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March 2011

Summative Evaluation of Employment Benefits and Support Measures Delivered Under the Canada-Nova Scotia LMDA

Final Report

March 2011

Strategic Policy and Research Branch

SP-1020-01-12E

Canada

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Evaluation Directorate
Strategic Policy and Research Branch
Human Resources and Skills Development Canada

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List of abbreviations

APE	Action Plan Equivalent
EAS	Employment Assistance Services
EBSM	Employment Benefits and Support Measures
HRSDC	Human Resources and Skills Development Canada
JCP	Job Creation Partnerships
JEC	Joint Evaluation Committee
LMDA	Labour Market Development Agreement
SEB	Self-Employment Benefits
TWS	Targeted Wage Subsidies

List of Terms

Action Plan Equivalents	An action plan describes the types of interventions an EBSM participant will undertake in order to assist his/her return to work (including the start and end dates for the activities). For the purposes of analysis, the Action Plan Equivalent (APE) is defined as a single intervention or series of interventions that are no more than six months apart. The number of APEs will not correspond exactly to the number of individual participants (because individuals may have multiple APEs), but the numbers should be close.
Active claimants	Individuals in receipt of Employment Insurance (EI) Part I benefits. In the case of EBSM participants, this refers to individuals who were active EI claimants at the start of their EBSM participation.
Former/Reachback claimants	Individuals no longer on an active EI Part I claim, but still eligible for Part II benefits under the *EI Act*.

Executive Summary

Background

This report presents the findings and conclusions for the Summative Evaluation of the Employment Benefits and Support Measures (EBSMs) delivered under the Canada-Nova Scotia Labour Market Development Agreement (Canada-Nova Scotia LMDA).

The summative evaluation focused on examining the longer-term impacts, outcomes, and cost-effectiveness of the interventions as well as achievement of the principles and guidelines as set out in the *Employment Insurance Act* and the LMDA.

The evaluation conducted a limited cost-benefit analysis and assessed the:

- incremental impacts[1] on employment, earnings and reliance on Employment Insurance (EI) and Social Assistance (SA) benefits; and
- effects on participant attitudes and quality of life.

Methodology

The evaluation strategy employed multiple lines of evidence that included the following quantitative and qualitative methods:

- A total of 24 key informant interviews were conducted.
- Eight discussion groups were held with Community Partners (4) and Skills Development participants (4).
- An online survey was conducted with 45 Service Canada staff and 47 Community Partners.
- A telephone survey was conducted in Fall 2007 with 834 Skills Development participants (attempts were made to contact all Skills Development participants from the year 2001).
- A telephone survey of a sample of 1,002 non-participants who were EI claimants in 2001 (the initial intention was to use this sample as comparison cases for the impact analysis).
- Statistical analysis of administrative data from Human Resources and Skills Development Canada (HRSDC) linked to Canada Revenue Agency (CRA) and provincial Social Assistance data for all Canada-Nova Scotia LMDA participants and all EI recipients for the years 2000 to 2005.

[1] Incremental or net impacts refer to the increase/decrease that is attributable to participating in the program after controlling for other factors that may have affected the observed outcome. In other words, the increase/decrease would not have occurred in the absence of the program.

A number of strengths of the evaluation methodology should be noted.

- Weighting was used to minimize the effect of any potential non-response bias.
- When it became apparent that attempts to extract an appropriate comparison group for the impact analysis, using Employment Insurance administrative records, were not successful, an alternative approach was developed. Specifically, after extensive consultation with the peer reviewers and internal experts at HRSDC, it was agreed that participants who used only Employment Assistance Services (EAS) could be used as a "limited-treatment" comparison group.
- Another weighting process was used to generate an EAS-only comparison group with a pre-program profile very similar to the participants in each of the Employment Benefits that were the focus of the incremental impact analysis Skills Development (SD), Targeted Wage Subsidy (TWS), Job Creation Partnerships (JCP) and Self-Employment Benefits (SEB). In addition, a difference-in-differences approach was used to estimate the incremental impacts to correct for minor differences in the observed pre-program characteristics and potential unobservable characteristics (such as ability or motivation to find employment) between the participant groups and the EAS-only comparison group.

As well, one main limitation should be noted:

- There were insufficient cases to conduct any impact analysis for former/reachback claimants.[2] Therefore the evaluation was only able to examine impacts for participants who were active claimants.[3]

Key Findings

Are EBSMs Meeting Employer, Community and Labour Force Needs as Intended?

The general view among key informants was that the evolving needs of the labour market have affected the needs of employers and workers in Nova Scotia, and changed the types of participants seeking assistance under the EBSMs. In the case of employers, there is increased demand for skilled workers. In the case of workers, there are increased opportunities to find employment and move into higher skilled jobs for those who have the appropriate training or skills. In this context, most key informants noted an increase in the number of participants with literacy or skills gaps, participants with multiple employment barriers, individuals who were not active claimants or former/reachback claimants (but who are seeking assistance to re-enter the labour market) and under-employed workers seeking assistance for training to upgrade their skills.

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[2] Former/reachback claimants are individuals no longer on an active claim under Part I of the *EI Act*, but who are still eligible for Part II benefits under the *EI Act*.

[3] Active claimants are individuals in receipt of EI Part I benefits. In the case of EBSM participants, this refers to individuals who were active EI claimants at the start of their EBSM participation.

Most key informants felt that EBSMs meet the needs of unemployed workers, but that some client groups are not well served. Examples include individuals who are not active claimants or former/reachback claimants (including youth), under-employed workers, and people with multiple employment barriers. They also felt that the needs of employers are not addressed adequately (because the administrative burden of Targeted Wage Subsidy makes this intervention less attractive to employers, and because the training of existing staff to upgrade skills is usually not eligible for assistance under the EBSMs).

Are EBSMs Being Implemented and Delivered Effectively?

Key informants generally felt that the assessment, referral and streaming processes captured the right participants and delivered appropriate services to those participants. At the same time they identified return-to-work action plans as an area for improvement. For example, the majority of key informants felt that some participants received programs and services without a clear return-to-work action plan. They also felt that the quality of the action plans is highly variable.

Key informants felt there was a good working relationship between their organizations, but they also identified a number of challenges as impeding the efficient and effective delivery of the EBSMs. For example, Service Canada staff expressed concerns about the variable quality of the services provided by the Community Partners.

What was the Nature of Participants' In-Program Experience?

Between 2000 and 2005, 48% of all EBSM participants took the EAS-only intervention. 36% of all Action Plan Equivalents (APEs)[4] involved Skills Development interventions. This percentage was substantially higher than the percentage of participants who received TWS (4%), JCP (6%) or SEB (5%). Very few participants (less than 2%) received more than one type of Employment Benefit.

Skills Development participants were generally satisfied with the programs and services received. The survey of Skills Development participants indicated that 84% of the respondents were satisfied (35%) or very satisfied (49%) with the programs and services received from HRSDC or Service Canada. Approximately 60% of the Skills Development survey respondents were satisfied (34%) or very satisfied (26%) with the counselling services they received.

Over half (55%) of the Skills Development survey respondents rated their programs and services as important (15%) or very important (40%) to obtaining their longest job since program participation. Half (50%) of the Skills Development survey respondents stated their longest job since program participation had specific educational or skills requirements and they obtained those requirements through their programs and services.

[4] For purposes of analysis, the Action Plan Equivalent (APE) is defined as a single intervention or series of interventions that are no more than six months apart.

Have EBSMs Helped Participants Find and Keep Employment? (Impacts and Outcomes)

The incremental impacts on earnings, Employment Insurance and Social Assistance were estimated for the Skills Development, Targeted Wage Subsidy, and Job Creation Partnerships participants who were active claimants. The incremental impacts on total income,[5] Employment Insurance (EI) and Social Assistance were estimated for Self-Employment Benefits participants who were active claimants. The impacts were calculated by comparing the outcomes of the participants in these program groups to the outcomes of EAS-only participants who were used as a limited-treatment comparison group.

Skills Development

Active claimants who participated in Skills Development experienced a statistically significant cumulative post-program (3 years) net gain in earnings of $8,207. Participation in Skills Development interventions also increased the amount of Employment Insurance benefits received by $1,469 and decreased Social Assistance income by $412. This is equivalent to a statistically significant annual increase of $2,736 in earnings, $490 in EI use, and a statistically significant decrease of $137 in Social Assistance use during the post-program period.

Skills Development participants experienced a statistically significant increase in the number of months of full-time employment and a corresponding decrease in the number of months of part-time employment. Full-time employment increased by 0.8 months (from 6.9 to 7.7 months) while part-time employment decreased by 0.8 months (from 1.4 to 0.6 months).

Targeted Wage Subsidies

Active claimants who participated in Targeted Wage Subsidies (TWS) experienced a statistically significant cumulative post-program net gain in earnings of $13,716. Participation in TWS also decreased SA use by $746. This is equivalent to a statistically significant annual increase of $4,572 in earnings and a decrease of $249 in Social Assistance use during the post-program period. The estimated impacts on the use of Employment Insurance were not statistically significant.

Job Creation Partnerships

Active claimants who participated in JCP experienced a statistically significantly decrease of $684 in Social Assistance use. This is equivalent to an annual decrease of $228 in SA use during the post-program period. The estimated impacts on earnings and the use of EI were not statistically significant.

[5] Total income was used for the analysis of the SEB participants because the data for earnings (from employers) do not include income from other sources such as business income or professional income from self-employment.

Self-Employment Benefits

In the case of active claimants who participated in Self-Employment Benefits (SEB), they experienced a statistically significant cumulative post-program decrease in total income of $14,577.[6] Participation in SEB also led to a significant decrease of $3,513 in the use of Employment Insurance. This is equivalent to a statistically significant annual decrease of $4,859 in earnings and $1,171 in Employment Insurance use during the post-program period. There was no statistically significant impact for the use of Social Assistance.

Are EBSMs Associated with Participant Attitudes and Quality of Life?

Many Skills Development (SD) participants felt that the programs and services they received helped them to obtain employment. Over half (55%) of the SD survey respondents rated their programs and services as important (15%) or very important (40%) to obtaining their longest job since program participation. As well, half (50%) of the SD survey respondents stated their longest job since program participation had specific educational or skills requirements and they obtained those requirements through their programs and services. The survey findings are consistent with the feedback obtained from SD participants in discussion groups. For example, the discussion group participants indicated that their acquired credentials (e.g. a certificate from a training course) had opened employment opportunities for them.

Do the benefits produced by the EBSMs outweigh the costs?

The cost-benefit analysis of EBSMs involves comparing the benefits arising from program participation to the costs of the program. The analysis was conducted from a broader social perspective and from the participants' perspective for a period of six years (the claim start year plus five years after the claim start year).

This cost-benefit analysis is limited in the sense that it does not account for all the costs and benefits from the broader social perspective. It is difficult to attribute a dollar value to social benefits such as: increased self-confidence, crime reduction, family well being, and health status of EBSM participants. In addition, out-of-pocket expenses assumed by EBSM participants were not available.

The limited cost-benefit analysis is also a partial equilibrium analysis since it does not account for the displacement effects (since EBSM participants now occupy jobs that could have been filled by qualified non-participants). Displaced and unemployed non-participants may experience social disadvantages when compared to the social benefits of employed EBSM participants:

- The benefits arising from Skills Development and Targeted Wage Subsidies[7] were measured as the discounted[8] earnings gains that can be attributed to the participation in these initiatives.

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[6] At first sight, this large decrease in income for SEB appears troubling. However, note that the earnings are closely linked to the success of the business and that a significant percentage of businesses fail within the first few years, generating a loss of income independently from the relevance of the training received under SEB.

[7] Since the cumulative gain in earnings for JCP and SEB were not statistically significant and negative respectively, no cost-benefit analysis was performed for these interventions.

- The costs were measured as program costs. No discount rate was applied to the program costs because these costs are assumed to occur in the claim start year.

Skills Development and Targeted Wage Subsidies interventions yield the following results:

- In the case of Skills Development (SD), the discounted cumulative earnings gains (estimated in the range of $6,810 to $7,093) obtained by the SD participants were below the average program costs ($8,124) of SD interventions. However, the pattern of earnings suggests that earnings gains may persist beyond the observation period used for the cost-benefit analysis. If participants' earnings were measured for an additional two or three years, the gap between SD costs and cumulative earnings gains could be considerably reduced or eliminated.
- In the case of Targeted Wage Subsidies (TWS), the discounted cumulative earnings gains (estimated in the range of $20,135 to $22,477) obtained by the TWS participants exceeded the average program costs ($5,493) of TWS interventions.

Key Conclusions

Taking into consideration the newly devolved LMDA in Nova Scotia and based on the evaluation findings, this summative evaluation concludes that:

- Among the four EBSMs examined in this evaluation, Skills Development and Targeted Wage Subsidies benefits produced positive impacts on Active Employment Insurance participants. Skills Development participants experienced increases in employment duration and earnings, and Targeted Wage Subsidies participants experienced an increase in earnings.
- Planning for the delivery of EBSMs should take into consideration the emerging trends in the Nova Scotia labour market, the needs of employers (socio-economic conditions, occupations in demand, sectors in decline or in expansion, future employment opportunities, consultation with employers, etc.) and complementarity with other employment programs.
- In addition to meeting the needs of individuals, EBSMs can also be targeted toward occupations in demand to help address the needs of employers and identified shortages.
- Considering the small number of former/reachback Employment Insurance claimants in Nova Scotia, an impact analysis could not be conducted. An ongoing client tracking survey of these clients can be a source of valuable information.
- It is important for future evaluations to focus on assessing the long-term impacts of EBSMs and their cost-effectiveness.

[8] The analysis applied a 4% discount rate to the incremental net increases/decreases in earnings provided by the impact analysis.

Management Response

Background

The summative evaluation of the Canada-Nova Scotia Agreement on a Framework for Strategic Partnerships (also known as the Canada-Nova Scotia LMDA) covers the five year period between 2000 and 2005. Since this agreement was a Strategic Partnership, EBSMs were delivered under an LMDA that was co-managed by Canada and Nova Scotia. A full transfer LMDA took effect in July 2009, at which time Nova Scotia assumed responsibility for the design and delivery of LMDA programming.

The summative evaluation focused on the long-term (3-5 years) impacts, outcomes and cost-effectiveness of the interventions. It was undertaken with the guidance of the Canada-Nova Scotia Joint Evaluation Committee (JEC). The current JEC has reviewed the evaluation findings and conclusions to identify those that remain relevant to the design and delivery of LMDA programming in Nova Scotia now and in the future.

One important limitation should be noted: only active claimants were included in the impact assessment provided in the evaluation as there were insufficient cases to conduct any impact analysis for former/reachback claimants.

Purpose of the Management Response

The LMDA summative evaluation is an important tool that supports evidence-based decision-making to improve employment programs and services. In addressing the findings of this summative evaluation, the Management Response identifies actions to improve the design and delivery of Nova Scotia's employment benefits and services and increase their responsiveness to both client needs and labour market conditions.

Evaluation Findings and Responses

Key Positive Findings

HRSDC and Nova Scotia are pleased with key positive findings reported in the summative evaluation:

- *Key informants generally felt that EBSMs meet the needs of unemployed workers in Nova Scotia and that the assessment, referral and streaming processes captured the right participants and delivered appropriate services to them. They also felt there was a good working relationship between Service Canada and the Community Partners.*
- *Skills Development (SD) participants were very satisfied with the programs and services received. They reported that these interventions were very important to obtaining the skills required for their longest job since program participation.*

- *The net impact analysis revealed that Skills Development participants' earnings tended to increase over time, and that participation in SD was associated with a decrease in the use of Social Assistance (SA) and an increase in the number of months spent in full-time employment.*

- *Participants in the Targeted Wage Subsidies (TWS) program experienced an increase in earnings and a decrease in SA use. As well, the discounted earnings gains obtained by TWS participants exceeded the average program costs.*

Findings and Conclusions Requiring Follow-up Actions

1. Are EBSMs meeting employer, community and labour force needs as Intended?

Findings:

- *Most key informants felt that EBSMs meet the needs of unemployed workers, but that some client groups were not well served. Examples include individuals who are not active claimants (including youth), under-employed workers and people with multiple employment barriers.*

- *The evolving needs of the labour market have affected the needs of employers and workers in Nova Scotia, and have changed the types of participants seeking assistance under the EBSMs. In response to increased employer demand for skilled workers, key informants noted an increase in the number of participants with literacy or skills gaps, participants with multiple employment barriers, individuals who were not active or former/reachback claimants, and under-employed workers seeking assistance for training to upgrade their skills.*

- *Key informants felt that employer needs are not addressed adequately, as the administrative burden of Targeted Wage Subsidies makes this intervention less attractive, and existing staff are not usually eligible to receive assistance under the EBSMs to help them upgrade their skills.*

Response:

- Nova Scotia agrees with the finding that a changing labour market has altered the mix of participants seeking assistance under the EBSMs. We will continue to research and identify opportunities to further adapt programming to address evolving labour market needs.

  Nova Scotia conducted stakeholder engagement sessions in four regions of the province. Stakeholders provided information on how NS could support employment service providers in delivering client services in a changing labour market.

  Key messages shared in feedback were:

  - Increased marketing and promotion of labour market programs
  - Support for workplace training for small businesses

- Longer programs with more post- intervention follow-up
- Increased employer engagement

- Nova Scotia agrees that non-Employment Insurance eligible and under-employed workers would also benefit from having access to employment programming. In July 2008, the Canada-Nova Scotia Labour Market Agreement (LMA) was signed. Under this agreement, labour market programming can be provided to a variety of client groups who are not eligible for LMDA employment benefits. These groups include unemployed individuals with no recent attachment to the labour market (e.g. immigrants, youth and new entrants to the labour market) and low-skilled employed individuals. Nova Scotia is currently exploring ways to better align its LMA and LMDA planning and delivery to help ensure that all Nova Scotians have access to labour market programs and services that help them find, attain and keep, gainful employment.

- It is recognized that there is an administrative burden in the delivery of Targeted Wage Subsidies interventions, due partly to accountability requirements. Nova Scotia is introducing a new agreement management system, Labour Market Program Support System (LaMPSS), which will minimize the administrative requirements through the use of technology.

  LaMPSS is an IT-based program management system created to fulfill Nova Scotia's commitment to transition from Canada System for Grants and Contributions to LaMPSS by July 2012. The integrated approach to program administration and delivery afforded by LaMPSS maximizes efficiencies of staff and ensures program delivery excellence for clients. Administrative integration of programs delivered under LMDA and LMA supports better streamlining of services along the continuum from pre-employment to workplace training.

  System design and implementation is scheduled to occur in two phases over the next two years. Phase 1 - the "Agreement Management Module" - was launched in November 2010. Phase II – the "Case Management Module" - is scheduled for February 2012. Following the release of Phase II, reporting and business intelligence capabilities will be released.

2. Are EBSMs Being Implemented and Delivered Effectively?

Findings:

- *Return-to-work action plans were identified as an area for improvement. The majority of key informants felt that some participants received programs and services without a clear return-to-work action plan and that the quality of the action plans is highly variable.*

Response:

- Nova Scotia recognizes the importance of return-to-work action plans in the delivery of effective programs and services to EBSM participants, and will work with the organizations involved to ensure continuous improvement in the quality and consistency of these plans.

3. Have EBSMs helped participants find and keep employment? (impacts and outcomes)

Findings:

- *Active claimants who participated in Self-Employment Benefits (SEB) experienced a statistically significant cumulative decrease in total income of $14,577 and a reduction of $3,513 in EI use during the post-program period. Annually, this is equivalent to a decrease of $4,859 in earnings and $1,171 in Employment Insurance use.*

Response:

- Nova Scotia acknowledges the finding that SEB participants experienced a decrease in earnings. It is important to note that SEB interventions account for around 5% of total interventions and 6% of annual LMDA funding in Nova Scotia and are targeted to a specific client group that demonstrate an interest and aptitude for entrepreneurship. The success of SEB participants is closely linked to the survival and success of the self-employment business. Recent statistics pointed to a survival rate of 50% of small businesses in Nova Scotia.

- We agree with the recommendation that future evaluations should focus on tracking clients to assess the longer-term (5 to 10 years) impacts of EBSMs.

4. Do the Benefits Produced by the EBSMs Outweigh the Costs?

Findings:

- *In the case of Skills Development, the discounted earnings gains obtained by participants were below the average program cost of interventions. However, the pattern of earnings suggests that earnings gains may persist beyond the observation period used for the cost-benefit analysis.*

Response:

- Nova Scotia acknowledges that the discounted earnings gains of Skills Development participants did not exceed the average program cost of interventions over the observed post-program period. It is important to note that the net impact estimates revealed a positive trend for earnings gains, suggesting that the impacts may persist beyond the observation period. Furthermore, Skills Development participants can continue to accumulate labour market skills and experience over time, which can further enhance their labour market attachment. In this context, it is important for future evaluations to focus on assessing the long term impacts and effectiveness of EBSMs.

Key Conclusions

Findings:

- *Planning for the delivery of EBSMs should take into consideration the emerging trends in the Nova Scotia labour market, the needs of employers (socio-economic conditions, occupations in demand, sectors in decline or in expansion, future employment opportunities, consultation with employers, etc.) and complementarity with other employment programs.*

- *EBSMs can be targeted toward occupations in demand to help address the needs of employers and identified shortages.*

- *An ongoing client tracking survey of former/reachback Employment Insurance claimants in Nova Scotia can be a source of valuable information.*

- *It is important for future evaluations to focus on assessing the long-term impacts of EBSMs and their cost-effectiveness.*

Response:

- Nova Scotia agrees that planning for the delivery of EBSMs should consider emerging labour market trends, the needs of employers and complementarity with other employment programs.

- Nova Scotia is currently exploring strategies to better align labour market programs in Nova Scotia to both provincial priorities and to each other. Such alignment will allow more effective and efficient planning and delivery of programs and services to Nova Scotians. In addition, Nova Scotia is using the latest labour market information available to guide program planning decisions.

- As labour shortages increase, Nova Scotia will work to ensure that the needs of employers are represented in labour market program and policy decisions through channels such as general and sector-specific consultations and labour market research.

- We agree with the finding that EBSMs can be targeted towards occupations in demand to address the needs of employers and help fill identified skills shortages. This would help to meet evolving labour market needs and build on emerging economic opportunities. A key Provincial priority is to focus not only on training for jobs that are in demand, but also to ensure that these jobs represent a good value to the Nova Scotia labour market. This priority is supported by applying the best LMI available, meaningful stakeholder engagement and efficient and effective programming.

- Nova Scotia agrees that there is a need for additional information on the impact of EBSMs on former/reach back claimants. The Labour Market Program Support System (LaMPSS) introduction will enable Nova Scotia to more effectively collect data regarding individual clients (including former/reach back claimants) via the system-supported client follow-up.

- Nova Scotia agrees that it is important to assess the longer-term (5 to 10 years) impacts of EBSMs and their cost-effectiveness.

Conclusion

The findings of the Canada-Nova Scotia summative evaluation support evidence-based decision-making for the strategic use of LMDA programs. Evaluation findings have helped to identify areas for improvement to the design and delivery of EBSM programming to better respond to Nova Scotia's labour market challenges. Monitoring and reporting on the progress of the Management Actions will take place on an on-going basis in the context of the LMDA Management Committee meetings.

1. Introduction and Context for Evaluation

This report presents the findings and conclusions for the Summative Evaluation of the Employment Benefits and Support Measures (EBSMs) delivered under the Canada – Nova Scotia Labour Market Development Agreement (Canada-Nova Scotia LMDA). The report is organized as follows:

- The introductory section presents an overview of the Canada-Nova Scotia LMDA and an overview of the evaluation issues and questions;
- Section 2 provides a summary of the evaluation methodology;
- Section 3 presents the main findings for each of the evaluation questions; and
- Section 4 provides an overview of the findings and conclusions.

1.1 Background on the Canada-Nova Scotia LMDA

The Canada-Nova Scotia Agreement on a Framework for Strategic Partnerships (also referred to as the Canada-Nova Scotia LMDA) was signed in April 1997. The Agreement committed both governments to collaborate and coordinate efforts to improve labour market programs and services. In addition, the agreement recognized the linkages between labour market development, economic development and social policy development.

The Canada-Nova Scotia LMDA was a co-management agreement that provided for the delivery of EBSMs in Nova Scotia. A transfer Canada-Nova Scotia LMDA was signed on June 13, 2008. Under the new LMDA agreement, Nova Scotia assumed responsibility for designing and delivering EBSMs. The LMDA transfer took effect on July 1, 2009.

The EBSMs provided under the Canada-Nova Scotia LMDA are aimed to assist unemployed individuals to prepare for, obtain and maintain employment.

Employment Benefits help eligible individuals upgrade their skills, get work experience, or start their own business. Employment Benefits also provide wage subsidies to encourage employers to provide work experience opportunities or create jobs. Four Employment Benefits are provided under the Canada-Nova Scotia LMDA:

- ***Skills Development (SD)*** helps eligible individuals pay for the costs of skills-training courses and related expenses while enrolled in a training program from a registered institution.
- ***Self-Employment Benefits (SEB)*** provides eligible individuals with financial support, planning assistance and mentoring while they get their businesses up and running.
- ***Job Creation Partnerships (JCP)*** provides eligible individuals with opportunities to gain meaningful work experience to help them obtain ongoing employment. The activities help develop the community and the local economy, and thus benefit both the client and the community.

- ***Targeted Wage Subsidies (TWS)*** provides help to individuals who are experiencing difficulty finding work by providing temporary wage subsidies to assist employers to hire them and by providing the individuals with work experience.

Employment Support Measures provide funding assistance to eligible sponsors whose projects or initiatives provide employment services to unemployed people or encourage greater capacity to deal with human resource requirements and labour force adjustments. Two Employment Support Measures are included under the Canada-Nova Scotia LMDA:

- ***Employment Assistance Services (EAS)*** help organizations provide employment services to unemployed individuals to help the individuals find and keep jobs. These services may include employment counselling, job search skills, job placement services and labour market information.
- ***Labour Market Partnerships (LMP)*** encourage and support employers, employee and/or employer associations and communities to improve their capacity to deal with human resource requirements and implement labour force adjustments.

1.2 Evaluation Objectives, and Issues and Questions

1.2.1 Evaluation Objectives

The summative evaluation focused on examining the long-term impacts, outcomes, and cost-effectiveness of the EBSMs as well as achievement of the principles and guidelines as set out in the *Employment Insurance (EI) Act* and the Canada-Nova Scotia LMDA. The evaluation conducted a limited cost-benefit analysis and assessed the:

- incremental impacts[9] on employment, earnings, and reliance on Employment Insurance (EI) and Social Assistance (SA) benefits; and
- effects on participant attitudes and quality of life.

1.2.2 Evaluation Issues and Questions

The evaluation issues and questions are presented in Table 1.1.

[9] Incremental or net impacts refer to the increase/decrease that is attributable to participating in the program, after controlling for other factors that could have affected the observed outcome. In other words, the increase/decrease would not have occurred in the absence of the program.

Table 1.1
Evaluation Issues and Questions

Issue – Rationale

Question 1: Are EBSMs meeting the needs of employers, communities, and labour supply as intended?

1a - What needs were the EBSMs expected to address?

1b - Are the EBSMs still relevant to these needs? What are the gaps between the needs and the programs and services provided?

1c - Are there more efficient or effective means of meeting these needs?

1d - Do the EBSMs funded under the agreement duplicate or complement other programs and services available?

Issue – Design, Delivery and Implementation

Question 2: Are EBSMs being delivered and implemented effectively and as intended?

2a - How is the action plan concept working?

2b - What was participants' experience in the development of action plans/selection of EBSMs?

2c - Are the assessment, referral, and streaming processes resulting in appropriate EBSMs for eligible participants?

Issue – Participant Characteristics

Question 3: Who is being reached? Do participant profiles suggest equity or employment barriers?

3a - What are the demographic/work-related characteristics of participants at intake?

3b - To what extent do eligible participants have access to and take up EBSMs - by type of intervention? Are they accessible by all regions (Cape Breton, Northern Nova Scotia, Halifax, the Valley and South Shore) and priority participants?

Issue – EBSM-Specific Factors

Question 4: What was the nature of participants' in-program experience?

4a - What were the characteristics of the participants' EBSM participation?

4b - How satisfied are participants with the programs and services they have received? Are there barriers to participation? How useful do they perceive services to be in terms of helping them choose interventions and find work?

4c - What was the impact on the participants' employability?

Issue – Impacts

Question 5: Have EBSMs helped eligible participants prepare for, find and keep jobs? Why or why not?

5a - Is EBSM participation associated with post-program employment?

5b - Is EBSM participation associated with the number of weeks worked over the post-program period?

5c - Is EBSM participation associated with individual earnings in the post-program period?

5d - Is EBSM participation associated with the level of Employment Insurance and Social Assistance received in the post-program period?

Issue – Participant Attitudes and Quality of Life

Question 6: Are EBSMs associated with participant well-being and attitudes toward work and learning?

6a - What are participants' perceived impacts of EBSM participation on their quality of life and attitudes?

Issue – Cost-Effectiveness

Question 7: Are EBSMs cost-effective?

2. Evaluation Methodology

2.1 Summary of the Evaluation Methodologies

The evaluation strategy employed multiple lines of evidence that included both quantitative and qualitative methods:

- A total of 24 key informants were interviewed in two phases.
  - In the first phase, eight interview sessions were conducted with Service Canada staff (7) and representatives from the Nova Scotia Department of Community Services (2).
  - In the second phase, 15 interviews were conducted to address broader evaluation issues. Interviews included representatives from Service Canada field staff (7), staff of Service Canada Community Partners (also known as External Service Providers) (6), and representatives from the Nova Scotia Department of Community Services (2).
- Eight discussion groups were held including 4 discussion groups with Community Partners (in Sydney, Halifax, Kentville, Truro) and 4 discussion groups with Skills Development participants (in Sydney, Halifax, Kentville, New Glasgow).
- An online survey was conducted with 45 Service Canada staff and 47 Community Partners.
- A telephone survey was conducted in Fall 2007 with 834 Skills Development (SD) participants (year 2001). Only active claimants[10] were selected to participate in the survey because former/ reachback Employment Insurance (EI) claimants[11] represented only a small proportion of total SD participants (16% between 2000 and 2005).
- A telephone survey was conducted with 1,002 potential comparison cases (i.e. EI clients in 2001 who did not participate in EBSMs).[12] As discussed in Section 2.2.2, however, an alternative comparison group was subsequently selected as a better approach.
- Statistical analysis of administrative data from Human Resources and Skills Development Canada (HRSDC) linked to Canada Revenue Agency (CRA) plus provincial data (for Social Assistance recipients) for all Canada-Nova Scotia LMDA participants and EI recipients for the years 2000 to 2005.

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[10] Active claimants are individuals in receipt of EI Part I benefits. In the case of EBSM participants, this refers to individuals who were active EI claimants at the start of their EBSM participation.

[11] Former/reachback claimants are individuals no longer on an active claim under EI Part I of the *EI Act*, but who are still eligible for Part II benefits under the *EI Act*.

[12] This non-participant comparison group was matched to the SD participants prior to the survey based on HRSDC, CRA and provincial SA data.

2.2 Strengths and Limitations

2.2.1 Survey Response Rates

Weighting was Used to Minimize the Impact of any Potential Non-Response Bias

Although the response rate was low for each of the telephone surveys, weighting was used to minimize the impact of any potential non-response bias.

- The response rate for each of the telephone surveys was calculated by dividing the total number of cooperative contacts by the total number of eligible contacts. The total eligible contacts are equal to the total number of participants in the database minus those who had invalid contact information. The result was a 29.5% response rate for the survey of participants and 24.3% for the comparison cases (non-participants who were Employment Insurance clients). With these low response rates, there is a potential for non-response bias to affect the outcomes observed in the survey data.
- When the profile of the participant survey respondents was compared to the profile of the total population of participants, the profiles were similar. However, to minimize the impact of any potential non-response bias, weighting was implemented to ensure a minimum of variation between the population profile and survey respondent profile. The surveyed comparison cases were also weighted to replicate, as closely as possible, the participant profile. The weighting procedure is explained in Section 2.2.3.

Since the weighting adjustments only correct for observed pre-program characteristics, it is possible that the survey respondents differed from the non-respondents on key outcome measures such as employment related outcomes. To test whether a non-response bias was affecting the survey results for labour market variables, Canada Revenue Agency (CRA) administrative data for the population and the survey respondents were used to compare the profile of the survey respondents and non-respondents in the case of post-program earnings (a key outcome measure for the evaluation). This analysis showed little evidence to indicate that the survey results for the labour market outcome measures were being influenced by a survey non-response bias.

2.2.2 Selection of the Comparison Group

Preliminary Analysis Showed that the Population of Employment Insurance Claimants Would Not Provide an Appropriate Comparison Group for the Impact Analysis

Although the initial plan was to use non-participants who were Employment Insurance (EI) claimants to provide comparison group cases for the EBSM participants, preliminary analysis (using administrative data) indicated that the EI claimant population would not provide appropriate comparison cases.

One of the key problems with using the population of active EI claimants as a source from which to extract a comparison group for the impact analysis was that, even when matched to the EBSM participants, they had a relatively small decrease in earnings in the year they started their EI claim and in the subsequent year. Their small earnings decrease

was in marked contrast with the substantial earnings decrease experienced by the Skills Development participants and EAS-only participants during their claim start year and the subsequent year. This can be seen in Table 2.1 which presents the average earnings[13] before, during and after the claim start year for EAS-only recipients, Skills Development participants, EI claimants (all potential comparison cases) and matched EI claimants (the matched comparison group cases who responded to the survey of non-participants). This latter group was included in the table because these respondents had been matched to participants and would therefore be more similar to participants in terms of background characteristics than the EI claimant population.[14]

Table 2.1
Mean Earnings by Type of Intervention – 2000 and 2001 Cohorts (Unweighted)

Type of Intervention	1 Year Prior	Claim Start Year	1 Year Post	2 Year Post	3 Year Post	4 Year Post	5 Year Post
EAS-only	$20,674	$16,327	$15,749	$19,010	$20,727	$21,662	$23,979
SD Participants	$18,205	$14,986	$12,786	$19,691	$23,117	$25,398	$28,124
All Potential EI Claimants Who Were Non-participants	$20,880	$19,015	$18,280	$20,316	$21,148	$22,243	$22,663
Matched EI claimants Who Were Non-participants (Comparison Group)	$20,566	$18,192	$18,074	$20,425	$21,207	$21,854	---

Source: Administrative data for active EI claimants.

One hypothesis to explain the observed differences in the earnings pattern around the Employment Insurance claim is that the Employment Insurance claimants group contains a large percentage of individuals for whom this claim was part of a regular cycle of employment and unemployment (i.e. seasonality), while the EBSM participants contained a larger percentage of individuals who experienced longer-term unemployment associated with their claim (see Table 2.2).

Table 2.2
Weeks with EI Payments for EI Claimants and for Skills Development and EAS-only Participants with a Claim at Least 9 Months in Duration – 2001 Cohort (Unweighted)

Weeks with EI Payments	EI Claimants	SD Participants	EAS-only Participants
8 weeks or less	25.7%	5.0%	15.6%
9 to 16 weeks	24.8%	8.3%	18.6%
17 to 24 weeks	19.4%	14.7%	22.6%
25 to 30 weeks	9.7%	14.7%	13.5%
More than 30 weeks	20.4%	57.3%	29.7%
Total	100.0%	100.0%	100.0%

Source: Administrative data for active EI claimants.

[13] Note all earnings and related dollar-based measures are not adjusted for inflation or discounted over time unless explicitly stated in the text.

[14] Their profile will not exactly match the profile of the participants because a second stage matching was not completed for the survey respondents. The second stage matching would have made further adjustments to the EI claimant comparison group to correct for non-response and to match on survey variables as well as administrative data.

If individuals in the Employment Insurance (EI) claimants group kept their claims open (e.g. actively filing cards indicating they were employed each week), they may have similar EI claim lengths while their collected EI payments would be much lower than in the case of the EBSM participants. This hypothesis was tested (using administrative data) by taking a closer look at the unemployment of the participant and non-participant groups who were active claimants. All Skills Development (SD) participants and EAS-only participants with a claim length of at least nine months prior to the Action Plan Equivalent (APE)[15] start date were selected from the 2001 cohort. For non-participants, all EI claimants with a claim length of at least nine months were selected from the 2001 cohort. In each case, the total number of weeks with an EI payment was calculated for the first nine months of the claim. As shown in Table 2.2, these data strongly support the hypothesis that the unemployment patterns for the EI claimants group were very different from those Skills Development participants.

- In general, the EBSM participants (i.e. SD participants and EAS-only participants) had substantially more unemployment than the EI claimants group over the same nine month period.
- A large percentage (51%) of the EI claimants group received 16 weeks of EI payments or less compared to 13% of the SD participants.
- A large percentage (72%) of the Skills Development participants received 25 weeks or more of EI payments compared to 30% of the EI claimants group.
- Approximately 43% of the EAS-only claimant participants received 25 weeks or more of EI payments compared to 30% of the EI claimants group.

Table 2.2 also shows that the EAS-only participants experienced less unemployment than the Skills Development participants. Approximately 34% of the EAS-only participants received 16 weeks of EI payments or less during the nine month period compared to 13% of the SD claimant participants, and, 43% received 24 weeks of EI payments or more compared to 72% of the SD claimant participants.

A plausible reason for the differences between Skills Development participants and active EI claimants is the element of seasonality in the Nova Scotia labour market, in which seasonal workers, who do not typically experience earnings declines before their benefit periods (and may also avail themselves of off-season employment), do not seek labour market programming because seasonality is built into their expectations. Non-seasonal workers on the other hand, including workers who may be in seasonal jobs but seek year-round employment, are much more likely to avail themselves of labour market programming.

[15] An action plan describes the types of interventions a participant will undertake in order to assist his/her return to work (including the start and end date for the activities). For purposes of analysis, the Action Plan Equivalent (APE) is defined as a single intervention or series of interventions that are no more than six months apart.

Using the EAS-only Participants as a Limited-Treatment Comparison Group was Considered to Provide a More Valid Comparison Group for the Impact Analysis

After extensive consultation with the peer reviewers and HRSDC, it was agreed that using the EAS-only participants as a "limited-treatment" comparison group would provide a more valid comparison group than the Employment Insurance (EI) claimants group.[16]

The EAS-only group is more likely to be similar to a major intervention participant group in terms of their pre-program circumstances than the EI claimant group, particularly in terms of unobserved characteristics such as motivation (and closely related to this, seasonal expectations). As a result, the EAS-only group has certain advantages over the EI claimant group as a pool from which comparison candidates should be drawn. By adopting a carefully specified weighting procedure, as discussed in the following section, EAS-only cases may be adjusted to resemble EBSM participants on observed characteristics, and in this way a more credible comparison group may be obtained that differs from the traditional comparison group only in that they received "limited-treatment" (i.e. EAS-only). Consequently, the EAS-only participant group was adopted as the basis of comparison in estimating incremental EBSM program impacts.

2.2.3 Comparison Group Weighting

A Weighting Process was Used to Adjust for Profile Differences

As discussed above, a decision was taken to use the EAS-only participants as a limited-treatment comparison group to estimate the incremental impacts of participating in one of the Employment Benefits (SD, TWS, JCP and SEB) relative to participating in EAS interventions only. A direct comparison between the earnings of the EAS-only group and the earnings of participants receiving an Employment Benefit would not provide an accurate estimate of the incremental impacts of program participation on earnings because pre-program profiles[17] differ by type of intervention and those differences could explain any observed differences in earnings in the post-program period. Therefore, a weighting process was used to generate an EAS-only comparison group with a profile very similar to each of the Employment Benefit participant groups (SD, TWS, JCP and SEB). The weighting process used to generate EAS-only comparison group is different than the weighting process for survey non-response bias introduced and discussed in Section 2.2.1.

The weighting process involved a series of steps.

- To adjust for the profile differences, a separate analysis of the differences in earnings, Employment Insurance and Social Assistance was undertaken for each of the Employment Benefit participant groups. For each analysis, a logistic regression model was developed to predict the likelihood of being a participant in one of these interventions versus being a member of the EAS-only participants.

[16] It should be noted that this situation may be unique to the Nova Scotia labour market. Therefore the population of EI claimants could provide an appropriate comparison group for the analysis of EBSM participants in other jurisdictions.

[17] For example, there are differences in the pre-program socio-demographic, earnings, EI and SA profiles of participants taking the various types of interventions.

- For the EAS-only participants, the resulting predicted probability of being in a specific Employment Benefit intervention (SD, TWS, JCP or SEB), conditional on the selected characteristics, was used as an initial weight for the EAS-only data to generate a comparison group profile similar to that of the intervention participants.[18]

- The adjusted profile of the EAS-only participants using this weighting was compared to the intervention profile. Where there were still differences in the profiles, adjustments to the weighting were corrected to minimize these differences. This was done one variable at a time and iteratively repeated for the following variables:
  - age;
  - gender;
  - marital status;
  - occupational category for the last job held;
  - prior use of EBSMs;
  - number of years out of the last three years with an Employment Insurance claim;
  - number of weeks on Employment Insurance in the year prior to program participation;
  - Employment Insurance (EI) benefit rate;
  - number of weeks into the Employment Insurance claim when the APE started;
  - amount of Employment Insurance benefits in the year prior to the claim start year;
  - receipt of Social Assistance benefits in the year prior to the claim start year;
  - earnings in the year prior and two years prior to the claim start year; and
  - the year and quarter of the claim start date.

In most cases, after the weighting of the data for EAS-only participants, the differences between the EAS-only comparison group and the Employment Benefit participant groups (SD, TWS, JCP and SEB) on any one category of the profile variables listed above was approximately 2 to 4 percentage points.

Incremental Impacts were Estimated Using the Difference-in-Differences Approach

Although the weighting process described above generated an EAS-only comparison group with a profile very similar to the Employment Benefit participant groups (SD, TWS, JCP and SEB), this adjustment could only be performed for observed variables. Unobserved variables (such as ability or motivation to find employment) were responsible for differences that continued to exist in outcome measures between the treatment and comparison groups in the pre-program period. Therefore a difference-in-differences

[18] It should be noted that the weighting procedure was repeated for the pairing of EAS-only and each of the Employment Benefit participant groups (SD, TWS, JCP and SEB). Therefore the resulting adjusted EAS-only annual average earnings was unique for each of the Employment Benefit participant groups.

(DID) approach[19] was used to control for unchanging unmeasured differences between the two groups in estimating incremental impacts. Presented differently, the DID estimation is based on the assumption that the unobserved bias between participants and non-participants remains stable over time.

Although the DID is a standard procedure used in most papers to estimate impacts, note that some validity issues have been found with its use.[20] In order to increase confidence in the estimates obtained through the DID approach, impacts for Skills Development and TWS participants were replicated using the kernel matching approach and yielded similar results.

2.2.4 Impact Estimation Limitations

The Number of Participants was Sufficient to Conduct the Incremental Impact Analysis Only in the Case of Active Employment Insurance Claimants

Early analysis of the administration data indicated that there were insufficient cases to conduct any impact analysis for the former/reachback Employment Insurance claimants. Therefore the incremental impact analysis was only conducted for SD, TWS, JCP and SEB participants who were active claimants.

[19] The difference-in-differences approach calculates the differences between pre-program earnings and post-program earnings for the participant and the comparison groups and subtracts the two differences to estimate the incremental impact of program participation.

[20] M., Bertrand, Duflo, E., & Mullainathan, S. (2004). How Much Should We Trust Differences-in-Differences Estimates? *The Quarterly Journal of Economics*, 119(1).

3. Evaluation Findings

This section presents the findings according to the evaluation issues and questions. After each set of findings, the supporting evidence is provided from all lines of evidence.

3.1 Program Rationale

Evaluation Question 1: Are EBSMs meeting the needs of employers, communities, and labour supply as intended?

Finding 1: The general view among key informants was that changes in the labour market conditions have affected the needs of employers and workers in Nova Scotia. Employers are seeking skilled workers and workers can take advantage of better employment opportunities when possessing the appropriate training and skills. In addition, key informants reported that changes in the labour market conditions have affected the type of assistance being sought under the EBSMs.

There was general agreement that the labour market conditions in the province have changed over the past few years.

- For employers, there is increased demand for skilled workers. As well, there is competition for skilled workers within the province and from other provinces facing shortages of skilled workers.
- For workers, there are increased opportunities to find employment and to move into higher skilled jobs if workers have the appropriate training or skills.

Most key informants agreed that these changes in the labour market have had an effect on the participants seeking assistance under the EBSMs. Specifically they noted an:

- increased number of participants with literacy or skills gaps;
- increased number of participants with multiple barriers to employment;
- increased number of under-employed workers seeking assistance for training to upgrade skills; and
- increased cases of participants who are not eligible for Employment Insurance (EI) (are not active claimants or former/reachback claimants), but who are seeking assistance to re-enter the labour market. These participants can only receive EAS under the LMDA.

Finding 2: The general view among key informants was that EBSMs are meeting the needs of participants (unemployed workers) overall. Key informants raised concerns with the inability to assist non Employment Insurance eligible clients, under-employed workers and clients with multiple barriers to employment. As well, key informants raised the importance of addressing the emerging needs of employers.

Most key informants felt that the EBSMs are relevant for most clients served, but less relevant for the following client groups:

- clients who are not active claimants or former/reachback claimants, including youth (because these clients only have access to Employment Assistance Services); and
- under-employed workers who don't qualify for Employment Insurance, particularly clients with multiple employment barriers (because these clients require longer and/or multiple interventions and extensive counselling, which can exceed the current EBSM guidelines).

Key informants also raised the importance of addressing the emerging needs of employers. In their view, there is a need to reduce the administrative burden for the participation in TWS. Employers also require assistance to upgrade the skills of low-skilled employed workers. These workers are not eligible for assistance under the EBSMs, with the exception of EAS.

Finding 3: Most key informants felt that the risk of program duplication is relatively low.

Most key informants reported that the risk of duplication of the EBSMs with provincial programming was relatively low (i.e. participants receiving similar services from more than one agency at the same time).

3.2 Program Design, Delivery and Implementation

Evaluation Question 2: Are EBSMs being delivered and implemented effectively as intended?

Finding 4: Key informants generally felt that the assessment, referral and streaming processes captured the right participants and provided them with the appropriate services. However, they expressed concerns about the implementation of the return-to-work action plans.

The assessment, referral and streaming processes were generally considered, by key informants, to be capturing the right participants and resulting in the right services being delivered to those participants.

There were, however, concerns expressed about the implementation of the return-to-work action plans. A majority of key informants reported that some participants receive programs and services without a clear return-to-work action plan. As well, nearly half felt that the return-to-work planning process does not work well for some participants. For example, they felt that the quality of the plans is highly variable, which often results in delays in approvals or rejection of cases that may have been approved if the plans had been done properly. As well, they noted that the goal of returning to work quickly or moving quickly through an education program is often unrealistic for a participant with multiple employment barriers.

Although some Skills Development discussion groups' participants did not remember developing a return-to-work action plan, most participants recognized the role of counsellors in the planning process. They also recognized that the action plans did set directions for further counselling and directed them towards various training options.

Finding 5: Although there is a good working relationship between Service Canada and the Community Partners, a number of challenges were identified as impeding the efficient and effective delivery of the EBSMs.

The majority of the Service Canada staff reported there was a good working relationship between their office and the Community Partners. However, they identified a number of areas for improving the operations of the Community Partners:

- the high number of Community Partners and the move to external service providers have not improved the efficiency or effectiveness for the delivery of EBSMs;
- the variable quality of the services provided by the Community Partners; and
- the variation and inconsistency in the quality of the return-to-work action plans.

Overall, the Community Partners were positive about their working relationship with Service Canada. A large majority agreed that access to a Community Liaison Officer has been helpful to their organization. As well, a large majority felt that there was good communication between their organization and Service Canada. At the same time, however, Community Partners identified some challenges they felt were impeding the efficient and effective delivery of EBSMs. They reported that:

- the approval process for Employment Benefits has, over time, become more complicated;
- there was a lack of clarity and consistency in the approval and referral process (e.g. due to the variable quality of return-to-work action plans); and
- there is a need for additional training related to the delivery of EBSMs.

Finding 6: Key informants agreed that the current delivery model is appropriate, but they felt there is a need to strengthen the capacity for post-employment case management to move participants towards sustained employment.

Key informants agreed that, overall, the delivery model streams the participants into the right programs and services and that the programs contribute to reducing barriers to employment. They also agreed that the strengths of EBSM programs and services hinge on a proper needs assessment and a well researched return-to-work action plan. There was also a general consensus that improved employability was a more realistic goal than sustained employment for the some EBSM participants, particularly for those with multiple barriers to employment. They felt that there is a need to strengthen the capacity for post-employment case management to move participants towards sustained employment.

3.3 Participant Characteristics

Evaluation Question 3: Who is being reached? Do participant profiles suggest equity or employment barriers?

Finding 7: Between 2000 and 2005, approximately 7 out of 10 EBSM participants in actions plans involving Employment Benefits were active Employment Insurance claimants, while 3 out of 10 participants were former/reachback claimants.

A large majority (71%) of the APEs between 2000 and 2005 were for active Employment Insurance (EI) claimants compared to 29% for former/reachback claimants. The lowest percentage of former/reachback claimants was for Skills Development (SD) (16.3%) followed by SEB (19.7%). As presented in Table 3.1, the percentage of former/reachback claimants was 36.9% for EAS-only, 38.2% for TWS and 39.2% for JCP.

Table 3.1
EI Status by Type of Intervention

EI Status	EAS-only	SD	TWS	JCP	SEB
Active Claimants	63.1%	83.7%	61.8%	60.8%	80.3%
Former/Reachback claimants	36.9%	16.3%	38.2%	39.2%	19.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Number of APEs	22,367	16,861	1,829	2,954	2,436

Source: Administrative data for active EI claimants and former/reachback EI claimants (2000 to 2005).

Finding 8: Between 2000 and 2005, nearly 1 out of 10 active Employment Insurance claimants in Nova Scotia received assistance under the Canada-Nova Scotia LMDA.

Between 2000 and 2005, approximately, 8% of all active Employment Insurance (EI) claimants in Nova Scotia received assistance under the Canada-Nova Scotia LMDA (as shown in Table 3.2).

Table 3.2
Participants as a Percent of Total EI Claims

	2000	2001	2002	2003	2004	2005	Total
Total Participating Claimant APEs	11.2%	8.0%	7.3%	7.3%	7.8%	6.5%	8.0%
Total Non-Participating Claims	88.8%	92.0%	92.7%	92.7%	92.2%	93.5%	92.0%
Total Claims	67,147	68,383	69,524	71,255	71,988	72,705	421,002

Source: Administrative data for active EI claimants (2000 to 2005).

Finding 9: Active Employment Insurance claimants who participated in EBSMs were younger and more likely to be single, compared to those who did not participate in the EBSMs. The percentage of males was higher than the percentage of females in a similar way to those who did not participate in EBSMs.

Among EBSM participants, the percentage of males was slightly higher than the percentage of females (as shown in Table 3.3). The higher percentage of males versus

females among the EBSM participants was similar to the higher percentage of males among the Employment Insurance (EI) claimants who did not participate in EBSMs.

- Among EI claimants (non-participants) 55.9% were male and 44.1% were female.
- The percentage of males was much higher for Skills Development (SD) participants (59.0%) and SEB participants (63.3%).
- Only JCP participants had slightly more females (50.6%) than males (49.4%).

Among active EI claimants who did not participate in EBSMs, the average age (38.3 years) was higher than the average age for those who participated in most types of EBSM interventions (37.1 years for participants in EAS, 35.6 years for participants in JCP and 35.8 years for participants in TWS).

- The youngest EBSM participants were those who participated in Skills Development. Overall, the SD participants were approximately seven years younger (31.8 years) than the average age for active EI claimants who did not participate in EBSMs. This difference is highlighted by the age distribution of the two groups. For example, 64% of the SD participants were under the age of 35 compared to 39% of the active EI claimants who did not participate in EBSMs. At the other end of the scale, 13% of the SD participants were aged 45 or older compared to 34% of the active EI claimants who did not participate in EBSMs.
- Only SEB participants had an average age (38.6 years) that was slightly higher than the average age for active EI claimants who did not participate in EBSMs.

Table 3.3
Gender, Age and Marital Status Profile

	EAS-only	SD	TWS	JCP	SEB	Active EI Claimants (non-participants in EBSMs
Gender						
Females	46.3%	41.0%	45.4%	50.6%	36.7%	44.1%
Males	53.7%	59.0%	54.6%	49.4%	63.3%	55.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number of APEs	14,111	14,110	1,131	1,795	1,955	116,143
Age						
Under 25	14.5%	30.4%	18.0%	18.4%	4.8%	12.5%
25 to 34	29.6%	33.8%	30.5%	32.2%	31.4%	26.5%
35 to 44	28.7%	22.3%	28.7%	25.2%	36.5%	26.6%
45 to 54	21.1%	11.3%	18.7%	18.7%	21.9%	21.5%
55 plus	6.1%	2.1%	4.1%	5.5%	5.4%	12.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number of APEs	14,108	14,110	1,131	1,795	1,955	116,083
Mean Age	37.1	31.8	35.8	35.6	38.6	38.3
Marital Status						
Single	43.5%	55.6%	39.3%	48.3%	26.4%	33.4%
Married/Common Law	41.1%	33.1%	47.0%	39.0%	59.4%	55.5%
Separated/ Divorced/ Widowed	15.4%	11.3%	13.7%	12.7%	14.2%	11.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number of APEs or EI claims [a]	13,835	13,871	1,117	1,751	1,932	114,165

[a] Shows the number of APEs for EBSM participants and the number of claims for active EI claimants who did not participate in EBSMs.

Source: Administrative data for active EI claimants (2000-2005).

The majority (55.5%) of active claimants who were not EBSM participants were married or in a common law relationship, while 33.4% were single. In contrast, the participants in most types of EBSM interventions were more likely to be single and less likely to be married.

- Skills Development had the lowest percentage (33.1%) of participants that were married or in a common law relationship, and the highest percentage (55.6%) that were single.
- The percentage of participants that were single was also higher for those who received EAS-only (43.5%), TWS (39.3%) and JCP (48.3%), compared to active Employment Insurance claimants who did not participate in EBSMs (33.4%).
- The exception was SEB, with 59.4% of married/common law participants and 26.4% single.

Finding 10: The survey of Skills Development participants indicated that a large majority (approximately 8 out of 10) were at least high school graduates and 4 out of 10 also had some post-secondary education.

A large majority (approximately 8 out of 10) of the Skills Development (SD) survey respondents reported that they were at least high school graduates prior to their claim date, with only 18.4% indicating they had not completed high school. Approximately 40.9% had completed high school, 15.5% had completed college and 8.8% had completed university. Another 16% had some post-secondary education.

Table 3.4
Equity Group and Education Prior to Program Participation – SD Survey Respondents

Pre-Program Educational Attainment	
Less than high school	18.4%
Graduated from high school	40.9%
Some post-secondary	16.0%
Completed a college program	15.5%
Completed a university degree	8.8%
Other/No Answer	0.4%
Total	100.0%
Aboriginal Person	4.7%
Member of a Visible Minority	7.9%
Person with a Disability	10.2%
Number of Respondents	780
Source: Survey data.	

Finding 11: The survey of Skills Development participants indicated that 1 out of 10 SD participants stated they were a person with a disability, while 5% self-identified as an Aboriginal person and 8% self-identified as a member of a visible minority (as shown in Table 3.4).

Finding 12: Participants in most EBSMs had lower average earnings in the year prior to the start year of the Employment Insurance (EI) claim (ranging from $15,155 to $19,983), compared to active EI claimants who did not participate in EBSMs ($21,057). The average earnings for SEB participants in the year prior to the start year of the EI claim was substantially higher ($29,602).

Table 3.5 presents information on the EBSM participants' average earnings prior to the year they started the claim associated with their APE and of active EI claimants who did not participate in EBSMs.

- The average earnings one year prior to the claim start year for the active EI claimants who did not participate in EBSMs was $21,057.
- The participants in EAS-only interventions had average earnings of $19,983 in the year prior to their claim start year, which was relatively similar to active EI claimants who did not participate in EBSMs.
- SEB participants had substantially higher average earnings ($29,602) in the year prior to their claim start year.
- SD, TWS and JCP participants had substantially lower earned income in the year prior to the start of their claim (as can be seen in Table 3.5).

Table 3.5
Mean Prior Earnings

	EAS-only	SD	TWS	JCP	SEB	Active EI Claimants (Non-participants in EBSMs)
Prior Earnings						
Mean Earnings – 1 Year Prior	$19,983	$17,674	$16,533	$15,155	$29,602	$21,057
Mean Earnings – 2 Years Prior	$17,414	$14,988	$14,362	$13,446	$27,020	$19,120
Mean Earnings – 3 Years Prior	$15,663	$12,974	$13,050	$12,236	$24,969	$17,687
Number of APEs or EI claims [a]	14,091	14,103	1,130	1,794	1,948	115,878

[a] Shows the number of APEs for EBSM participants and the number of claims for EI claimants who did not participate in EBSMs.

Source: Administrative data for active EI claimants (2000 to 2005).

Finding 13: The majority of the EBSM participants who were active claimants were not repeat users of Employment Insurance (EI).

Over one-third (38%) of active EI claimants who did not participate in EBSMs were repeat users of EI (defined as receiving EI two or more times over the previous three years). In contrast, the repeat use of EI was substantially lower for the participants of the EBSMs.

- For most types of EBSMs, repeat users of EI made up between 25% and 28% of participants. Specifically, 28% of Skills Development participants were repeat users, followed by JCP (27%), TWS (26%), and EAS-only (25%).
- The lowest percentage of repeat users was for SEB participants (20%).

Finding 14: Only a small percentage of EBSM participants who were active claimants received SA prior to their Employment Insurance claim start year.

Only, 6% of active Employment Insurance (EI) claimants who did not participate in EBSMs received SA prior to their claim start year. SEB participants had the lowest percentage of SA use (4%) in the year prior to their claim start year. For EAS-only, SD, TWS and JCP, the percentage receiving Social Assistance payments in the year prior to their claim start year ranged from 9% to 11%.

3.4 EBSM-Specific Factors

Evaluation Question 4: What was the nature of participants' in-program experience?

Finding 15: Between 2000 and 2005, approximately half of EBSM participants received EAS-only interventions and 35.7% received Skills Development.

As indicated in Table 3.6, a total of 47,313 APEs were initiated between 2000 and 2005 (for both active EI claimants and former/reachback claimants):

- Nearly half (47.6%) of these APEs involved EAS-only interventions.
- More than one-third (35.7%) of all the APEs involved Skills Development (SD) (as their only Employment Benefit). This percentage was substantially higher than the percentage of APEs involving TWS (3.9%), JCP (6.3%) or SEB (5.2%).
- Very few APEs (less than 1.5%) involved combinations of more than one type of Employment Benefit.

The average length of an Employment Benefit intervention was approximately six months. The longest average duration was for SEB (7.7 months) followed by SD (6.0 months), TWS (5.6 months) and JCP (5.3 months). EAS interventions had the shortest average duration (1.7 months). Over one-third (35%) of the SEB interventions lasted longer than 9 months. Relatively few of the other types of interventions lasted longer than 9 months (9% of SD interventions, 16% of TWS interventions and 18% of JCP interventions).

Table 3.6
Type of Intervention by Start Year (%)

Type of Intervention	2000	2001	2002	2003	2004	2005	Total
EAS-only	50.7%	37.4%	38.4%	49.0%	49.8%	58.1%	47.6%
SD	34.2%	43.5%	38.5%	32.6%	35.9%	30.4%	35.7%
TWS	4.9%	4.6%	5.6%	3.2%	2.5%	2.3%	3.9%
JCP	4.6%	7.2%	9.1%	8.0%	5.4%	4.1%	6.3%
SEB	4.1%	4.9%	6.5%	5.8%	5.3%	4.7%	5.2%
SD plus TWS or JCP	1.1%	1.7%	1.4%	0.9%	0.7%	0.2%	1.0%
Other Combinations	0.4%	0.9%	0.6%	0.4%	0.3%	0.2%	0.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total APEs	9,932	7,258	7,011	7,546	7,843	7,723	47,313

Source: Administrative data for active EI claimants and former/reachback claimants.

Finding 16: Skills Development participants were generally satisfied with the programs and services received.

As shown in Table 3.7, 84.4% of the Skills Development (SD) survey respondents were satisfied (35.3%) or very satisfied (49.1%) with the programs and services received from HRSDC or Service Canada. Their satisfaction was lower in the case of employment counselling services. Approximately 60% of the SD respondents were satisfied (34.4%) or very satisfied (26.1%) with the counselling services they received.

Table 3.7
Satisfaction with Programs and Services – Skills Development Survey Respondents

Satisfaction with program and services received from HRSDC or Service Canada	
Very dissatisfied	3.6%
Dissatisfied	3.1%
Neither satisfied nor dissatisfied	7.3%
Satisfied	35.3%
Very satisfied	49.1%
No response	1.7%
Total	100.0%
Number of respondents	780
Satisfaction with the career counselling or employment services received in terms of usefulness helping to identify and meet employment or career goals of participants	
Very dissatisfied	4.9%
Dissatisfied	6.1%
Neither satisfied nor dissatisfied	19.4%
Satisfied	34.4%
Very satisfied	26.1%
No response	9.2%
Total	100.0%
Number of respondents	780
Source: Survey data.	

3.5 Impacts and Outcomes

This section focuses on impacts and outcomes in the case of EBSM participants who were active Employment Insurance claimants[21] (as discussed in Section 2.2.4).

Evaluation Question 5: Have EBSMs helped eligible participants prepare for, find and keep employment?

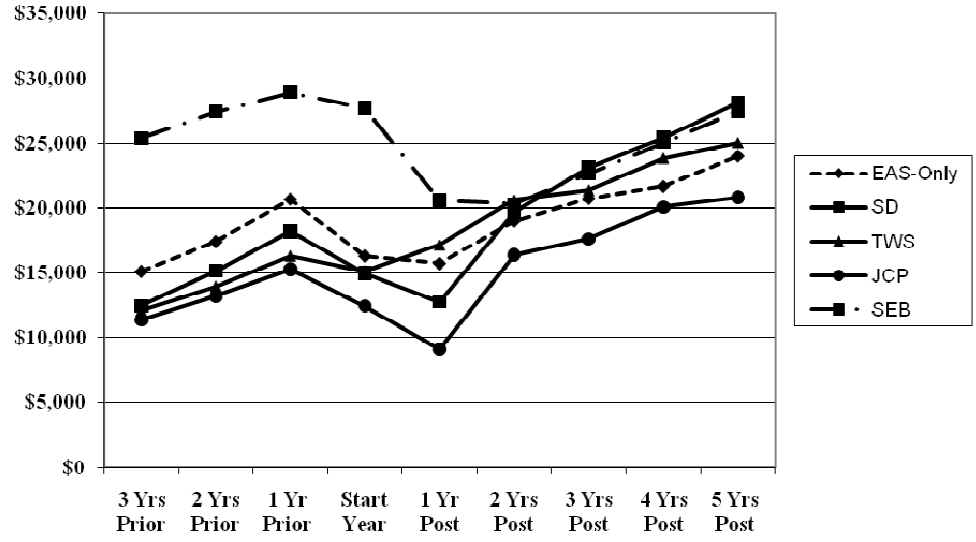
[21] As noted earlier, in the case of EBSM participants active claimants refer to individuals who were active EI claimants at the start of their APE.

3.5.1 Overview of Earnings Outcomes

Finding 17: Data on average yearly earnings show that participants in Skills Development (SD), TWS and JCP interventions had an initial decrease in earnings in the claim start year. In the case of SD and JCP participants, earnings continued to decrease in the first year after the claim start year, but increased in each of the subsequent years. As for SEB participants, total income (employment and self-employment earnings as well as other income sources) decreased in the first and second year after the claim start year, but increased in each of the subsequent years. In the case of TWS participants, earnings increased in the first year after the claim start year and in each of the subsequent years.

Figure 1 provides a simple comparison of average yearly earnings prior to, during and after the claim start year in the case of SD, TWS and JCP participants (2000 and 2001 cohorts of EBSM participant). It should be noted that these data for earnings do not include income from other sources (e.g. business income and professional income from self employment). For SEB participants, the total income is used. The total income includes employment and self-employment earnings as well as income from all other sources.

Figure 1
Mean Participant Earnings



Source: Administrative data for active EI claimants (2000 and 2001 cohorts).
Note: Data for SEB participants are based on the total income.

Table 3.8 provides some of the corresponding numbers.

Table 3.8
Mean Earnings by Type of Intervention – 2000 and 2001 Cohorts (Unweighted)

Type of Intervention	1 Year Prior	1 Year Post	Change from 1 Year Prior	4 Years Post	Change from 1 Year Prior
SD	$18,205	$12,786	-$5,419	$25,398	$7,193
TWS	$16,311	$17,151	$840	$23,859	$7,548
JCP	$15,288	$9,111	-$6,177	$20,080	$4,792
SEB	$28,934	$20,608	-$8,326	$25,060	-$3,874

Sources: Administrative data for active EI claimants (2000 and 2001 cohorts).

Note: the mean earnings reported in this table are for the 2000 and 2001 cohorts. These numbers are different than those reported in Table 3.5 where the mean earnings were reported for Active Claimants participants in the 2000-2005 period.

SEB participants had the highest average earnings prior to the claim start year, followed by the lowest average earnings one year after the claim start year.

The total income for SEB participants declined from $28,934 one year prior to the claim start year to $20,608 one year after the claim start year (a decrease of $8,326). In the first and second year after the claim start year, their total income decreased. In the subsequent years, their total income steadily increased, but never reached the level recorded in the year prior to the claim start year. By the fourth year after the claim start year they had a total income of $25,060.

The pattern of decreases and increases in earnings was generally similar in the case of SD and JCP participants.

- SD and JCP participants had a similar pattern of reduced average earnings in the claim start year and in the first year after the claim start year, compared to the year prior to the claim start year. For Skills Development (SD) participants, earnings decreased from $18,205 in the year prior to the claim start year to $12,786 one year after the claim start year (a decrease of $5,419). JCP participants had the lowest average earnings among the four types of interventions prior to the claim start year and the second largest decrease (a decrease of $6,177 as average earnings fell from $15,288 in the year prior to the claim start year to $9,111 one year after the claim start year).

- In the subsequent years, both SD and JCP participants showed gains in average earnings, with Skills Development participants showing the highest gain of the four types of interventions. For Skills Development participants, average earnings were $25,398 in the fourth year after the claim start year (a gain of $7,193 compared to the year prior to the claim start year). For JCP participants, average earnings were $20,080 in the fourth year after the claim start year (a gain of $4,792 compared to the year prior to the claim start year).

The pattern of average earnings for TWS participants did not follow the pattern of the other types of interventions.

- For TWS participants, earnings increased from $16,311 in the year prior to the claim start year to $17,151 one year after the claim start year, an increase of $840.
- Their average earnings began to increase by the first year after the claim start year and continued to increase in each of the subsequent years. By the fourth year after the claim start year their average earnings were $23,859 ($7,548 higher than in the year prior to the claim start year).
- Unlike the other types of interventions, the TWS participants did not exhibit large decreases in average earnings in the claim start year and in the first year after the claim start year, and this was likely due to the income earned from their TWS employer.

3.5.2 Skills Development Impacts on Earnings, Employment Insurance and Social Assistance Use, and Employment

This section presents the incremental impact on employment, earnings, Employment Insurance (EI) and Social Assistance use for Skills Development (SD) participation (i.e. the change that can be attributed to program participation after controlling for other factors that may have contributed to the overall observed change). As discussed in Section 2.2.2, the estimated impacts were calculated by comparing the outcomes of the SD participants to the outcomes of EAS-only participants who were used as a limited-treatment comparison group.[22]

Finding 18: Active claimants, who participated in Skills Development, experienced a statistically significant post-program cumulative net[23] gain in earnings of $8,207 (see Table 3.10). This is equivalent to a statistically significant annual increase of $2,736 in earnings in the post-program period.

Table 3.9 presents a simple comparison of the earnings for Skills Development (SD) participants and EAS-only participants (with the EAS-only participants being weighted to be comparable to the SD participants). This simple comparison differs from the difference-in-differences estimates presented in Table 3.10 because the simple comparison does not control for unobserved variables that could not be incorporated into the matching process (such as ability or motivation to find employment), and which manifest themselves as pre-existing differences between the treatment and comparisons groups (see also discussion in Section 2.2.3).

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[22] As discussed in Section 2.2.3, for the impact analysis of each of the Employment Benefits (SD, TWS, JCP and SEB), the EAS-only participants were weighted to ensure their pre-program profile on background characteristics (including age, gender, marital status, prior earnings, and prior EI and SA use) was very similar to each of the Employment Benefits participant groups.

[23] This net or incremental increase in earnings (of $8,207) refers to the increase that is attributable to participation in SD, after controlling for other factors that could have affected earnings during this time. In other words, this gain would not have occurred in the absence of the program.

Table 3.9
Mean Earnings for Skill Development Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

Type of Intervention	Pre-Program Period	Program Period		Post-Program Period			
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post	5 Years Post[a]
Skills Development	$18,205	$14,986	$12,786	$19,691	$23,117	$25,398	$28,124
EAS-only Comparison Group	$18,377	$16,245	$14,557	$18,352	$20,252	$21,910	$24,868
Difference	-$172	-$1,259***	-$1,771***	$1,339***	$2,865***	$3,488***	$3,256***

[a] The means for year 5 after the claim start year is available only for the year 2000 cohort and is not directly comparable to the previous years.

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

Table 3.10 presents the difference-in-differences calculations that measure the annual incremental increases or decreases in average earnings for Skills Development participants relative to the comparison group comprised of EAS-only participants. Table 3.10 also shows the cumulative net increase or decrease over the entire period examined by the evaluation.

Table 3.10
Change in Mean Earnings Relative to the Year Prior to Claim Start Year for Skills Development Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

Type of Intervention	Pre-Program Period	Program Period		Post-Program Period		
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post
Skills Development	---	-$3,219	-$5,420	$1,485	$4,912	$7,193
EAS-only Comparison Group	---	-$2,132	-$3,820	-$26	$1,875	$3,533
Difference-in-Differences	---	-$1,087**	-$1,600***	$1,511***	$3,037***	$3,659***
Cumulative Net Increase/Decrease	---	---	---	$8,207***		
Annualized Post-program Net Increase/Decrease in Earnings				$2,736***		

Note: The change in earnings relative to the year prior to the claim start year was calculated using the data only for the 2000 participants and not the year prior mean presented in table 3.9 since that mean was based on 2000 and 2001 data. The cumulative net increase/decrease in earnings is calculated using the same sample of participants and non-participants (cohorts of 2000 and 2001). Since the sample in year 5 post-program includes only the year 2000 cohort of participants, it is excluded from this calculation.

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

The difference-in-differences (third row in Table 3.10) show that Active claimants, who participated in Skills Development, experienced a statistically significant post-program cumulative net gain in earnings of $8,207. This is equivalent to a statistically significant annual increase of $2,736 in earnings in the post-program period. The pattern of earnings suggests that these gains may persist beyond the study period. A longer post-program observation period would be needed, however, to confirm that.

Finding 19: A simple comparison of the participants' pre- and post-program experience using survey data indicated that Skills Development participants had a statistically significant increase in the number of months of full-time employment, and a decrease in the number of months of part-time employment.

Data from the Skills Development (SD) participant survey were used to compare employment before and after program participation (as shown in Table 3.11).[24] The analysis indicated that the estimated earnings gains (discussed above) were accompanied by an increase in full-time employment and a corresponding decrease in part-time employment.

- In the 12 months prior to their survey interview, on average the SD respondents spent 8.7 months in paid employment (with 7.7 months of full-time employment, 0.6 months of part-time employment and 0.4 months of self-employment).
- Although there was no statistically significant increase in the total months spent in paid employment, there was a shift within the paid employment from part-time to full-time employment. Specifically, the average number of months of full-time employment increased by 0.8 months (from 6.9 to 7.7 months), while the average number of months of part-time employment decreased by 0.8 months (from 1.4 to 0.6 months).
- As well, the average number of months spent in self-employment increased by 0.3 months (from 0.1 to 0.4 months).

Table 3.11
Average Number of Months Spent Employed – Skills Development Survey Respondents

	12 Months Prior to Claim Start Year	12 Months Prior to Survey Interview [a]
Employed full-time (30+ hrs/week)	6.9	7.7*
Self-employed	0.1	0.4***
Employed part-time, NOT in school	1.4	0.6***
Working part-time, in school part-time	0.1	0.0
Total months with paid employment	8.5	8.7
In school or training full-time	0.7	0.4*
Unemployed looking for work	2.3	2.1
Unemployed and NOT looking for work	0.5	0.9***
Total	12.0	12.0
Number of respondents	720	

Source: Survey of participants. Note asterisks indicate if there was a statistically significant difference between the pre-claim months and months prior to the survey: *p<.05, **p<.01, ***p<.001.

[a] The survey of participants was conducted between September and December 2007, nearly 5 years after the end of the participation in ESBMs.

[24] These results should be interpreted with some caution because simply comparing the pre- and post-program experience of participants does not control for other factors that could affect the observed outcomes, and which would normally be controlled for by a comparison group.

Finding 20: The impact analysis indicated that some participant groups benefited more than others from their participation in Skills Development interventions, including participants who were older, had higher prior earnings, had jobs with higher skill requirements and had not used Employment Insurance in the previous three years.

The analysis of the incremental impacts for Skills Development (SD) participants was segmented to examine the experience of various types of participants based on age, prior Employment Insurance use, earning level, and prior occupations. The findings indicated large differences in the outcomes for different participant groups based on the cumulative net increase/decrease in income over the six year period examined by the evaluation (i.e. the claim start year plus five years after the claim start year). The participants who benefited the most from their participation in SD interventions were participants who:[25]

- were 45 years of age or older (on average a cumulative post-program net gain in earnings of $10,251);
- had no Employment Insurance in the three years prior to the claim start year (on average a cumulative post-program net gain in earnings of $11,397);
- earned more than $20,000 in the year prior to the claim start year (on average a cumulative post-program net gain in earnings of $9,718); and
- worked in technical, professional or management jobs prior to the claim start year (on average a cumulative net gain in earnings of $9,977).

Finding 21: Looking at the cumulative post-program period, the impact analysis indicated that participation in Skills Development interventions increased the use of Employment Insurance by $1,469 and decreased the use of SA by $412. This is equivalent to a statistically significant annual increase of $490 in Employment Insurance use and a statistically significant annual decrease of $137 in Social Assistance use during the post-program period.

The difference-in-differences estimates (Table 3.12) showed that Skills Development increased the use of Employment Insurance (EI) in the post-program period. The cumulative result for the post-program period examined by the evaluation (post-years 2, 3 and 4) was a statistically significant increase of $1,469 in EI benefits received. This is equivalent to a statistically significant annual increase of $490 in EI use during the post-program period.

[25] The detailed estimates for all the client groups are available in a separate Quantitative Technical Report.

Table 3.12
Change in Mean EI Benefits Relative to the Year Prior to Claim Start Year for Skills Development Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

	Pre-Program Period	Program Period		Post-Program Period		
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post
Skills Development	---	$3,085	$3,599	$998	$824	$739
EAS-only Comparison Group	---	$2,290	$2,051	$399	$511	$182
Difference-in-Differences	---	$794***	$1,548***	$599***	$313***	$557***
Cumulative Net Increase/ Decrease	---	---	---	$1,469***		
Annualized Post-program Net Increase/Decrease in EI				$490***		

Note: The change in EI use, relative to the year prior to the claim start year, was calculated using the data only for the 2000 participants. The cumulative net increase/decrease in EI use is calculated using the same sample of participants and non-participants (cohorts of 2000 and 2001). Since the sample in year 5 post-program includes only the year 2000 cohort of participants, it is excluded from this calculation.

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

The difference-in-differences estimates (Table 3.13) show that Social Assistance use decreased by a total of $412 (statistically significant) over the cumulative post-program period examined (years 2, 3 and 4 post claim start year). This is equivalent to a statistically significant annual decrease of $137 in Social Assistance use during the post-program period.

Table 3.13
Change in Mean Social Assistance Benefits Relative to the Year Prior to Claim Start Year for Skills Development Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

	Pre-Program Period	Program Period		Post-Program Period		
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post
Skills Development	---	-$121	-$97	-$61	-$70	-$74
EAS-only Comparison Group	---	-$80	-$5	$81	$72	$54
Difference-in-Differences	---	-$41*	-$91***	-$142***	-$142***	-$128***
Cumulative Net Increase/Decrease	---	---	---	-$412***		
Annualized Post-program Net Increase/Decrease in Social Assistance (SA)				-$137***		

Note: The change in SA use, relative to the year prior to the claim start year, was calculated using the data only for the 2000 participants. The cumulative net increase/decrease in SA use is calculated using the same sample of participants and non-participants (cohorts of 2000 and 2001). Since the sample in year 5 post-program includes only the year 2000 cohort of participants, it is excluded from this calculation.

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

3.5.3 Targeted Wage Subsidies Impacts on Earnings, Employment Insurance and Social Assistance Use

This section presents the incremental impacts on earnings, Employment Insurance (EI) and Social Assistance use in the case of Targeted Wage Subsidies (TWS) participation. These impacts are calculated using the EAS-only participants (weighted) as a limited-treatment group, as discussed in Section 2.2.2.

Finding 22: The impact analysis indicated that, on average, Targeted Wage Subsidies participants who were active claimants experienced a statistically significant cumulative post-program net gain in earnings of $13,716 (see Table 3.14). This is equivalent to a statistically significant annual net gain in earnings of $4,572 during the post-program period.

Tables 3.14 and 3.15 replicate the analysis conducted for the Skills Development participants, but using a different weighting adjustment of EAS-only participants to yield a comparison group profile similar to that of TWS participants.

Table 3.14 presents a simple comparison of the earnings for TWS participants and EAS-only participants (with EAS-only participants being weighted to be comparable to the TWS participants).

Table 3.14
Mean Earnings for TWS Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

Type of Intervention	Pre-Program Period	Program Period		Post-Program Period			
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post	5 Years Post[a]
TWS	$16,311	$15,153	$17,151	$20,635	$21,384	$23,859	$25,044
EAS-only Comparison Group	$16,549	$14,146	$12,272	$16,244	$17,543	$19,088	$21,638
Difference	-$238	$1,007	$4,879***	$4,391***	$3,841***	$4,771***	$3,407*

[a] The means for year 5 after the claim start year are available only for the year 2000 cohort and are not directly comparable to the previous years

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

The difference-in-differences figures (third row in Table 3.15) show that TWS participation resulted in statistically significant annual increases in earnings in years 1, 2, 3, and 4 following the claim start year. Considering the post-program period alone, TWS participation resulted in a statistically significant cumulative increase in earnings of $13,716. This is equivalent to a statistically significant annual net gain in earnings of $4,752 during the post-program period. The trend in earnings gains suggest that these gains may persist beyond the period examined by the evaluation.

Table 3.15
Change in Mean Earnings Relative to the Year Prior to Claim Start Year for TWS Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

Type of Intervention	Pre-Program Period	Program Period		Post-Program Period		
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post
TWS	---	-$1,158	$840	$4,324	$5,073	$7,548
EAS-only Comparison Group	---	-$2,403	-$4,277	-$305	$994	$2,539
Difference-in-Differences	---	$1,245	$5,117***	$4,628***	$4,079***	$5,009***
Cumulative Net Increase/ Decrease	---	---	---	$13,716***		
Annualized Post-program Net Increase/Decrease in Earnings				$4,572***		

Note: The change in earnings relative to the year prior to the claim start year was calculated using the data only for the 2000 participants and not the year prior mean presented in table 3.14 since that mean was based on 2000 and 2001 data. The cumulative net increase/decrease in earnings is calculated using the same sample of participants and non-participants (cohorts of 2000 and 2001). Since the sample in year 5 post-program includes only the year 2000 cohort of participants, it is excluded from this calculation.

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

Finding 23: Active claimants who participated in TWS experienced a statistically significant cumulative decrease of $764 in Social Assistance use. The annual decrease in Social Assistance use was $249 during the post-program period (statistically significant). The impact estimates regarding the use of Employment Insurance were not statistically significant.

The difference-in-differences showed that TWS participation decreased the use of Employment Insurance in the third year post-program participation. However, the cumulative result for the post-program period examined by the evaluation (post-years 2, 3 and 4) was not statistically significant.

Table 3.16
Change in Mean EI Benefits Relative to the Year Prior to Claim Start Year for TWS Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

	Pre-Program Period	Program Period		Post-Program Period		
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post
TWS	---	$1,394	$1,033	$237	$76	-$23
EAS-only Comparison Group	---	$1,893	$2,072	$327	$552	$338
Difference-in-Differences	---	-$499**	-$1,038***	-$89	-$476*	-$361
Cumulative Net Increase/Decrease	---	---	---	-$926		
Annualized Post-program Net Increase/Decrease in EI				-$309		

Note: The change in EI use, relative to the year prior to the claim start year, was calculated using the data only for the 2000 participants. The cumulative net increase/decrease in EI use is calculated using the same sample of participants and non-participants (cohorts of 2000 and 2001). Since the sample in year 5 post-program includes only the year 2000 cohort of participants, it is excluded from this calculation.

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

The difference-in-differences estimates (Table 3.17) showed that Social Assistance (SA) benefits decreased by a total of $746 over the cumulative post-program period examined (post-years 2, 3 and 4).[26] This is equivalent to a statistically significant decrease of $249 in Social Assistance use during the post-program period.

Table 3.17
Change in Mean Social Assistance Benefits Relative to the Year Prior to Claim Start Year For TWS Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

	Pre-Program Period	Program Period		Post-Program Period		
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post
TWS	---	-$125	-$133	-$103	-$112	-$76
EAS-only Comparison Group	---	-$64	$49	$153	$169	$132
Difference-in-Differences	---	-$61	-$181**	-$256***	-$281***	-$209*
Cumulative Net Increase/Decrease	---	---	---	-$746***		
Annualized Post-program Net Increase/ Decrease in SA.				-$249***		

Note: The change in SA use, relative to the year prior to the claim start year, was calculated using the data only for the 2000 participants. The cumulative net increase/decrease in SA use is calculated using the same sample of participants and non-participants (cohorts of 2000 and 2001). Since the sample in year 5 post-program includes only the year 2000 cohort of participants, it is excluded from this calculation.

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

[26] The details for EI and Social Assistance use are available in the evaluation's Quantitative Technical Report

3.5.4 Job Creation Partnerships Impacts on Earnings, Employment Insurance and Social Assistance Use

This section presents the incremental impacts on earnings, Employment Insurance (EI) and Social Assistance use in the case of JCP participation. These impacts are calculated using the EAS-only participants (weighted) as a limited-treatment group, as discussed in Section 2.2.2.

Finding 24: The impact analysis indicated that Job Creation Partnerships participation did not result in statistically significant earnings gains.

Tables 3.18 and 3.19 replicate the analysis conducted for the Skills Development and TWS participants, but with the EAS-only data for the comparison group weighted to reflect the pre-program profile of the JCP participants.

Table 3.18 presents a simple comparison of the earnings for JCP participants and EAS-only participants (with EAS-only participants being weighted to be comparable to the JCP participants).

Table 3.18
Mean Earnings for JCP Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

	Pre-Program Period	Program Period		Post-Program Period			
Type of Intervention	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post	5 Years Post[a]
JCP	$15,288	$12,461	$9,111	$16,381	$17,639	$20,080	$20,835
EAS-only Comparison Group	$15,490	$14,857	$12,159	$15,811	$17,202	$19,048	$20,802
Difference	-$202	-$2,395***	-$3,048***	$570	$437	$1,032	$32

[a] The means for year 5 after the claim start year are available only for the year 2000 cohort and are not directly comparable to the previous years

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

The difference-in-differences (third row of Table 3.19) showed that JCP participation resulted in a statistically significant decrease in the average earnings of the participants in the claim start year and in the first year after the claim start year. While there were earnings gains in the subsequent years examined by the evaluation, none of these gains were statistically significant. The total post-program cumulative increase in earnings of $2,644 was not statistically significant.

Table 3.19
Change in Mean Earnings Relative to the Year Prior to Claim Start Year for JCP Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

Type of Intervention	Pre-Program Period	Program Period		Post-Program Period		
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post
JCP	---	-$2,827	-$6,178	$1,093	$2,351	$4,792
EAS-only Comparison Group	---	-$633	-$3,331	$321	$1,712	$3,558
Difference-in-Differences	---	-$2,194**	-$2,847***	$772	$638	$1,234
Cumulative Net Increase/Decrease	---	---	---	$2,644		
Annualized Post-program Net Increase/Decrease in Earnings				$881		

Note: The change in earnings relative to the year prior to the claim start year was calculated using the data only for the 2000 participants and not the year prior mean presented in table 3.18 since that mean was based on 2000 and 2001 data. The cumulative net increase/decrease in earnings is calculated using the same sample of participants and non-participants (cohorts of 2000 and 2001). Since the sample in year 5 post-program includes only the year 2000 cohort of participants, it is excluded from this calculation.

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

Finding 25: Active claimants who participated in Job Creation Partnerships experienced a statistically significant cumulative decrease of $684 in Social Assistance use. This is equivalent to a statistically significant annual decrease of $228 in Social Assistance use during the post-program period. The impact estimates regarding the use of Employment Insurance were not statistically significant.

The difference-in-differences estimates (Table 3.20) show that JCP participation increased the use of Employment Insurance in the fourth year post-program participation. The cumulative result for the post-program period examined by the evaluation (post-years 2, 3 and 4) was not statistically significant.

Table 3.20
Change in Mean EI Benefits Relative to the Year Prior to Claim Start Year for JCP Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

	Pre-Program Period	Program Period		Post-Program Period		
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post
JCP	---	$3,446	$4,785	$693	$582	$625
EAS-only Comparison Group	---	$1,859	$2,120	$367	$525	$187
Difference-in-Differences	---	$1,587***	$2,666***	$326	$56	$438*
Cumulative Net Increase/Decrease	---	---	---	$820		
Annualized Post-program Net Increase/Decrease in EI				$273		

Note: The change in EI use, relative to the year prior to the claim start year, was calculated using the data only for the 2000 participants. The cumulative net increase/decrease in EI use is calculated using the same sample of participants and non-participants (cohorts of 2000 and 2001). Since the sample in year 5 post-program includes only the year 2000 cohort of participants, it is excluded from this calculation.

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

The difference-in-differences estimates (Table 3.21) showed that Social Assistance (SA) benefits decreased by a total of $684 (statistically significant) over the cumulative post-program period examined (post-years 2, 3 and 4). This is equivalent to a statistically significant annual decrease of $228 in SA use during the post-program period.

Table 3.21
Change in Mean Social Assistance Benefits Relative to the Year Prior to Claim Start Year for JCP Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

	Pre-Program Period	Program Period		Post-Program Period		
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post
JCP	---	-$257	-$318	-$232	-$257	-$287
EAS-only Comparison Group	---	-$211	-$134	-$39	-$21	-$32
Difference-in-Differences	---	-$45	-$185*	-$193*	-$236**	-$255**
Cumulative Net Increase/Decrease	---	---	---	-$684**		
Annualized Post-program Net Increase/Decrease in Social Assistance				-$228**		

Note: The change in SA use, relative to the year prior to the claim start year, was calculated using the data only for the 2000 participants. The cumulative net increase/decrease in SA use is calculated using the same sample of participants and non-participants (cohorts of 2000 and 2001). Since the sample in year 5 post-program includes only the year 2000 cohort of participants, it is excluded from this calculation.

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

3.5.5 Self-Employment Benefit Impacts on Total Income, Employment Insurance and Social Assistance use

This section presents the incremental impacts on total income, Employment Insurance and Social Assistance use in the case of Self-Employment Benefit (SEB) participation. These impacts are calculated using the EAS-only participants (weighted) as a limited-treatment group, as discussed in Section 2.2.2.

Finding 26: The impact analysis indicated that, on average, Self-Employment Benefit participants who were active claimants experienced a statistically significant cumulative post-program decrease in total income of $14,577. This is equivalent to a statistically significant annual decrease in earnings of $4,859 during the post-program period.

Tables 3.22 and 3.23 replicate analysis conducted for the other Employment Benefits, but using total income instead of earnings from employers in order to capture earnings gained from self-employment. Table 3.22 presents a simple comparison of total income for SEB participants and EAS-only participants (with EAS-only participants being weighted to be comparable to the SEB participants).

Table 3.22
Mean Total Income for SEB Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

Type of Intervention	Pre-Program Period	Program Period		Post-Program Period			
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post	5 Years Post[a]
SEB	$28,934	$27,708	$20,608	$20,332	$22,673	$25,060	$27,450
EAS-only Comparison Group	$30,335	$29,073	$25,384	$27,101	$29,051	$30,694	$33,373
Difference	-$1,402	-$1,365	-$4,776***	-$6,770***	-$6,378***	-$5,634***	-$5,922***

[a] The means for year 5 after the claim start year are available only for the year 2000 cohort and are not directly comparable to the previous years.

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

When examining the difference-in-differences estimates for SEB participants (Table 3.23), results showed that SEB participation resulted in a statistically significant annual decrease in total income in years 1, 2, 3 and 4 (post EI claim year). The post-program cumulative decrease in total income was $14,577 (statistically significant). This is equivalent to a statistically significant annual decrease in earnings of $4,859 during the post-program period.

It is important to note that income for the self-employed is closely linked to the success of their business and that a significant percentage of businesses fail within the first years. These normal failures generate a loss of income for self-employed individuals that may be independent of the relevance of the training received under SEB. To fully understand the outcomes associated with participating in SEB, it is important to track participants over time.

Table 3.23
Change in Mean Total Income Relative to the Year Prior to Claim Start Year for SEB Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

Type of Intervention	Pre-Program Period	Program Period		Post-Program Period		
	1 Yr Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post
SEB	---	-$1,226	-$8,326	-$8,602	-$6,261	-$3,874
EAS-only Comparison Group	---	-$1,263	-$4,952	-$3,234	-$1,285	$359
Difference-in-Differences	---	$37	-$3,374***	-$5,368***	-$4,976***	-$4,233***
Cumulative Net Gain/Loss	---	---	---	-$14,577***		
Annualized Post-program Net Increase/Decrease in Total Income				-$4,859***		

Note: The change in earnings relative to the year prior to the claim start year was calculated using the data only for the 2000 participants and not the year prior mean presented in table 3.22 since that mean was based on 2000 and 2001 data. The cumulative net increase/decrease in earnings is calculated using the same sample of participants and non-participants (cohorts of 2000 and 2001). Since the sample in year 5 post-program includes only the year 2000 cohort of participants, it is excluded from this calculation.

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01, ***p<.001.

Finding 27: The impact analysis indicated that participation in Self-Employment Benefit decreased the amount of Employment Insurance benefits received by a cumulative total of $3,513 (statistically significant). This is equivalent to a statistically significant decrease of $1,171 in Employment Insurance use during the post-program period. The impacts of participation on the use of Social Assistance were not statistically significant.

The difference-in-differences showed that SEB participants had decreased the use of Employment Insurance (EI) in the post-program period. The total cumulative post-program net decrease in the amounts of EI benefits received was $3,513 (statistically significant). This is equivalent to a statistically significant decrease of $1,171 in EI use during the post-program period.

Table 3.24
Change in Mean EI Benefits Relative to the Year Prior to Claim Start Year for SEB Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

	Pre-Program Period	Program Period		Post-Program Period		
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post
SEB	---	$4,950	$7,123	-$367	-$718	-$703
EAS-only Comparison Group	---	$3,284	$3,281	$622	$740	$363
Difference-in-Differences	---	$1,667***	$3,842***	-$989***	-$1,458***	-$1,066***
Cumulative Net Increase/Decrease	---	---	---	-$3,513***		
Annualized Post-program Net Increase/Decrease in EI				-$1,171***		

Note: The change in EI use, relative to the year prior to the claim start year, was calculated using the data only for the 2000 participants. The cumulative net increase/decrease in EI use is calculated using the same sample of participants and non-participants (cohorts of 2000 and 2001). Since the sample in year 5 post-program includes only the year 2000 cohort of participants, it is excluded from this calculation.

Source: Administrative data for active EI claimants. Note: *p<.05, ***p*<.01, ****p*<.001.

The difference-in-differences estimates (Table 3.25) show that participation in SEB did not have statistically significant impacts on the use of Social Assistance in the post-program period.

Table 3.25
Change in Mean Social Assistance Benefits Relative to the Year Prior to Claim Start Year for SEB Participants (Unweighted) and the EAS-only Comparison Group (Weighted) – 2000 and 2001 Cohorts

	Pre-Program Period	Program Period		Post-Program Period		
	1 Year Prior	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post
SEB	---	-$70	-$64	$46	$30	$44
EAS-only Comparison Group	---	$14	$56	$125	$116	$73
Difference-in-Differences	---	-$83*	-$120**	-$79	-$86	-$29
Cumulative Net Increase/Decrease	---	---	---	-$194		
Annualized Post-program Net Increase/Decrease in SA				-$65		

Note: The change in SA use, relative to the year prior to the claim start year, was calculated using the data only for the 2000 participants. The cumulative net increase/decrease in SA use is calculated using the same sample of participants and non-participants (cohorts of 2000 and 2001). Since the sample in year 5 post-program includes only the year 2000 cohort of participants, it is excluded from this calculation.

Source: Administrative data for active EI claimants. Note: *p<.05, ***p*<.01, ****p*<.001.

3.6 Effects on Participant Attitudes and Quality of Life

Evaluation Question 6: Are EBSMs associated with participant well-being and attitudes toward work and learning?

Finding 28: Over half (55%) of the Skills Development survey respondents rated their programs and services as important or very important to obtaining their longest job since program participation.

Over half (55.6%) of the Skills Development survey respondents rated their employment programs and services as very important (40.3%) or important (15.3%) to obtaining their longest job since program participation (as shown in Table 3.26). One-third (33.4%) of the Skills Development survey respondents felt that the employment programs and services they received were not important (10.4%) or not at all important (23.0%) to obtaining their longest job.

Table 3.26
Assessment of Importance of Programs and Services for Obtaining Employment – Skills Development Survey Respondents

How important were the programs and services you received to your getting this job (longest job since program participation)?	
Not at all important	23.0%
Not important	10.4%
Somewhat important	10.2%
Important	15.3%
Very important	40.3%
Don't know/No response	0.9%
Total	100.0%
Number of Respondents	774

Source: Survey data.

Finding 29: Half (49.9%) of the Skills Development survey respondents stated their longest job since program participation had specific educational or skills requirements and that they obtained those requirements through the programs and services they received.

Just over 79% of the Skills Development **(**SD) survey respondents stated their longest job since program participation required a specific diploma or certificate or a specific set of skills (as shown in Table 3.27). Half (49.9%) of all SD survey respondents reported that their longest job required specific skills or education and that they obtained those requirements from their programs and services. In other words, nearly one out of two SD survey respondents stated that they obtained their longest job since program participation because of the skills or educational requirements they acquired through their participation in Skills Development.

For the remaining SD survey respondents, approximately 29% stated they did not obtain the necessary diploma, certificate or skills as a result of their SD participation, and 20% stated that their longest job since program participation did not require any specialized training or skills.

The findings of the Skills Development survey are consistent with the feedback obtained from SD participants in the discussion groups. The discussion group participants felt that their participation in an assessment, action planning process and subsequent training gave them a better understanding of their skills and abilities for employment. As well, the discussion group participants commented that the addition of credentials (e.g. a certificate from a training course) had opened employment opportunities for them.

Table 3.27
Assessment of Required Skills and the Usefulness of Programs and Services – Skills Development Survey Respondents

Skills requirements of longest job since program participation and programs and services as source of skills	
Obtained specific skills or education required from programs and services	49.9%
Did not obtain specific skills or education required from programs and services	29.2%
Did not require specific skills or education	19.5%
No response	1.3%
Total	100.0%
Number of Respondents	780

Source: Survey data.

3.7 Limited Cost-benefit Analysis

Evaluation Question 7: Do the Benefits Produced by the EBSMs Outweigh the Costs?

Assessing the costs versus benefits of the EBSMs involves comparing the benefits arising from program participation to the costs of the program.

Using the estimates provided by the difference-in-differences analysis presented in Section 3.5, the evaluators were able to examine the costs and benefits of Skills Development and Targeted Wage Subsidies (TWS) interventions in the case of active claimants.[27] The cost-benefit analysis was conducted from a broader social perspective for a period of six years (the claim start year plus five years after the claim start year).

From the broad social perspective, the benefits arising from Skills Development and TWS participation were measured as subsequent earnings gains that can be attributed to participation in these initiatives, where earnings were discounted[28] to a common base year so that they are comparable across the years. The costs were measured as the program costs.[29]

This cost-benefit analysis is limited in the sense that it does not account for all the costs and benefits from the broader social perspective. It is difficult to attribute a dollar value to social benefits such as: increased self-confidence, crime reduction, family well-being, and health status of EBSM participants. In addition, out-of-pocket expenses assumed by EBSM participants were not available.

This limited cost-benefit analysis is also a partial equilibrium analysis since it does not account for the displacement effects (e.g. EBSM participants may now occupy jobs that could have been filled by qualified non-participants). Displaced and unemployed non-participants may experience social disadvantages when compared to the social benefits of employed EBSM participants.

As mentioned above, a six-year period, namely the claim start year and five subsequent years, were used for the cost-benefit calculations. This period was used to examine earnings changes ascribed to the program, and the costs incurred to bring about these changes. We note two issues that arose in connection with using a six-year period:

(1) As noted in footnote 24, all dollar figures were discounted to a common base, so that earnings and program costs could be compared across years and between two cohorts. Benefit and cost figures shown below are expressed in common base-period dollars, not current dollars. While the actual numerical values of all dollar amounts depend on the base period chosen, the ratios of the figures relative to one another do not.

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[27] Since the cumulative net earnings was negative overall for SEB and not statistically significant for JCP, no cost-benefit analysis was performed for these interventions.

[28] The analysis applies a 4% discount rate to all earnings that occur following a base year. The year 1999 corresponds to the year before the claim start year for cohort 2000. The purpose of discounting is to adjust earnings, which occur across several years, to a common comparable base. In principle, the discount rate reflects the fact that both the present value and the purchasing power of a dollar are greater today than in a future year. In this analysis the 4% rate is used to represent the two effects, and is a rate suggested in A. Boardman, D. Greenberg, A. Vining and D. Weimer (2001). Cost-Benefit Analysis: Concepts and Practice. 2nd edition Prentice Hall, p. 250."

[29] Program costs were also discounted to the common base year.

(2) Observations for a full five-year period following claim start year were available only for the year-2000 cohort; figures for year-5 among the year-2001 cohort had to be extrapolated. To gain an idea of just how robust the results obtained may be, two alternative scenarios were used to extrapolate to year-5:

(A) **Scenario "A"**: Under this scenario, observed "current" (i.e. non-discounted) year-5 earnings in the year-2000 cohort were used to represent unobserved current year-5 earnings in the year-2001 cohort.

(B) **Scenario "B"**: In this scenario, it was assumed that unobserved current year-5 earnings for the year-2001 cohort would have the same relationship to earnings in the pre-program year as did the observed current earnings among the year-2000 cohort.

It was anticipated that if the extrapolation exercise were sufficiently robust, both scenarios will lead to similar conclusions.

The cost of Skills Development (SD) and Targeted Wage Subsidies (TWS) interventions were based on the data released in the 2000 and 2001 EI Monitoring and Assessment Reports. Note that the EAS-only limited-treatment comparison group also has an intervention cost associated with it. National averages suggest that these costs are in the range of $500 to $700. Normally, these costs would be subtracted from the SD and TWS intervention costs. However, considering the use of the case management approach, it is safe to assume that the vast majority of participants in Employment Benefits do receive one or another type of EAS interventions. As a result, the limited cost-benefit analysis used the cost of SD and TWS interventions only for the cost-benefit calculations without subtracting the average cost of EAS interventions.

Skills Development

Finding 30: Measured in constant 1999 dollars, from the broader social perspective, the average cost of Skills Development interventions ($8,124) exceeded the earnings gains by the end of the study period; earnings gains were estimated to be in the range of $6,810 - $7,093. These earnings gains estimates were significantly different from zero, suggesting that Skills Development may not be producing benefits that outweigh the costs over the observed post-program period. However, the observed estimates suggest that earnings gains may persist beyond the observation period used for the cost-benefit calculations. More recent data would be required to see if earnings gains ascribable to Skills Development are being sustained over the longer term.

Tables 3.28A and 3.28B contain the difference-in-earnings differences calculations between Skills Development and EAS-only participants over a six-year period using constant 1999 dollars. Table 3.28A is based on "5-years post" earnings that were extrapolated under scenario "A" for the year-2001 cohort. Table 3.28B is similar to 3.28A, except "5-year post" earnings were extrapolated under scenario "B". Both scenarios yielded relatively similar estimates of cumulative earnings gains over the observation period:

Table 3.28A
Limited Cost-benefit Calculations for Skills Development Participants Under Extrapolation Scenario "A" – Year-2000 and Year-2001 Cohorts Combined

	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post	5 Years Post	Total
Difference-in-Differences Estimates from Table 3.10	-$1,087**	-$1,600***	$1,511***	$3,037***	$3,659***	---	---
Difference-in-Differences Estimates Expressed in "Base Year" Dollars	-$1,018	-$1,448	$1,330	$2,564	$2,974	$2,691	$7,093
Program Costs	$8,124						$8,124

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01 and ***p<.001.

Table 3.28B
Limited Cost-benefit Calculations for Skills Development Participants Under Extrapolation Scenario "B" – Year-2000 and Year-2001 Cohorts Combined

	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post	5 Years Post	Total
Difference-in-Differences Estimates from Table 3.10	-$1,087**	-$1,600***	$1,511***	$3,037***	$3,659***	---	---
Difference-in-Differences Estimates Expressed in "Base Year" Dollars	-$1,018	-$1,448	$1,330	$2,564	$2,974	$2,408	$6,810
Program Costs	$8,124						$8,124

Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01 and ***p<.001.

The two extrapolation scenarios fix earnings gains between $6,810 and $7,093 per participant, achieved at an average cost of $8,124. These figures are expressed in constant dollars, which have been discounted to the common base period represented by the pre-program year in the year-2000 cohort. Earnings changes in the post-program period range from negative in the first year to positive in all subsequent years, with the net result that overall earnings changes over the entire observed post-program period are significantly different from zero.

The two scenarios both suggest that the benefits do not outweigh the costs for Skills Development (SD) interventions in assisting unemployed workers improve their labour market outcomes. However, the pattern of earnings suggests that earnings gains may persist beyond the observation period used for the cost-benefit analysis. If participants' earnings were measured for an additional two or three years, the gap between SD costs and cumulative earnings gains could be considerably reduced or eliminated.

Finding 31: Measured in constant 1999 dollars and from a broader social perspective, earnings gains ranged between $20,135 and $22,477 for Targeted Wage Subsidies participants compared to average costs of $5,493 for Targeted Wage Subsidies interventions. These earnings gains estimates were significantly different from zero, suggesting that Targeted Wage Subsidies are producing benefits that outweigh the costs over the observed post-program period.

As for Skills Development participants, earnings data for Targeted Wage Subsidies (TWS) participants in the fifth post-participation year were extrapolated for the year-2001 cohort. Tables 3.29A and 3.29B contain the difference-in-earnings differences calculations between TWS and EAS-only participants over a six-year period in terms of constant 1999 dollars. Table 3.29A is based on "5-years post" earnings that were extrapolated under scenario "A" for the year-2001 cohort, and represents a high-end estimate of cumulative relative earnings gains over the observation period. Table 3.29B is similar to 3.29A, except "5-year post" earnings were extrapolated under scenario "B". Both scenarios yield relatively similar estimates of cumulative relative earnings gains over the observation period:

Table 3.29A
Limited Cost-benefit Calculations for TWS Participants Under Extrapolation Scenario "A" – Year-2000 and Year-2001 Cohorts Combined

Type of Intervention	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post	5 Years Post	Total
Difference-in-Differences Estimates from Table 3.13	$1,245	$5,117***	$4,628***	$4,079***	$5,009***	---	---
Difference-in-Differences Estimates from Expressed in "Base Year" Dollars	$1,253	$4,664	$4,007	$3,426	$4,066	$2,718	$20,135
Program Costs	$5,493						$5,493
Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01 and ***p<.001.							

Table 3.29B
Limited Cost-benefit Calculations for TWS Participants Under Extrapolation Scenario "B" – Year-2000 and Year-2001 Cohorts Combined

Type of Intervention	Claim Start Year	1 Year Post	2 Years Post	3 Years Post	4 Years Post	5 Years Post	Total
Difference-in-Differences Estimates from Table 3.13	$1,245	$5,117***	$4,628***	$4,079***	$5,009***	---	---
Difference-in-Differences Estimates from Expressed in "Base Year" Dollars	$1,253	$4,664	$4,007	$3,426	$4,066	$5,060	$22,477
Program Costs	$5,493						$5,493
Source: Administrative data for active EI claimants. Note: *p<.05, **p<.01 and ***p<.001.							

The two extrapolation scenarios fix earnings gains between $20,135 and $22,477 per participant, achieved at an average cost of $5,493. These figures are expressed in constant dollars, which have been discounted to the common base period represented by the pre-program year in the year-2000 cohort. The net result for overall earnings gains in the observed five year post-program period was significantly different from zero in both scenarios.

The two scenarios suggest that the benefits outweigh the costs for TWS interventions in assisting unemployed workers improve their labour market outcomes.

4. Summary and Conclusions

This section provides an overview of the main findings and conclusions regarding the evaluation issues and questions examined in this report.

Are EBSMs Meeting Employer, Community and Labour Force Needs as Intended?

The general view among key informants was that the evolving needs of the labour market have affected the needs of employers and workers in Nova Scotia, and changed the types of participants seeking assistance under the EBSMs. In the case of employers, there is increased demand for skilled workers. In the case of workers, there are increased opportunities to find employment and move into higher skilled jobs for those who have the appropriate training or skills. In this context, most key informants noted an increase in the number of participants with literacy or skills gaps, participants with multiple employment barriers, individuals who were not active claimants or former/reachback claimants (but who are seeking assistance to re-enter the labour market) and under-employed workers seeking assistance for training to upgrade their skills.

Most key informants felt that EBSMs meet the needs of unemployed workers, but that some client groups are not well served. Examples include individuals who are not active claimants or former/reachback claimants (including youth), under-employed workers, and people with multiple employment barriers. They also felt that the needs of employers are not addressed adequately (because the administrative burden of Targeted Wage Subsidies (TWS) makes this intervention less attractive to employers, and because the training of existing staff to upgrade skills is usually not eligible for assistance under the EBSMs).

Are EBSMs Being Implemented and Delivered Effectively?

Key informants generally felt that the assessment, referral and streaming processes captured the right participants and delivered appropriate services to those participants. At the same time they identified return-to-work action plans as an area for improvement. For example, the majority of key informants felt that some participants received programs and services without a clear return-to-work action plan. They also felt that the quality of the action plans was highly variable.

Key informants felt there was a good working relationship between their organizations, but they also identified a number of challenges as impeding the efficient and effective delivery of the EBSMs. For example, Service Canada staff expressed concerns about the variable quality of the services provided by the Community Partners.

What Was the Nature of Participants' In-Program Experience?

Between 2000 and 2005, 48% of all EBSM participants only took an EAS intervention, while 36% of all Action Plan Equivalents (APEs) involved Skills Development interventions. This percentage was substantially higher than the percentage of participants who received TWS (4%), JCP (6%) or SEB (5%). Very few participants (less than 2%) received more than one type of Employment Benefit.

Skills Development (SD) participants were generally satisfied with the programs and services received. The survey of SD participants indicated that 84% of the respondents were satisfied (35%) or very satisfied (49%) with the programs and services received from HRSDC or Service Canada. Approximately 60% of the Skills Development survey respondents were satisfied (34%) or very satisfied (26%) with the counselling services they received.

Over half (55%) of the SD survey respondents rated their programs and services as important (15%) or very important (40%) to obtaining their longest job since program participation. Half (50%) of the SD survey respondents stated their longest job since program participation had specific educational or skills requirements and they obtained those requirements through their programs and services.

Have EBSMs Helped Participants Find and Keep Employment? (Impacts and Outcomes)

The incremental impacts on earnings (from employers), Employment Insurance (EI) and Social Assistance were estimated for the Skills Development (SD), Targeted Wage Subsidies (TWS) and Job Creation Partnerships (JCP) participants who were active claimants. The incremental impacts on total income,[30] EI and Social Assistance were estimated for the Self-Employment Benefits (SEB) participants who were active claimants.

Skills Development

Active claimants who participated in Skills Development experienced a statistically significant cumulative post-program (3 years) net gain in earnings of $8,207. Participation in Skills Development interventions also increased the amount of EI benefits received by $1,469 and decreased Social Assistance income by $412. This is equivalent to a statistically significant annual increase of $2,736 in earnings, $490 in EI use, and a statistically significant decrease in Social Assistance use of $137 during the post-program period.

Skills Development participants experienced a statistically significant increase in the number of months of full-time employment and a corresponding decrease in the number of months of part-time employment. Full-time employment increased by 0.8 months (from 6.9 to 7.7 months) while part-time employment decreased by 0.8 months (from 1.4 to 0.6 months).

Targeted Wage Subsidies

Active claimants who participated in TWS experienced a statistically significant cumulative post-program net gain in earnings of $13,716. Participation in TWS also decreased Social Assistance use by $746. This is equivalent to a statistically significant annual increase of $4,572 in earnings and a decrease of $249 in Social Assistance use during the post-program period. The estimated impacts on the use of EI were not statistically significant.

[30] Total income was used because the data on earnings from employers do not include earnings/income from other sources such as business income or professional income from self-employment.

Job Creation Partnerships

Active claimants who participated in JCP experienced a statistically significantly decrease of $684 in Social Assistance use. This is equivalent to an annual decrease of $228 in Social Assistance use during the post-program period. The estimated impacts on earnings and the use of EI were not statistically significant.

Self-Employment Benefits

In the case of active claimants who participated in SEB, they experienced a statistically significant cumulative post-program decrease in total income of $14,577.[31] Participation in SEB also led to a significant decrease of $3,513 in the use of Employment Insurance. This is equivalent to a statistically significant annual decrease of $4,859 in earnings and $1,171 in Employment Insurance use during the post-program period. There was no statistically significant impact for the use of Social Assistance.

Are EBSMs Associated with Participant Attitudes and Quality of Life?

Many Skills Development participants felt that the programs and services they received helped them to obtain employment. Over half (55%) of the Skills Development survey respondents rated their programs and services as important (15%) or very important (40%) to obtaining their longest job since program participation. As well, half (50%) of the Skills Development survey respondents stated their longest job since program participation had specific educational or skills requirements and they obtained those requirements through their programs and services. The survey findings are consistent with the feedback obtained from Skills Development participants in discussion groups. For example, the discussion group participants indicated that their acquired credentials (e.g. a certificate from a training course) had opened employment opportunities for them.

Do the benefits produced by the EBSMs outweigh the costs?

The estimates provided by the impact analysis were used to compare the benefits arising from program participation to the costs of the program. Therefore the analysis examined costs and benefits from the social perspective for active claimants for a period of six years (the claim start year plus five years after the claim start year).[32]

Skills Development and Targeted Wage Subsidies interventions yield the following results:

- ***In the case of Skills Development***, the discounted cumulative earnings gains (estimated in the range of $6,810 to $7,093) obtained by the Skills Development participants were below the average program costs ($8,124) of Skills Development interventions. However, the pattern of earnings suggests that earnings gains may persist beyond the observation period used for the cost-benefit analysis. If participants' earnings were measured for an additional two or three years, the gap

[31] At first sight, this large decrease in income for SEB appears troubling. However, note that the earnings are closely linked to the success of the business and that a significant percentage of businesses fail within the first few years, generating a loss of income independently from the relevance of the training received under SEB.

[32] Since the cumulative earnings gain for JCP and SEB were negative overall, no cost-benefit analysis was performed for these interventions.

between Skills Development costs and cumulative earnings gains could be considerably reduced or eliminated.

- ***In the case of Targeted Wage Subsidies***, the discounted cumulative earnings gains (estimated in the range of $20,135 to $22,477) obtained by the TWS participants exceeded the average program costs ($5,493) of TWS interventions.

5. Key Conclusions

Taking into consideration the newly devolved LMDA in Nova Scotia and based on the evaluation findings, this summative evaluation concludes that:

- Among the four EBSMs examined in this evaluation, Skills Development (SD) and Targeted Wage Subsidies (TWS) benefits produced positive impacts on Active Employment Insurance (EI) participants. Skills Development participants experienced increases in employment duration and earnings, and TWS participants experienced an increase in earnings.
- Planning for the delivery of EBSMs should take into consideration the emerging trends in the Nova Scotia labour market, the needs of employers (socio-economic conditions, occupations in demand, sectors in decline or in expansion, future employment opportunities, consultation with employers, etc.) and complementarity with other employment programs.
- In addition to meeting the needs of individuals, EBSMs can also be targeted toward occupations in demand to help address the needs of employers and identified shortages.
- Considering the small number of former/reachback EI claimants in Nova Scotia, an impact analysis could not be conducted. An ongoing client tracking survey of these clients can be a source of valuable information.
- It is important for future evaluations to focus on assessing the long-term impacts of EBSMs and their cost-effectiveness.