0.015 (0.048)	-0.046 (0.081)
Nova Scotia	—	—	—	0.054 (0.047)	0.088 (0.078)
New Brunswick	—	—	—	0.015 (0.029)	-0.020 (0.052)
Quebec	—	—	—	0.011 (0.025)	0.000 (0.036)
Manitoba	—	—	—	0.081 (0.066)	0.024 (0.052)
Saskatchewan	—	—	—	-0.003 (0.020)	-0.007 (0.038)
Alberta	—	—	—	-0.031 (0.018)	-0.036 (0.027)
British Columbia	—	—	—	-0.034* (0.015)	-0.039 (0.027)
Young children in household	—	—	—	0.002 (0.023)	0.013 (0.025)
Spouse present	—	—	—	0.009 (0.017)	-0.092 (0.084)
Cohort 2	—	—	—	0.020 (0.020)	—
Pre-separation tenure: 3–6 months (0–3 months is omitted dummy)	—	—	—	—	0.044 (0.042)
Tenure: 6–12 months	—	—	—	—	-0.001 (0.032)
Tenure: 1–3 years	—	—	—	—	0.016 (0.041)
Tenure: 3–6 years	—	—	—	—	0.077 (0.051)
Tenure: > 6 years	—	—	—	—	0.124 (0.065)
Expected to be recalled	—	—	—	—	0.020 (0.031)
Weekly hours spouse worked at separation	—	—	—	—	0.000 (0.001)
Spouse employed at interview 2	—	—	—	—	-0.001 (0.037)
Household received Social Assistance at interview 2	—	—	—	—	-0.035 (0.031)
No previous UI (1985 to separation, dummy)	—	—	—	—	0.060 (0.031)
Previous UI (weeks, 1985 to separation)	—	—	—	—	0.000 (0.000)
UI benefits (converted to \$10,000s yearly)	—	—	—	—	0.025 (0.032)

Notes: All calculations use the sampling weights provided by Ekos Research Inc.  
A star (\*) indicates significance at the 5% level.



	Specification				
	1	2	3	4	5
Constant	0.025 (0.136)	0.213 (0.137)	0.270 (0.136)	-0.153 (0.228)	0.392 (0.217)
Weeks, 2nd interview to exhaustion	0.002 (0.008)	0.004 (0.008)	0.005 (0.008)	0.016 (0.010)	0.000 (0.009)
Weeks, exhaustion to 3rd interview	0.010 (0.007)	0.011 (0.007)	0.012 (0.007)	0.027* (0.011)	-0.003 (0.007)
Social Assistance entitlement (\$10,000 per year)	—	-0.043 (0.033)	-0.041 (0.034)	-0.030 (0.046)	0.050 (0.040)
Pre-separation wage (\$ per hour)	—	-0.008* (0.002)	-0.009* (0.002)	-0.011* (0.002)	-0.006* (0.003)
Local unemployment rate	—	-0.006* (0.002)	-0.006* (0.002)	-0.000 (0.004)	0.000 (0.003)
Age: 25–34 (15–24 is omitted dummy)	—	—	-0.123* (0.058)	-0.094 (0.057)	-0.237 (0.095)
Age: 35–44	—	—	-0.086 (0.061)	-0.038 (0.060)	-0.238 (0.099)
Age: 45–54	—	—	-0.067 (0.065)	0.005 (0.066)	-0.257 (0.104)
Age: 55–64	—	—	-0.079 (0.067)	0.020 (0.071)	-0.292 (0.103)
Male	—	—	0.041 (0.031)	0.024 (0.031)	0.035 (0.028)
Visible minority	—	—	—	-0.024 (0.030)	-0.002 (0.025)
Some high school (elementary school only is omitted dummy)	—	—	—	0.118* (0.040)	—
High school graduate	—	—	—	0.158* (0.044)	—
Trade	—	—	—	0.073 (0.051)	—
Some college	—	—	—	0.118 (0.062)	—
College graduate	—	—	—	0.091 (0.056)	—
Some university	—	—	—	0.207* (0.073)	—
Undergraduate degree	—	—	—	0.201* (0.066)	—
Professional certification	—	—	—	0.152 (0.149)	—
Postgraduate work	—	—	—	0.141 (0.108)	—



	Specification				
	1	2	3	4	5
Newfoundland (Ontario is omitted dummy)	—	—	—	-0.086 (0.074)	-0.063 (0.070)
Prince Edward Island	—	—	—	-0.127 (0.090)	0.043 (0.062)
Nova Scotia	—	—	—	-0.029 (0.095)	0.016 (0.106)
New Brunswick	—	—	—	-0.134 (0.071)	-0.050 (0.052)
Quebec	—	—	—	-0.025 (0.044)	0.001 (0.037)
Manitoba	—	—	—	-0.091 (0.048)	-0.076 (0.045)
Saskatchewan	—	—	—	-0.034 (0.084)	-0.020 (0.035)
Alberta	—	—	—	-0.072 (0.047)	-0.085* (0.042)
British Columbia	—	—	—	-0.013 (0.062)	-0.043 (0.037)
Young children in household	—	—	—	0.070 (0.035)	-0.033 (0.029)
Spouse present	—	—	—	-0.173 (0.035)	-0.089 (0.078)
Cohort 2	—	—	—	0.098 (0.046)	—
Pre-separation tenure: 3–6 months (0–3 months is omitted dummy)	—	—	—	—	0.004 (0.052)
Tenure: 6–12 months	—	—	—	—	0.047 (0.048)
Tenure: 1–3 years	—	—	—	—	-0.010 (0.046)
Tenure: 3–6 years	—	—	—	—	-0.042 (0.048)
Tenure: > 6 years	—	—	—	—	-0.007 (0.052)
Expected to be recalled	—	—	—	—	-0.038 (0.020)
Weekly hours spouse worked at separation	—	—	—	—	-0.000 (0.001)
Spouse employed at interview 2	—	—	—	—	-0.054 (0.044)
Household received Social Assistance at interview 2	—	—	—	—	0.431 (0.135)
No previous UI (1985 to separation, dummy)	—	—	—	—	0.006 (0.029)
Previous UI (weeks, 1985 to separation)	—	—	—	—	0.000 (0.000)
UI benefits (converted to \$10,000s yearly)	—	—	—	—	0.020 (0.036)

Notes: All calculations use the sampling weights provided by Ekos Research Inc.  
(\* ) indicates significance at the 5% level.

Family Type	Single Parent					
	Single Person	Couple	1 Child	2 Children	3 Children	4 Children
	1	2	3	4	5	6
Newfoundland	4,326	10,578	11,262	12,062	12,862	13,662
Prince Edward Island	8,140	10,980	11,340	14,040	16,400	19,860
Nova Scotia	5,897	8,208	10,335	12,635	14,538	16,739
New Brunswick	3,060	7,480	8,477	9,402	10,313	11,224
Quebec	6,137	9,775	9,146	10,812	12,444	14,314
Ontario	7,850	13,500	13,800	16,625	19,825	24,775
Manitoba	6,547	9,673	9,741	12,310	14,790	17,799
Saskatchewan	5,792	8,467	10,384	12,736	15,000	16,735
Alberta	5,421	10,584	9,895	12,600	14,801	17,791
British Columbia	6,600	10,016	10,808	13,646	16,055	18,068

Family Type	Couple Plus			
	1 Other	2 Others	3 Others	4 Others
	7	8	9	10
Newfoundland	11,378	12,178	12,978	13,778
Prince Edward Island	13,680	16,080	18,860	22,340
Nova Scotia	10,508	12,425	14,626	16,813
New Brunswick	8,597	9,508	10,433	11,344
Quebec	11,339	12,971	14,637	16,507
Ontario	16,350	19,125	22,250	25,200
Manitoba	12,257	14,722	17,136	20,247
Saskatchewan	10,819	14,347	15,170	16,993
Alberta	13,272	15,338	17,573	20,278
British Columbia	12,854	15,263	17,276	19,289

*Note: Entitlements represent the amount a household would be eligible for if there was no other income.*

## *Bibliography*

ANDERSON, P. and B. Meyer, “Unemployment Insurance Benefits and Take-up Rates”, National Bureau of Economic Research working paper no. 4787, 1994.

CROSSLEY, T. and P. Kuhn, “The Mechanics of UI Disentitlement: Incentive Effects and the Welfare Connection,” mimeo, McMaster University, October 1994.

KUHN, P. and A. Sweetman, “Unemployment Insurance and Quits”, mimeo, McMaster University, October 1994.