

An Overview of the Summative Evaluations of the EBSM Program

Summary of Quantitative Results

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The *Employment Insurance Act* of 1996 revised unemployment insurance policy in Canada to include two parts. Part I of the Act provides Employment Insurance (EI) benefits to workers who have lost their jobs. Part II provides employment benefits and support measures (EBSM) to help current and former EI clients return to work. Although Part I benefits are administered by the federal government, the 1996 Act gave provincial and territorial governments significant roles in operating the Part II programs. Under the Labour Market Development Agreements (LMDA) mandated by the Act such responsibility can be either fully transferred to the provinces and territories, or the programs can be “co-managed” and operate under shared responsibilities.

The 1996 Act also required that programs operated under the LMDAs be subject to formal evaluations over the ensuing decade. Many of these evaluations have now been completed. Typically the evaluations have been undertaken in two stages. The first, “formative” evaluations looked at how the LMDAs were implemented and examined in detail some of the programs being operated under them. A second round of “summative” evaluations followed. These focused on measuring the impacts that the programs had. By mid-2008 ten summative evaluations have been completed for Alberta, British Columbia, New Brunswick, Newfoundland and Labrador, Nova Scotia, Nunavut¹, Ontario, Prince Edward Island, Quebec, and Saskatchewan. The purpose of this report is to summarize the quantitative impact estimates obtained in these evaluations².

I. Background on Active Labour Market Programs and their Evaluation

Most developed countries sponsor extensive active labour market programs. A recent survey of OECD countries finds that on average these countries spend about 2-3 percent of GDP on labour market programs with about two-thirds of that going toward “passive” programs (primarily unemployment compensation) and one-third toward active measures (Martin and Grubb, 2001). Spending on all labour market programs has a significant anti-cyclical pattern. As might be expected, passive benefits expand most rapidly during cyclical downturns. The authors point out that despite considerable political rhetoric favoring shifting benefits toward active programs, actual movements in that direction have been very limited – perhaps because of “doubts about the effectiveness of much of this spending.”

The content of active labour market programs is remarkably similar across the OECD countries. In most countries the largest share of spending is devoted to formal training programs, usually in a classroom setting. Such training can be provided directly through government agencies, or indirectly through third parties. In some cases clients are asked to pay a portion of their training costs.

Subsidies to private sector employment constitute a growing component of active programs. Often such subsidies are targeted at disadvantaged workers, are of a limited duration (six months to one year), and are expected to have significant on-the-job training

¹ Because the Nunavut evaluation did not contain a formal impact analysis, it will not be discussed in this quantitative overview.

² More details on the topics addressed in this summary are provided in Nicholson *An Overview of the EBSM Summative Evaluations* (HRSDC, November, 2007).

opportunities. Whether such subsidies encourage employment after the subsidy period ends is a focus of much research. The issue of whether subsidized employment causes large displacement effects for non-subsidized workers is also a major concern.

Many countries also encourage direct job creation in the public or non-profit sector. In some cases such jobs are used as a test of labour force attachment for recipients of unemployment compensation. Whether the jobs produce valuable outputs and/or useful labour market experiences for participants have been hotly contested questions.

Assistance in pursuing self-employment opportunities is a less common, though expanding component of many nations' active programs. This approach is based on the presumption that, for a relatively narrow subset of clients, starting businesses may be a direct route to meeting their own needs and, potentially, increasing jobs for other workers. The popularity of the self-employment option has tended to obscure that fact that very little is known about its long term efficacy, however.

Finally, all countries offer a variety of job search assistance activities, either through a formal public employment service or through contracting with third parties. Services may include access to job postings, resources for making employer contacts, assistance in resume preparation or other job-related counseling, or direct job placements. In some cases these activities may be monitored as a way of enforcing availability for work requirements in unemployment compensation laws. Although job search programs usually serve more workers than any other active labour market program, per-client costs are usually relatively low.

Canadian experiences closely mirror those of the typical OECD country. Spending on labour market programs has averaged around two percent of GDP during the past twenty years. Expenditures on active labour market programs have remained relatively constant at about 25 percent of total labour market spending. In all, such active spending amounts to about 0.5 percent of GDP according to the OECD data. But these data are quite comprehensive and include such special elements as youth programs and administrative costs of the employment service. Spending on the EBSM program alone has been about \$2 billion over the past several years³ – that is, approximately 0.15 percent of GDP.

Services available under the EBSM programs also resemble the offerings of the other OECD countries generally. Although different provinces may use different names and slightly different definitions for their interventions, they usually include the same five activities common to most other countries⁴. In order to simplify the presentation, throughout this report we will focus on five specific EBSM interventions:

- **Skills Development (SD):** These are the primary training activities offered under the EBSM programs. Typically this training is funded through client vouchers to third party providers and clients pay a negotiated portion of the total cost.

³ This figure does not include client contributions for their interventions, nor does it include client opportunity costs.

⁴ Some authors point to a sixth type of active labour market program: youth-oriented activities. In Canada these are operated separately from the EBSM program and hence such programs are not a subject of this report.

- **Target Wage Subsidies (TWS):** These subsidies are typically targeted to hard to employ workers and may be up to 60 percent of total wages. The subsidies last for up to 52 weeks and can be extended to 78 weeks for workers with disabilities. Earnings from subsidized jobs are insurable under EI and therefore enable workers to renew their EI eligibility.
- **Self Employment (SE):** Under this intervention workers are provided with assistance in setting up their own businesses. They are able to collect their remaining EI entitlements during this process and may in some cases collect additional Part II benefits. Earnings under SE are not insurable under EI and therefore do not provide for renewed EI eligibility.
- **Job Creation Partnerships (JCP):** These are jobs in the public and non-profit sector that are intended to benefit the community. Employees on these jobs continue to receive their EI benefits in lieu of wages and may have these benefits “topped-up” to prevailing wage rates for the specific occupations. Wages earned under JCP activities are not insurable under EI.
- **Employment Assistance Services (EAS):** These are job search assistance services provided to help unemployed workers find employment. The services are often provided through third-party service delivery agreements.

Because these interventions are intended to operate quite differently on a conceptual level, most of the evaluations studied them separately (although some evaluations have provided aggregated estimates of the “effect of EBSM”). This disaggregated approach is also the approach taken by the extensive literature on the evaluation of active labour market programs. The vast bulk of this literature has focused on formal training programs. An excellent summary is provided by Heckman, LaLonde, and Smith (1999). In general the authors find that training can provide gains to employment and earnings that are roughly consistent with the returns to formal education. But the results from training evaluations are quite variable depending on the nature of the training, the intended target group, and the methodology used to measure impacts. Because training programs are relatively expensive (especially once opportunity costs are considered), only a few evaluations find that the benefits of these programs exceed their costs.

Heckman, LaLonde, and Smith also provide a brief discussion of the evidence from job search programs. A more extensive treatment of the U.S. experience is provided in Meyer (1995), which reviews a series of (random assignment) job search experiments. Overall, these summaries suggest that job search assistance may have modest beneficial impacts on employment-related outcomes. Because these are low-cost interventions, however, it is sometimes the case that such programs will have benefits that exceed costs.

Evaluations of employment subsidies, self-employment, or public sector job creation are far less common. Martin and Grubb (2001) attempt an overall assessment of such activities, but reach rather ambiguous conclusions. An important benefit of the EBSM evaluations is therefore to shed more light on these less-studied interventions.

II. Quantitative results of the evaluations

Viewed as a whole, the EBSM evaluations represent one of the largest studies of active labour market programs ever undertaken. The evaluations generated literally hundreds of estimates for a wide variety of interventions, outcome measures, and client groups. It is not possible to summarize here all these estimates and the methodologies underlying them⁵. Rather, our goal is to focus on a few representative estimates and to seek to place these into a more general overall context.

A. Economic context of the evaluations

Before looking at the results from the EBSM interventions it may be helpful to summarize some background data on the contexts within which the interventions operated. First, consider local labour markets. Table 1 looks at unemployment rates in the provinces where the EBSM evaluations occurred. The data are organized around each evaluation's schedule. That is, they show unemployment rates that prevailed during the "pre-program" year, the "intervention" year, and during two "post-program years. Although this chronology does not line up perfectly with the actual dates used in the evaluations, the correspondence is close enough to give a general impression of labour market trends.

⁵ A more complete selection of results is provided in Nicholson *An Overview of the Summative Evaluations of the EBSM Program*.

Table 1 Unemployment Rates during the EBSM evaluations

Province	Program Period	Unemployment Rates			
		Pre-Program	Program	Post year 1	Post year 2
Alberta	1/6/01-31/5/02	5.0	4.7	5.3	5.0
British Columbia	1/4/00-31/3/03	7.9	7.1	8.2	8.2
New Brunswick	1/4/01-31/3/01	10.4	10.5	10.2	9.7
Newfoundland-Labrador	1/4/00-31/3/01	17.0	16.4	16.3	16.6
Nova Scotia	1/1/00-31/12/01	9.4	9.2	9.6	9.3
Ontario	1/4/01-31/3/02	5.8	6.6	7.0	7.0
Prince Edward Island	1/1/00-31/12/02	12.0	12.0	11.2	11.0
Quebec	1/1/00-31/12/00	9.0	8.5	8.9	8.5
Saskatchewan	1/4/03-31/12/04	5.7	5.6	5.1	5.2

Source: *HRSDC Monitoring and Assessment Report, 2006*. Annex 1.4. Some figures have been interpolated

Several facts are immediately apparent in Table 1:

- Labour markets in Alberta and Saskatchewan were strong throughout the period;
- Labour markets in British Columbia and Quebec were had relatively high unemployment rates throughout the period;
- The labour market in Ontario became weaker over the evaluation period; and
- The labour markets in the Maritime Provinces (New Brunswick, Newfoundland, Nova Scotia, and Prince Edward Island) were very weak throughout the evaluation period.

These differences raise the question of whether the labour market environment alone might have influenced the evaluation results. There is some debate in the literature about whether active labour market programs are more effective during periods of strong labour markets or weak ones. In strong markets program participants will more readily find jobs once their interventions end. But strong markets also benefit non-participants so the opportunity costs of being “locked in” to a program for a time will be greater.

Perhaps the best evidence on this question comes from a recent study of detailed administrative data from the German labour market over the period 1980-2003 (Lechner

and Wunsch, 2006). These authors find long-run employment gains of about 10 percent from participation in active labour market programs with roughly equivalent gains in earnings. They also report a significant negative correlation of estimated employment and earnings impacts with the state of the labour market. Overall gains are between 0.7 percent and 1.8 percent greater for each one percentage point increase in the national unemployment rate. Similar effects are also reported for differences across regional labour markets in Germany. Hence, it seems plausible that the EBSM programs might prove to be more effective in the provinces with higher unemployment rates.

B. Characteristics of program participants

Estimated impacts of EBSM interventions may also have been affected by the characteristics of program participants. Table 2 provides a brief summary of these characteristics by province⁶. Three features of these data might be explicitly highlighted. First, the fraction of participants who were female varied significantly across the evaluations, ranging from a low of 36 percent in Nova Scotia to a high of 54 percent in Alberta. Second, participants were considerably younger in the Maritimes than in the other provinces. Finally, participants in all provinces were relatively well-educated. Only in New Brunswick did fewer than 25 percent of participants have some education beyond high school⁷.

Ideally one might like to see the figures in Table 2 disaggregated both by claimant status and by specific intervention. Such a breakdown would highlight the precise ways in which characteristics of participants may have affected the results. Because of limitations posed by available sample sizes, the evaluation reports do not generally provide such details. In some cases, however, the reports do point out major differences on a few dimensions. For example, it seems clear that women constitute a higher fraction of the caseload among former than among active claimants. Similarly, women were a bit more prevalent in the TWS and JCP interventions and somewhat less in SD and SE. Participants in the self-employment intervention also had considerably higher levels of formal education than did participants in the other interventions.

⁶ Because the evaluation reports did not use the same break points in reporting distributions, it was necessary to approximate some of the data in Table 2. Data for Quebec were not currently available.

⁷ Although these levels of educational attainment do not seem significantly different from those of the overall labour forces in the provinces, they do suggest that the EBSM program is not explicitly targeted on disadvantaged workers as is the case for many active labour market initiatives in other countries. The high levels of educational attainment have also caused some analysts to worry that the EBSM interventions may engage in “creaming” in enrolling participants. The evaluations that have considered this issue, however, have generally discounted its importance in affecting the overall results.

Table 2: Characteristics of Evaluation Participants

Province	Percent Active	Percent Female	Age <30 (%)	Age 30-49 (%)	Age 50+ (%)	Ed. < HS (%)	HS Grad (%)	Post HS (%)	Univ. Grad (%)
Alberta	62	54	17	61	23	14	17	52	18
British Columbia	56	48	18	60	22	9	23	50	18
New Brunswick	66	43	35	45	20	24	49	20	7
Newfoundland	71	37	41	48	11	NA	NA	NA	NA
Nova Scotia	80	36	46	46	8	18	41	32	9
Ontario	73	43	22	59	19	14	28	42	15
Prince Edward Island	83	46	45	46	9	18	48	26	8
Saskatchewan	53	42	35	53	12	18	35	33	14

Source: Statistics taken from various evaluation final reports. NA – Not Available

C. Criteria for Results to be Summarized

Five principles underlie the selection of results to be reported here.

1. **Only results estimated separately by intervention will be reported.** Because the interventions studied in the evaluations have very different conceptual bases, it seems likely that the outcomes for each are determined by quite different factors.
2. **Outcomes will be presented separately for active and former claimants.** There are two reasons for this disaggregation. First, active claimants may be better attached to the labour force than are former claimants. Hence they may respond quite differently to the various interventions. Second, because of these different characteristics, most researchers found it more difficult to develop a comparison group for the former claimants than for the active claimants. There is then the possibility that the estimates for former claimants may be less accurate.
3. **Only three specific outcomes will be examined.** Although most of the evaluations measured six or more primary quantitative outcomes, here we will only summarize three of these: (1) Employment – measured in annualized hours worked; (2) Earnings – measured in dollars per year; and (3) EI collections – measured in weeks per year⁸. These three outcome measures are commonly used in active labour market evaluations and

⁸ Because not all of the evaluations measured outcomes in these ways, some re-calibration of results was necessary.

choosing to focus on them here is in part to facilitate comparisons with such other studies⁹.

4. **Difference-in-difference estimates will be emphasized.** Most of the evaluations reported estimated impacts in two ways: (1) Simple cross section differences between the participant and comparison groups; and (2) Difference-in-difference¹⁰ estimated for the two groups. Usually the difference-in-difference (DID) results were emphasized in the final reports and we will follow that practice here.
5. **Ranges for statistically significant results will be emphasized.** Many of the estimates from the evaluations were not significantly different from zero by standard statistical criteria. In order to avoid reporting a wide variety of imprecise results, here we focus only on the statistically significant ones¹¹. We also provide a count of how many such statistically significant estimates there were.

Table 3 provides a summary of the impact results from nine completed evaluations in Alberta, British Columbia, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Prince Edward Island, Quebec, and Saskatchewan. Each entry in the table shows the range of statistically significant results found in the evaluations and an indication of the proportion of estimates that met the standard for significance. Details underlying this table are provided in the *Overview Report*.

⁹ Three commonly reported outcomes that will not be discussed here are: (1) Dollars of EI benefits; (2) Dollars of Social Assistance benefits; and (3) Weeks on Social Assistance. The first of these is not reported because it is largely duplicative of the EI weeks figure. Social Assistance related outcomes are very difficult to interpret in the evaluations, in part because estimating these posed significant methodological challenges – especially in finding an adequate comparison group.

¹⁰ Difference-in-difference estimates look at the change in an outcome measure between the pre-and post-program period and then compare these changes for participants and non-participants.

¹¹ To be precise, only estimates that are significantly different from zero at the .05 level on a two tail test are reported.

Table 3: Summary Outcome Measures from the EBSM Evaluations

Outcome/Intervention	SD	TWS	SE	JCP	EAS
Active Claimants					
Employment (hrs/yr)	+211 (1 of 5)	+296 (1 of 5)	+168/+1743 (5 of 6)	+285 (1 of 3)	NA (0 of 5)
Earnings (\$/yr)	+1985/+4796 (5 of 8)	+4180/+4791 (2 of 8)	-12200/+4461 (3 of 6)	-2471/+3565 (2 of 5)	NA (0 of 5)
EI (wks/yr)	-3.0/+1.8 (6 of 9)	-1.8 /+2.7 (4 of 8)	-16.4/-1.3 (6 of 7)	NA (0 of 4)	-1.6/+5.6 (3 of 6)
Former Claimants					
Employment (hrs/yr)	-235/+342 (3 of 6)	+194/+419 (4 of 4)	+372/+1087 (2 of 3)	-259/+85 (2 of 3)	NA
Earnings (\$/yr)	-3868/+5276 (2 of 5)	+2642/+3194 (3 of 4)	-2617/+4645 (2 of 3)	-3750/-2103 (3 of 4)	NA
EI (wks/yr)	-2.5/+4.3 (2 of 5)	+1.6/+8.5 (4 of 4)	-4.0/-2.2 (3 of 3)	+1.5 (1 of 3)	NA

Source: Evaluation Final Impact Reports

D. Results for Skills Development (SD)

Skills development is the most expensive intervention in the EBSM package. In 2005/06 spending on SD (\$919M) amounted to nearly 50 percent of total spending on all EBSM services (*Monitoring and Assessment Report, 2007*). These benefits were provided to about 133,000 Canadians¹², so the implied cost per client was approximately \$6,900 per person. Clearly this program involves significant levels of human resources investment, so it might be expected that there would be considerable interest in the results for these clients.

In theory the SD intervention is the most like a pure investment in human capital of any of the EBSM programs. The participant spends significant time learning a set of skills (usually in a classroom setting) and, in the majority of cases, earns some type of certificate or diploma. This intervention is therefore similar to formal education. Since extensive studies of formal education suggest that each additional year yields approximately a ten percent increase in annual earnings, a rough guess might be that SD participants (who typically spend about six months in their interventions) might have increases in earnings on the order of about 5 percent or so. But actual experiences with

¹² This figure includes SD clients in apprenticeship programs also though this group was not generally included in most of the evaluations.

such training programs have generally not been this positive. There is some consensus that SD-type programs appear to help adult women (especially labour force re-entrants), but are not especially beneficial for adult men or youth (Heckman, LaLonde, and Smith, 1999; Martin and Grubb, 2001). There is also some indication that training programs that serve to “signal” worker quality (by, for example, being targeted on those with higher skills or promising a valuable credential) may also be relatively successful. Whether evaluations of such training programs have adequately controlled for the effects of “creaming” remains a contentious point, however.

Table 3 provides a summary of the SD results for the eight completed EBSM evaluations that have quantitative impact estimates. In general the results in Table 3 for active claimants are encouraging. Five of eight evaluations reported significant earnings gains for active claimants. The typical estimated gain in annual earnings was about \$2,000-\$4,000. Although most estimates for annual hours worked were not statistically significant, the figures seemed consistent with the presumption that most of the gains from SD came from increased employment, with a more modest increase in hourly earnings. In proportional terms, the earnings gains are quite large by international standards – about 10-20 percentage points¹³. The picture for EI collections is more ambiguous, however. Both significant positive and significant negative impacts were estimated. In part the ambiguity may stem from the difficulty is differentiating between the reduction in EI collections that employment provides and the related renewed EI eligibility provided by the same employment.

These relatively positive results may be in part explained by the focus of many SD interventions on obtaining credentials. A majority of SD participants report that their program provided some sort of credential for completion and there is empirical evidence that such credentials may serve as a signal about productivity to prospective employers (Martin and Grubb, 2001). Another reason for the preponderance of positive results may be the relatively weak labor markets that the comparison groups faced in many of the evaluations.

Sample size restrictions generally prevented the evaluations from estimating effects of SD separately for subgroups of participants. A few of the evaluations did report that women had somewhat more favorable overall impacts on employment and earnings than men, though these results were generally not reported separately for SD participants only. In the evaluations that were able to estimate gender-specific impacts for SD participants only, gains for men often exceeded those for women. Hence, the EBSM results may not precisely mirror the international finding that women are more likely to benefit from training than men.

Estimated impacts of SD on former claimants are also shown in Table 3. In general these estimates were more variable than were the ones for active claimants. This larger variance in results may in part be explained by the difficulties that some of the evaluations had in identifying a proper comparison group for former claimants, some of whom had been out of the labour force for some time.

¹³ Unfortunately, many of the evaluations did not provide comparison group means in their published reports. In order to describe the outcomes in proportional terms, the following comparison group averages were assumed: For active claimants: Annual hours – 1250; Annual Earnings -- \$20,000; Weeks of EI – 15. For former claimants: Annual hours – 1000; Annual Earnings -- \$16,000; Weeks of EI – 15.

E. Results for Targeted Wage Subsidies (TWS)

TWS is the third largest Employment Benefit. Approximately 20,000 Canadians participated in target wage subsidy programs in 2005/2006 at a cost of \$97 million. These figures suggest that the wage subsidy provided to the typical client is about \$5,000 which would be roughly a 50 percent subsidy on a \$20,000/year job for six months¹⁴. The program is therefore quite similar to the temporary wage subsidy program for on-the-job-training that was part of the JTPA program in the United States. Relative to European experiences with wage subsidy programs, however, the TWS subsidy offers a somewhat higher fraction of wages but for a shorter period than is typical. In both the United States and Europe wage subsidies are often explicitly targeted at specific subgroups of the population (usually low-skilled, younger workers).

The theory of targeted wage subsidies is complex. Of course, a general wage subsidy should increase both wages and employment. Katz (1996) provides a “guesstimate” that each 10 percent of subsidy should increase wages by about 6 percent and employment by about 2 percent. However, when a subsidy is targeted at only one class of workers, the situation becomes more complicated because the displacement of unsubsidized workers by subsidized ones becomes relevant. By some estimates such displacement effects may be as large as 80-90 percent.

The temporary nature of many wage subsidy programs adds further complications. In most economic models the effect of a temporary subsidy should be smaller than for a permanent one because firms would not make the kinds of labour-using investments they might if the subsidy were permanent. But more complex models suggest that such differences will be less important when learning on the job is important. In these cases, the subsidy may help to compensate for an initial period of low productivity for new workers and help to overcome firms’ reluctance to make such hires.

These conceptual issues about the concurrent effects of wage subsidies have not played an important role in the EBSM evaluations, however, because the evaluations focused exclusively on outcomes after the subsidies end. That is, the subsidy period was viewed as being the TWS “treatment” and this program was evaluated in ways similar to any other active labour market program. Reasons why a period of temporary subsidy should lead to future beneficial labour market outcomes are ambiguous, however. Certainly the end of a subsidy would make it more likely that a worker might be laid off thereby creating a negative effect relative to the comparison group. But it is also possible that skills and attitudes developed during the subsidy period may make employees more attractive.

Despite some ambiguity as to effects, many evaluations of short-term subsidy programs have found beneficial outcomes. For example, the random-assignment JTPA evaluation in the United States found that female subsidy recipients experienced earnings gains of about 15 percent relative to the control group with males experiencing gains of about 10 percent (Bloom, et al. 1993). In many cases these gains persisted into the second post-program year. Similar positive results were found in the National Supported Work evaluation and in some of the analysis of some state’s welfare reform initiatives (Gueron and Pauly, 1991). Although evidence from formal evaluations is less readily available

¹⁴ Although TWS subsidies may extend for up to 52 weeks (78 weeks for disabled workers) it appears that the typical subsidy examined in the evaluations lasted for about 4-6 months.

outside of the United States, a survey of OECD experiences offers the assessment that subsidy programs have a greater impact per dollar spent than either training programs or direct government job creation (Martin and Grubb, 2001).

One complication in conceptualizing the wage subsidy component of the EBSM program is in understanding precisely how it is targeted. Although most of the evaluations report that TWS is more appropriate for younger and harder to employ workers, few details are provided about how such targeting is achieved. The fact that the EBSM recipients studied in the evaluations all must have been EI claimants further complicates the targeting issue. In some respects EI claimants have characteristics more similar to dislocated workers than to the disadvantaged workers typically served by temporary wage subsidies. Precisely how the theory of wage subsidies apply to such workers is an open question. Similarly, the evidence on the effectiveness of such subsidies in achieving labour market gains among dislocated workers is much less well-developed¹⁵.

Given these caveats, the actual results reported for TWS in the evaluations were modestly promising, especially for former claimants. For example, Table 3 shows that there were significant post-subsidy earnings gains for active claimants in two of the evaluations. Significant employment and earnings gains for former claimants were found in the majority of the evaluations that studied this intervention. In percentage terms, these impacts are roughly in line with the U.S. findings described previously (post-program gains of 15-30 percent in employment and earnings).

The fact that TWS had a larger and more consistent effect for former claimants might have been expected. As described previously, this is a group for whom the wage subsidy rationale makes the most sense. Many former claimants have had substantial periods out of the labour force and the temporary subsidy reduces employer costs of getting them “up to speed” in their jobs. For active claimants, on the other hand, all have recent employment experiences, so the potential gains from TWS are not as great.

As was the case for SD, the EI effects for TWS were mixed. If anything, the results generally showed an increase in EI benefits received relative to the comparison groups, especially for former claimants. This may in part reflect eligibility effects. Employment under a TWS subsidy is insurable under EI, so eligibility is more-or-less automatic for most participants. Even if there are employment gains from the intervention, it is still possible that some of those who lose their subsidized jobs will collect EI.

F. Results for Self-employment (SE)

Self-employment provides financial assistance and other advice to help eligible participants start their own businesses. Total spending on SE amounted to about \$145 million in 2005/2006 with approximately 12,000 individuals starting this intervention during the year. Hence, on a per-participant basis this is an expensive intervention – averaging over \$12,000 per client.

¹⁵ Perhaps the closest analogy in the United States is to the re-employment bonus demonstrations. Although initial results from these demonstrations (in Illinois) were quite positive, results from the follow-on demonstrations were much less so (see Meyer, 1995).

Provisions for self-employment have come to play an increasing role in the active labour market programs of many countries. In the United States Unemployment Insurance program individuals in some states may continue to receive their full benefits even if they are engaged in full-time self-employment activities¹⁶. Similar programs are available in most other OECD countries, although many of these are relatively small. Overall OECD countries spent only about two percent of total active labour market spending on self employment, so, by this standard the Canadian program is quite large.

The theory behind self-employment assistance is seemingly straightforward. It is well-known that most new job creation stems from small businesses and it is believed that some EI claimants may be effective at starting such enterprises. Relatively modest financial assistance can be used to overcome whatever entry barriers exist. Because claimants express strong preferences for “being their own bosses”, it seems that such assistance is a wise, if perhaps a bit risky, investment.

Research on self employment has raised some warnings about this scenario, however. The principle finding is that outcomes from spells of self employment are extremely heterogeneity. In some cases the ventures can be wildly successful, creating employment not only for the individual involved but for many others as well. In other cases, spells of self employment can have serious negative consequences for the individuals involved – their businesses may be unsuccessful and they may incur a wage penalty when they seek to re-enter paid employment. A recent study of labour force dynamics finds that a one year spell of self-employment by men reduces subsequent market wages by between 3 and 10 percent (Bruce and Schuetze, 2004). Negative results were also found for women, but these were often not statistically significant because of small sample sizes for women entering self-employment. Despite these negative findings, however, the authors point out that the negative impacts from spells of self-employment are considerably smaller than those from unemployment itself. So, in the EBSM context, it may still be the case that self-employment is the best of the alternatives available.

The results for SE illustrate these ambiguities quite clearly. Both active and former claimants in SE had significant increases in hours employed in most of the evaluations. Increases in annualized hours worked of 20-30 percent seem to have been the norm, with much larger gains being reported in some provinces. These strong gains suggest that many SE participants remain self-employed after the formal intervention ends¹⁷ and that they generally report working full time on such jobs.

Unfortunately the employment gains from participating in SE were often not accompanied by increases in earnings – in some cases the evaluations report significant declines in earnings for SE participants. Such findings were not universal, however. Two evaluations reported significant increases in earnings once all sources of self-employment income were taken into account. Whether the differences between these positive findings and the other more negative ones can be explained by differences in ways in which the earnings data were collected is an open question¹⁸. Clarifying whether SE provides a good income source for participants or, instead, raises difficulties in returning to paid employment should be an important goal of future evaluations.

¹⁶ These activities are reviewed in Vroman (1997).

¹⁷ The evaluations that do report continued self-employment generally find that between 50 and 70 percent of participants in SE continue to be self-employed at the time of the survey (18-24 months post-program).

¹⁸ Self-employment earnings may also suffer from under-reporting for tax and other reasons.

SE participants generally experienced significant decreases in EI receipt in the post-program period. Because weeks in self-employment are not insurable under EI it is likely that these outcomes largely reflect eligibility effects rather than a decline in EI collection among eligible workers. If this decline were accompanied by declining earnings, the incomes of workers pursuing self-employment may experience serious declines, especially in the short run. Although this sort of impact was not found in all of the evaluations, the possibility that those in self-employment may experience large short-run declines in incomes suggests caution in expanding self-employment interventions beyond carefully targeted sub-groups of claimants.

G. Results for Job Creation Partnerships (JCP)

Job Creation Partnerships are provided through community-developed projects. These jobs are intended to offer participants work experience and to benefit the local community. The number of JCP participants is relatively small – in 2005/2006 they constituted only about four percent of all new EBSM interventions and about five percent of total EBSM spending. Such figures are smaller than at many OECD countries – where spending on public sector jobs amounts to about 15 percent of total active labour market expenditures. These spending levels have been declining over time, however, in part because of relatively negative findings from evaluations of such programs. For example, Martin and Grubb (2001) conclude that such measures have been “of little success in helping unemployed people get permanent jobs in the open labour market.” They go on to point out that such jobs may have the temporary benefit of helping workers establish or re-establish connections to the labour market, but because (in these authors’ opinions) the jobs are “low productivity” they should only be for short durations. Some studies have reported that participation in public sector employment can help to improve training outcomes for low skilled workers. That is, the effects of training are more likely to stick for this group if they can experience a period of relatively undemanding work prior to joining the formal labour market (Heckman, LaLonde, and Smith, 1999). Interactions between these two programs were not explicitly studied in the EBSM evaluations, however.

The most obvious conclusion to be drawn from the results for JCP reported in Table 3 is that the estimates were generally quite varied and not statistically significant. For active claimants, only two of the earnings estimates were significantly different from zero, and one of them was negative. For former claimants, three significant declines in earnings following JCP participation were reported. Results for EI collections were seldom statistically different from zero.

Taken at face value, it is hard to reconcile these estimates. There is simply no consistent story to tell about the effects of participating in a JCP-type intervention. Of course, it may be that greater detail on how participants were selected for JCP projects or more information about the nature of the projects themselves would help to clarify matters. But, given the evidence available, whether the JCP intervention is an effective component of the EBSM program remains an open question.

H. Results for Employment Assistance Services (EAS)

EAS interventions focus on aiding job entry by participants. These services can include group activities such as job search workshops or access to job postings and individualized counseling including the development of Action Plans and referral to other EBSM interventions. EAS interventions serve by far the largest number of Canadians of any EBSM activity – in 2005/2006 approximately 430,000 individuals accessed EAS interventions. These services are available to all who wish to participate – in recent years somewhat more than half of the participants have been active or former EI claimants. EAS interventions are, on average, the least costly examined in the EBSM evaluations. Average costs in 2005/2006 were about \$1150 per participant. Most of the evaluations report average costs of EAS that are somewhat less than this – perhaps in the \$700-\$800 range.

Generally the evaluations tended to treat EAS interventions as relatively uninteresting. The implicit notion seemed to be that such low cost interventions would be unlikely to have impacts that can be measured given the constraints on statistical precision in the evaluations. This assumption is mildly at variance with the evaluation literature which shows that in some cases the impact of such “minor” interventions can be relatively positive. For example, Meyer (1995) provides an extensive analysis of a number of experimental evaluations of job search assistance in the United States and concludes that these typically found reduction in unemployment durations in the 0.5-1 week range. Often such reduced unemployment was accompanied by increased earnings. The author does point out that there is some uncertainty about whether such results are caused by the actual services provided or perhaps by the increased monitoring that participants are under to ensure that they are pursuing employment actively. Martin and Grubb (2001) report similar findings for a few other OECD countries. Evidence on job search and related activities for youth in Canada also reaches relatively positive conclusions, though earnings effects are generally more ambiguous than in the other experimental studies (HRDC, 1997).

One complication in evaluating EAS in the EBSM context is that often these services are combined in action plans with other interventions. Because of this complexity, evaluations of EAS have tended to focus on the group of “EAS only” claimants. According to the British Columbia data, these represent perhaps 65 percent of individuals who received any EAS-related services, but a much smaller fraction of total EAS services provided (because those with an Employment Benefit intervention tend to have more EAS interventions than do the EAS-only group). The extent to which the EAS-only group is representative of all EAS participants has not been explicitly addressed in the evaluations, but on *a priori* ground it seems plausible that this group might have more successful employment experiences than the other EAS participants.

Only results for active claimants are reported in Table 3. Former claimants in the EAS-only group were handled in a variety of ways and ultimately the results for this group were not comparable across the evaluations. The impact estimates for active claimants shown in Table 3 were generally small and often not statistically significant. In part this may have resulted from the difficulty of detecting such impacts given the small

sample sizes available in the evaluations. Given the results, however, no overall conclusions can be drawn about the impact of EAS-only in the EBSM context.

A natural question is why these results seem to differ so much from the small, though relatively stable findings reported in many job search evaluations. Three possibilities might be mentioned. First, it may be that it is especially difficult to evaluate EAS using non-experimental methods (many of the best job search studies used random assignment). Measuring the impact of this low cost intervention may require a very precise matching of participant and comparison cases in the pre-program period and it may not be possible to achieve that precision with the propensity score methods used here. A second possibility is that the actual services delivered under EAS are more heterogeneous than the package of job search services usually studied. The fact that many claimants received numerous specific EAS services supports this view. Finally, many previous job search studies have been done in the United States where the provision of such services also plays a monitoring and enforcement role with respect to continuing eligibility for unemployment benefits. That role may be less significant in Canada, and this may account for a reduced impact.

III. Summing-up the impact estimates and some evidence on cost-effectiveness

Most of the evaluations also conducted extensive benefit-cost analyses of the interventions studied. In the *Overview Report* these are summarized by developing some illustrative examples of what these analyses tended to show. In this section we provide a brief summary of the quantitative results from the evaluations together with a sketch of what the benefit-cost illustrations show.

- The EBSM evaluations found that participation in **Skills Development** seems to have increased annual earnings by \$2,000-\$4,000 for active claimants – that is by about 10-20 percent (relative to the comparison group). Such increases are large in comparison to international studies of training interventions. Increases for former claimants were smaller and more variable, however. Because the SD intervention is a costly one both in terms of government spending and client opportunity costs, earnings gains would have to persist for several years in order to meet a strict benefit/cost test.
- Impacts of **Target Wage Subsidies** were larger and most consistently positive for former claimants. On average this group achieved gains in earnings and hours worked of 15-30 percent relative to the comparison group. Results for active claimants were less consistently positive, however. Making benefit/cost assessments of wage subsidy programs is complex, especially in terms of defining in-program opportunity costs. Despite these complexities, our analysis suggested that TWS is cost-beneficial under most assumptions for former claimants.
- Both active and former claimants in **Self-Employment** programs had large gains in hours worked, but these increases were, in many evaluations, not matched by increases in earnings. Indeed, in some cases, estimated post-program earnings impacts were negative. Participants in self-

employment also experienced sharp reductions in EI collections, probably because such employment is not insurable under EI. From the participant's perspective, therefore, SE often had a negative impact on household income. Because SE involved significant out-of-pocket, resource, and opportunity costs, this intervention appears far from meeting a benefit/cost test. Only if the self-employed businesses started by participants prove to be quite successful in the years beyond those observed in the evaluations would this assessment be reversed.

- There were no consistent findings from the evaluations of **Job Creation Partnerships** for either active or former claimants. Despite this absence of uniformly beneficial outcomes, however, this intervention does modestly well in the illustrative benefit-cost calculations, in part because opportunity costs involved with this intervention are low. The benefit-cost calculations are also highly dependent on the extent to which JCP projects produce economically valuable outputs, a subject generally not studied in the evaluations.
- Participants in **Employment Assistance Services** exhibited relatively small and statistically insignificant impacts on most of the evaluations' outcome variables. The effectiveness of employment services that were delivered in conjunction with employment benefit interventions was not examined in the evaluations, however. Although EAS was the least costly intervention examined in the evaluation, the absence of measured benefits meant that it did not pass a benefit-cost test in the illustrative examples.

IV. Some remaining questions about the impacts

The fact that the findings from the EBSM evaluations are broadly in accord with international evidence on active labour market programs lends support the approach taken in the evaluations. That is, the methodology chosen seems to have yielded believable findings, though a few are difficult to reconcile with this overall picture. Of course, many questions remain to be explored in interpreting these findings. Here are five such questions that seem especially salient:

1. **Were the impact estimates robust to differing estimation techniques?** In the majority of evaluations only one version of the impact estimates was presented. It would add significantly to the perceived validity of the results to know the extent to which alternative techniques would yield roughly similar results.
2. **Why did the observed impact estimates occur?** The evaluations tended to be modest in offering speculations about the reasons for their reported results. Further research in explaining reasons for the variance in results across the evaluations might be warranted.
3. **Will the impacts estimated persist?** Although the evaluations did illustrate some promising results, few of the interventions would pass a benefit-cost test if judged solely on the basis of the outcomes actually observed. Rather, gains in earnings or reductions in EI collections must be extrapolated into the future in order to cross such a hurdle. However, because the typical evaluation provided

only 18-24 months of post-program experience, there is little basis for making such extrapolations. Longer term data are needed to provide definitive statements about “what works” in a strict benefit-cost sense.

4. **Did various subgroups respond differently to the EBSM interventions?** The analysis of subgroups in the evaluations was hindered by sample size considerations. The most consistent finding in the international literature on active labour market programs with regard to subgroups is that female clients in job training programs tend to experience greater earnings gains than do male clients. There are some hints that this may also have been the case in the EBSM evaluations, though at least one evaluation reported larger effects for males than females. There are a number of other subgroups that might be of special policy interest, however. For example, low-skilled workers typically encounter severe labour market problems and it is common to target active programs at this group. Separate analyses for low-skill workers might therefore suggest how the implicit targeting of EBSM interventions might be improved. Similarly, it might be useful to look explicitly at seasonal workers to determine whether they might be affected by the EBSM interventions differently from those workers who are permanently separated from their jobs¹⁹.
5. **Were variations in the intensity of interventions important?** There are a number of reasons to believe that not all participants in an intervention received the same level of services: (1) Some individual action plans involved more than one employment benefit; (2) All of the EB interventions were accompanied by significant levels of participation in various EAS activities; and (3) The resources devoted to a participant in an intervention varied considerably (for example, training costs varied substantially across participants as did the duration of subsidized employment under TWS). Whether such differences mattered could be important in the future structuring of action plans or in the potential targeting of interventions to specific groups of workers.

¹⁹ The issue of temporary versus permanent job separations was not examined in detail in the evaluations. Data from New Brunswick and Nova Scotia suggest that, at least in those provinces, a large fraction of EBSM participants are on temporary layoff and ultimately return to their prior employers. Probably most of these workers have jobs that are seasonal in nature.

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