

EI Reform and Multiple Job-Holding

HRDC
November 2001

Executive Summary

Under the old UI system, job leavers could only count jobs with more than 15 hours when determining eligibility and entitlements. This directly impacted multiple job-holders as in most cases they had at least one job that was less than 15 hours per week. The changes to the employment insurance program under Bill-C12, subsequently referred to as EI reform directly affected these workers. In particular, the new hours system allows multiple job-holders to count the hours from all their sources of employment. This change had a significant impact on the likelihood of eligibility, the length of entitlements and the rate of multiple job-holding.

Data and Methodology

This study uses information from both the Canadian Out-of-Employment Panel (COEP) and the Record of Employment database. The Record of Employment database was used to construct accurate historical records of job holdings over the 52 weeks prior to the job loss for each respondent. This was used to identify individuals who were multiple job-holders. COEP provides important information on the Socio-economic Conditions and other personal and employment related information that was used to develop descriptive statistics of these multiple job-holders.

Main Findings

- Approximately 9 per cent of all claimants held multiple jobs at some point while establishing an EI claim.
- Only 6 per cent of all multiple job-holders held more than one job for the entire 52 weeks prior to the claim.
- Changes under EI reform increased the eligibility and reciprocity of multiple job-holders who worked under 35 hours a week. Eligibility increased by 1 per cent for each additional week of multiple job-holding.
- Average entitlements increased for all individuals after EI reform and particularly for individuals who worked less than 35 hours a week.
- Multiple job-holding increased by 5.6 per cent after EI reforms for individuals who worked less than 35 hours a week.

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Introduction

Under the old UI system, job leavers could only count jobs with more than 15 hours when determining eligibility and entitlements. This directly impacted multiple job-holders as in most cases they had at least one job that was less than 15 hours per week. The changes to the employment insurance program under Bill-C12, subsequently referred to as EI reform, directly affected these workers. In particular, the new hours system allows multiple job-holders to count the hours from all their sources of employment. This could have a significant impact on the likelihood of eligibility and the length of entitlements. This in turn may affect the rate of multiple job-holding.

This report seeks to examine the extent to which reform of EI is associated with changes in the eligibility and entitlements of multiple job-holders. There will be a further effort to determine if individuals behavior has changed with respect to multiple job-holding, although this may be problematic as many other factors may influence this as well.

Data and Methodology

The key data source we use in evaluating the impact of the 1996 EI reforms is the COEP survey.¹ The COEP survey, administered on behalf of HRDC by Statistics Canada, collects information on the sampled individuals and their households who experienced a job separation as recorded on HRDC's Record of Employment (ROE) administrative file. The survey collects information on individual's personal and household characteristics, reasons for job separation, detailed employment history, job search activities, training, receipt of EI/UI benefits, social assistance, as well as information on their household's financial situation including assets and liabilities.

Each survey participant was interviewed twice. The first interview (wave 1) occurred within one year after job separation and the second interview (wave 2) was conducted some nine months after the first interview. In total, approximately 40,000 Canadians who had a change or an interruption in their employment activity were surveyed from July 1996, until September 1998 covering 10 quarters. Each of these quarters is referred to as a "Cohort". For example, the COEP data for the period from October 1997 to December 1997 is referred to as Cohort 10. In studying the impact of the reform, the cohorts are grouped into three periods as follows:

¹ Statistics Canada refers to this survey as the "Changes in Employment Survey"(CIE).

Pre-Reform (Cohort 1 to Cohort 4). Participants for the first four interviews had a job separation in one of the four quarters (i.e., Q3 1995 to Q2 1996) prior to EI implementation. The time of the job separation determines the policy regime under which entitlements and eligibility are calculated. Individuals in these cohorts will fall under the old UI rules.

During Reform (Cohort 5 to Cohort 6). Participants for the next two interviews had a job separation in one of the two quarters (i.e., Q3 1996 and Q4 1996) during implementation of the EI reform.

Post-Reform (Cohort 7 to Cohort 10). Participants for the last four interviews had a job separation in one of the four quarters (i.e., Q1 1997 to Q4 1997) after implementation of the EI reform.

For the purposes of this study, the pre-EI reform period was compared to the post-EI reform period as a means of determining the changes associated with EI reform. No analysis was done on the period during the EI reform period, as the implementation of EI reform was not complete and the analysis of this period would be complex. The information from the Record of Employment (ROE) database was also used in order to construct an exact account of the individuals job history during the 52 weeks prior to the job loss.

Description of Multiple Job-Holders

This section will examine the multiple job-holders. First it will look how they are defined. It will then look at the data on multiple job-holding by the various possible demographic groups.

How are Multiple Job-Holders Defined?

Given the richness of the data, it is possible to define multiple job-holding in a number of ways. It could be stipulated that the person must hold more than one job for the entire period of employment to be considered a multiple job-holder. If this “pure” definition is used, multiple job-holding would be a relatively rare occurrence. On the other hand, if a person is defined as a multiple job-holder when they had more than one job at anytime over an arbitrary length of time, then it would be seen to be more frequent.

Throughout most of this report, a definition is used which falls in between these two extremes. Multiple job-holders are defined as those who had more than one job at any time while forming a claim. Casual examination of the data revealed that many multiple job-holders appeared to have some overlap between the jobs used to form a claim. For example, an individual may be employed at his first job for ten weeks. Then for the last two weeks of the job, he could be employed at a second job. This second job could continue for six more weeks, thus qualifying him for EI. Thus, over the time that they were becoming qualified for

the claim, they would only hold multiple jobs for a few weeks. Still, the changes in the rules will lead to these individuals experiencing increased eligibility.

It is important to note that an important class of multiple job-holders is omitted by the use of ROE jobs in the definition. Those who are self-employed will never have ROE's and thus will be seen as single job holders by this definition. Still the COEP based estimates of multiple job-holding of around nine per cent will appear higher than other sources such as the Labour Force Survey. The reason for this is that the LFS looks at just one point of a month, whereas this definition examines the entire length of time that a claim is being formed, fifty-two weeks previous to the job loss.

Figure 1

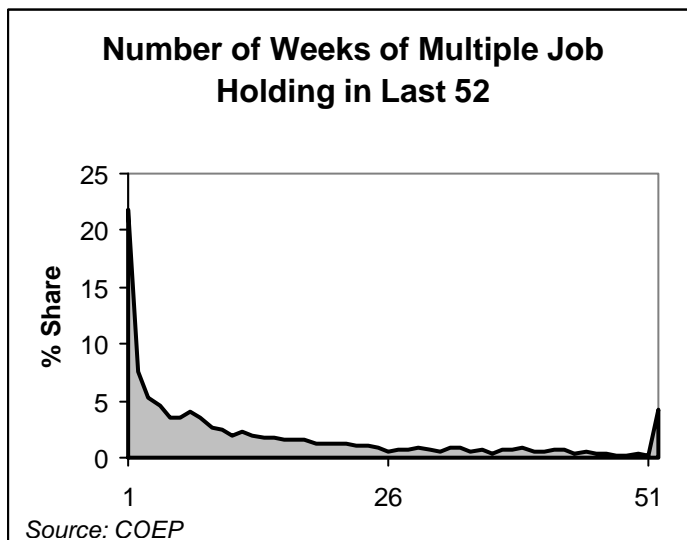


Figure 1 introduces the data on multiple job-holding for the data used in the later econometric work.² The distribution here shows that a high percentage of multiple job-holders have very few weeks of multiple jobs. The number of weeks fades out at a consistent rate all the way to 51 weeks. The sudden upturn in the graph at 52 weeks would indicate those that had been multiple job-holders for the entire period. These would

be considered the permanent multiple job-holders. As can be seen they are only a small portion of all multiple job-holders. The wide range of weeks of multiple job-holding displayed in the graph would create the expectation of there being a wide range of impacts of multiple job-holding.

² This will include the pre-Reform period, Cohorts 1 to 4, and the post-Reform period, Cohorts 7-10.

Who are the multiple job-holders?

Table 1 gives the rate of multiple job-holding while forming a claim for all the data used in the analysis before and after EI reform.³ In this table, multiple job-holders are defined as those who were employed at more than one job at least one week. It finds that multiple job-holding while forming a claim is 9.3 per cent. This number is higher than what is shown in the LFS where multiple job-holding is around 5 per cent. Although this may be due to different behaviour during the formation of a claim, it is more likely due to measurement issues, as discussed previously.

The table provides columns that distinguish between those who worked more or less than 35 hours on the primary job that got them on the survey. This distinction was made as it was found that the hours legislation had opposite effects depending on whether they worked more or less than 35 hours. In the paper “Monitoring Report on the Eligibility, Take-up and Entitlements to EI” it was found that those who worked less than 35 hours experienced unintended negative impacts as a result of EI reform and those who worked more experienced the reverse. Thus for much of the following analysis, the data is divided along these lines.

A number of interesting trends are apparent in the data. Those working less than 35 hours a week are substantially more likely to be multiple holders, than those with more hours. In addition, youth are more likely to be multiple job-holders. Among family types, singles, with no children, who worked less than 35 hours on their primary job had a 16.1 per cent chance of being a multiple job-holder whereas married parents who worked more than 35 hours only had a 6.7 per cent chance. Construction workers had the highest rate of multiple job-holding among those who worked more than 35 hours but had the lowest rate for those who worked less than 35 hours. Among regions there was significant variation with multiple job-holding being the most frequent in BC and the least in Ontario.

Table 2 looks at the composition of the multiple job-holders compared to the COEP population as a whole, which is given in the first column. Overall, there are slightly more females than males among multiple job-holders. However, for those working less than 35 hours a week multiple job-holders are substantially more likely to be female. For most other categories, the composition appears to follow a pattern similar to the COEP population as a whole. Within industries, virtually all the multiple job-holders among those who work less than 35 hours

³ Cohorts 1 to 4 and 7 to 10 are used in these tables. This includes one year before EI reform, 1995 Q3 to 1996 Q2, and one year after, 1997 Q1 to 1997 Q4. Note that the use of eight quarters of data avoids difficulties associated with seasonality.

are in the services industry.⁴ However, among those who work more than 35 hours, the service industry actually makes up a lower proportion with construction being more prominent relative to all COEP.

	All	<35 hours	>=35 hours
Total	9.3	14.5	8.2
Male	9.1	20.6	8.2
Female	9.5	12.9	8.3
Youth (15-24)	14.8	14.7	14.8
Prime (25-54)	9.0	15.7	7.6
Old (55+)	4.9	5.4	4.8
Family Type			
Single with Children ¹	10.5	13.0	10.0
Single without Children	11.2	16.1	10.4
Married ² with Children	7.9	14.0	6.7
Married without Children	8.6	14.2	7.4
Education			
Less than High School	6.9	8.2	6.8
High School	7.7	12.7	6.8
More than High School	11.5	17.5	10.0
Other	10.3	16.8	8.7
Region			
Atlantic	7.9	12.6	7.1
Quebec	10.3	17.5	8.8
Ontario	7.0	11.7	6.1
Prairies	10.3	10.8	10.2
British Columbia	11.6	18.2	10.2
Industry			
Primary	8.2	24.9	7.4
Manufacturing	6.7	11.4	6.5
Construction	10.1	4.2	10.2
Services	9.9	14.5	8.4
Government	10.1	18.9	8.6

Notes:
1. Refers to dependants aged 0-15.
2. Includes common-law marriages.
Data Source: COEP Survey & EI data file, Cohorts 1-4 and 7-10

⁴ Assigning an industry to a multiple job-holder is to some extent problematic, as they may actually be employed in more than one industry. For the COEP data, the industry of the job that led to their being included on the survey was used.

Table 2
Composition of Multiple Job-Holder Beneficiaries
(percent)

	All COEP	Multiple Job-Holders		
		Total	<35	>=35
Demographic				
Male	50.2	49.0	30.3	55.7
Female	49.8	51.0	69.7	44.3
Youth (15-24)	11.2	18.0	10.5	20.6
Prime (25-54)	79.5	77.1	85.5	74.1
Old (55+)	9.3	4.9	4.0	5.2
Family Type				
Single with Children ¹	7.0	7.9	6.1	8.5
Single without Children	28.9	35.0	27.9	37.5
Married ² with Children	35.4	30.3	35.2	28.6
Married without Children	28.7	26.8	30.8	25.4
Education				
Less than HighSchool	25.8	19.4	10.8	22.4
Highschool	27.3	22.8	22.2	23.0
More than HighSchool	44.8	55.7	64.4	52.6
Other	1.9	2.1	2.7	2.0
Region				
Atlantic	12.7	10.8	9.3	11.3
Quebec	31.3	34.9	39.0	33.4
Ontario	28.3	21.6	23.7	20.8
Prairies	13.8	15.4	9.9	17.3
British Columbia	13.9	17.4	18.0	17.2
Industry				
Primary	6.0	5.3	2.8	6.3
Manufacturing	18.2	13.2	3.9	16.5
Construction	11.7	12.7	0.4	17.1
Services	59.3	63.7	88.0	55.0
Government	4.5	4.9	5.0	4.9

Notes:

1. Refers to dependants aged 0-15.

2. Includes common-law marriages.

Data Source: COEP Survey & EI data file, Cohorts 1-4 and 7-10

Impact of EI Reform

The impact of EI reform may be two-fold. There may be both a change in the incentives for multiple job-holding and an impact on multiple job-holding itself due to the changes in these incentives. The analysis will investigate these potential impacts.

It is also necessary to look at the long-run and short-run impacts. The initial short-run impacts will involve the comparison of data four quarters before EI reform with four quarters after. Then subsequently, there will be an analysis of the most recent changes in the rate of multiple job-holding, as of the Fall of 1999, which would cover the fiscal year 99/00.

Initial Short-Run Impacts

Tables 3 and 4 examine the movements in the data used in the econometric analysis given in Tables 5, 6, and 7. The pre EI reform period (third quarter of 1995 to second quarter 1996) is compared to the post EI reform period (first quarter of 1997 to fourth quarter of 1997).⁵

Table 3 describes the changes in the basic demographics. In general, the changes between the pre and post EI reform period are quite moderate. One of the variables almost exhibiting significant variation is the multiple job-holding rate which increases from 8.5 per cent to 10.0 per cent for those who have at least one week of multiple job-holding while forming a claim.

Table 4 shows changes in the non-demographic data. Again, little significant differences are exhibited in most of the variables before and after EI reform. One notable exception is the number of entitlement weeks. Those who worked more than 35 hours per week were given more entitlements, whereas those who worked less experienced drops in their entitlements. It should be noted that “weeks of multiple job-holding” refers to the average number of weeks that a person held more than one job while forming a claim. This could be as high as 52 as claims are formed over a 52 week period. Someone with 52 would be a person who was employed at two jobs over the entire claim formation period. In Table 3, a simple percentage is given of those who have at least one week of multiple job-holding.

⁵ As stated above, the use of four full quarters before and after EI reform effectively avoids seasonality issues.

Table 3
The EI Beneficiary Population
(percent)

	Pre-EI Reform (95Q3-96Q2) ¹	Post-EI Reform (97Q1-97Q4) ¹	T-Stat	N
Multiple Job-Holders	8.5	10.0	1.6	7832
Demographics				
Male	51.2	49.1	-1.4	7831
Youth (15-24)	11.7	10.8	-0.9	7832
Prime (25-54)	79.7	79.2	-0.4	7832
Old (55+)	8.6	9.9	1.5	7832
Family Type				
Single with Children ²	7.3	6.9	-0.5	7832
Single without Children	28.8	29.0	0.1	7832
Married ³ with Children	35.4	35.4	0.1	7832
Married without Children	28.5	28.7	0.2	7832
Education				
Less than High School	26.8	24.4	-1.9	7832
High School	27.2	27.3	0.1	7832
More than High School	43.5	46.1	1.8	7832
Other	2.3	2.0	-0.8	7832
Region				
Atlantic	12.6	12.9	0.5	7832
Quebec	30.7	31.5	0.6	7832
Ontario	29.4	28.0	-0.9	7832
Prairies	13.9	13.7	-0.4	7832
British Columbia	13.4	13.9	0.6	7832
Industry				
Primary	6.0	6.1	0.2	7703
Manufacturing	19.2	17.3	-1.6	7703
Construction	12.2	11.1	-1.3	7703
Services	57.3	61.4	2.8	7703
Government	4.9	4.2	-1.1	7703

Notes:

1) Refers to date of initial job loss.

2) Refers to dependants aged 0-15.

3) Includes common-law marriages.

Data Source: COEP Survey & EI data file

Table 4				
Characteristics of Beneficiaries and Non-Beneficiaries				
	Pre-EI Reform (95Q3-96Q2) ¹	Post-EI Reform (97Q1-97Q4) ¹	T-stat	N
Total				
% collect EI	51.5	51.6	0.09	9637
Entitlement Weeks	32.8	32.9	0.39	9333
Unemployment rate	10.4	10.4	-0.57	9517
Weeks in job lost	35.3	35.9	1.31	10054
Weeks of multiple job- holding	0.79	0.91	0.91	10075
Less 35 hours per week				
% collect EI	47.9	47.3	-0.21	2321
Entitlement Weeks	32.0	30.6	-1.85	2174
Unemployment rate	10.3	10.2	-0.40	2327
Weeks in job lost	35.2	37.0	2.15	2463
Weeks of multiple job- holding	1.06	1.53	1.39	2468
35 or more hours per week				
% collect EI	52.9	53.4	0.33	7316
Entitlement Weeks	33.1	33.8	1.97	7159
Unemployment rate	10.5	10.5	-0.33	7190
Weeks in job lost	35.4	35.4	-0.01	7591
Weeks of multiple job- holding	0.68	0.65	-0.25	7607
<i>Notes:</i>				
1. Refers to date of initial job loss.				
Data Source: COEP Survey & EI data file				

Table 5 provides estimates of the impact of reform on the extent to which unemployed multiple job-holders collect EI.⁶ The effect of EI reform was expected to be stronger as the number of weeks of multiple job-holding increased. The coefficients indicate that multiple job-holding had no impact on EI-recipientcy before EI reform but that the probability went up 1.0 per cent for each week of multiple job-holding after EI reform for those who had less than 35 hours per week of work on the job that was lost.

⁶ The sample sizes in Tables 5 and 4 are not comparable. Table 4 gives the sample for the first column, before EI reform. In Table 5 the sample size refers to before and after EI reform.

Table 5						
Probit Analysis of EI Reciprocity Job Changers with at Least One week of Unemployment³						
	All		35<		≥35	
	%diff	P-val	%diff	P-val	%diff	P-val
Change in Constant	-1.0	0.49	-4.5	0.12	0.1	0.97
Multiple Job-Holders	0.1	0.46	-0.1	0.66	0.3	0.28
Impact of EI Reform on Weeks of Multiple Job-Holders	0.6	0.08	1.0	0.03	0.2	0.59
Unemployment Rate	0.0	0.93	0.7	0.17	-0.2	0.55
Tenure	0.8	0.00	0.9	0.00	0.7	0.00
Hours worked per week	0.3	0.00	...	...	...	...
Demographics						
Male	-5.9	0.00	-4.9	0.15	-5.3	0.01
Female	...	...	...	...	...	...
Youth (15-24)	-10.9	0.00	-21.7	0.00	-6.5	0.08
Prime (25-54)	5.4	0.04	3.0	0.54	6.3	0.04
Old	...	...	...	...	...	...
Family Type						
Single with Children ¹	1.5	0.59	-3.1	0.56	2.8	0.41
Single without Children	-1.4	0.47	-5.6	0.18	-0.5	0.84
Married ² with Children	3.1	0.11	0.8	0.83	3.8	0.09
Married without Children	...	...	...	...	...	...
Education						
Less than High School	...	...	...	...	...	...
High School	-1.3	0.53	-0.8	0.85	-1.9	0.40
More than High School	-4.3	0.02	-1.0	0.81	-5.4	0.01
Other	-8.3	0.11	14.2	0.20	-12.9	0.02
Region						
Atlantic	8.9	0.00	5.3	0.24	10.3	0.00
Quebec	6.7	0.00	9.3	0.03	6.2	0.02
Ontario	...	...	...	...	...	...
Prairies	-1.9	0.31	-2.0	0.58	-1.5	0.50
British Columbia	7.4	0.00	7.9	0.05	8.0	0.00
Industry						
Primary	3.4	0.38	38.0	0.00	1.1	0.79
Manufacturing	5.2	0.14	21.3	0.01	3.1	0.44
Construction	11.1	0.00	13.7	0.22	10.7	0.01
Services	9.3	0.00	13.8	0.01	10.1	0.01
Government	...	...	...	...	...	...
Log Likelihood	-12007		-2910		-9218	
N	18681		4793		14171	

Notes:

1. Refers to dependants aged 0-15.
2. Includes common-law marriages.
3. The dependent variable equals one if the individual received EI. The sample was restricted to those who had at least one week of unemployment.

Data Source: COEP Survey & EI data file

Table 6
OLS Regression of Entitlements of EI Recipients

	All		35<		≥35	
	Weeks	P-val	Weeks	P-val	Weeks	P-val
Reform Change in Constant	-0.6	0.04	-2.8	0.00	0.2	0.66
Multiple Job-Holders	0.0	0.93	0.0	0.79	0.0	0.55
Impact of EI Reform on Weeks of Multiple Job- Holding	0.1	0.01	0.2	0.1	0.1	0.09
Unemployment Rate	0.7	0.00	0.7	0.00	0.7	0.00
Tenure	0.1	0.00	0.0	0.60	0.1	0.00
Hours worked per week	0.1	0.00	...	...	...	...
Demographics						
Male	-0.2	0.60	-0.5	0.54	-0.2	0.64
Female	...	...	...	...	...	...
Youth (15-24)	-2.6	0.00	-3.1	0.08	-2.2	0.01
Prime (25-54)	-0.2	0.67	0.5	0.72	-0.3	0.59
Old (55+)	...	...	...	...	...	...
Family Type						
Single with Children ¹	-0.2	0.75	0.5	0.65	-0.6	0.34
Single without Children	-1.4	0.00	-0.9	0.35	-1.6	0.00
Married ² with Children	0.0	0.90	-0.5	0.56	0.2	0.66
Married without Children	...	...	...	...	...	...
Education						
Less than High School	...	...	...	...	...	...
High School	0.7	0.11	0.4	0.68	0.6	0.17
More than High School	1.1	0.01	1.7	0.08	0.8	0.05
Other	2.7	0.02	1.5	0.57	3.1	0.01
Region						
Atlantic	-2.2	0.00	0.0	0.99	-2.8	0.00
Quebec	0.7	0.21	1.6	0.12	0.2	0.79
Ontario	...	...	...	...	...	...
Prairies	-1.8	0.00	-1.2	0.21	-1.8	0.00
British Columbia	-0.3	0.57	-0.5	0.64	-0.4	0.49
Industry						
Primary	-2.9	0.00	-1.9	0.40	-2.2	0.03
Manufacturing	0.4	0.61	-3.1	0.13	1.0	0.30
Construction	-2.7	0.00	-1.5	0.41	-2.2	0.02
Services	1.1	0.14	-1.5	0.17	2.1	0.02
Government	...	...	...	...	...	...
R2	0.1175		0.1133		0.1332	
N	14339		3576		11009	

Notes:

1. Refers to dependants aged 0-15.

2. Includes common-law marriages.

Data Source: COEP Survey & EI data file

This equation was estimated by means of an interaction term on the slope, which allowed the impact to vary with the number of weeks of multiple job-holding. Thus an individual with only one week of multiple job holding during the claim formation period will derive less benefits than one who had ten weeks of multiple job-holding. Readers interested in the technical aspects are referred to the Technical notes at the end of this document.

It should be noted that the overall constant term indicated a secular fall in EI reciprocity for those with less than 35 hours a week of work. This finding is in line with the monitoring report which investigates this issue in more detail.⁷ This essential result derives from the fact that a week of work is valued less under EI reform if it contained less than 35 hours.

Table 6 provides estimates of the impact on entitlements. This regression was run using Ordinary Least Squares so the coefficients would be interpreted as the number of weeks of change in entitlements for every week of multiple job-holding. The sample is smaller than that which was used in Table 5, as Table 5 included those who were unemployed for one week and Table 6 included those who were unemployed and established an EI claim. In general, most of the variation in entitlements is explained by the unemployment rate, the average hours worked per week and the number of weeks of work. For example, each percentage point in the unemployment rate led to 0.7 more weeks of entitlements on average. Most of the significant demographic coefficients would be capturing the variation that would not be explained due to non-linearities in the relationship between hours of work, unemployment and entitlements.

The third line, on Table 6, gives the impact of EI reform. For those working less than 35 hours a week, the coefficient indicates that the impact of each week of multiple job-holding has gone up from zero to 0.2. For those working more than 35 hours a week, the impact was half as large and had a lower level of significance. Again it should be noted that the constant term indicated an overall secular drop in the entitlements for those who worked less than 35 hours. This is explained in detail in the above-cited paper on eligibility.

The results of Tables 5 and 6 indicate that entitlements are improving for all multiple job-holders and that EI-reciprocity improved for those working less than 35 hours. It follows that there may be an increase in the multiple job-holding as a result. Table 7 provides some interesting results indicating that multiple job-holding went up by 5.6 per cent for those who worked less than 35 hours. No significant changes were found for those working more than 35 hours. This is likely due to smaller improvements in entitlements and reciprocity.

⁷ See, "Monitoring Report on the Eligibility, Take-up and Entitlements to EI" for more details.

Table 7						
Probit of Multiple Job-Holding among Beneficiaries						
	All		35<		≥35	
	%diff	P-val	%diff	P-val	%diff	P-val
Reform	1.7	0.07	5.6	0.03	1.0	0.28
Demographics						
Male	-1.3	0.18	4.5	0.19	-1.1	0.26
Female	...	...	...	...	...	...
Youth (15-24)	15.6	0.00	10.1	0.13	16.0	0.00
Prime (25-54)	4.2	0.00	5.8	0.16	3.9	0.01
Old (55+)	...	...	...	...	...	...
Family Type						
Single with Children ¹	1.3	0.53	-3.5	0.43	2.2	0.29
Single without Children	2.1	0.10	0.2	0.95	2.4	0.05
Married ² with Children	0.1	0.91	0.6	0.87	0.1	0.92
Married without Children	...	...	...	...	...	...
Education						
Less than High School	...	...	...	...	...	...
High School	-0.2	0.87	4.2	0.31	4.2	0.45
More than High School	3.1	0.01	7.9	0.03	2.3	0.05
Other	-0.3	0.90	-9.9	0.02	0.8	0.78
Region						
Atlantic	0.5	0.68	3.1	0.43	0.6	0.66
Quebec	2.5	0.11	7.0	0.12	1.9	0.24
Ontario	...	...	...	...	...	...
Prairies	2.6	0.06	1.4	0.73	3.0	0.04
British Columbia	3.5	0.03	5.5	0.22	3.0	0.06
Industry						
Primary	-1.7	0.47	0.7	0.94	-0.4	0.87
Manufacturing	-3.2	0.12	-11.5	0.00	-0.6	0.77
Construction	1.2	0.60	-10.5	0.02	4.2	0.09
Services	-1.1	0.61	-17.5	0.05	0.7	0.71
Government	...	...	...	...	...	...
Log Likelihood	-3066		-1683		-2412	
N	11204		1683		9521	
<i>Notes:</i>						
1. Refers to dependants aged 0-15.						
2. Includes common-law marriages.						
Data Source: COEP Survey & EI data file						

It should be noted that a small portion of the increase in multiple job-holding between the pre and post period is due to the secular trend of rising multiple job-holding. It is impossible to control for this using COEP data alone as there is not

a sufficient time span. However, estimates based on LFS data would suggest that the trend would only comprise far less than one percentage point of the rise.⁸

Medium-term

This section examines the years after the EI reform period. With the current COEP, five years of third quarter data are available, which enables the assessment of the medium term impacts.

Figure 2



Figure 2 gives the rate of multiple job-holding while forming a claim for EI. As can be seen the increase in multiple job for those with less than 35 hours that was identified in the econometric section continue until

1998, then levelled off in 1999.

Conclusions

The move to the hours regime has given multiple holders greater entitlements by roughly 0.1 weeks for every week of multiple job-holding while forming a claim. EI eligibility of those who work less than 35 hours a week increased by one per cent for every week of multiple job-holding, as well. This appears to have led to an increase in the rate of multiple job-holding beyond what can be explained by the secular trend for those who have worked less than 35 hours per week.

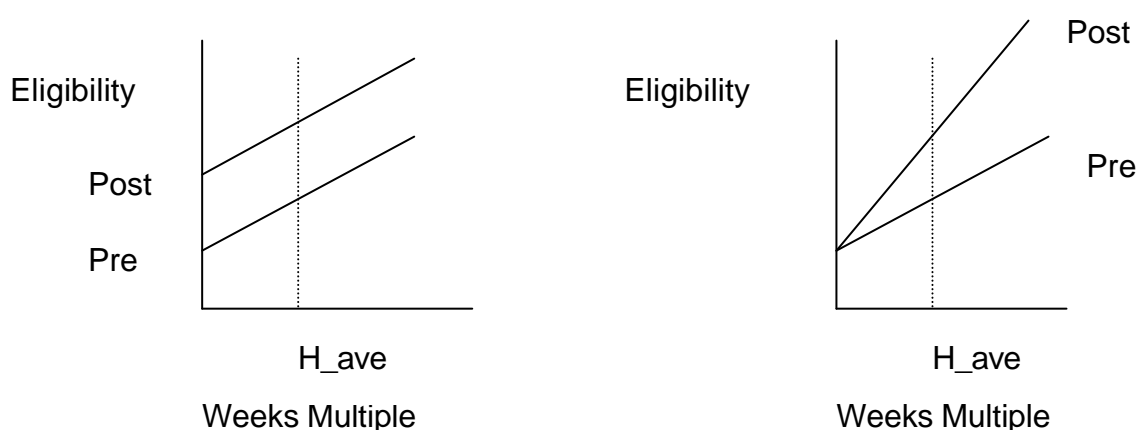
⁸ These estimates were obtained from an unpublished SEM study, "Impact of the Business Cycle on Multiple Job-Holding", Harold Henson, SEM.

Technical Notes

In all tables and econometrics weighted data was used. In the histogram given in Figure 1 the data was unweighted.

Interpretation of Program Impacts with an Interaction Model

Tables 5 and 6 showed large negative impacts from the dummy variables on the constant term. Normally changes in the constant term would be interpreted as the effect of program. This section provides an intuitive explanation as to why this is not true in this case. This is because it is possible for the coefficient on the dummy variable to be negative and the overall effects of the program to be positive when an interaction term is included to measure the impact of the program.



The two figures represent the estimated impacts of weeks of multiple job-holding on entitlement. In both cases, the movement from the pre regime to the post regime is shown to be positive.

The case on the left represents a more traditional means of viewing the impact of a program. Here the movement from the pre EI reform period to the post EI reform simply shifts the constant term on the relationship determining eligibility. This graphical representation would be captured by an equation that is estimated such as $\text{eligibility} = b_0 + b_1 * \text{weeks} + b_2 * \text{post}$, where post equals one in the post program period and weeks refers to weeks of multiple job-holding. The coefficient of b_2 would represent the average impact, regardless of the number of weeks of multiple job-holding.

The case on the right represents the approach used in Tables 5 and 6 for capturing the impact of multiple job-holding on eligibility and entitlement. The graphical representation here would correspond to the equation $\text{eligibility} = b_0 + b_1 * \text{weeks} + b_2 * \text{post} + b_3 * \text{post} * \text{weeks}$. In this case, the movement to the

post period increases the slope. This would show up as a positive sign on b_3 , however b_2 would equal zero.

However in the case of the actual regressions reported on Table 6, we know from Table 4 that the entitlements did improve for those who worked more than 35 hours. Thus, in the case of regression results reported in Table 6 the slope became more positive with respect to weeks of multiple job-holding. However the constant term was unchanged.