

***An Evaluation of the Impact  
of the 1997-1998 Small Weeks  
Projects on EI Program and  
Labour Market Outcomes***

**Final Report**

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# *Abstract*

The formula for calculating the level of weekly benefits paid to EI recipients was changed as part of the move to an hours-based EI system in January 1997. Under the new system the weekly benefit rate is based on average weekly insured earnings in the rate calculation period (RCP), which is the twenty-six weeks preceding the last day of employment. Average weekly earnings are calculated by dividing total earnings during the RCP by the greater of the number of weeks worked or the minimum divisor. This formula creates a disincentive for individuals to accept weeks of work during the RCP that lower their average weekly earnings and therefore their subsequent benefit levels.

In 1997, HRDC introduced temporary benefit rate adjustment formulas that are intended to undo this disincentive. Under the Small Weeks Projects, claimants were allowed to exclude or bundle “small” weeks, during which earnings were less than \$150, from the calculation of average weekly earnings. Over 11 percent of all claimants in regions included in the Projects worked at least one small week in the Rate Calculation Period, and therefore benefited from the program. Women were far more likely than men to benefit: 7.6 percent of male claimants participated compared to 14.6 percent of female claimants. The exact number of small weeks worked could not be measured directly because, although data on weekly earnings are available in unedited form, their preliminary nature made them unsuitable for this purpose. Instead, these important statistics are inferred from the difference between a claimant’s actual benefit rate and status quo rate. The results indicate that the average female participant worked between 3.2 and 5.3 small weeks, and the average male participant worked between 2.9 and 4.1 small weeks.

Participation in the program does not necessarily mean that individuals altered their behaviour in response to the program. Some small weeks might have been worked anyway. We refer to an increase in benefits that arises simply because a different formula has been applied to an unchanged work pattern as a “passive” increase in benefits; however, some behavioural response might be expected. The small weeks benefit formulas altered work incentives both by eliminating the disincentive to work small weeks, and creating a new incentive to convert below-average weeks when earnings exceed \$150 to small weeks. Claimants may have responded to the first incentive by working additional weeks, and/or to the second incentive by converting below-average big weeks to small weeks.

Econometric evidence provided in this paper indicates that the average female participant would have worked no small weeks had the program not been in place, and did not convert any big weeks to small weeks. All of the between 3.2 and 5.3 small weeks worked by the average female participant appear to have arisen as an active increase in weeks worked in response to the program. All but 1.5 of the small weeks worked by the average male participant, that is, between 1.8 and 2.6 weeks, similarly appear to have arisen as an active increase in weeks worked. The remaining 1.5 weeks could have arisen passively, that is, they might have been worked anyway, or could reflect the conversion of big weeks to small. Given the very high effective marginal tax rates on small weeks in the pre-program

period, and the almost equally high effective marginal tax rates on below-average big weeks during the program period, the latter interpretation is much more plausible. The program increased the income of the average female participant by an estimated \$450 to \$750, and of the average male participant by an estimated \$495 to \$615.

These findings indicate that the Small Weeks Projects succeeded in encouraging a significant proportion of EI claimants to work additional weeks. By encouraging additional work and by eliminating the penalty for small weeks that would have been worked anyway, the program generated increased incomes for these primarily low-income, female claimants in high unemployment regions.

While the Small Weeks Projects succeeded in attaining their stated objectives, the evidence strongly suggests that there has been an unintended side effect in addition. The average male participant appears to have reduced working hours in some below-average big weeks in order to increase both leisure and income. Given the very high effective marginal tax rates on earnings in excess of \$150 in below-average weeks, this response is unsurprising. This unintended effect of the Small Weeks Projects should be monitored carefully in future.



# *Introduction*

The formula for calculating the level of weekly benefits paid to Employment Insurance (EI) recipients was changed as part of the move to an hours-based EI system in January 1997. Under the new system the weekly benefit rate is based on average weekly insured earnings in the Rate Calculation Period (RCP), which is the twenty-six weeks preceding the last day of employment. Average weekly earnings are calculated by dividing total earnings during the RCP by the greater of the number of weeks worked or the minimum divisor. This formula creates a disincentive for individuals to accept weeks of work during the RCP that lower their average weekly earnings and therefore their subsequent benefit levels.

In 1997, HRDC introduced temporary benefit rate adjustment formulas that are intended to undo this disincentive. Phase I of the Small Weeks Adjustment Projects applied to eligible claims filed between May 4, 1997 and November 15, 1998 in a set of high unemployment regions, and Phase II applied to eligible claims filed between August 31, 1997 and November 15, 1998 in the remaining high unemployment regions. Both phases of the Projects allowed claimants to exclude or bundle “small” weeks, during which earnings were less than \$150, from the calculation of average weekly earnings, thereby eliminating the disincentive to work small weeks. The start and end dates of both phases were announced in the first week of March 1997.

This report uses administrative data supplied by HRDC to evaluate the Small Weeks Projects. This evaluation has two objectives:

- (1) to determine the nature and magnitude of any changes in work patterns in response to the program; and
- (2) to determine how the program affected the incomes of participants.

This report begins in Section 1 with a description of patterns of participation in the Projects over time, and describes the characteristics of program participants. Section 2 explores the incentives created by the program. Econometric estimates of behavioural responses to the Projects are presented in Section 3. Section 4 concludes.



# *1. Participation in the Small Weeks Projects*

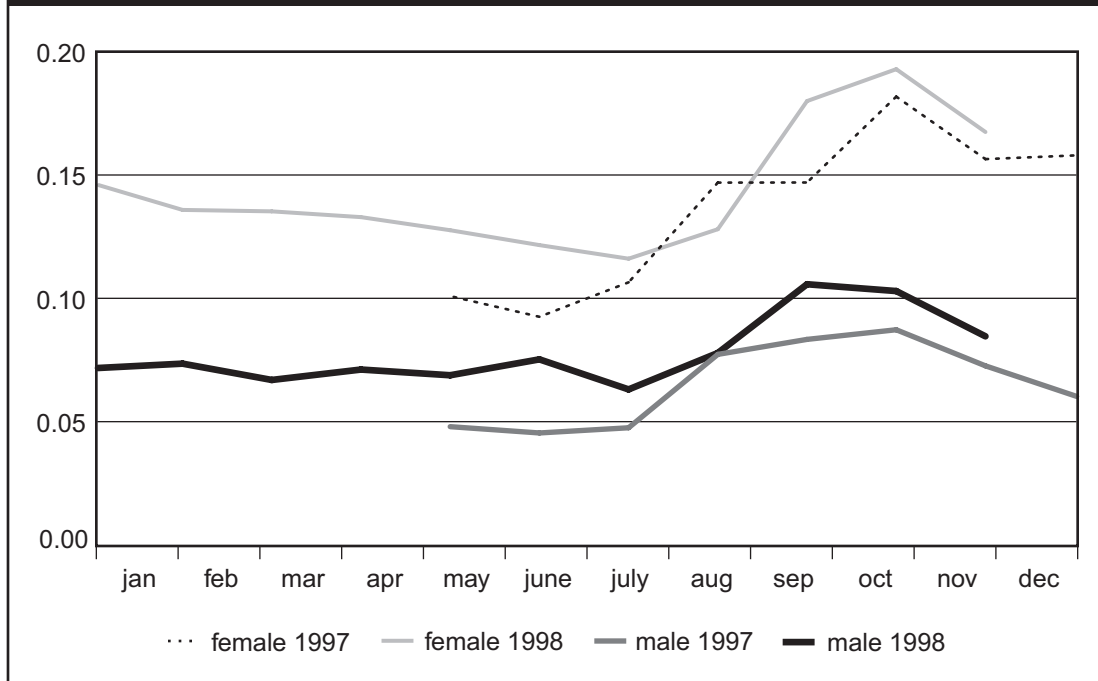
The Small Weeks Projects became effective in Phase I regions on May 4, 1997 and in Phase II regions on August 31, 1997. Between these dates and November 15, 1998, when these phases of the Projects were terminated, almost 1.5 million workers filed Employment Insurance (EI) claims in these regions. Of these, 7.6 percent of male claimants and over 14.6 percent of female claimants received higher weekly benefits because of the Small Weeks Projects.

Table 1 presents mean values of some important variables for participants and non-participants who filed claims in the program period. Participants lived in regions with somewhat higher unemployment rates and worked fewer hours in the qualifying period than non-participants did. The variable “previous” is defined as the number of weeks since June 1996 during which the individual received benefits. Project participants had on average spent a greater number of weeks collecting EI benefits in the recent past than had claimants in general. The profile of a typical beneficiary of the Small Weeks Projects therefore is a female claimant from a particularly high unemployment region with a history of previous benefit receipt and who has worked approximately 25 percent fewer hours in the qualifying period than the average EI claimant.

Figure 1 shows that the participation rate of both men and women was seasonal, rising in the fall and early winter. The female participation rate was greater than the male participation rate in every month and had a more pronounced seasonal pattern. With the exception of August, the participation rate was higher in 1998 than in comparable months in 1997.

<b>TABLE 1</b>				
<b>Selected Data Means, All Claims Filed in Regions and Months When the Projects Were in Effect</b>				
	<b>Female non-participants</b>	<b>Female participants</b>	<b>Male non-participants</b>	<b>Male participants</b>
Unemployment rate	12.7	14.1	13.1	14.0
Previous	11.0	20.4	16.1	21.9
Hours	1,276.9	1,001.3	1,279.1	1,087.6
Change in weekly benefit	—	19.95	—	25.60
N	544,305	93,342	759,733	62,758

**FIGURE 1**  
**Participation Rate, Small Weeks Projects**



The administrative data files contain information both about the actual weekly benefit rate paid to Project participants and about the “status quo benefit rate,” the benefit rate that the individual would have received with the same employment history had the person been treated in the standard (EI, no Small Weeks Projects) way. The average weekly program benefit rate of female participants exceeded their status quo benefit rate by \$19.95 and of male participants by \$25.60.

These participation rates and increases in benefits paid under the Projects do not necessarily imply a behavioural response to the program. Participation in the program means that some small weeks were worked during the program period. The primary question of interest is the extent to which these small weeks would have been worked anyway. At one extreme, claimants would have worked the same number of weeks regardless of the incentives created by the Projects, so that there was no behavioural response. Small weeks worked that do not reflect a change in behaviour will be termed “passive.”

At the other extreme, claimants might have worked no small weeks in the absence of the program. The small weeks worked under the program could have arisen as participants added small weeks of work, or as they converted below average “big” weeks, during which earnings exceeded \$150, to small weeks. The “active addition” of small weeks represents an increase in work, while the “active conversion” of big weeks to small weeks represents a reduction in work. The next section explores the nature of the incentives under the EI program and the changes in those incentives created by the Small Weeks Projects in order to generate a better understanding of what sort of behavioural response might be expected.

## *2. Work Incentives under the Small Weeks Projects*

The intention of the Small Weeks Projects is to undo the disincentive to work small weeks that was created under the EI program commencing in January 1997. The disincentive arises because, although eligibility and entitlement are now defined in terms of total hours worked, the level of benefits paid depends on the total insured earnings in the twenty-six week rate calculation period (RCP), divided by the greater of the number of weeks worked in the RCP or the minimum divisor. If an extra week of work generates lower earnings than the average of previous weeks worked, it lowers average insured earnings and reduces the level of benefit paid.

In a static labour/leisure choice model, fully informed workers will choose not to work an additional week if the cost of doing so exceeds the expected benefit.<sup>1</sup> A worker who foregoes a week of work gives up the income she would have earned in that week and gains some number of hours of time that she can devote to non-market activity. Assuming that the entrance requirement and minimum divisor have been met and that the earnings in that week would have been less than the average weekly earnings in the Rate Calculation Period, her decision not to work will yield a higher average weekly benefit payment if she makes an EI claim. The outcome of the cost-benefit calculation will depend on the amount of earnings given up, the difference between the weekly earnings of the week in question relative to average earnings in other weeks worked during the RCP, the number of hours of work required to generate those earnings and the number of weeks of EI entitlement.

Panel A of Table 2 shows the disincentives that existed under the EI program before the commencement of the Small Weeks Projects for a typical female program participant who worked 21 “big” weeks with average weekly earnings of \$304. The first row of panel A shows that if she worked one more week and earned \$300, this increase in her earnings shown in column (3) would be offset by a reduction in benefits of \$3 over a benefit period of 30 weeks (10 cents per week), shown in column (4).<sup>2</sup> The \$300 increase in earnings would yield an increase of only \$297 in her total income over the time of the Rate Calculation Period and the Benefit Period, shown in column (5). The effect of additional weeks of work on entitlement is ignored in this calculation because the average participant comes nowhere near exhausting her benefit period. The last column indicates the effective tax rate on earnings working through the benefit rate calculation formula.

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<sup>1</sup> The static labour/leisure choice model is widely used in the analysis of incentive effects created by unemployment insurance systems. See, for example, Phipps (1990, 1991), Green and Riddell (1993) and Green and Sargent (1995).

<sup>2</sup> The effect of an additional small week of work on the program benefit rate is calculated by applying the benefit rate formula to the work pattern of the average participant in the Small Weeks Projects who works one small week with the indicated earnings. For details of this calculation, see Appendix B.

**TABLE 2**  
**The Effect of Working an Extra Week on Benefits and Income,**  
**Average Female Participant**

	Instead of Earning	Earn	Increase in Earnings	Reduction in Benefits	Change in Total Income	Effective Tax Rate
	(1)	(2)	(3) = (2) - (1)	(4)	(5) = (3) + (4)	(6) = -(4)/(3)
<b>A. No Small Weeks Projects</b>						
	\$0	\$300	\$300	-\$3.00	\$297.00	1%
	\$0	\$250	\$250	-\$40.50	\$209.50	16.2%
	\$0	\$200	\$200	-\$78.00	\$122.00	39%
	\$0	\$150	\$150	-\$115.50	\$34.50	77%
	\$0	\$100	\$100	-\$153.00	-\$53.00	153%
	\$0	\$50	\$50	-\$190.50	-\$140.50	381%
<b>B. With Small Weeks Projects</b>						
	\$150	\$300	\$150	-3.00	147.00	2%
	\$150	\$250	\$100	-40.50	59.50	40.5%
	\$150	\$200	\$50	-78.00	-38.00	156%
	\$0	\$150	\$150	0.00	150.00	0.00
	\$0	\$100	\$100	0.00	100.00	0.00
	\$0	\$50	\$50	0.00	50.00	0.00

The subsequent rows of Panel A show the effect on benefit levels of additional weeks with different earnings. Effective tax rates on earnings arising through the benefit rate formula are greater than 100 percent if weekly earnings are below about \$130, and become extremely high on weekly earnings of less than \$100. The corresponding column in Table 3 shows that, because of their higher average weekly earnings of \$504, effective tax rates were even higher for males in the absence of the Small Weeks Projects. The disincentive to work small weeks is greater the lower are the earnings generated in that week of work, the higher are earnings averaged over other weeks, the greater the length of the benefit period, the more highly the individual values leisure, and the lower the individual's discount rate.

Panel B of Tables 2 and 3 shows the average effect for females and males respectively of working extra weeks at below average earnings when the Small Weeks Projects are in place. The effects of the program on benefits and income arising from "small weeks" as defined

**TABLE 3**  
**The Effect of Working an Extra Week on Benefits and Income,**  
**Average Male Participant**

	Instead of Earning	Earn	Increase in Earnings	Reduction in Benefits	Change in Total Income	Effective Tax Rate
	(1)	(2)	(3) = (2) - (1)	(4)	(5) = (3) + (4)	(6) = -(4)/(3)
<b>A. No Small Weeks Projects</b>						
	\$0	\$300	\$300	-\$78.00	\$222.00	26%
	\$0	\$250	\$250	-\$115.50	\$134.50	46.2%
	\$0	\$200	\$200	-\$153.00	\$47.00	76.5%
	\$0	\$150	\$150	-\$190.50	-\$40.50	127%
	\$0	\$100	\$100	-\$228.00	-\$128.00	228%
	\$0	\$50	\$50	-\$265.50	-\$215.50	531%
<b>B. With Small Weeks Projects</b>						
	\$150	\$300	\$150	-\$78.00	\$72.00	52%
	\$150	\$250	\$100	-\$115.50	-\$15.50	115.5%
	\$150	\$200	\$50	-\$153.00	-\$103.00	306%
	\$0	\$150	\$150	\$0.00	\$150.00	0.00
	\$0	\$100	\$100	\$0.00	\$100.00	0.00
	\$0	\$50	\$50	\$0.00	\$50.00	0.00

within the Project are shown in the last three rows on Tables 2 and 3. Because these weeks are no longer included in the benefit rate formula, the effective marginal tax rate on earnings during these weeks is zero. The disincentive to work small weeks has been eliminated, as planned.

The elimination of the effective tax on earnings in small weeks is not the only change in incentives introduced by the program, however. Under the Small Weeks Projects, only below average weeks with earnings of no more than \$150 are ignored in the rate calculation formula. Weeks in which earnings were between \$150 and \$300, for example, would still lower benefit rates. If, however, workers reduce their earnings in these weeks to \$150, they could keep these earnings without any loss of benefit. While the rate calculation formula under EI creates an incentive to avoid working weeks with below average earnings, the rate calculation under the Small Weeks Projects creates an incentive to reduce earnings in below average weeks to the ceiling of \$150.

This incentive is illustrated in the first three rows of Panel B in Tables 2 and 3. In each of these cases, the earnings over \$150 per week causes benefits to fall, reducing total income. Again, the implicit tax rates on income over \$150 in below average weeks are presented in the last column of the Tables. In some cases the disincentives to work below-average “big” weeks under the program are greater than the disincentive to work small weeks that the program was designed to eliminate.



## *3. Analysis of Behavioural Responses*

Given the changes in incentives described in Section 2, we might expect program participants to respond to the Small Weeks Projects by working more, fewer, or the same number of hours and weeks as before. This section begins by generating upper bounds on behavioural responses from the raw data. These upper bounds can then be used to gauge the plausibility of the formal econometric evidence presented next. Finally, estimates of the behavioural responses are used to inform estimates of changes in participants' incomes.

### **3.1 Upper bounds on behavioural responses implied by the data**

The number of small weeks added or converted by participants obviously cannot be greater than the number actually worked. Although data on weekly earnings are available in unedited form, their preliminary nature made measuring small weeks directly from weekly earnings data too unreliable for purposes of this investigation; however, the benefit rate data can be used to approximate the number of small weeks worked by program participants.

Consider first the case of an average female participant, presented in Table 4. We know that the average difference between the actual benefit rate paid and the status quo benefit rate of female program participants was \$19.95. Panel A shows that the addition of a \$150 week would drive a wedge between the status quo and actual benefit rate of about \$3.80, an additional \$100 week would generate a difference of \$5.10, and an additional \$50 week would generate a difference of \$6.30 (see Appendix B). The average difference between the actual and status quo benefit rates could reflect 5.3 weeks worked at \$150 per week, 3.9 weeks at \$100 per week, or 3.2 weeks at \$50 per week. We therefore can conclude that the average female participant worked between 3.2 and 5.3 small weeks during the Rate Calculation Period. If we assume the individual would have worked no small weeks in the absence of the Projects and none of the increase in weekly benefits was effected through a reduction in hours that converted big weeks to small weeks, we can treat these numbers as approximate upper bounds on the increase in the number of weeks worked by the average female participant.

Alternatively, if we assume the individual worked no small weeks in the absence of the Projects and none of the increase in weekly benefits was effected through increased weeks of work, we can treat these 5.3 (at \$150) weeks as the upper bound on the number of big weeks converted to small weeks by the average female participant.

The average difference between the actual benefit rate paid and the status quo benefit rate of male program participants was \$25.60. Table 5 shows that, for males, an additional \$150 week would drive a wedge between the status quo and actual benefit rate of about

\$6.30, an additional \$100 week would generate a difference of \$7.60, and an additional \$50 week would generate a difference of \$8.80 (based on Table 3, Panel A). The average difference between the actual and status quo benefit rates could reflect 4.1 weeks worked at \$150 per week, 3.4 weeks at \$100 per week, or 2.9 weeks at \$50 per week. We therefore can conclude that the average male participant worked between 2.9 and 4.1 small weeks during the program period. If we assume no small weeks would have been worked in the absence of the program and no big weeks were converted to small weeks, at most between 2.9 and 4.1 small weeks of work could have been added by the average male participant.

<b>TABLE 4</b>				
<b>Upper Bounds on Behavioural Responses, Females</b>				
	<b>Weekly Earnings</b>	<b>Change in Weekly Benefit</b>	<b>Difference between Program and Status Quo Benefit Rates</b>	<b>Upper Bound on Increase in Small Weeks Worked</b>
<b>A. Active Addition</b>				
	\$150	\$3.80	\$19.95	5.3
	\$100	\$5.10	\$19.95	3.9
	\$ 50	\$6.30	\$19.95	3.2
<b>B. Active Conversion</b>				
	\$150	\$3.80	\$19.95	5.3

<b>TABLE 5</b>				
<b>Upper Bounds on Behavioural Responses, Males</b>				
	<b>Weekly Earnings</b>	<b>Change in Weekly Benefit</b>	<b>Difference between Program and Status Quo Benefit Rates</b>	<b>Upper Bound on Increase in Small Weeks Worked</b>
<b>A. Active Addition</b>				
	\$150	\$6.30	\$25.60	4.1
	\$100	\$7.60	\$25.60	3.4
	\$ 50	\$8.80	\$25.60	2.9
<b>B. Active Conversion</b>				
	\$150	\$6.30	\$25.60	4.1

Alternatively, if we assume the individual worked no small weeks in the absence of the Projects and none of the increase in weekly benefits was effected through increased weeks of work, we can treat 4.1 (at \$150) weeks as the upper bound on the number of big weeks converted to small weeks by the average male participant.

## 3.2 Econometric analysis of behavioural responses

In order to identify the effect of the Small Weeks Projects on participants' working hours and earnings, we need to investigate the extent to which the observed increase in benefits reflects a behavioural response or a windfall effect. The objective of this section is to present some econometric evidence on the behavioural response. Direct evidence that EI claimants were more likely to work small weeks under the program cannot be provided because the Small Weeks Adjustment Projects were not designed as random experiments in which participants and non-participants were selected randomly from the designated sites. Moreover, the quasi experiment method based on the pre and post comparison also presents certain methodological difficulties. While claimants who worked at least one small week under the program are identified by their program participation, claimants who worked at least one small week in the pre-program period cannot be identified.

The next most direct approach to estimating a behavioural response to the program would be to examine the difference between the total hours worked in the rate calculation period during the pre-program and program periods. Two problems rendered this approach unsatisfactory. First, total hours is subject to measurement error. This problem arises because part of the qualifying period falls in 1996 for many claims, when weekly hours were not recorded. Weeks worked in 1996 were credited with 35 hours in reported total hours. Because a greater proportion of the qualifying period of claims filed early in 1997 fell in 1996 compared to claims filed later, the magnitude of the measurement error is diminishing over time. Because measurement error in total hours is correlated with calendar time in this way, any change in total hours across time periods in response to the program will be confounded with measurement error in the data. Second, hours worked may be sensitive to changes in economic conditions over time that work in complex ways that we are not able to control for. Despite extensive exploratory work and experimentation with a number of different control groups, plausible estimates of the program effect on total hours worked were never obtained.

A more indirect approach to estimating the behavioural response to the program proved more successful. The administrative data supplied by HRDC measure the total number of weeks worked during the RCP in the pre-program period, but measure only the number of "big" weeks worked during the RCP in the program period. These data permit us to distinguish between some interpretations of the number of small weeks worked under the program. To see this, consider the three examples illustrated in Table 6.

In example 1, the claimant actually works 4 small weeks during the pre-program period, and continues to do so once the program is in place. In this example, the administrative data supplied by HRDC would report the numbers shown in Table 6 as "measured divisor weeks." This measure includes these small weeks in the pre-program period, but excludes them in the program period. The measured treatment effect in this *passive* case would be a reduction of 4 divisor weeks. Note that the number of weeks worked has not changed at all, but the reported change in weeks worked is a pure artifact of the way that the data are reported.

In example 2, the claimant works no small weeks during the pre-program period, but adds 4 small weeks in response to the program. Measured divisor weeks do not include these small weeks during the program period. The measured treatment effect in this case of *active addition* is zero. Note that the number of weeks worked has increased, but the data indicate no change at all.

<b>TABLE 6</b>				
<b>Illustrative Examples of Effect of Projects on Measured Divisor Weeks Under Different Behavioural Assumptions</b>				
		<b>Example 1 Passive Behaviour</b>	<b>Example 2 Active Addition</b>	<b>Example 3 Active Conversion</b>
<b>Actual Weeks Worked (not reported in data)</b>				
	pre-program period	20 big, 4 small	20 big	20 big, of which 4 below average
	program period	20 big, 4 small	20 big, 4 small	16 big, 4 small
<b>Measured Divisor Weeks (as reported in data)</b>				
	pre-program period	20 big, 4 small	20 big	20 big
	program period	20 big	20 big	16 big
<b>Estimated Treatment Effect on Divisor Weeks (based on measured divisor weeks)</b>				
		-4	0	-4

In example 3, the claimant works 20 big weeks in the pre-program period, of which 4 are below average. Under the program, the effective tax rates on these below-average weeks are extremely high, and the claimant converts them to small weeks. These weeks are included in the measure of divisor weeks in the pre-program period but are excluded during the program period. The measured treatment effect in this *active conversion* case would be a reduction of 4 divisor weeks, although the number of weeks worked in total has not changed.

The methodology used to estimate the effect of the Projects on measured divisor weeks is based on comparing the number of divisor weeks recorded for claimants who were covered by the Projects to the number recorded for similar claimants who were not, because the Projects were not in effect in their region at the time the claim was filed. The “control” group of claimants not covered by the Projects consists of those who filed claims between January

and April 1997 in Phase I regions and between January and August in Phase II regions. The “treatment” group of claimants covered by the Projects consists of those who filed claims between May and August 1997 in Phase I regions.

Because both the treatment and control groups include claimants from Phase I regions, our methodology effectively compares data from claims from the same regions, so that we do not confound program effects with simple regional differences. Similarly, because both the treatment and control groups include claimants from May through August 1997, our methodology effectively compares data from claims from the same time period, so that we do not confound program effects with changes that occur over time because of changing economic conditions, or delayed behavioural responses to other changes in the EI program.

This research design was chosen to minimize problems of selection bias in order to identify the program effect as credibly as possible. This approach may underestimate the full program effect somewhat, because some claimants may not have been aware of the program when making work decisions. On the other hand, some claimants in the control group who worked small weeks may have delayed their claims until the program became effective in their region, leading us to an overestimate of the true program effect. Given the nature of the data collection process, the approach taken is designed to yield the most credible estimates possible.

The model of divisor weeks was estimated separately for men and women. Descriptive statistics for the treatment and control samples, presented in Table 7, show that the average number of divisor weeks in the control group exceeds the average number in the treatment group for both males and females; however, some of the other means shown in Table 7 indicate that labour market experiences of the treatment and control groups differed in other important ways. These differences must be taken into account if we are to identify the true program effect.

The length of the qualifying period is included in the econometric model as a control for changes in labour market conditions that might affect the number of measured divisor weeks.

<b>TABLE 7</b>				
<b>Descriptive Statistics, Treatment and Control Samples</b>				
	<b>Female Controls</b>	<b>Female Treatments</b>	<b>Male Controls</b>	<b>Male Treatments</b>
N	242,286	60,013	256,449	50,458
Divisor Weeks	24.5	23.1	23.5	21.7
Unemployment Rate	12.4	16.2	12.9	16.5
Previous	3.4	8.9	4.4	11.1
Age	38	38	37	38
Minimum Divisor	15.8	14.5	15.6	14.5
Entry Requirement	490	443	481	441

If economic conditions improve, for example, such that claimants have worked more weeks when they claim, this will increase the length of the qualifying period for all claimants with fewer than the maximum 52 weeks that can be worked in the qualifying period. The same improvement in economic conditions may also increase the number of divisor weeks, confounding the estimated treatment effect. Including the length of the qualifying period in the model therefore provides a means of controlling for labour market conditions.

A quartic in age was included in the model as a demographic control. Occupational and industrial dummies were included to control for systematic differences in labour market conditions across industries and occupations. Both the minimum divisor and the entry requirement might affect weeks worked, and so were included in the model. The unemployment rate and its square are entered to capture labour market conditions directly. Monthly dummies were included to control for seasonality not captured in the regional unemployment rate. The measure of previous UI use and its square were also included to capture potentially important differences across individuals in work and EI patterns. Estimated coefficients are presented in Appendix Table A1.

The first row of Table 8 indicates that the estimated treatment effect in the male sample was highly statistically significant, reducing the average number of divisor weeks worked by claimants by 0.079. Combined with the male program participation rate in the treatment group of 5.4 percent, this coefficient translates into an estimate of -1.5 weeks for male program participants.<sup>3</sup>

<b>TABLE 8</b>				
<b>Estimated Treatment Effect, Number of Divisor Weeks</b>				
	<b>Coefficient Estimate</b>	<b>P-value</b>	<b>Participation Rate</b>	<b>Estimated Change in Divisor Weeks</b>
Males	-0.079	0.00	5.4	-1.50
Females	-0.012	0.55	10.7	-1.21

The estimated change in the number of divisor weeks can be interpreted in either of two ways. Referring back to Table 6, recall that a reduction in measured divisor weeks could arise either because there was no change in behaviour, or because participants converted big weeks to small week. The estimated reduction of 1.5 measured divisor weeks in response to the program therefore could reflect the fact that male participants in the Small Weeks Projects would have worked at most 1.5 small weeks anyway and did not change their behaviour, that they converted at most 1.5 big weeks to small weeks under the program,

<sup>3</sup> The measured treatment effect for the whole sample is -0.079 weeks. This estimated difference between the average number of measured divisor weeks in the treatment and control samples must be accounted for by changes in the behaviour of the 5.4 percent of male treatments who participated in the Project. This estimate therefore implies that participants in the Projects recorded  $0.079/0.054 = 1.5$  fewer divisor weeks than their counterparts in the control sample.

or some combination of the two. In addition, any number of small weeks added in response to the Projects is consistent with these estimates, since this particular behavioural response would be reflected in no change in measured divisor weeks (see example 2 in Table 6).

To estimate the number of small weeks “added” in response to the Projects, Table 9 combines the estimates in Table 8 with calculations from benefit rate data.

The average difference between the status quo and program benefit rates for male participants in this sample is \$25.60. One small week of work during which earnings were \$150 would reduce the status quo benefit rate by \$6.30. In Panel A, we interpret the estimated program effect of 1.5 divisor weeks in Table 8 as a reflection of a “passive” response. We then can attribute  $\$9.45 = (1.5) * (\$6.30)$  of the actual difference between the status quo and program benefit rates to this passive response. The remaining  $\$25.60 - \$9.45 = \$16.15$  “unexplained” difference between the program and status quo benefit rates could be accounted for only by an active increase in the number of small weeks worked in response to the Projects. The top panel of Table 9 shows that, depending on weekly earnings, a passive interpretation of the estimated program effect yields an estimate of between 1.4 and 2.6 small weeks of work added.

<b>TABLE 9</b>				
<b>Estimated Number of Small Weeks Added, Males</b>				
<b>Panel A. 1.5 Passive Weeks</b>				
<b>Weekly Earnings</b>	<b>Difference Between Program and Status Quo Benefit Rates</b>	<b>(2) * 1.5</b>	<b>\$25.60 – (3)</b>	<b>Estimated # of Weeks Added = (4) / (2)</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
\$150	\$6.30	\$9.45	\$16.15	2.6
\$100	\$7.60	\$11.40	\$14.20	1.9
\$50	\$8.80	\$13.20	\$12.40	1.4
<b>Panel B. 1.5 big weeks converted to 1.5 small weeks with earnings of \$150</b>				
<b>Weekly Earnings</b>	<b>Difference between Program and Status Quo Benefit Rates</b>	<b>1.5 * \$6.30</b>	<b>\$25.60 – (3)</b>	<b>Estimated # of Weeks Added = (4) / (2)</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
\$150	\$6.30	\$9.45	\$16.15	2.6
\$100	\$7.60	\$9.45	\$16.15	2.1
\$50	\$8.80	\$9.45	\$16.15	1.8

Panel B of Table 9 illustrates the estimated number of weeks added if we interpret the estimated program effect as reflecting the active conversion of 1.5 big weeks to 1.5 small weeks during which earnings were \$150. Each week in which earnings were \$150 would reduce the status quo benefit rate by \$6.30 (see Appendix B).<sup>4</sup> Therefore, the conversion of 1.5 of these weeks would account for \$9.45 of the actual difference between the program and status quo benefit rates of \$25.60. The remaining “unexplained” difference of \$16.15 could reflect the active addition of between 1.8 and 2.6 small weeks, depending on how much was earned in each of them.

Which of these interpretations is more plausible? If we look at the incentive structure before the program was introduced, illustrated in Table 3 for males, we see that the tax rate on small weeks was extremely high, while the tax rate on below average big weeks was significantly smaller. After the program was introduced, the effective tax rate on earnings beyond \$150 in below average big weeks increased greatly and is in some cases as great as the effective tax rates on small weeks in the pre-program period. It therefore seems more likely that men would have worked no small weeks in the pre-program period and converted some below average big weeks to small weeks in the program period, than that they continued to work small weeks at extremely high effective tax rates in the pre-program period and converted no below-average big weeks in the program period.

The results for females that are reported in the second row of Table 8 are different. The program has no statistically significant effect on the number of divisor weeks measured. Recall from Table 6 that the number of measured divisor weeks would fall either if some small weeks were worked in the absence of the Projects, or if some big weeks were converted to small weeks in response to the Projects. The absence of an estimated treatment effect is not consistent therefore with either of these two scenarios. If no small weeks were worked in the absence of the Projects and no big weeks were converted to small weeks in response to the Projects, then all of the difference between the actual and status quo benefit rates must have arisen because female participants chose to work small weeks that they would not have worked if the Projects had not been in place. We therefore can conclude that the average female participant increased the number of (small) weeks that she worked by between 3 and 5.

Additional evidence that both males and females responded actively to the program is suggested by Figure 1, described earlier. That figure suggests that the participation rate was growing over time, perhaps as individuals learned about and responded more actively to program parameters. A formal econometric analysis of program participation can provide a test of whether this increase in program participation reflects learning or simply changes in labour market conditions.

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<sup>4</sup> Column (3) differs from its counterpart in Panel A because we assume in Panel B that earnings in the 1.5 weeks that correspond to the estimated treatment effect were \$150, while in Panel A we assume that the earnings in passive weeks were the same as the earnings in the actively added weeks.



The determinants of the probability that a claimant participated in the program were estimated in a logit framework using data on all claims for the entire sample period. The model included three-digit industry and occupational codes as dummy variables to capture differences in employment patterns associated with differences in the pattern of labour demand across sectors. Monthly dummies were included to control for the seasonality exhibited in Figure 1. The unemployment rate and its square were included because high unemployment rate regions may provide fewer small weeks of employment. The unemployment rate measures may also be picking up the effects of other EI program parameters, such as benefit entitlement and the entrance requirement, which vary with the regional rate of unemployment. Attempts to include these parameters separately as regressors were unsuccessful because of the high degree of colinearity amongst these variables. A quartic in age and a sex dummy were included as demographic controls for differences in both preferences and opportunities facing different types of individuals. Total hours worked in the qualifying period was included to capture something of the individual's labour market attachment. Total hours worked is unfortunately measured with error for many claims because part of the qualifying period falls in 1996, when weekly hours were not recorded. Weeks worked in 1996 were credited with 35 hours in reported total hours. As a control for this measurement error, the share of weeks in the qualifying period that fall in 1996 was included. A polynomial in the share of weeks between June 30, 1996 and the beginning of the current benefit period that were spent in receipt of EI was included to capture the individual's dependence on employment insurance income.

Finally, a polynomial in the number of weeks between the claim date and the effective date of the Projects was included to capture transitional effects as people learned about and changed their behaviour in response to the Projects. The terms of this polynomial were interacted with the measure of previous weeks on EI to allow for the possibility that individuals with a recent history of being in receipt of benefits learned more quickly about the Small Weeks Projects. When a claimant filed a claim in a region and time period when one of the Projects was in place, she was automatically given the Project benefit rate if it is greater than the status quo benefit rate, so that any advantage that arises passively did not require any learning.

The parameter estimates from the logit model are presented in Table A2. The evidence that the probability of participation increases with the passage of time since the Project became effective suggests that there was a behavioural response that increases in magnitude as time passes and learning occurs. A greater period of recent time spent in receipt of benefits increased the probability of participation in all Project weeks, and flattened out the learning curve.

### 3.3 The Small Weeks Projects affect earnings and income

The calculations in the previous sections suggest that the average male participant converted 1.5 above average big weeks to small weeks and added between 1.8 and 2.6 additional small weeks of work in response to the program. The increase in income arising from the conversion of the big weeks to small depends on the size of the big weeks converted. A reasonable upper bound estimate is that income increased by approximately \$225 for this reason.<sup>5</sup> Since earnings in a small week is a maximum of \$150 by definition, the active addition of small weeks would have increased male earnings by at most between \$270 and \$390. The estimated income of the average male participant therefore increased by a total of no more than an amount between \$495 and \$615.

The average female participant was estimated to add between 3 and 5 small weeks in response to the program. Given the definition of a small week, her estimated income therefore increased by at most between \$450 and \$750.

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<sup>5</sup> This estimate is based on the assumption that earnings in the big weeks converted to small weeks would have been \$200 per week. The change in income will be smaller if the earnings in the big weeks converted were greater than this (See Table 3, Panel B).

## 4. Conclusion

This study has found that:

- A large number of EI claimants benefited from the Small Weeks Projects, over 11 percent of all EI claimants in the relevant period;
- The participation rate of female claimants, 14.6 percent, was much higher than the participation rate of male claimants, 7.6 percent;
- The profile of a typical beneficiary of the Small Weeks Projects is a female claimant from a particularly high unemployment region with a history of previous benefit receipt, who has worked approximately 25 percent fewer hours in the qualifying period than the average EI claimant;
- Participation rates were higher in 1998 than in 1997. Formal econometric analysis of the temporal behaviour of the participation rate revealed a pattern that is consistent with learning and adjustment to the program over time;
- The evidence all points to a significant increase in the number of small weeks worked in response to the Projects. The econometric evidence suggests that the average female participant worked between 3.2 and 5.3 additional small weeks, and the average male participant worked between 1.8 and 2.6 additional small weeks, and converted an estimated 1.5 big weeks to small weeks;
- Taken together, the change in the rate calculation formula and the behavioural response to the program increased the income of the average male participant by at most between \$495 and \$615, and of the average female participant by at most \$450 to \$750.

We can conclude from these findings that the Small Weeks Projects succeeded in encouraging a significant proportion of EI claimants to work additional weeks during which earnings were low. By encouraging additional work and by eliminating the penalty for small weeks that would have been worked anyway, the program generated increased incomes for these primarily low-income, female claimants in high unemployment regions.

The evidence strongly suggests that the average male participant reduced working hours in some below average big weeks in order to increase both leisure and income. Given the very high effective marginal tax rates on earnings in excess of \$150 in below average weeks, this response is unsurprising. This unintended effect of the Small Weeks Projects should be monitored carefully in future.



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## *Appendix A: Regression Results*

<b>TABLE A1</b>				
<b>OLS Coefficient Estimates, Number of Divisor Weeks</b>				
	<b>Males</b> N = 306,906 R <sup>2</sup> = 0.42		<b>Females</b> N = 302,298 R <sup>2</sup> = 0.45	
	<b>Coefficient Estimate</b>	<b>P-value</b>	<b>Coefficient Estimate</b>	<b>P-value</b>
Intercept	16.659	0.0001	22.515	0.0001
Length of qualifying period	0.102	0.0001	0.083	0.0001
Unemployment rate	-0.108	0.0001	-0.364	0.0001
Unemployment rate **2	0.001	0.2106	0.009	0.0001
Number of weeks on EI since June 96 (previous)	0.109	0.0001	0.094	0.0001
Age	0.294	0.0001	0.195	0.0001
Age**2	-0.008	0.0001	-0.005	0.0001
Age**3	0	0.0001	0	0.0001
Age**4	0	0.0001	0	0.0022
Previous**2	-0.019	0.0001	-0.016	0.0001
Previous**3	0	0.0001	0	0.0001
February	0.067	0.002	0.039	0.0588
March	0.181	0.0001	0.184	0.0001
April	0.104	0.0001	0.217	0.0001
May	0.139	0.0001	0.223	0.0001
June	0.448	0.0001	0.640	0.0001
July	0.291	0.0001	0.408	0.0001
August	0.054	0.0367	0.176	0.0001
Phase I regions	-0.197	0.0001	-0.318	0.0001
Minimum divisor	0.049	0.0003	-0.043	0.0002
Entry requirement	-0.001	0.0001	-0.001	0.0001
<b>Treatment effect</b>	<b>-0.079</b>	<b>0.0007</b>	<b>-0.012</b>	<b>0.5538</b>
forestry	-1.449	0.0001	-1.501	0.0001
fishing/trapping	0.050	0.1375	-0.300	0.0001
metal mines	0.795	0.0001	0.279	0.1187
mineral fuels	0.543	0.0001	-0.522	0.0463
non-metal mines	0.536	0.0001	-0.532	0.0692
quarries	0.216	0.0957	0.107	0.6995

**TABLE A1 (continued)**  
**OLS Coefficient Estimates, Number of Divisor Weeks**

	Males N = 306,906 R <sup>2</sup> = 0.42		Females N = 302,298 R <sup>2</sup> = 0.45	
	Coefficient Estimate	P-value	Coefficient Estimate	P-value
mining services	-0.405	0.0001	0.072	0.7084
food and beverage	-0.291	0.0001	-1.047	0.0001
tobacco	1.602	0.0001	1.845	0.0001
rubber/plastics	0.194	0.0078	0.346	0.0001
leather	0.752	0.0001	0.581	0.0001
textiles	0.450	0.0001	0.394	0.0001
clothing	0.371	0.0001	0.715	0.0001
wood	0.365	0.0001	0.310	0.0001
furniture	0.404	0.0001	0.064	0.5323
paper	0.560	0.0001	0.256	0.001
printing	0.388	0.0001	0.357	0.0001
primary metal	0.805	0.0001	0.240	0.059
metal fabricating	0.039	0.377	0.413	0.0001
machinery	0.238	0.0001	0.256	0.0126
transportation equipment	0.153	0.0006	0.503	0.0001
electrical	0.133	0.0486	0.527	0.0001
non-metallic mineral	0.279	0.0001	0.255	0.0199
petroleum/coal	0.179	0.2906	0.587	0.0029
chemicals	0.211	0.0135	0.287	0.0001
misc. manufacturing	0.489	0.0001	0.592	0.0001
general contractors	-0.352	0.0001	-0.064	0.417
special trades	-0.302	0.0001	-0.237	0.0001
transportation	-0.132	0.2317	0.130	0.3966
storage	0.239	0.0001	0.223	0.0001
communication	-0.062	0.6691	0.364	0.0016
electric, gas, water	0.369	0.0001	0.312	0.0001
wholesale trade	0.314	0.0001	0.344	0.0001
retail trade	0.241	0.0001	0.246	0.0001
finance	0.356	0.0001	0.228	0.0001
insurance	0.301	0.0001	0.269	0.0001
insurance, real estate	0.174	0.3794	0.475	0.0001



**TABLE A1 (continued)**  
**OLS Coefficient Estimates, Number of Divisor Weeks**

	Males N = 306,906 R <sup>2</sup> = 0.42		Females N = 302,298 R <sup>2</sup> = 0.45	
	Coefficient Estimate	P-value	Coefficient Estimate	P-value
education	-0.051	0.4424	0.241	0.0001
health and welfare	-0.175	0.0001	-0.050	0.0464
religion	-0.321	0.0002	-0.270	0.0005
recreation	0.315	0.0001	0.542	0.0001
personal services	-0.067	0.1291	0.219	0.0001
accommodation and food	0.598	0.0001	0.541	0.0001
misc. services	0.303	0.0001	0.361	0.0001
federal admin.	0.051	0.2863	-0.044	0.2338
provincial admin.	0.123	0.1692	0.151	0.0001
local admin.	-0.352	0.0001	0.302	0.0001
other industries	-0.115	0.0066	0.235	0.0001
other managers	0.375	0.0005	0.067	0.3655
professional	0.381	0.0034	0.091	0.2864
administration	0.167	0.156	-0.018	0.7962
clerical	0.058	0.5847	-0.157	0.0259
natural and applied science — professionals	-0.125	0.2681	-0.242	0.0057
natural and applied science — technical	0.048	0.6536	-0.212	0.012
health — professionals	0.123	0.4678	-0.135	0.0703
health — technical	0.184	0.1996	-0.247	0.0014
health — assistants	0.058	0.6915	-0.206	0.0066
social science, etc. — professional	0.499	0.0001	0.085	0.2346
law, etc. — paraprofessional	0.468	0.0002	-0.126	0.0852
art and culture — professional	-0.036	0.7898	-0.196	0.0206
art, etc. — technical	-0.080	0.4895	-0.330	0.0001
sales and service — skilled	0.193	0.0726	-0.175	0.0162
sales and service — intermediate	0.081	0.4435	-0.229	0.0011

**TABLE A1 (continued)**  
**OLS Coefficient Estimates, Number of Divisor Weeks**

	Males N = 306,906 R <sup>2</sup> = 0.42		Females N = 302,298 R <sup>2</sup> = 0.45	
	Coefficient Estimate	P-value	Coefficient Estimate	P-value
sales and service — elemental	0.060	0.5653	-0.322	0.0001
trades and transport — skilled	-0.274	0.008	-0.565	0.0001
transport, etc. — intermediate	-0.089	0.3871	-0.487	0.0001
trades and construction helpers	-0.815	0.0001	-1.394	0.0001
primary — skilled	-0.293	0.0068	-0.920	0.0001
primary — intermediate	-0.922	0.0001	-1.714	0.0001
primary — labourers	-1.018	0.0001	-1.287	0.0001
manufacturing — skilled	0.104	0.4215	-0.110	0.3851
manufacturing — operators and assemblers	-0.320	0.0024	-0.984	0.0001
manufacturing — labourers	-0.403	0.0001	-0.718	0.0001

<b>TABLE A2</b>				
<b>Logit Coefficient Estimates, Probability of Participation in the Small Weeks Project</b>				
	<b>Males</b>		<b>Females</b>	
	<b>Coefficient Estimate</b>	<b>P-value</b>	<b>Coefficient Estimate</b>	<b>P-value</b>
Intercept	0.53281	0.0001	0.951637	0.0001
Hours	-5.3E-05	0.0001	-0.00011	0.0001
Unemployment rate	0.00791	0.0001	0.015548	0.0001
Unemployment rate **2	-0.00022	0.0001	-0.00044	0.0001
Previous	0.002344	0.0001	0.005318	0.0001
Age	-0.04063	0.0001	-0.07775	0.0001
Age**2	0.001174	0.0001	0.002364	0.0001
Age**3	-1.5E-05	0.0001	-3E-05	0.0001
Age**4	6.74E-08	0.0001	1.29E-07	0.0001
Previous**2	-4.9E-05	0.0001	-0.00011	0.0001
Previous**3	6.45E-08	0.2423	-9.54E-08	0.3082
February	0.004083	0.0034	-0.0025	0.2612
March	-0.00169	0.1733	-0.00572	0.0048
April	-0.00378	0.0153	-0.01149	0.0001
May	-0.01179	0.0001	-0.02574	0.0001
June	-0.01353	0.0001	-0.04077	0.0001
July	-0.02213	0.0001	-0.04093	0.0001
August	-0.01583	0.0001	-0.0381	0.0001
Phase I regions	0.004685	0.0001	0.033551	0.0001
<b>Weeks since program began</b>	<b>0.000672</b>	<b>0.0001</b>	<b>0.001635</b>	<b>0.0001</b>
<b>Weeks since program began **2</b>	<b>-6.5E-06</b>	<b>0.0001</b>	<b>-2E-05</b>	<b>0.0001</b>
<b>Weeks since program began * previous</b>	<b>1.18E-05</b>	<b>0.0001</b>	<b>3.01E-05</b>	<b>0.0001</b>
<b>Weeks since program began * previous**2</b>	<b>1.43E-09</b>	<b>0.0005</b>	<b>4.35E-09</b>	<b>0.0001</b>
forestry	-0.02536	0.0001	-0.06448	0.0001
fishing/trapping	-0.04781	0.0001	-0.06072	0.0001
metal mines	-0.03843	0.0001	-0.10925	0.0001
mineral fuels	0.001995	0.7618	-0.06192	0.0167
non-metal mines	0.151595	0.0001	0.003947	0.8509
quarries	-0.04086	0.0001	-0.08659	0.0001

**TABLE A2 (continued)**  
**Logit Coefficient Estimates, Probability of Participation in the Small Weeks Project**

	Males		Females	
	Coefficient Estimate	P-value	Coefficient Estimate	P-value
mining services	-0.04553	0.0001	-0.0921	0.0001
food and beverage	0.116839	0.0001	0.110445	0.0001
tobacco	-0.01977	0.2453	-0.00264	0.9017
rubber/plastics	0.01126	0.0025	-0.00604	0.3518
leather	0.017746	0.009	-0.03393	0.0001
textiles	0.007761	0.0454	-0.00529	0.3338
clothing	0.014471	0.0003	0.016889	0.0001
wood	-0.00785	0.0001	-0.04913	0.0001
furniture	0.02255	0.0001	-0.00852	0.3533
paper	-0.02154	0.0001	-0.02293	0.0008
printing	0.041998	0.0001	0.026363	0.0001
primary metal	0.003897	0.2505	-0.05478	0.0001
metal fabricating	-0.01077	0.0001	-0.02006	0.0032
machinery	-0.00907	0.004	-0.04514	0.0001
transportation equipment	-0.01605	0.0001	-0.03656	0.0001
electrical	-0.02162	0.0001	-0.04307	0.0001
non-metallic mineral	-0.0094	0.001	-0.03585	0.0001
petroleum/coal	-0.04069	0.0001	-0.04258	0.0185
chemicals	-0.01876	0.0001	-0.0209	0.0031
misc. manufacturing	0.021856	0.0001	-0.0145	0.0046
general contractors	-0.04136	0.0001	-0.0455	0.0001
special trades	-0.03552	0.0001	-0.05971	0.0001
transportation	-0.03164	0.0001	-0.04003	0.0014
storage	0.008065	0.0001	-0.02537	0.0001
communication	-0.00045	0.955	-0.00196	0.9034
electric, gas, water	0.02995	0.0001	0.022762	0.0001
wholesale trade	0.021887	0.0001	0.019782	0.0003
retail trade	-0.00642	0.0001	-0.03035	0.0001
finance	0.005749	0.0001	0.023314	0.0001
insurance	-0.015	0.0001	0.015373	0.0001
insurance, real estate	-0.00671	0.5915	-0.02499	0.0019
education	-0.01941	0.0001	-0.01845	0.0001

<b>TABLE A2 (continued)</b>				
<b>Logit Coefficient Estimates, Probability of Participation in the Small Weeks Project</b>				
	<b>Males</b>		<b>Females</b>	
	<b>Coefficient Estimate</b>	<b>P-value</b>	<b>Coefficient Estimate</b>	<b>P-value</b>
health and welfare	0.0167	0.0001	0.00427	0.055
religion	-0.05315	0.0001	-0.06326	0.0001
recreation	-0.04159	0.0001	-0.04245	0.0001
personal services	-0.0211	0.0001	-0.05152	0.0001
accommodation and food	0.011769	0.0001	-0.03115	0.0001
misc. services	0.014159	0.0001	0.003956	0.0335
federal admin.	-0.01882	0.0001	-0.03585	0.0001
provincial admin.	0.011975	0.0092	-0.00859	0.0077
local admin.	-0.02797	0.0001	-0.04411	0.0001
other industries	-0.0092	0.0001	-0.02516	0.0001
other managers	0.007907	0.1631	-0.02081	0.0019
professional	0.013019	0.0701	-0.00866	0.2753
administration	0.029157	0.0001	0.005172	0.4173
clerical	0.050227	0.0001	0.021145	0.0008
natural and applied science — professionals	0.001125	0.8509	-0.01129	0.1652
natural and applied science — technical	0.007033	0.2054	-0.01932	0.0089
health — professionals	0.054635	0.0001	0.007867	0.2482
health — technical	0.074198	0.0001	0.063271	0.0001
health — assistants	0.120594	0.0001	0.05749	0.0001
social science, etc. — professional	0.030486	0.0001	0.022526	0.0005
law, etc. — paraprofessional	0.044853	0.0001	0.008925	0.1812
art and culture — professional	0.022989	0.0022	-0.01807	0.0222
art, etc. — technical	0.035262	0.0001	0.00786	0.2796
sales and service — skilled	0.052032	0.0001	0.03045	0.0001
sales and service — intermediate	0.060902	0.0001	0.055604	0.0001
sales and service — elemental	0.085409	0.0001	0.080699	0.0001
trades and transport — skilled	0.004656	0.386	0.033481	0.0001

**TABLE A2 (continued)**  
**Logit Coefficient Estimates, Probability of Participation in the Small Weeks Project**

	Males		Females	
	Coefficient Estimate	P-value	Coefficient Estimate	P-value
transport, etc. — intermediate	0.037883	0.0001	0.029124	0.0001
trades and construction helpers	0.014717	0.0065	-0.00841	0.216
primary — skilled	-0.01828	0.0011	-0.06553	0.0001
primary — intermediate	-0.01525	0.0054	-0.06071	0.0001
primary — labourers	0.010371	0.0651	-0.01282	0.0971
manufacturing — skilled	0.004862	0.4692	-0.01834	0.0971
manufacturing — operators and assemblers	0.053423	0.0001	0.071973	0.0001
manufacturing — labourers	0.049992	0.0001	0.049498	0.0001

## *Appendix B: Calculation of Weekly Benefit Rate*

<b>TABLE B</b>				
<b>Calculation of Weekly Benefit Rate</b>				
<b>Males</b>				
Earnings in Small Week	Total Insured Earnings	Divisor Weeks	Weekly Benefit Rate	Change in Weekly Benefit Rate
	\$8500	21	\$222.60	
\$300	\$8800	22	\$220.00	-\$2.60
\$250	\$8750	22	\$218.80	-\$3.80
\$200	\$8700	22	\$217.50	-\$5.10
\$150	\$8650	22	\$216.30	-\$6.30
\$100	\$8600	22	\$215.00	-\$7.60
\$50	\$8550	22	\$213.80	-\$8.80
<b>Females</b>				
Earnings in Small Week	Total Insured Earnings	Divisor Weeks	Weekly Benefit Rate	Change in Weekly Benefit Rate
	\$6400	21	\$167.60	
\$300	\$6700	22	\$167.50	-\$0.10
\$250	\$6650	22	\$166.30	-\$1.30
\$200	\$6600	22	\$165.00	-\$2.60
\$150	\$6550	22	\$163.80	-\$3.80
\$100	\$6500	22	\$162.50	-\$5.10
\$50	\$6450	22	\$161.30	-\$6.30

