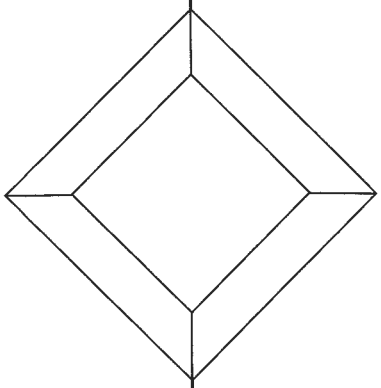

When Financial Incentives Encourage Work

Complete 18-Month Findings from the Self-Sufficiency Project

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SRDC
SOCIAL RESEARCH AND DEMONSTRATION CORPORATION

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The Social Research and Demonstration Corporation (SRDC) is a nonprofit organization created in 1992 with the support of Human Resources Development Canada (HRDC) to develop, field test, and rigorously evaluate social programs designed to improve the well-being of all Canadians, with a special concern for the effects on disadvantaged Canadians. Its mission is to provide policymakers and practitioners with reliable evidence about what does and does not work from the perspectives of government budgets, program participants, and society as a whole. It accomplishes this mission by evaluating existing social programs and by testing new social program ideas at scale, and in multiple locations, before they become policy and are implemented on a broader basis.

Other SRDC reports:

Creating an Alternative to Welfare: First-Year Findings on the Implementation, Welfare Impacts, and Costs of the Self-Sufficiency Project. Tod Mijanovich and David Long (MDRC). December 1995.

The Struggle for Self-Sufficiency: Participants in the Self-Sufficiency Project Talk About Work, Welfare, and Their Futures. Wendy Bancroft and Sheila Currie Vernon (SRDC). December 1995.

Do Financial Incentives Encourage Welfare Recipients to Work? Initial 18-Month Findings from the Self-Sufficiency Project. David Card (Princeton University) and Philip K. Robins (University of Miami). February 1996.

When Work Pays Better Than Welfare: A Summary of the Self-Sufficiency Project's Implementation, Focus Group, and Initial 18-Month Impact Reports. March 1996.

How Important Are "Entry Effects" in Financial Incentive Programs for Welfare Recipients? Experimental Evidence from the Self-Sufficiency Project. David Card (Princeton University), Philip K. Robins (University of Miami), Winston Lin (MDRC). August 1997.

Implementing the Earnings Supplement Project: A Test of a Re-employment Incentive. Howard Bloom (New York University), Barbara Fink (MDRC), Susanna Lui-Gurr (SRDC), Wendy Bancroft (SRDC), Doug Tattrie (SRDC). October 1997.

Do Work Incentives Have Unintended Consequences? Measuring "Entry Effects" in the Self-Sufficiency Project. Gordon Berlin (MDRC), Wendy Bancroft (SRDC), David Card (Princeton University), Winston Lin (MDRC), and Philip K. Robins (University of Miami). March 1998.

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Preface

Welfare reform is high on the domestic policy agenda, as provinces aim to reshape the Canadian social safety net while also controlling government expenditures. A central challenge is to achieve two often conflicting goals: making poor families less poor, while simultaneously helping them reduce their reliance on government transfer payments and achieve economic self-sufficiency. For some policymakers, fighting poverty is the main goal; for others, encouraging personal independence is paramount.

Historically, anti-poverty programs that were not tied to employment sometimes reduced people's work effort and increased their reliance on public assistance, whereas programs that increased employment and reduced welfare receipt often did not increase poor families' overall income. Compounding the difficulties has been the dearth of hard evidence to guide some of these policy choices.

Funded by Human Resources Development Canada and managed by the nonprofit Social Research and Demonstration Corporation, the Self-Sufficiency Project (SSP) was launched to help fill this knowledge gap by testing an innovative approach to meeting both goals. Through SSP, single parents in British Columbia and New Brunswick who were long-term recipients of Income Assistance (welfare) were offered a substantial financial incentive — in the form of a temporary earnings supplement — if they left Income Assistance for full-time employment. They could receive the supplement each month, for up to three years, but only if they were off welfare and working full time. In this way, SSP was designed to avoid the classic trade-off between poverty and dependence.

This report presents early but encouraging results from a rigorous evaluation of the SSP program, building on a previous report that was based on data for only part of the 6,000-person main research sample. The report shows that, 18 months into the project, people who were eligible for SSP worked more, had higher earnings and incomes, and received less welfare than a control group of similar people who were not given access to the supplements. Furthermore, the positive results applied to a broad cross section of those in the program. In addition, for each $1 increase in government payments (because of the earnings supplements), there was a $2 increase in earnings and a more than $3 increase in income for the SSP families. Thus, SSP is encouraging more participation in the labour market *and* having a significant anti-poverty effect, allowing participants to set aside some money for the future as well as to spend more on necessities.

Later reports will examine the longer-term effects of SSP — importantly, what happens after the three-year period of supplement receipt ends. It is our hope, however, that even this early information will prove useful to policymakers as they strive to design programs that better meet societal objectives and individuals' needs.

John Greenwood
Executive Director

Acknowledgements

Both the Self-Sufficiency Project and this report result from the collaboration of many people and organizations, who have brought a combination of research, data management, and operational experience to the effort. We are grateful to everyone who has contributed to this endeavour, and we would like to acknowledge some of the people whose guidance, support, and assistance were critical to the preparation of this report.

SSP would not have been possible without the sponsorship and extraordinary support of Human Resources Development Canada, where the idea to test earnings supplements originated. Jean-Pierre Voyer and Allen Zeesman of HRDC's Applied Research Branch continue to provide direction and invaluable advice on matters large and small.

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At MDRC, many people worked diligently and thoughtfully to help prepare the report. Judith Gueron, Barbara Goldman, Robert Granger, and Charles Michalopoulos reviewed several drafts and helped us sharpen the analysis and presentation. Kara Balemian

coordinated the document production, created the tables and figures, programmed many of the estimates, and checked the accuracy of the text and exhibits. Martey Dodoo, Andrew Harrison, Sarah Senesky, and Johanna Ward helped prepare the data files and conducted preliminary analyses, with guidance from Greg Hoerz. Alice Tufel edited the report, and Patt Pontevolpe and Stephanie Cowell did the word processing. Rosa De Los Santos and Gloria Diaz took care of scheduling and many other administrative matters. Other people who gave valuable advice and help include Judith Greissman, Jordan Kolovson, Laura Peck, Irene Robling, and Ruth Yun.

The Authors

Executive Summary

Proponents of welfare reform have struggled for nearly three decades to design programs that would increase work, reduce poverty, and reduce dependence on welfare. Initiatives to increase work have reduced welfare dependence, but have often had little effect on poverty. Initiatives that reduce poverty by providing more income have made recipients better off financially, but have discouraged work. In an effort to address all three of these welfare reform objectives, the Canadian government is testing a new approach. The Self-Sufficiency Project (SSP) is a research and demonstration project that offers an earnings supplement to welfare recipients who leave welfare for full-time work. The primary objectives of SSP are to increase economic self-sufficiency through work and to reduce welfare dependence. A secondary objective is to reduce poverty.

Conceived and funded by Human Resources Development Canada (HRDC) and managed by the Social Research and Demonstration Corporation (SRDC), SSP offers a temporary earnings supplement to selected single-parent families receiving Income Assistance (welfare) in British Columbia and New Brunswick. To collect the supplement (a monthly cash payment based on actual earnings), a single parent must work full-time and leave Income Assistance. She can then receive the supplement for up to three years, as long as she continues to work full-time and remains off Income Assistance.[1] The supplement roughly doubles the earnings of many low-wage workers (before taxes and work-related expenses).

SSP addresses a dilemma faced by many welfare recipients: Although they are troubled by their continuing dependence on welfare, work is not a financially attractive alternative, because entry-level wages are too low to make them better off than they would be if they were receiving Income Assistance. Nor would combining work and welfare raise their incomes significantly, because Income Assistance benefits are reduced by nearly the amount they earn. This situation discourages welfare recipients from obtaining jobs and leaving welfare, and many of those who do leave welfare for work eventually return to welfare. By offering a substantial, temporary supplement to earnings, SSP provides an incentive for welfare recipients to enter the full-time labour force and acquire work experience that may eventually lead to higher earnings and economic self-sufficiency.

In developing this initiative, HRDC recognized the importance of testing the program prior to larger-scale implementation, since substantial program costs were at stake and, in times of tight budgets, the cost of a new program could be justified only if the program had significant benefits. Because many people leave welfare for work on their own, it was not known whether an earnings supplement program would lead to a significant increase in overall work effort above the level of employment that would have been reached without such a program. HRDC therefore decided to test the efficacy of an earnings supplement program under real-world operating conditions, using a random assignment evaluation design.

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[1]The feminine pronoun is used throughout this report because the vast majority of single parents receiving Income Assistance are women.

Between November 1992 and March 1995, more than 6,000 single parents who were long-term Income Assistance recipients were invited to join the SSP research study. Each of those who accepted was assigned at random to one of two groups: Members of the *program group* were given the opportunity to participate in the earnings supplement program; members of the *control group* were not. Because the two groups are similar in all respects except whether they were allowed to participate in the program, the "impact" or effect of SSP can be measured by the difference between the program and control groups' subsequent experiences. This report examines SSP's impacts on employment, earnings, Income Assistance receipt, family incomes, poverty, and living conditions during the first 18 months after random assignment (that is, after sample members were randomly assigned to the program and control groups).

THE FINDINGS IN BRIEF

During the first year and a half after program group members were first offered the supplement, SSP successfully increased work, reduced poverty, and reduced welfare dependence. These early results are encouraging but, because they cover a relatively short follow-up period, it is uncertain how long they will persist. In fact, the program's impacts on employment and welfare receipt are expected to decline somewhat as some new job takers leave their jobs. Furthermore, it is too soon to know whether the higher employment, higher earnings, and reduced welfare benefit and receipt rates for program group members relative to control group members will persist after the supplement ends.

The major findings of this report can be summarized as follows:

- **SSP *doubled* the full-time employment rate of the program group.** In the fifth quarter (three-month period) after random assignment, the period of maximum impact, SSP had a 15-percentage-point impact on the full-time employment rate: 29 percent of program group members worked at least 30 hours per week, compared with 14 percent of the control group. The program achieved these impacts primarily by moving people from nonemployment to full-time employment.
- **The additional employment generated by SSP appears to be concentrated at wage rates between the minimum wage and $2 per hour above the minimum.** At these wages, in the absence of the supplement, many single parents would be financially better off if they did not work and received welfare. Thus, after the temporary supplement ends, whether work remains more attractive than welfare may depend on the extent to which participants have experienced earnings growth or developed a stronger preference for work.
- **SSP reduced Income Assistance receipt.** In the fifth and sixth quarters after random assignment, SSP reduced the percentage of program group members receiving Income Assistance by 13 to 14 percentage points and reduced Income Assistance payments by about $100 per month per program group member.

- **In the short run, SSP increased total transfer payments.** In the period covered by this report, SSP supplement payment costs exceeded, by $55 per program group member per month, the savings from lower welfare benefit payouts and the increased revenue from the taxes that working participants paid.
- **Every $1 the government spent on additional transfer payments bought more than $2 of increased earnings and led to more than $3 of additional income for program group members.** In the fifth and sixth quarters after random assignment, SSP increased government transfer payments by $55 per month per program group member and increased monthly earnings by $124. As a result, program group members' average income increased by $179 per month.
- **SSP had a substantial anti-poverty effect.** In addition to raising average income substantially, SSP reduced the fraction of program group members with family incomes below Statistics Canada's low-income threshold by 12 percentage points and reduced the fraction in "extreme poverty" (incomes less than half the low-income threshold) by 3 percentage points.
- **SSP helped working-poor families meet their basic needs.** The increased income from SSP was used partly to increase spending on three necessities: food, children's clothing, and housing. The percentage of families using food banks (charities that distribute surplus food) was reduced. Families also appeared to be saving some of their additional income.

SSP's short-run ability to both increase work and reduce poverty is unusual and promising. Typically, programs designed to reform welfare have multiple and conflicting goals. As a result, reforms often achieve one goal at the expense of another. SSP shows some promise of being able to simultaneously increase work, reduce poverty, and decrease dependence on Income Assistance by creating a work-based alternative to the current "safety net" welfare system. In the short run, these accomplishments increase public transfer costs, because SSP payments exceed welfare savings. In the long run, however, because SSP's earnings supplement payments are limited to three years, if these impacts continue beyond the three-year cut-off point, then SSP would have the distinction of simultaneously achieving several of welfare reform's most difficult goals, possibly without increasing total costs.

FEATURES OF SSP

SSP offers participants a voluntary, time-limited alternative to Income Assistance. For those who qualify, the combination of the supplement and earnings from full-time work provides a substantial monetary improvement over Income Assistance. Eligibility for the supplement is determined by the following conditions:

- **"Long-term" Income Assistance recipient.** Recruitment for SSP's main study was limited to single parents who had been receiving Income Assistance benefits for at least one year, and were therefore considered "long-term" recipients. This group was targeted because they face considerable barriers to full-time employment and because they account for a disproportionate share of

welfare costs. Restricting eligibility to people who have been on welfare for at least one year focuses the program on parents who are less likely to leave welfare on their own, and it also reduces the likelihood that many people who are not on welfare will join the welfare rolls in order to become eligible for the supplement.

- **One year to take advantage of the offer.** Shortly after random assignment, each program group member was informed that if she found full-time work within the next 12 months and agreed to leave Income Assistance, she could sign up for the supplement. If she did not sign up within 12 months, she became ineligible for the supplement. This requirement discouraged delay in responding to the supplement offer but gave people time to consider the offer and to find work.
- **Full-time work requirement.** In order to receive supplement payments, program group members have to work at least 30 hours per week, whether in one or more jobs. The 30-hour requirement was chosen because (1) participants will need to work at least that many hours to achieve self-sufficiency, (2) it prevents those who were already working full-time from substantially reducing their work hours (an effect that some earlier financial incentive programs had), and (3) it ensures that earnings are substantial enough so that the supplement and earnings together produce a large increase in income for most participants.
- **Supplement formula makes work pay.** The supplement is calculated as half the difference between a participant's gross earnings from employment and an "earnings benchmark" set by SSP. The benchmark was $37,000 in British Columbia and $30,000 in New Brunswick when the program began and has been raised modestly since then to adjust for inflation. The supplement approximately doubles the earnings of many low-wage workers, before taxes and work-related expenses. After taxes and tax credits are considered, SSP makes most families $3,000 to $7,000 per year better off than they would be if they worked full-time and remained on Income Assistance. Unlike Income Assistance, supplement payments do not vary with family size, so the work incentive for large families is less than the incentive for small families.
- **Three-year time limit on supplement receipt.** A person may collect the supplement for up to three years from the time she begins receiving it, as long as she is working full-time and not receiving Income Assistance. The three-year time limit precludes the possibility of long-term dependence on the program.

After beginning supplement receipt, participants may decide at any time to return to Income Assistance, as long as they give up the supplement and meet the eligibility requirements for Income Assistance. They can also renew their supplement receipt by going back to work full-time at any point during the three-year period in which they are eligible to receive the supplement.

THE SSP EVALUATION AND THIS REPORT

A total of 9,300 single parents are participating in the SSP evaluation, in three different studies. The main study, which is the subject of this report, is testing the basic earnings supplement program and includes 5,686 long-term Income Assistance recipients in British Columbia and New Brunswick. Two other studies look at the effects of adding job search assistance and job counseling services to SSP and at whether SSP encourages new recipients to stay on welfare longer than they otherwise would in order to qualify for the supplement.

In British Columbia, SSP operates in the lower mainland, which includes the Vancouver metropolitan area as well as neighbouring areas to the north, south, and east. In New Brunswick, the program operates in a region covering roughly the lower third of the province, including the cities of Saint John, Moncton, and Fredericton. Sample members were recruited for SSP's main study and randomly assigned between November 1992 and March 1995 in New Brunswick and between January 1993 and February 1995 in British Columbia. The period studied in this report consists of the first 18 months after each sample member was randomly assigned (including the month of random assignment). For example, for the earliest sample members randomly assigned, the period studied is November 1992 to April 1994; for those who were randomly assigned last, the period studied is March 1995 to August 1996.

Because program group members were allowed to qualify for the supplement during the first year after random assignment and can receive the supplement for three years after qualifying, the 18-month period studied in this report ends too early for a full assessment of the program. The long-term benefits and costs are still unknown. However, because the one-year qualifying period has ended, it is possible at this point to assess how effective the SSP offer was in getting people to begin full-time work and leave Income Assistance. The report also provides an early look at SSP's effects on family incomes, poverty, and living conditions and at the cost of the supplement payments compared with the savings to the government in reduced Income Assistance expenditures.

The findings in this report are based on data for the 5,288 single parents in the main study who completed a follow-up survey. An earlier report (Card and Robins, 1996) presented a limited number of preliminary findings for the subset of about 1,900 single parents who were randomly assigned between November 1992 and December 1993. This report updates those preliminary results and presents many new ones.

The report uses data from four sources: a baseline survey administered at the time of random assignment, a follow-up survey approximately 18 months after random assignment, Income Assistance administrative records, and records from SSP's Program Management Information System, which tracks program activities and supplement payments.

As will be explained, SSP's maximum impacts on employment and Income Assistance receipt were expected to appear during the first 18 months after random assignment. The extent to which impacts persist or decline during the remainder of the supplement period and afterward will be seen in future reports that present estimated impacts up to 36 months and 54 months after random assignment. Those reports will also examine SSP's impacts on a wide range of outcomes related to the well-being of sample members' children, and the 54-month report will include a comprehensive analysis of SSP's benefits and costs from the perspectives of long-term Income Assistance recipients, government budgets, and society as a whole.

CHARACTERISTICS OF THE RESEARCH SAMPLE

Most of the single parents in the research sample are female and have relatively low levels of education. Two-fifths were raised by a single parent and about one-fourth grew up in families receiving some form of welfare.

Almost all sample members reported that they worked for pay at some time in the past. However, during the period just prior to random assignment, employment among sample members was relatively low. At the time of random assignment, less than one-fifth of the sample reported any employment, and only 7 percent were working 30 hours or more per week. Thus, more than 90 percent of the sample would have to increase their work effort to qualify for the SSP supplement.

Sample members also faced what appeared to be substantial barriers to full-time employment. More than one-fourth of the sample reported having an activity-limiting physical condition. More than half had a child age five or younger in their household, and over 80 percent reported that they would need child care if they found a job. Over one-fifth of those who said they would require child care believed that they would not be able to find someone they trusted to take care of their children. The three most common reasons given for not taking a job in the four weeks before the baseline survey interview were personal or family responsibilities, lack of adequate child care, and illness or disability. When asked whether their "greatest need" was full-time employment, part-time employment, education or training, or something else, 47 percent chose education or training.

LEARNING ABOUT THE SUPPLEMENT

Orientations to SSP were given to 98 percent of program group members, usually within one month after random assignment. These sessions described the earnings supplement's main features (the work requirement, the one-year clock, the three-year time limit, and the calculation of supplement payments). The central message conveyed was that the supplement could "make work pay," even if a minimum-wage job was all that could be found. Program group members were also informed of the range of community services available to them to assist them in their efforts to enter the world of work. However, the SSP staff acknowledged that the earnings supplement might not be the right choice for everyone, particularly those who preferred to stay home with their children or who wished to attend school full-time.

In a phone survey of the 700 program group members oriented through April 1993, over 90 percent said they recalled being told by SSP staff about the one-year clock, the 30-hour work requirement, how to calculate the supplement, and that they must leave Income Assistance to qualify for the supplement. Nine out of 10 respondents said they thought they would be financially better off on the supplement, and 8 out of 10 said they had no questions about the supplement.

After the orientation session, contacts between program group members and program staff were usually of modest duration (e.g., a 10- or 15-minute phone call). One or two additional workshops (e.g., one on money management) were offered. The program offers information and referrals to existing services in areas such as job search, education, and training, but does not directly provide these services. Doing so would make it impossible to

determine the extent to which differences between the program and control groups' experiences could be attributed to SSP's financial incentive, as opposed to the services.

In order to "initiate" supplement payments, program group members who found full-time work within the one-year qualifying period had to come into the SSP office to provide evidence of their qualifying employment and sign a letter directing the Income Assistance office to end Income Assistance payments. After initiation, participants fill out a voucher (documenting the dates, hours, and wages of their employment) after receiving each paycheque and mail it, along with a copy of the corresponding pay stubs, to the SSP payment office. The supplement amount is then calculated according to the earnings received during a four-week or monthly accounting period. Payment system records are cross-matched with Income Assistance records every month to ensure that supplement takers are complying with the rules of the program and not drawing simultaneous benefits.

PARTICIPATION IN SSP

- **Thirty-five percent of program group members went to work full-time, left Income Assistance, and successfully "took up" (qualified for) the supplement.**

Most of these "supplement takers" did not maintain full-time employment in every month and therefore forfeited part or all of a supplement payment at least once. The most frequently cited reason was that their employers could not give them enough hours of work. As a result, the percentage of program group members receiving the supplement in any given month was considerably less than the 35 percent who ever took up the supplement: no more than 25 percent received the supplement in any given month.

- **Most "nontakers" (those who did not take up the supplement) said they would be much better off financially if they were working full-time and receiving the supplement, but a variety of concerns and difficulties had kept them from doing so.**

The most commonly mentioned reasons for not taking up the supplement were inability to find a job or to get enough hours of work (cited as the main reason by 43 percent of the nontakers), personal or family responsibilities (15 percent), and health problems or disabilities (14 percent). When asked, "If you could change one thing about SSP to make it a better program for you, what would it be?", 20 percent of the nontakers suggested that SSP should give people more than one year to find a job and qualify for the supplement, and another 12 percent suggested adding a job placement service.

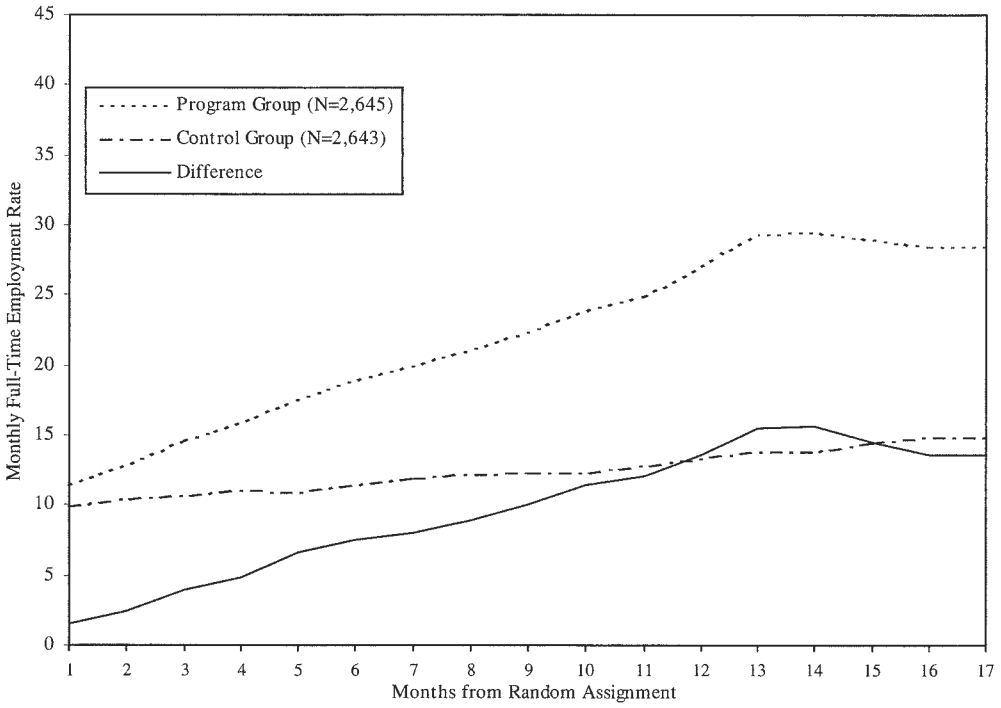
IMPACTS ON EMPLOYMENT AND INCOME ASSISTANCE RECEIPT

- **SSP increased full-time employment and reduced Income Assistance receipt among program group members. Estimated impacts were largest in the fifth and sixth quarters after random assignment. Impacts are expected to decline somewhat in the future.**

Figure ES1 shows the full-time employment rates of the program and control groups and the difference between them — SSP's estimated impact — during the first 17 months after

random assignment. (The month in which random assignment occurred is labelled "month 1." In this report, impacts on full-time employment are shown for months 1–17 because the employment data are incomplete beyond month 17; impacts on Income Assistance receipt are shown for months 1–18.) The control group line shows the gradual increase in full-time employment that would occur in the absence of SSP. The program group had substantially higher full-time employment rates; the estimated impact of SSP is shown by the solid line in the figure.

Figure ES1: Monthly Full-Time Employment Rates — Program and Control Groups



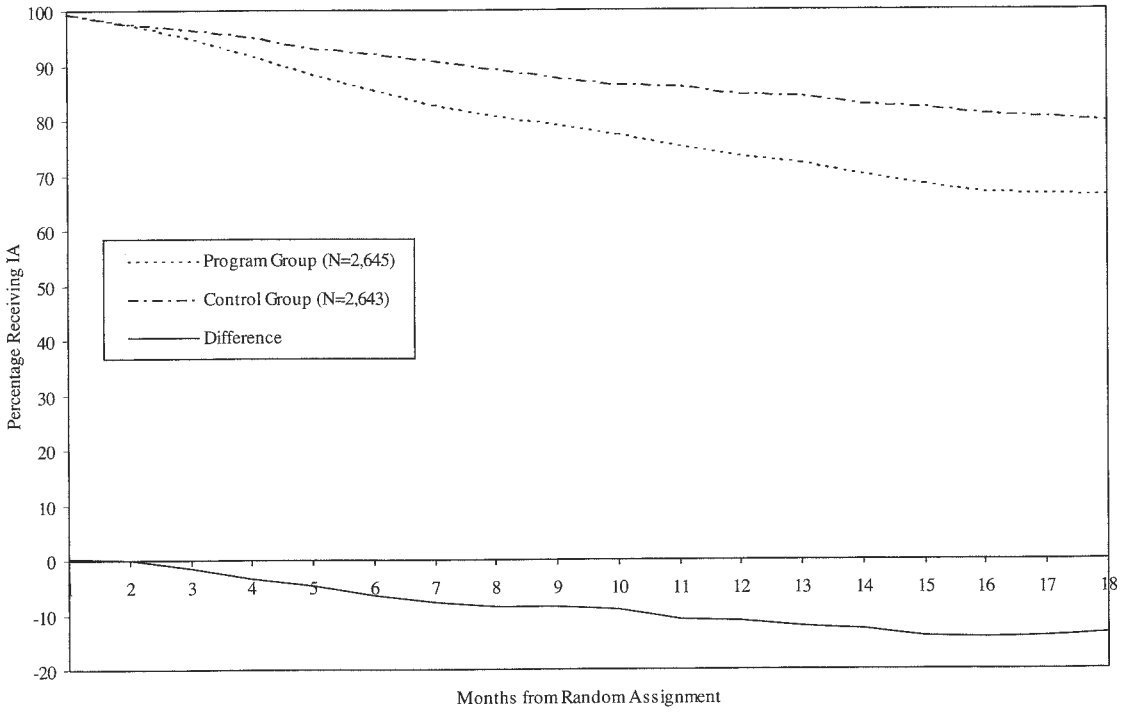
Source: Calculations from 18-month follow-up survey data.

During the first year after random assignment, SSP's impact on full-time employment grew as an increasing number of program group members responded to the supplement offer. After the first year, no additional program group members could take advantage of the offer. SSP's impact reached its peak in months 13 and 14 and then declined slightly, both because some people who had qualified for the supplement did not remain employed full-time, and because the control group's full-time employment rate continued to rise — in other words, over time, an increasing number of sample members would work full-time even in the absence of SSP.

Figure ES2 shows the percentages of program and control group members receiving Income Assistance, and the estimated impact of SSP, during months 1–18. The percentage of control group members receiving Income Assistance declined steadily to 80 percent by month 18, illustrating the normal process of welfare dynamics: people leave welfare because they find work or increase their work hours, because they marry or reunite with their spouses, because their children grow up, or for other reasons. The percentage of program group members receiving Income Assistance declined even further. The solid line shows SSP's

estimated impact (i.e., the difference between program and control groups' welfare receipt rate); the values are negative because SSP *reduced* Income Assistance receipt. Reductions in Income Assistance receipt tended to follow SSP's impacts on full-time employment with a short lag, because Income Assistance payments were not terminated until after program group members had begun to receive both their paycheques from employment and their supplement cheques. As a result, the reduction in Income Assistance receipt due to SSP was largest in month 16, a few months after the impact on full-time employment reached its peak.

Figure ES2: Percentage Receiving Income Assistance — Program and Control Groups



Source: Calculations from Income Assistance administrative records.

The remainder of this summary focuses on estimated impacts in quarters 5 and 6 (months 13–18) after random assignment. (Quarter 6 is represented by employment and earnings data for months 16–17 and Income Assistance data for months 16–18.) In future quarters, SSP's impacts on employment and welfare receipt will probably not exceed those observed during quarters 5 and 6, because any program group member who wanted to take advantage of the supplement offer had to find full-time work by month 13 and leave Income Assistance shortly after. It is expected that impacts will decline somewhat as the control group continues to leave welfare for work, and thus begins to "catch up" with the program group. At this point, it is not known how much of the impact will persist over time. Future reports will answer that question.

Table ES1 presents the estimated impacts of SSP on full-time, part-time, and overall employment and on Income Assistance receipt in quarters 5 and 6.

Table ES1: SSP Impacts on Employment and Income Assistance Receipt, Quarters 5 and 6 After Random Assignment

Outcome	Program Group (%)	Control Group (%)	Difference (Impact)
Full-time employment rate[a]			
Quarter 5	29.3	14.0	15.2***
Quarter 6	28.5	14.8	13.7***
Part-time employment rate[b]			
Quarter 5	11.7	13.9	-2.2**
Quarter 6	12.1	15.2	-3.2***
Overall employment rate			
Quarter 5	41.0	28.0	13.0***
Quarter 6	40.6	30.0	10.6***
Percentage receiving Income Assistance			
Quarter 5	70.2	83.2	-13.0***
Quarter 6	66.5	80.4	-13.9***

Notes: All estimates for quarter 5 are calculated by averaging the estimates for months 13, 14, and 15. Employment rates for quarter 6 are calculated by averaging the estimates for months 16 and 17. Percentages receiving Income Assistance in quarter 6 are calculated by averaging the estimates for months 16, 17, and 18.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a]"Full-time employment" is defined as working 30 hours per week in at least one week during the month.

[b]"Part-time employment" is defined as having some employment but no full-time employment during the month.

- **SSP doubled the full-time employment rate in quarter 5 and had almost as large an impact in quarter 6.**

In quarter 5, SSP increased the full-time employment rate by 15 percentage points: 29 percent of program group members were working at least 30 hours per week, more than double the control group rate of 14 percent. The estimated impact in quarter 6 was somewhat smaller but still substantial (14 percentage points).

- **Some of those receiving the supplement would have worked full-time anyway.**

Twenty-three percent of program group members worked full-time and received SSP supplement payments in quarter 5 (not shown in the table). However, the *impact* of SSP on full-time employment was smaller, 15 percentage points, implying that some of those who received the supplement would have worked full-time even in the absence of SSP. For them, the supplement can be termed a "windfall" — a reward for doing what they would have done anyway. Any program that offers financial rewards to promote work effort will give some people a windfall, in addition to possibly increasing the work effort of others. Windfall payments add to the cost of a program, but they also increase the incomes of the working poor and help make it more attractive to continue working than to depend primarily on welfare.

- **The size of SSP's impact on full-time employment reflects the net result of two effects: more full-time employment among people who would otherwise not have worked at all and more full-time employment among people who would otherwise have worked only part-time. It appears that most of the impact on full-time employment was due to the first effect.**

In quarter 5, SSP increased the percentage who worked at all by 13 percentage points (moving people from nonemployment to full-time employment) and reduced the percentage working part-time by 2.2 percentage points (moving people from part-time to full-time employment). These two effects together resulted in a 15.2 percentage point increase in the full-time employment rate.

- **Impacts on employment in British Columbia and New Brunswick were generally similar.**

In quarter 5, the estimated impact on full-time employment was 15.2 percentage points in British Columbia and 15.3 percentage points in New Brunswick (not shown in Table ES1). These results show that SSP was able to produce substantial impacts on full-time employment in two very different provincial settings and that welfare recipients could respond to financial incentives to work even in a region with high unemployment (New Brunswick, where the unemployment rate was 11.7 percent in 1996).

- **Most of the additional employment generated by SSP occurred at relatively low wages and at hours of work between 30 and 40 hours per week.**

The additional employment due to SSP — employment of people who would not have worked otherwise — appeared to be concentrated at wages between the minimum wage and $1 or $2 above the minimum. The program increased the percentage who worked between 30 and 40 hours per week, but had no discernible effect on the percentage working more than 40 hours per week.

With wage rates mainly between the minimum wage and $1 or $2 above the minimum and weekly hours of work mainly between 30 and 40, most of the program group members who went to work in response to the SSP offer had relatively low earnings — between $800 and $2,000 per month in British Columbia, and between $600 and $1,200 per month in New Brunswick. SSP made work financially attractive to these people, but whether impacts persist after the supplement ends will depend on the extent to which, in comparison with the control group, program group members are more likely to experience the following: (1) enough progression in wage rates to make work financially attractive even without the supplement, (2) increases in the weekly hours of employment they are able to obtain, and/or (3) changes in attitudes that strengthen their inclination to work.

- **SSP reduced Income Assistance receipt.**

As shown in Table ES1, the average monthly percentages of program and control group members receiving Income Assistance in quarter 5 were 70 percent and 83 percent, respectively. Thus, SSP reduced Income Assistance receipt by an estimated 13 percentage points. In quarter 6, the estimated impact was slightly larger (a reduction of 14 percentage points).

- **SSP benefited a wide range of Income Assistance recipients, although impacts were somewhat larger for more employable people.**

SSP's impacts on full-time employment were spread quite evenly across a broad range of socioeconomic and demographic subgroups. By making work pay better than welfare, SSP increased the full-time employment rates of high school graduates as well as dropouts, those with and those without health barriers, those with young children and those without, those

with much prior work experience, and those without recent work experience. Still, the impacts tended to be larger among people who appeared more job-ready (such as those with a high school diploma) or faced fewer barriers to employment (such as those without physical conditions limiting their activity). Table ES2 presents the subgroup impact estimates on full-time employment among those subgroups for which the differences between subgroup impacts were statistically significant. (A "statistically significant" difference in subgroup impacts is one that would be unlikely to occur by chance in the absence of a real difference. When differences between subgroup impact estimates are *not* statistically significant, those differences could easily be due to chance and should not be regarded as evidence that impacts actually differed between the subgroups.)

Table ES2: SSP Impacts on Full-Time Employment, by Subgroup, Quarter 5

	Average Monthly Full-Time Employment Rate		
Status at Baseline	**Program Group (%)**	**Control Group (%)**	**Difference (Impact)**
Education and training			
Has high school diploma or equivalent			
Yes	35.9	18.8	17.1***
No	23.6	10.1	13.5***
Enrolled in education/training at random assignment			
Yes	36.6	16.4	20.2***
No	28.1	13.7	14.4***
Employment status at random assignment			
Full-time	64.2	50.8	13.4***
Part-time	46.9	23.7	23.2***
Not employed, looking for work	32.0	15.1	16.9***
Neither employed nor looking for work	20.5	7.0	13.5***
Availability of child care			
If got job, could find trustworthy care			
Yes	31.8	14.6	17.2***
No	21.9	8.5	13.4***
No child care required	28.1	17.6	10.4***
Work limitations			
Reported physical condition that limited activity			
Yes	21.3	9.2	12.1***
No	31.9	15.7	16.2***
Working at random assignment	52.5	33.3	19.2***
Not working at random assignment and:			
Couldn't work due to illness/disability	14.7	5.4	9.3***
Illness/disability not a reason for not working	25.8	10.2	15.6***

Notes: The subgroups are defined according to characteristics at random assignment. Persons answering "don't know" to a particular question that contributed to defining a subgroup are excluded from the analysis of that subgroup.

Average monthly full-time employment rate in quarter 5 is average of the percentages employed full-time in each of months 13–15. "Full-time employment" is defined as working 30 hours or more per week in at least one week during the month.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

IMPACTS ON EARNINGS, NET TRANSFER PAYMENTS, AND INCOME

- **SSP generated an increase in net transfer payments.**

SSP reduced government spending on Income Assistance payments, but these savings were more than offset by the cost of the supplement payments. The main reason is that some people receiving the supplement would have left Income Assistance even in the absence of SSP. The program did not reduce Income Assistance payments to this group (since these would have been zero anyway) but did incur the cost of the supplement payments they received.

Estimated impacts on government transfer payments are shown in Table ES3. In quarters 5 and 6, SSP reduced average Income Assistance payments by $103 per month, while the cost of the supplement payments averaged $196 per month. (The average includes zero amounts for program group members who did not receive supplement payments.) SSP also increased income tax revenue by a projected $39 per month, because it added both the supplement payments and $124 of increased monthly earnings to program group members' taxable income. (Supplement payments are taxable income, while Income Assistance is not.) As shown in row 5 of Table ES3, the net increase in government expenditures on transfer payments was about $55 per month per program group member ($196 minus $103 minus $39).

Table ES3: SSP Impacts on Monthly Earnings, Net Transfer Payments, and Income, Quarters 5 and 6

Outcome (in dollars per month)	Program Group ($)	Control Group ($)	Difference (Impact)
1. Earnings	347	222	124***
2. SSP supplement payments	196	0	196***
3. Income Assistance payments	621	723	-103***
4. Projected income taxes[a]	53	14	39***
5. Net transfer payments (i.e., public expenditures on SSP and IA payments, net of income tax revenue): row 2 + row 3 - row 4	764	709	55***
6. After-tax income from earnings, SSP, and Income Assistance: row 1 + row 2 + row 3 - row 4	1,111	932	179***

Notes: A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.
[a]Income taxes were projected from federal and provincial tax schedules and data on earned and unearned income and SSP supplement payments; the actual taxes paid by sample members may differ from these projections.

- **Each dollar of additional net transfer payments from the government generated more than $2 of increased earnings, adding up to more than $3 of increased income for program group members.**

As noted above, SSP led program group members to earn an additional $124 per month on average and provided supplement payments of $196 (see Table ES3). When this additional income was reduced by the $103 of Income Assistance that program group members gave up and the additional $39 in income tax that they had to pay, program group

members gained about $179 per month, on average ($124 plus $196 minus $103 minus $39), as shown in row 6 of Table ES3. This means that, during this period, every $1 spent on additional transfer payments bought more than $2 of increased earnings and led to more than $3 of additional income for program group members. SSP thus stands in contrast to most income support programs, which carry a "leaky bucket": a dollar spent on transfer payments typically results in less than a dollar of increased income for poor families, as the transfer income allows people to cut back on work, reducing their earnings.

These estimates provide only a short-term and incomplete picture of SSP's effects on government budgets and program group members' incomes. First, SSP also incurs other operational costs and is expected to have some effects on expenditures and revenues of other government programs. Second, SSP's impacts on public expenditures and incomes are likely to change over time.

During the remainder of the three-year supplement period, the net cost of SSP to government budgets may rise or fall, depending on factors such as the size of reductions in Income Assistance payments and the fraction of supplement takers who continue to work full-time. After the three-year supplement time limit expires, SSP will no longer incur a cost to the government. If reductions in Income Assistance payments or increases in tax revenue persist, then the program will produce savings for the government that offset some, or possibly all, of the costs incurred during the supplement period. Thus, whether SSP increases or reduces government expenditures in the long run — and by how much — depends in large part on the extent to which supplement takers continue working and remain off welfare after the supplement expires.

SSP should continue to have a positive impact on program group members' incomes during the remainder of the supplement period. After the supplement expires, the program's impact on incomes could be positive, zero, or negative. The program could continue to have a positive impact on incomes if supplement takers' earnings grow enough to make work pay better than welfare even without the supplement. On the other hand, SSP could have a negative impact on incomes if supplement takers remain off welfare but do not earn enough to make up for the loss of welfare payments.

Thus, the long-term benefits and costs of SSP are not known at this point. A benefit-cost analysis later in this evaluation will assess the cost-effectiveness of SSP from the perspectives of government budgets, program group members, and society as a whole, taking into account the issues discussed here.

IMPACTS OF SSP ON POVERTY, EXPENDITURES, AND LIVING CONDITIONS

As seen earlier, SSP increased both the labour earnings and transfer income of participants. Table ES4 shows that SSP increased program group members' average family income (before taxes) by $199 per month. (Family income was measured for the six months that immediately preceded the 18-month follow-up interview — approximately quarters 5 and 6 — and includes earnings, supplement payments, Income Assistance, other transfer income such as the Child Tax Benefit, and earnings of other family members.)

Table ES4: SSP Impacts on Monthly Income, Poverty, and Expenditures and on Assets at 18-Month Follow-Up Interview

Outcome	Program Group	Control Group	Difference (Impact)
Family income per month[a]	$1,486	$1,286	199***
Percentage with low incomes[b]			
Below low-income cut-off	77.5%	89.8%	-12.2***
Below 50% of low-income cut-off	18.3	21.6	-3.3***
Monthly expenditures on			
Food	$413	$389	25***
Children's clothing	48	44	4***
Rent	470	461	9
Used food bank (last 3 months)	19.1%	21.1%	-2.0*
Asset holdings			
Saving account	50.8%	46.5%	4.4***
Chequing account	62.4	62.1	0.3
Registered Retirement Savings Plan	2.4	1.2	1.2***
Car	26.2	24.6	1.6

Notes: Sample sizes vary for individual measures because of missing values.
A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.
[a]Family income includes earnings, Income Assistance and SSP payments, and all other sources of individual cash income (tax credits, other transfers, etc.), as well as earnings of other family members.
[b]Calculated by comparing annualized family income with the low-income cut-off defined by Statistics Canada for the sample member's location and family size.

- **SSP generated a significant anti-poverty effect.**

Among the control group members, 90 percent had incomes below Statistics Canada's low-income threshold, an indicator of family income needs that varies with family size and the population of the area of residence. By comparison, 78 percent of the program group had incomes below the threshold. Thus, SSP reduced the fraction of families with incomes below the low-income threshold by 12 percentage points — a significant anti-poverty effect. SSP also reduced the fraction of "very poor" families (those with incomes below 50 percent of the threshold) by 3 percentage points, as shown in Table ES4. The reduction in the fraction of very poor families is a significant accomplishment, and suggests that SSP conveys measurable benefits even for families that would otherwise fall very far down the economic ladder.

- **Much of the additional income was used to increase spending on necessities.**

Program group members and their families spent about 20 percent of the additional income generated by SSP on three basic necessities — food, housing, and children's clothing — that together account for most household spending among single-parent families on Income Assistance. Another 20 percent was spent on higher taxes (not shown in Table ES4). SSP also reduced the fraction of families who used a food bank to supplement their food spending.

As one might expect, spending patterns differed between different types of families. Larger families in New Brunswick, who are relatively disadvantaged in the absence of SSP, spent 22 percent of their SSP-related income gains on food alone. This rise in the food budget was accompanied by a 9 percentage point drop in the use of food banks, from 32 to

23 percent. These findings suggest that SSP helped working-poor families meet their basic needs.

- **Families appear to have saved some of the additional income.**

Given the time-limited nature of the supplement offer, one might expect families whose food and shelter needs were reasonably satisfied to save a portion of the extra income generated by SSP. Estimated impacts on asset holdings, shown in Table ES4, support this expectation: SSP increased the fractions of program group members with a savings account and a registered retirement savings plan (RRSP).

POLICY IMPLICATIONS

The early SSP findings have several important implications for policymakers interested in using financial incentives to encourage welfare recipients to go to work and eventually achieve economic self-sufficiency.

- **When tied to a substantial work requirement, financial incentives can help address three often conflicting goals of welfare reform: to increase work effort, to reduce poverty, and to reduce welfare dependence.** In the fifth and sixth quarters of follow-up, SSP approximately doubled the full-time employment rate, reduced the fraction of families living below the low-income cutoff by 12 percentage points, and reduced Income Assistance receipt by 13 to 14 percentage points. It should be kept in mind, however, that these estimates probably represent the peak of the program's impacts on employment and welfare receipt. Longer follow-up is needed to determine whether SSP's impacts persist through the remainder of the supplement period and after it ends.
- **Financial incentives are not a quick fix.** The additional employment generated by SSP occurred primarily at low wage rates. Supplement takers will need to achieve significant earnings growth in order for SSP's impacts on family income and poverty to continue after the supplement ends. Thus, it remains to be seen whether a temporary earnings supplement can have the long-run effects of increasing work and reducing poverty. If not, it is still possible that a longer-term supplement program could achieve these goals. The attractiveness of such a program would depend on whether the public views its costs as justified by the benefits of reducing poverty and moving people from traditional welfare programs to a work-based supplement.
- **Financial incentives cost money in the short run.** SSP incurred a net increase in government expenditures on transfer payments, mainly because it rewarded some people who would have left welfare anyway. It is not yet known whether part or all of these costs will be offset by reductions in welfare payments and increases in tax revenue after the supplement ends.
- **Financial incentives' increased costs buy a substantial improvement in well-being.** Participants used their increased income to buy food, children's clothes, and housing improvements, all basic necessities. They were able to reduce their dependence on food banks, and begin accumulating some assets.

- **Specific features of program design and implementation may be important to the effectiveness of a financial incentive program.** The objectives of providing a substantial work incentive, preventing reductions in work hours, and containing costs are reflected in SSP's benefit formula, 30-hour work requirement, one-year period to take advantage of the offer, three-year limit on supplement receipt, and restriction of eligibility to people who had been on welfare for at least 12 months. Most program group members were aware of and understood SSP's basic features. The program would not necessarily achieve the same results if its features were changed or if program group members were not as well-informed.

Future reports containing longer-term follow-up of sample members will determine whether SSP's early success in increasing earnings and income, reducing welfare receipt, and improving the well-being of single parents and their children can be sustained.

Chapter 1
Introduction

In recent years, Canadian social policies have been increasingly influenced by concerns about the financial and social costs of dependence on welfare. Policies that attempt to reduce welfare dependence have been the subject of much debate. The disagreement is often rooted in apparent conflicts between the goals of reducing welfare dependence and maintaining an adequate social "safety net" for the economically disadvantaged. Both welfare recipients and society as a whole are confronted with difficult choices.

Many Income Assistance (IA) recipients do not like receiving welfare, because they remain poor and they feel stigmatized and troubled by their continuing dependence on welfare.[1] But they may have difficulty finding work, and even if they find jobs and leave welfare, starting wages are often too low to make them better off financially — in fact, they are often worse off after paying for the child care and other job-related expenses necessitated by employment. Nor does their income increase significantly if they combine work and welfare, because Income Assistance benefits are usually reduced by nearly the amount of their earnings. The dilemma for many welfare recipients, especially for single parents considering whether to juggle work and parenting responsibilities, is that while taking a low-paying job might eventually lead to higher earnings and economic self-sufficiency, their families would have to go through a period in which they are no better off and possibly worse off.

Canadian policymakers and the public are conflicted as well. The drive to eliminate budget deficits has led to significant cuts in government spending on Income Assistance and other social programs. In addition, as more women with children enter the labour market, the public grows increasingly uncomfortable with a system that, in effect, pays some mothers to remain at home. At the same time, there remain widespread concerns about poverty and the well-being of children. The challenge posed by this dilemma is to design policies that simultaneously increase work effort and family income, thus reducing both poverty and welfare dependence.

The Self-Sufficiency Project (SSP) meets this challenge head-on. SSP is a research and demonstration project designed to test a policy innovation that makes work pay better than welfare. Conceived and funded by Human Resources Development Canada (HRDC) and managed by the Social Research and Demonstration Corporation (SRDC), SSP offers a *temporary earnings supplement* to selected long-term Income Assistance recipients in British Columbia and New Brunswick. The earnings supplement is a monthly cash payment available to single parents who have been on Income Assistance for at least one year and who leave Income Assistance for full-time work. The supplement is paid on top of earnings from employment for up to three years, as long as the person continues to work full-time and remains off Income Assistance. While collecting the supplement, an eligible single parent

[1]Income Assistance, also referred to as "social assistance" or "welfare," is a cash assistance program operated by individual provinces and partly funded through the federal government's Canada Health and Social Transfer.

receives an immediate payoff from work; in most cases, her total income (before taxes) is about twice her earnings.[2] If she remains employed and is eventually able to earn higher wages, she may experience the longer-term benefit of becoming self-sufficient after the temporary earnings supplement ends.

An earnings supplement program is an innovative and potentially fruitful approach to the dual problems of welfare dependence and poverty. But financial supplements can be expensive, and not enough is known about how earnings supplements and other financial incentives affect behaviour to fashion informed public policy in this area. Before considering whether to implement an earnings supplement program on a large scale, it is important to determine whether such a program actually succeeds in reducing welfare dependence and improving the well-being of families.

That is why SSP is using a rigorous research design, known as *random assignment*, to measure the results and costs of the earnings supplement program. Between November 1992 and March 1995, more than 6,000 single parents who were long-term Income Assistance recipients were offered the opportunity to join the SSP research study. Each of those who accepted was assigned at random to one of two groups: Members of the *program group* were given the opportunity to participate in the earnings supplement program; members of the *control group* were not. The effect of the program is measured by the difference between the two groups' subsequent experiences.

An earlier report from the project (Card and Robins, 1996; summarized in SRDC, 1996) examined the effects of the SSP program on employment, earnings, and Income Assistance receipt during the first 18 months after members of the program group were given the opportunity to participate in the program.[3] At the time that the earlier report was prepared, data were available for only about one-third of the research sample of long-term Income Assistance recipients. Using the full research sample, this report generally confirms the findings of the earlier report, examines in greater detail the effects of the program for different subgroups of the research sample, and explores the program's effects on family incomes, poverty, and living conditions.

AN OVERVIEW OF THE SELF-SUFFICIENCY PROJECT

The Origins and Policy Context of SSP

Much debate has arisen in recent years regarding both the costs of the Canadian social safety net and how well it serves the needs of Canadians in the rapidly changing social and economic context of the 1990s. A major concern has to do with the considerable size and growth of welfare caseloads and expenditures over the years. During the 1980s and up to the mid-1990s, before the Canada Assistance Plan (CAP) was replaced by the Canada Health and Social Transfer (CHST), federal and provincial expenditures for CAP, which included Income Assistance and other social and economic support programs, almost tripled

[2]Feminine pronouns are used in this report because 95 percent of single parents who have received Income Assistance for at least a year—the target group for SSP—are women.

[3]The earnings supplement program is referred to in this report as either "the SSP program" or simply "SSP," although "SSP" is also used to refer to the entire project, which includes the design, development, operation, and evaluation of the program.

(Courchene, 1994). It has been suggested that one reason for the growth of caseloads and expenditures was that Income Assistance discourages employment and encourages long-term dependence on welfare.

Consider, for example, the situation of a single mother with two children, receiving Income Assistance in New Brunswick in 1994. If she had no earnings, she would receive about $11,900 per year from Income Assistance payments and tax credits. If, on the other hand, she were to work 40 hours a week at the minimum wage of $5 per hour, she would earn about $10,000 per year and could receive about $4,300 from Income Assistance and tax credits, bringing her total income to $14,300 — or $2,400 more than her income would be if she were not working at all.[4] But in order to make the additional $2,400 in income, she would have had to work 2,000 hours. In other words, *for every hour of work, she would bring home $1.20* ($2,400 divided by 2,000). This increase in income could be further eroded by work-related expenses (such as child care and transportation costs) and the loss of the health benefits provided by Income Assistance (such as coverage of prescription drug and dental expenses) if her employer does not provide them.

Income Assistance recipients in other provinces confront similar dilemmas. In the vernacular of the current policy debate, "work doesn't pay" for welfare recipients, especially for those with low levels of education, little work experience, and low-level job skills. The problem is especially acute for single parents on Income Assistance. On the one hand, many of them must raise children without a partner to share financial and parenting responsibilities. On the other hand, the payoff from work is particularly low for them, since Income Assistance benefit levels for single parents are higher than those for single adults with no dependants. In addition, as mentioned above, single parents have higher job-related costs such as child care. Add to these financial disincentives the challenges of raising children, and it is clear that many single parents on Income Assistance face significant barriers to achieving economic self-sufficiency.

Correcting the Disincentives to Work. How should the work disincentives in the current welfare system be corrected? The answer is not clear, because the Income Assistance system is designed to achieve multiple objectives, which rules out any quick fix. For instance, the easiest and most cost-effective way to eliminate financial disincentives would be to dismantle the entire Income Assistance system. But doing so would cast many families with children deeper into poverty. What many observers believe is needed is a policy approach that provides stronger work incentives and encourages long-term self-sufficiency while providing a reasonable level of assistance to poor families.

In 1990, Human Resources Development Canada's Innovations Branch began discussions with its National Innovations Advisory Committee about implementing a pilot project to evaluate the feasibility and cost of an earnings supplement program. It was believed that a small but significant proportion of Income Assistance recipients had the motivation and ability to obtain employment, but were deterred from doing so because the entry-level wages they could command would make them worse off than remaining on welfare. It was hoped that a temporary earnings supplement would provide a sufficient inducement for some people

[4]Calculations based on Income Assistance benefit schedules from Human Resources Development-New Brunswick and federal Child Tax Benefit and Goods and Services Tax (GST) credit formulas.

to enter employment, and that over time, work experience and on-the-job training would lead to wage increases that would enable them to become self-sufficient on their earned income.

HRDC recognized the importance of testing this type of program prior to larger-scale implementation, since enormous program costs were at stake and, in times of tight budgets, the cost of a new program could be justified only if the program had significant benefits. Because many people leave welfare for work on their own, it was not known whether an earnings supplement program would lead to a significant increase in overall work effort above the level of employment that would have been reached without such a program. Also, the more the program design deviated from what had been evaluated in the past, the less could be reliably predicted about the program's effects and costs.

For these reasons, HRDC decided to test the efficacy of an earnings supplement program under real-world operating conditions, using a random-assignment evaluation methodology (discussed later in the chapter). HRDC engaged the Social Research and Demonstration Corporation, a nonprofit research organization, to design and manage both the programmatic and research components of the project. SRDC, in turn, contracted with the following organizations:

- Statistics Canada, to collect longitudinal survey data and administrative records, and to create the research data files;
- Bernard C. Vinge and Associates Ltd., to operate the program in British Columbia;
- Family Services Saint John, Inc., to operate the program in New Brunswick;
- SHL Systemhouse Inc., Nova Scotia, to develop and maintain the program's automated management information and supplement payment systems;
- Manpower Demonstration Research Corporation (MDRC) and several academic researchers, to conduct the research on the program's implementation, effects, and costs in relation to benefits.

In addition, other federal and provincial agencies are cooperating with the project by providing technical assistance, background information regarding the Income Assistance system and provincial labour markets, and access to data. These agencies include British Columbia's Ministry of Human Resources, Human Resources Development-New Brunswick, and Revenue Canada.

During the years since the project was initiated, major reforms have altered the landscape of social policy in Canada. In 1996, the Canada Assistance Plan (the federal program which paid a certain percentage of the expenditures incurred by provinces for Income Assistance and social services)[5] and the Established Programs Financing (a block grant for health and post-secondary education) were abolished and replaced by a block fund called the Canada Health and Social Transfer. The federal government's contributions under CHST are substantially lower than they would have been under CAP. Faced with cutbacks in federal support, provinces have made a variety of changes such as reducing welfare benefit levels,

[5]CAP paid for half of these expenditures until 1990, when payments were limited to yearly increases of no more than 5 percent for the three wealthiest provinces: Ontario, Alberta, and British Columbia. This was referred to as the "cap on CAP."

tightening eligibility requirements, and imposing work requirements on welfare recipients.[6] In the current environment, SSP is one of the few initiatives that promises both to reduce welfare dependence and to raise family incomes.

The Earnings Supplement Program

The key features of the earnings supplement program are:

- **Full-time work requirement.** Supplement payments are made only to eligible single parents who work full-time (an average of at least 30 hours per week over a four-week or monthly accounting period, whether in one or more jobs) and who leave Income Assistance.[7] The full-time work requirement ensures that (1) supplement recipients are preparing for self-sufficiency, since most Income Assistance recipients would have to work full-time in order to earn enough to remain off Income Assistance; (2) most supplement recipients need to increase their work effort to qualify, since few Income Assistance recipients already work full-time; and (3) earnings are substantial enough so that earnings plus the supplement payment represent a large increase in income for most people receiving the supplement.
- **Substantial financial incentive.** The supplement is calculated as half the difference between a participant's earnings from employment and an "earnings benchmark" set by SSP for each province. The benchmark for each province was set at a level that would make full-time work pay better than Income Assistance for most recipients. During the first year of operations, the benchmark was $37,000 in British Columbia and $30,000 in New Brunswick.[8] Therefore, for example, a participant in British Columbia who works 35 hours per week at $7 per hour earns $12,740 per year and collects an earnings supplement of $12,130 per year ($37,000 minus $12,740, divided by 2), which adds up to a total gross income of $24,870. Unearned income (such as child support) or earnings of other family members do not affect the amount of the supplement. When tax obligations and tax credits are taken into account, most families have incomes $3,000 to $7,000 per year higher with the earnings supplement program than if they worked the same number of hours and remained on Income Assistance.[9]
- **Gradual reduction in benefits as earnings increase.** Reductions in the supplement amount occur more gradually than they do in the case of Income Assistance benefits. The supplement is reduced by 50 cents for every dollar of increased earnings, following the supplement-calculation formula described above. The supplement is fully phased out only at the earnings benchmark levels.

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[6]Battle (1997) estimates that in 1997–98, federal expenditures for CHST are 15.2 percent lower than they would have been, for the same year, under the previous CAP and Established Programs Financing (EPF) programs. Under CHST, the provinces have greater latitude to change welfare eligibility rules. CHST removed two of CAP's conditions for federal support: that Income Assistance be provided to all people determined to be "in need" and that people applying for or receiving assistance have access to an appeals system.

[7]"Full-time" employment is defined throughout this report as working 30 or more hours per week, both in the context of the earnings supplement program and more generally.

[8]The benchmarks were increased to $37,500 in British Columbia and $30,600 in New Brunswick in February 1994, and to $37,625 and $31,225, respectively, in February 1995, to adjust for inflation.

[9]As explained in Chapter 4, the financial advantage or "generosity" of the supplement relative to Income Assistance depends on several factors including family size. Supplement payments, unlike Income Assistance, do not vary with family size.

- **Restricted eligibility.** Recruitment for the study was limited to single parents for several reasons.[10] First, single-parent families make up a substantial proportion of the Income Assistance caseload. Second, single parents (particularly those with young children) face considerable barriers to full-time employment and are often considered "unemployable" by the welfare system. Thus, they constitute an important target group for any new policy that attempts to increase self-sufficiency. Third, given the project's budget constraints, it was impossible to include enough cases of all types of households on welfare to permit an accurate analysis of the supplement program's effects on each of them.
- Eligibility for the supplement is limited to long-term welfare recipients (with at least one year of Income Assistance receipt) for three main reasons. First, long-term welfare recipients account for a disproportionate share of welfare costs, making them a critical group to target. Second, extending eligibility to people who have received Income Assistance for less than a year would probably lead a large share of program resources to be spent on supplement payments to people who, even in the absence of the program, would leave welfare after a short time. Third, the one-year Income Assistance receipt requirement reduces the potential that the program will attract people onto the welfare rolls for the purpose of being able to receive the supplement.
- **One year to take advantage of the offer.** Once an Income Assistance recipient was selected to join the program group, she was informed that if she found full-time work within the next 12 months and agreed to leave Income Assistance, she could sign up for the supplement. If she did not sign up within 12 months, she became ineligible for the supplement. This requirement discouraged delay in responding to the supplement offer but gave people plenty of time to consider the offer and to find employment. The 12-month period in which program group members could qualify for the supplement is referred to as the "one-year take-up window."[11]
- **Three-year time limit on supplement receipt.** A person may collect the supplement for up to three years from the time she began receiving it, as long as she is working full-time and not receiving Income Assistance. The three-year time limit on supplement receipt eliminates the possibility of long-term dependence on the program.
- **Voluntary alternative to welfare.** People cannot receive Income Assistance payments while receiving the supplement. However, no one is required to participate in the supplement program. After beginning supplement receipt, people may decide at any time to return to Income Assistance, as long as they give up supplement receipt and meet the eligibility requirements for IA. They can also renew their supplement receipt by going back to work full-time at any point during the three-year period in which they are eligible to receive the supplement (also referred to as the "three-year supplement receipt period" or "three-year supplement period").

The program allows some episodes of low work hours without cutting off supplement payments. To reduce the need to return to Income Assistance whenever problems arise, full-

[10]However, changes in marital status after sample selection do not affect eligibility for the supplement.

[11]Program group members are said to "take up" the supplement when they successfully qualify for it. All program group members who ever took up the supplement are called "supplement takers."

time employment is defined as 30 hours per week (although most full-time job schedules are for 35 to 40 hours), and hours are averaged over a four-week or monthly accounting period. Thus, supplement takers usually are not penalized for brief absences — to take care of a sick child, for example. In addition, if average hours worked fall below 30 hours per week for a four-week or monthly period, the supplement is pro-rated the first and second time this happens during a 12-month period. For the third and subsequent periods in which the 30-hour requirement is not met during a year, no supplement payment is made, ensuring that less than full-time employment does not continue to be rewarded. However, the system allows supplement takers another two reduced-payment periods in each of the two subsequent 12-month periods.

The program provides information and referrals to existing services in areas such as job search and education and training, but does not provide these services. Providing services would make it impossible to determine the extent to which differences between the program and control groups' experiences could be attributed to SSP's financial incentive, as opposed to the services. This problem could be solved only by randomly assigning Income Assistance recipients to three groups — SSP with services, SSP without services, and a control group — and this was not possible with the budget constraints that existed at the outset of the project. It was decided during the design phase that the demonstration would be most useful if it tested the effectiveness of an earnings supplement per se. Later, additional resources permitted the random assignment of a small number of IA recipients in New Brunswick to three groups; this "SSP Plus" study is described later in the chapter.

Sample Selection and Random Assignment

Recruitment into SSP's main research study began in November 1992 and was completed in March 1995. Each month, Statistics Canada used Income Assistance administrative records to identify all people in selected geographic areas in British Columbia and New Brunswick who (1) were single parents, (2) were 19 years of age or older, and (3) had received Income Assistance payments in the current month and at least 11 of the prior 12 months. No other restrictions (for example, on health status) were imposed. Statistics Canada then randomly selected a "fielding sample" to contact, interview, and invite to be part of the SSP study.

Members of the fielding sample were informed that they had been selected to participate in a study of Income Assistance recipients and were visited by Statistics Canada interviewers.[12] During the visit, the interviewer administered a "baseline" survey lasting an average of 30 minutes and then described the SSP study, carefully read an informed consent form to the sample member, and answered any questions. By signing the informed consent form, the sample member agreed to join the study and allow Statistics Canada to collect her records for up to eight years from various government agencies such as the provincial Income Assistance ministry, Revenue Canada, and HRDC. She also agreed to be interviewed periodically by Statistics Canada. It was explained that only Statistics Canada would ever see any information that could uniquely identify her, that participation in the study would not affect

[12]The vast majority of fielding-sample members were located and contacted in the month they were first selected. If a fielding-sample member was not contacted in the first month, Statistics Canada interviewers tried for up to two more months to complete the interview, as long as the person was still receiving Income Assistance.

her eligibility for any services, that she could refuse to answer any survey questions, and that 50 percent of those who agreed to join the study would be randomly selected to become eligible to "get additional money" if they "find a full-time job within the next 12 months."

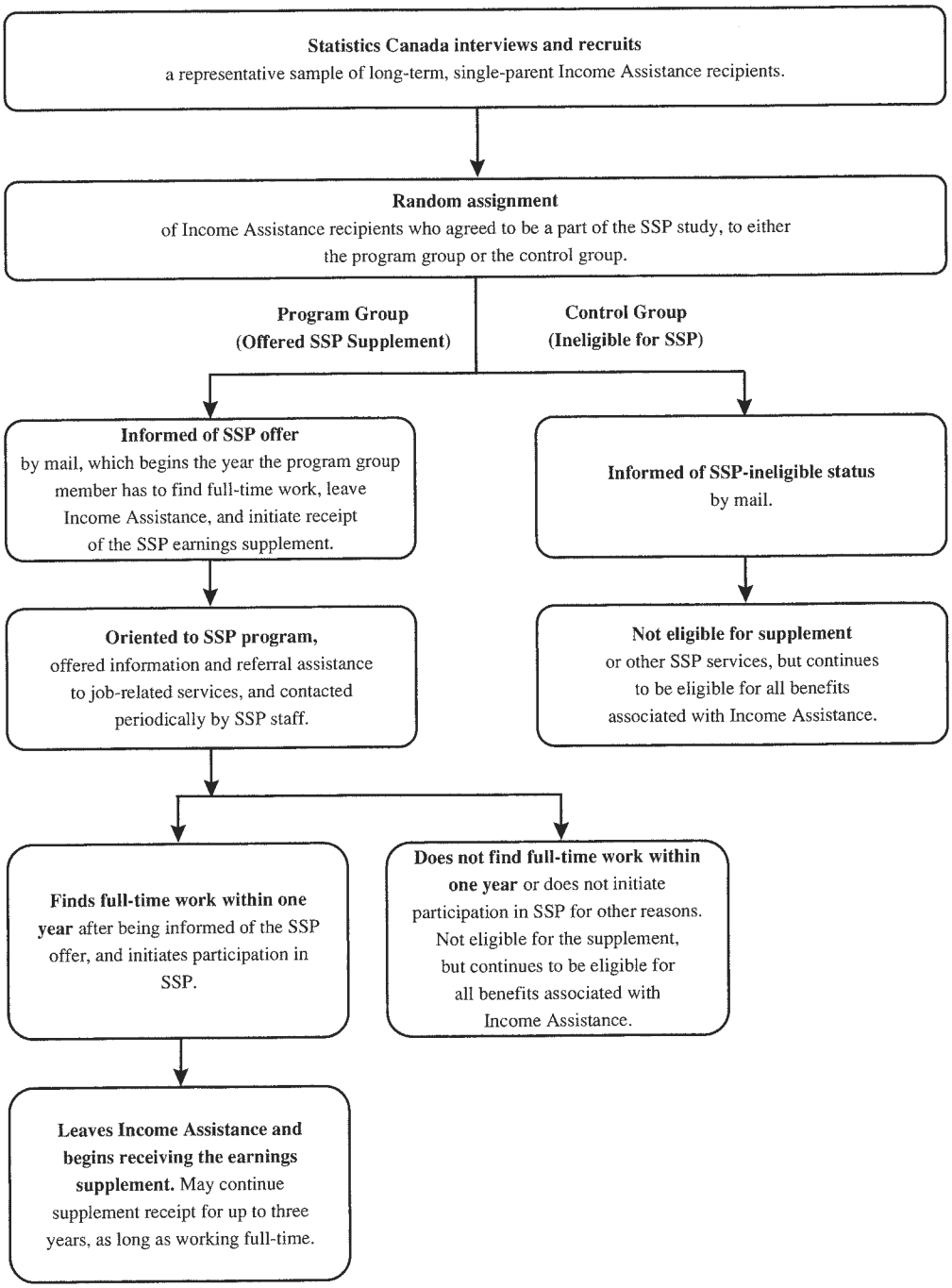
Roughly 90 percent of the fielding sample completed the baseline survey and signed the informed consent form. Immediately after the baseline interview, each of these 6,028 single parents was randomly assigned to one of the research groups of the SSP study. Each sample member had 50-50 odds of being assigned to the program group or the control group, except for those joining the study between November 1994 and March 1995 in New Brunswick, who were randomly assigned to *three* groups with equal odds of assignment to each: the program group, the control group, and the "SSP Plus" group. Members of the SSP Plus group were offered job search assistance and job counseling services in addition to the opportunity to participate in the earnings supplement program. Of the 6,028 single parents who were randomly assigned, 2,880 were assigned to the program group, 2,849 to the control group, and 299 to the SSP Plus group. This report uses data on the experiences of the program and control groups to study the effects of the earnings supplement program; the effects of the SSP Plus combination (the earnings supplement plus additional services) will be examined in a future report.

Figure 1.1 gives a schematic overview of recruitment into the study, random assignment, and the steps leading to receipt of the SSP supplement, which are discussed later in the chapter.

The reason why the program's effects cannot be determined by simply examining outcomes (activities and experiences, such as employment) for Income Assistance recipients who are offered the supplement is that even in the absence of a program like SSP, Income Assistance recipients continually leave the welfare rolls for many reasons. Some find jobs on their own, others find jobs as a result of welfare-to-work programs operated by the Income Assistance system, and still others leave welfare because they get married, because their children grow up, or for other reasons. It would be a mistake to give SSP the credit for outcomes that would have occurred even in the program's absence. The random-assignment evaluation design was chosen in order to obtain valid measures of the *difference* SSP makes. Because people were assigned to the program group or control group at random, members of the two groups have similar backgrounds and characteristics, and differ systematically in only one respect: Program group members were given the opportunity to participate in the supplement program, and control group members were not. The difference between program group and control group outcomes can therefore be used to measure the effects, or "impacts," of the program.

The study sample was selected randomly from the target population (single parents who had received Income Assistance for at least a year) because it was not clear which subgroups within this target population might respond most to a financial incentive treatment. Random selection resulted in a sample with a diversity of backgrounds and circumstances, and it is therefore possible to examine the impacts of SSP for many different subgroups. However, there are differences between the study sample and the population that would be offered the supplement in a large-scale, ongoing program. Many sample members had received Income Assistance for several years before they were offered the supplement. If the program were implemented on a large scale with the same eligibility rules, the *first* group of people to be offered the supplement would also contain many people who had received Income Assistance for several years. In succeeding years, however, single parents would be offered the supplement just after their first

Figure 1.1: An Overview of SSP Sample Intake and Program Participation



Note: Both program and control group members receive all regular benefits associated with Income Assistance if they continue to qualify for Income Assistance. Both groups also have access to existing community services and resources not funded by SSP.

year of Income Assistance receipt.[13] The population receiving the offer would not only be offered the supplement at an earlier point in their Income Assistance experience than most program group members in the SSP study sample, but would also contain a larger proportion of Income Assistance recipients who, even in the absence of the supplement, would not stay on welfare for more than a few years.[14] To assess whether this difference might lead the impacts of an ongoing program to differ from those observed in this study, attention will be given to impacts for subgroups defined by prior welfare history and, in a future report, to impacts for a group of new Income Assistance recipients who participated in a separate "entry effects study" (described later in the chapter).

Research Questions Addressed by the Study

The evaluation part of SSP was designed to provide reliable evidence about the implementation of and participation in the earnings supplement program, the impacts of the program, and its cost-effectiveness. In addition, the project includes two special studies described below, the "entry effects" study and the "SSP Plus" study.

The analysis of program implementation and participation examines the institutional structure of the program; operational issues confronted by program staff, including the challenges of implementing the earnings supplement procedures; and the way SSP is experienced and utilized by eligible single parents. Many of the issues were addressed in the reports by Mijanovich and Long (1995), Bancroft and Vernon (1995), and Lui-Gurr, Vernon, and Mijanovich (1994). Future reports will provide further analysis of questions such as:

- What were the key challenges in designing and operating the SSP supplement payment system and how were they resolved?
- How successful were supplement takers in keeping their jobs? Why did some leave or lose their jobs and stop receiving the supplement? What were their subsequent experiences?
- How did families adjust to losing the supplement payment at the end of the three-year supplement period?

The analysis of program impacts relies on SSP's random assignment research design to obtain reliable answers to the following questions:

- To what extent does the supplement program increase short- and long-term employment and earnings and reduce Income Assistance receipt and poverty? What patterns of employment and earnings emerge over time, and to what extent are they different from those for people who are not eligible for the program (that is, the control group)?

[13]Of course, policymakers could consider changing the eligibility rules so that Income Assistance recipients are not offered the supplement until after a longer period of IA receipt, such as three or four years.

[14]People who are not likely to stay on IA for more than a few years make up a larger proportion of the population who ever spend a full year on IA than of the population that, at a given point in time, has been on IA for at least a year. Cox and Lewis (1966, chap. 4) discuss the general statistical issue, known as "length-biased sampling"; Kiefer, Lundberg, and Neumann (1985) and Bane and Ellwood (1994, chap. 2) examine the implications for studies of unemployment and welfare use.

- Does the supplement promote more lasting connections to the labour market and reduce the rate at which people who take jobs leave them and return to Income Assistance?
- Does the program have impacts on employment and welfare receipt after the supplement period ends, or do supplement takers stop working and return to welfare? How many experience enough progression in earnings so that their income is still higher than if they were on Income Assistance?
- For which subgroups of Income Assistance recipients does the program have larger or smaller impacts on earnings, employment, and the likelihood of leaving Income Assistance?
- How does the program affect the rate at which people invest in their "human capital" development (that is, education and training)? Does the program affect the types of education or training pursued?
- What are the other effects of the program outside the purely economic realm? Does it increase or decrease the rates of marriage, remarriage, separation, or childbearing? How does the program affect attitudes toward work and welfare? Does the program affect emotional and physical well-being?
- Are children better or worse off because of the program? For example, what are the cumulative effects on children of changes that result from the program such as increased family income, increased reliance on child care, behavioural and attitudinal changes experienced by their parents, and their parents' absence during the workday?

The analysis of cost-effectiveness will compare the benefits attributable to the earnings supplement program with its costs. It will address these questions:

- Is the project cost-effective from the standpoint of government budgets? How do the costs of operating the program and paying the supplement compare with any savings in Income Assistance expenditures and increases in tax revenue that are generated by the program?
- How does the program affect the economic well-being of single parents and their families? How do their gains in earnings, fringe benefits, and supplement payments compare with their foregone Income Assistance benefits and increased tax payments?
- What are the benefits and costs of the program to society as a whole? What program effects and costs have the largest effects on national resources?

Special Studies. The evaluation also includes two special studies that are not examined in this report. The *Entry Effects* Demonstration was designed to determine whether the existence of a supplement program for long-term welfare recipients has the unintended effect of encouraging people to stay on welfare longer than they otherwise would in order to qualify for the supplement. The sample for this study consists of 3,315 new Income Assistance recipients in British Columbia who were randomly assigned to a program group and a control group. Program group members were informed that if they continued to receive Income Assistance for one year, they would then be given the opportunity to participate in SSP's earnings supplement program. Control group members were ineligible for the program. Results from the "entry effects" study are presented in Card, Robins, and Lin (1997) and Berlin et al. (1998).

The *SSP Plus study* examines the effect of combining the earnings supplement with other services. As mentioned earlier in the chapter, 299 sample members in New Brunswick were randomly assigned to the SSP Plus group. In addition to the opportunity to participate in the earnings supplement program, SSP staff provide services to SSP Plus group members such as job clubs, assistance in résumé preparation, and individual job search coaching. Outcomes for the SSP Plus group will be compared with those for the members of the main study's program group and control group who were randomly assigned in New Brunswick during the same period. The goal is to determine whether providing additional job search services enhances the impacts and cost-effectiveness of the supplement program.

THE PROVINCIAL SETTINGS FOR THE STUDY

In British Columbia, SSP operates in the lower mainland, which includes the Vancouver metropolitan area as well as neighbouring areas to the north, south, and east. In New Brunswick, the program operates in a region covering roughly the lower third of the province, including the cities of Saint John, Moncton, and Fredericton. Sample members were recruited for the study and randomly assigned between November 1992 and March 1995 in New Brunswick and between January 1993 and February 1995 in British Columbia. The period studied in this report consists of the first 18 months after each sample member was randomly assigned (including the month of random assignment). For example, for the earliest sample members randomly assigned, the period studied is November 1992 to April 1994; for those who were randomly assigned last, the period studied is March 1995 to August 1996.

Table 1.1 provides some demographic and labour market information about the two provinces and their largest cities (Vancouver and Saint John), as well as some information about the provincial Income Assistance systems. In both provinces, labour market conditions improved slightly from 1992 to 1995, although unemployment rates remained at historically high levels. New Brunswick has had a higher unemployment rate and lower minimum and average wages than British Columbia. Income Assistance benefit levels are higher in British Columbia. In 1993, the basic Income Assistance rate for a single parent with two children was $1,152 in British Columbia, compared with $747 in New Brunswick. The SSP earnings benchmark was therefore set higher in British Columbia than in New Brunswick, in order to give most sample members a financial incentive to leave Income Assistance for full-time work.

In both provinces, Income Assistance benefits are reduced by an amount equal to the recipient's earnings minus a pre-determined "earnings disregard." In New Brunswick, where the disregard for a single parent is $200 per month, the Income Assistance grant is reduced by any earnings in excess of $200 per month. In British Columbia, until April 1996, single parents who had received Income Assistance for more than three months were eligible for both a "flat rate" disregard of $200 per month and, for up to 12 out of every 36 months, an "enhanced" disregard equal to 25 percent of earnings in excess of the flat rate disregard. Starting in April 1996, the flat rate disregard was eliminated, and the 25 percent disregard could only be used for 12 months once in a lifetime. This change reduced the amount of income that one could obtain by combining work and welfare, and thus increased the extent to which SSP provides greater financial work incentives than the Income Assistance system.

However, for 90 percent of sample members in British Columbia, the 18-month period studied in this report ended before April 1996.

Table 1.1: Selected Characteristics of the Population Residing in the Areas Served by SSP, and of the Entire Canadian Population

	British Columbia		New Brunswick		
Characteristic	**Vancouver**	**Province**	**Saint John**	**Province**	**Canada**
Demographic characteristics					
Number of residents 15 years old or older (thousands)					
1992	1,362	2,698	103	584	21,986
1993	1,402	2,782	104	589	22,371
1994	1,444	2,869	105	594	22,717
1995	1,479	2,947	106	598	23,027
1996	1,519	3,026	106	600	23,352
Families below the low-income cut-off (%)[a]					
1992	--	13.4	--	11.7	13.3
1993	--	14.0	--	11.9	14.8
1994	--	12.6	--	13.5	13.7
1995	--	13.2	--	15.7	14.4
Rural residence (1991) (%)	3.8	19.6	9.0	52.3	23.4
Spoke neither English nor French (1991) (%)	3.4	1.9	0.1	0.1	1.4
Immigrant population (1991) (%)	30.1	22.3	4.3	3.3	16.1
Welfare characteristics					
Income Assistance cases (March 1993)[b]	80,889	193,825	7,729	42,123	1,616,200
Single-parent Income Assistance cases, March 1993 (% of all Income Assistance cases)[b]	22.8	24.8	34.6	30.8	26.4[c]
Basic monthly Income Assistance grant to single parents with two children ($)					
1992	1,131	1,131	747	747	n/a
1993	1,152	1,152	747	747	n/a
1994	1,175	1,175	755[d]	755[d]	n/a
1995	1,175	1,175	771[d]	771[d]	n/a
1996	1,175	1,175	779[d]	779[d]	n/a
Employment characteristics					
Residents 15 years old or older who were employed (%)					
1992	63.2	60.0	57.7	51.8	58.4
1993	61.8	59.9	58.6	51.9	58.2
1994	62.3	60.4	55.9	51.8	58.5
1995	61.6	59.8	55.8	52.5	58.6
1996	61.4	59.7	53.0	52.1	58.6
Unemployment rate (%)					
1992	9.3	10.5	11.5	12.8	11.3
1993	9.3	9.7	10.4	12.5	11.2
1994	9.0	9.4	12.3	12.5	10.4
1995	8.3	9.0	10.3	11.5	9.5
1996	8.1	8.9	12.2	11.7	9.7

Table 1.1: Selected Characteristics of the Population Residing in the Areas Served by SSP, and of the Entire Canadian Population (Cont'd)

Characteristic	British Columbia		New Brunswick		
	Vancouver	Province	Saint John	Province	Canada
Demographic characteristics					
Employment by type of occupation (1991) (%)					
Managerial and professional	35.2	31.5	32.8	29.5	32.6
Clerical	17.0	15.2	18.0	15.7	15.7
Sales	11.9	11.2	8.2	9.2	9.8
Services	13.4	14.2	16.4	15.7	13.8
Agriculture and other primary industries	1.8	4.1	--	4.9	4.7
Processing, machining, and fabrication	8.1	9.7	9.8	11.1	11.4
Other	12.6	14.1	14.8	13.8	12.0
Average wage for all employees paid by the hour ($/hr.)[e]					
1992	--	15.05	--	11.88	13.75
1993	--	15.29	--	12.05	13.96
1994	--	15.74	--	11.86	14.16
1995	--	16.45	--	12.05	14.34
1996	--	16.62	--	12.43	14.71

Sources: Welfare data are from statistical information provided to SRDC by Human Resources Development Canada, British Columbia's Ministry of Human Resources, Human Resources Development-New Brunswick, and the National Council of Welfare (1997). Demographic and employment data are from Statistics Canada, 1992(a), 1992(b), 1992(c), 1993, 1994(a), 1994(b), 1995, and 1997.

Notes: Dashes indicate that these figures were not available; n/a indicates that the item is not applicable.

[a]Low-income cut-offs (LICOs) are earnings levels determined and utilized by Statistics Canada to identify low-income family units. LICOs are estimated as the income level at which a family spends 20 percentage points more than the Canadian average on food, shelter, and clothing.

[b]Provincial caseload numbers may not include certain categories of individuals such as those who are disabled or 65 years of age or older.

[c]Estimate.

[d]This does not include the Income Supplement Benefit, implemented in September 1994, for those in unsubsidized housing who spend 30 percent or more of their income for housing. This supplement is worth $60 per month from May to October and $90 per month from November to April. Many of the beneficiaries of this new benefit used to receive the less generous heating supplement, abolished at the same time, which was worth up to $70 during six months per year. Those eligible for the new benefit also have a lower basic IA grant (by $16.00 per month for a family of three).

[e]The minimum wage in New Brunswick remained at $5.00 per hour from 1992 to 1995. In January 1996, it increased to $5.25 and, in July of the same year, to $5.50. In British Columbia, the minimum wage was $5.50 per hour from the beginning of the random assignment period in 1992 until April 1993, when it rose to $6.00. In March 1995, it was increased to $6.50 and, in October 1995, to $7.00 per hour.

British Columbia made a number of other changes to its Income Assistance system in 1995 and 1996, but the major changes either did not affect most single-parent recipients or occurred after the period studied in this report. A requirement of three months' residency in the province was imposed but later dropped. Income Assistance rates for recipients without children were reduced. Starting in January 1996, young people of ages 19 to 24 (excluding single parents with children of age 7 or younger) have been required to participate in expanded job search and work preparation programs. In August 1996, the province introduced a monthly "Family Bonus" of $103 per child for all low-income families with children and simultaneously reduced Income Assistance rates by the same amount, thus increasing support for working poor families and leaving total benefits for Income Assistance recipients unchanged.

New Brunswick reformed its Income Assistance system in 1995. Case management and career counseling services were introduced, and young people under age 21 who are applying for Income Assistance have been required to attend school or training. Since September 1995, the province has provided extended health benefits on a cost-shared basis for up to one year after a recipient leaves Income Assistance for employment. In 1996, the province began to implement an "economic unit policy" in which people who reside together and share facilities must be treated as one unit for determining Income Assistance eligibility and benefits. For example, two families living together would be treated as one economic unit, making it likely that either their total benefits would be reduced or assistance would be denied. In November 1997, the policy was modified (and renamed the "household income policy") to exempt certain groups of recipients. Single-parent families that have been on Income Assistance for at least 12 months and wish to share accommodations are now exempt if at least one of the single parents is participating in education, training, or employment according to an approved case plan.

DATA SOURCES FOR THIS REPORT

This report utilizes data from several different sources:

- **Baseline survey.** This survey was designed by SRDC, MDRC, and Statistics Canada and administered by Statistics Canada just before random assignment. All members of the research sample completed the survey, which included questions about the respondents' demographic characteristics, household composition, employment and earnings, prior education and training, child care needs, attitudes toward work and welfare, housing, disabilities, and current income. These data are used to describe the research sample and to identify important subgroups.
- **18-month follow-up survey.** SRDC, MDRC, and Statistics Canada designed a second survey that was administered by Statistics Canada approximately 18 months after random assignment. This survey was completed by 93 percent of the research sample. Most questions were similar to those on the baseline survey. Respondents were also asked about living conditions and expenditures on food and children's clothing. Program group members were asked about their perceptions of and experiences with the supplement program. This survey is the data source for most of the outcomes examined in this report.
- **Income Assistance records.** The Ministry of Human Resources in British Columbia and Human Resources Development-New Brunswick provided Statistics Canada with monthly Income Assistance data files. These data files were used to identify the target population, draw the random sample, and track pre- and post- random assignment receipt of IA payments. Thirty-six months of data on IA receipt before random assignment and 18 months of data after random assignment are used in this report to estimate impacts on IA receipt and to identify subgroups based on prior IA history.
- **SSP's Program Management Information System (PMIS).** The PMIS is the information system designed by SHL Systemhouse Inc., SRDC, and MDRC for the operation and evaluation of SSP. The system supports and tracks the activities in the program and payment offices. PMIS data on program group members' contact with SSP staff, supplement take-up, and supplement payments are used in this report.

THE SAMPLE FOR THIS REPORT

Among the 6,028 sample members who completed the baseline survey and were randomly assigned, it was later discovered (upon verifying the computer programs and data used to select the sample) that 21 program group members, 19 control group members, and 6 SSP Plus group members did not meet the criteria for inclusion in the study, because they had no children under age 19, had not received Income Assistance in at least 11 of the 12 months before sample selection, or were under age 19 at the time of sample selection. These people were still given access to the program if they were in the program group or the SSP Plus group, but it was decided to exclude all 46 of them from further data collection and analysis. In addition, three control group members withdrew from the study and requested that none of their data be used in the research.

The *baseline research sample* for SSP's main study consists of the program and control group members remaining after these exclusions. (SSP Plus group members are included in the SSP Plus study but not the main study.) The baseline research sample contains 5,686 people (2,859 program group members and 2,827 control group members). The sample for the analyses in this report, or the *report sample*, consists of the 5,288 people (2,645 program group members and 2,643 control group members) who were in the baseline research sample and completed the 18-month follow-up survey. The report sample thus contains 92.5 percent of the program group members and 93.5 percent of the control group members in the baseline research sample. Appendix B examines the possibility that the omission of follow-up survey nonrespondents from the report sample leads to biases in the estimated impacts of SSP, and concludes that any such biases are likely to be small.

SSP targeted single parents who had been receiving Income Assistance for a year or more. The diversity of this population is reflected in the variety of backgrounds and life situations exhibited by members of the report sample. Table 1.2 presents descriptive statistics on the characteristics of report sample members at the time of random assignment.

The personal and family background characteristics in Table 1.2 suggest that single parents with a history of Income Assistance receipt are predominantly female and tend to have relatively low levels of education. Forty percent were raised by a single parent or in some other "nontraditional" family arrangement, and 25 percent grew up in families receiving some form of welfare.

As previously noted, everyone selected for SSP's main study had to have received Income Assistance in the month of selection and in at least 11 of the 12 previous months.[15] In fact, most sample members were in the midst of considerably longer stays on welfare. Over three-fourths had been receiving Income Assistance for two or more of the previous three years, and 42 percent had been receiving Income Assistance continuously for at least three years.

Even though 95 percent of the sample had worked at some time in the past, the majority were neither working nor looking for work at baseline. Less than one-fifth of the sample were

[15]Table 1.2 shows a category that received IA for "10–23" months in the three years prior to random assignment. Although the sample selection criteria imply that all sample members should have received IA for at least 11 months during that period, there are some minor discrepancies between the number of months of IA receipt recorded at sample selection and the number recorded in the database for this report, because a small number of IA cheques received by sample members were voided after sample selection.

actually working. Of those working, nearly two-thirds were working fewer than 30 hours per week. Most sample members, therefore, would have to increase their work effort in order to qualify for the supplement.

Table 1.2: Characteristics of Report Sample Members at Random Assignment

Characteristic	Overall	British Columbia	New Brunswick
Gender (%)			
Female	95.3	95.1	95.5
Age (%)			
19–24	21.6	18.4	25.2
25–29	20.7	20.6	20.8
30–39	39.6	41.7	37.3
40–49	15.6	16.8	14.3
50 or older	2.5	2.6	2.5
Marital status (%)			
Married or living common law[a]	2.1	2.3	1.9
Never married	48.2	43.5	53.4
Divorced, separated, or widowed	49.6	54.2	44.6
Education (%)			
Completed education			
Less than high school education	54.2	54.3	54.1
Completed high school, no post-secondary education	34.7	33.1	36.4
Some post-secondary education	11.1	12.6	9.6
Enrolled in school at random assignment	14.0	15.5	12.3
Family background (%)			
Mother did not finish high school	62.7	54.0	71.8
Father did not finish high school	59.0	49.2	69.3
One or both parents absent when growing up[b]	39.6	42.9	36.0
Family received welfare when growing up[c]	25.0	21.8	28.5
Recent welfare history			
Number of months on IA in prior 3 years (%)			
10–23	23.8	28.5	18.7
24–35	33.8	35.0	32.4
All 36	42.4	36.6	48.9
Average IA payment in prior month ($)	858	1,021	679
Work history and labour force status			
Ever had a paid job (%)	94.8	95.6	93.9
Average years worked	7.4	8.2	6.6
Labour force status at random assignment (%)			
Employed 30 hours/week or more	6.6	6.5	6.6
Employed less than 30 hours/week	12.8	12.3	13.2
Looking for work, not employed	23.0	22.9	23.1
Neither employed nor looking for work	57.7	58.2	57.0
Activity-limiting conditions (%)			
Reported physical problem[d]	25.6	26.2	24.9
Reported emotional problem[e]	7.9	8.7	7.1

Table 1.2: Characteristics of Report Sample Members at Random Assignment (Cont'd)

Characteristic	Overall	British Columbia	New Brunswick
Children			
Number of children under age 19 (%)			
1	54.2	50.3	58.6
2	32.0	33.4	30.4
3 or more	13.8	16.3	11.0
Age of youngest child in years (%)			
0–2	30.1	30.8	29.4
3–5	23.6	24.5	22.6
6–11	26.6	27.0	26.2
12 or older	19.7	17.7	21.8
Not working and couldn't take a job in prior 4 weeks because of (%)[f]			
Any reason	53.2	61.5	44.1
Own illness or disability	14.1	14.3	13.7
Lack of adequate child care	14.3	18.3	10.0
Not working and couldn't take a job in prior 4 weeks because of (%)[f] (cont'd)			
Personal or family responsibility	21.8	26.9	16.3
Going to school	8.4	9.5	7.3
No transportation	7.2	7.6	6.8
Too much competition	2.4	4.3	0.2
Not enough education	9.0	12.9	4.7
Not enough experience or skills	8.1	12.6	3.2
Other	5.9	9.3	2.2
Opinions and expectations			
Said greatest need was (%)			
Immediate full-time employment	29.2	24.3	34.7
Immediate part-time employment	9.4	8.8	10.0
Education or training	47.3	53.6	40.3
Something else	10.9	9.5	12.5
Don't know	3.2	3.8	2.5
"If I got a job, I could find someone I trust to take care of my children"			
Agree	64.0	63.1	65.0
Disagree	17.2	19.1	15.1
No care required	18.8	17.8	19.9
Urban residence (%)	82.7	92.3	72.1
Ethnic background (%)			
First Nations ancestry	9.4	12.1	6.4
Asian ancestry	4.5	8.4	0.3
French-speaking	13.7	4.9	23.5
Immigration (%)			
Not born in Canada	13.5	23.2	2.9
Immigrated in last 5 years	2.6	4.8	0.2
Period of intake (%)[g]			
November 1992–October 1993	35.6	45.6	24.8
January 1994–March 1995	64.4	54.4	75.2

Table 1.2: Characteristics of Report Sample Members at Random Assignment (Cont'd)

Characteristic	Overall	British Columbia	New Brunswick
Province (%)			
British Columbia	52.3	100.0	0.0
New Brunswick	47.7	0.0	100.0
Sample size	**5,288**	**2,766**	**2,522**

Source: Calculations based on baseline survey data and Income Assistance administrative records.

Notes: Sample sizes vary for individual measures because of missing values.

[a]Although all sample members were receiving Income Assistance as single parents at the time of sample selection, a small number said they were married or living common law in answer to the question "What is your marital status?" on the baseline survey.

[b]The precise question on the baseline survey was "Up until you were 16 years old, were you living with both your mother and father?"

[c]The precise question on the baseline survey was "Up until you were 16 years old, did anyone in your household ever receive social assistance or welfare aid?"

[d]Sample members are considered to have an activity-limiting physical condition if they answered yes to any of the following: "Do you have a long-term physical condition or health problem that limits you in the kind or amount of activity you can do... (a) at home? (b) at school? (c) at work? (d) in other activities such as travel, sports, or leisure?" Those who were not working generally did not answer the "at work" part of the question, so their classifications are based on answers to the other parts. The conditions reported were not necessarily permanent. Of the sample members who reported an activity-limiting physical condition at the baseline interview, one-third indicated no such problems at the 18-month follow-up interview.

[e]Sample members are considered to have an activity-limiting emotional condition if they answered yes to any of the following: "Are you limited in the kind or amount of activity you can do because of a long-term emotional, psychological, nervous, or mental health condition or problem... (a) at home? (b) at school? (c) at work? (d) in other activities such as travel, sports, or leisure?"

[f]Multiple responses allowed.

[g]In British Columbia, periods of intake were January 1993–October 1993 and January 1994–February 1995. In New Brunswick, periods of intake were November 1992–June 1993 and January 1994–March 1995.

Sample members also faced what appeared to be substantial barriers to full-time employment. Over one-fourth reported having an activity-limiting physical condition. Over half had a child age five or younger in their household, and over 80 percent reported that they would need child care if they found a job. Over one-fifth of those who said they would require child care believed that they would not be able to find someone they trusted to take care of their children. The three most common reasons given for not taking a job in the past four weeks were personal or family responsibilities, lack of adequate child care, and own illness or disability. Furthermore, when asked to choose among full-time work, part-time work, education and training, or some other option, 47 percent preferred education or training to the alternatives.

Characteristics by Province

Ninety-two percent of sample members in British Columbia lived in urban areas, compared with 72 percent in New Brunswick. The British Columbia sample is also more ethnically diverse than the New Brunswick sample. The percentage with First Nations ancestry in British Columbia is nearly twice what it is in New Brunswick. Asians are rare in the New Brunswick sample but constitute 8 percent of the British Columbia sample. Nearly one-fourth of sample members in British Columbia were not born in Canada, with one-fifth of those immigrating in the last five years before random assignment. Only 3 percent of sample members in New Brunswick were not born in Canada.

Thirty-seven percent of sample members in British Columbia had received Income Assistance throughout the three years before random assignment, whereas nearly 50 percent of sample members in New Brunswick had done so. Labour force status was similar across the two provinces. British Columbia and New Brunswick sample members also reported

activity-limiting physical conditions in roughly the same proportion. Although a plurality of sample members in both provinces reported education or training as their greatest need (preferred over full- or part-time employment), a higher percentage of sample members in New Brunswick chose full-time employment (35 versus 24 percent).

IMPLEMENTING THE PROGRAM

The model that was designed for SSP — offering an alternative to welfare that subsidizes full-time work — had not been tried before. Thus, it was imperative that steps be taken to ensure that the model was implemented well. The most important initial objective was to inform everyone in the program group about the supplement offer and how much better off financially they would be if they chose to take advantage of the supplement. Clearly, unless that happened, the SSP model could not achieve its potential.

If SSP were operating on a large scale as an ongoing program, long-term Income Assistance recipients would be likely to learn about SSP from the welfare system, since governments have an interest in encouraging people to find ways to leave the welfare rolls. Income Assistance offices could reach long-term recipients through direct mailings and phone calls and could require them to attend SSP orientation meetings. SSP would be recognized by Income Assistance recipients as a legitimate government program.

To simulate the kind of understanding that would evolve in an ongoing program environment, SSP staff made an extraordinary effort to fully inform the entire program group. Staff tried to contact as close to 100 percent of the program group as possible, and to provide a detailed orientation to all who were contacted. This level of outreach effort would probably not be achieved in an ongoing, full-scale program because it would not be necessary. It was necessary in this project, however, in order to ensure both a fair and a realistic test of the SSP model.

The subcontractors chosen to operate and staff the SSP offices were Bernard C. Vinge and Associates Ltd. in British Columbia and Family Services Saint John, Inc., in New Brunswick. SSP offices were opened in Vancouver and New Westminster, British Columbia, and Saint John and Moncton, New Brunswick.

Getting Started: Orientation

As soon as the local SSP office was notified that a sample member had been assigned to the program or control group, a letter was mailed informing her of her group assignment. For each program group member, the mailing date of the letter was the first day of her one-year window to take up the supplement. The letter invited her to attend an orientation and was accompanied by a brochure explaining the program's key features. SSP staff followed up in a few days with a phone call. If the program group member could not be reached, staff asked the Income Assistance office to forward the letter to the address where her IA cheques were being sent. Almost all program group members were eventually contacted by SSP.

SSP office staff delivered orientations. They sought to describe the program fully, create a supportive environment, and encourage program group members to seriously consider the offer. Orientations were received by 98 percent of all program group members. Three-fourths received an orientation within the first month of the one-year take-up window, but 12 percent

received the orientation two or more months after the mailing date of the program group assignment letter, effectively reducing the time they had to qualify for the supplement to 10 months or less.

The most common type of orientation, attended by 52 percent of the program group members, was a group orientation that lasted between two and four hours. Most group orientations were held in the SSP offices and attended by between 4 and 12 program group members. Individual orientations, either in the SSP office or in the program group member's home, were given to 38 percent of the program group. Phone orientations, received by 8 percent, were performed as a last resort; in most of these cases, staff mailed the orientation materials to program group members prior to conducting the phone orientation at a pre-arranged time.

Orientations covered the supplement's main features: the 30-hour work requirement, the one-year take-up window, the three-year supplement period, and the calculation of supplement payments. Orientation leaders compared the typical Income Assistance recipient's IA benefits with the combination of earnings plus supplement payments that the same recipient could receive if she participated in SSP. Staff distributed blank worksheets so those in attendance could estimate how much of a financial benefit SSP would be to them personally, taking child care and transportation expenses into account. Available community services (job search, child care, employment and training, housing, and transportation) were also discussed. Everyone who had attended an orientation left with a well-organized folder of materials to which they could refer at home. Staff encouraged people to stay if they had further questions and to call or visit the office whenever they wanted more information.

Orientation leaders always stressed the financial benefits of the earnings supplement, and they described it as a "once-in-a-lifetime" opportunity. They discussed the feelings of dependence that reliance on Income Assistance could produce, as well as the prospect that the world of work could be exciting, sociable, and empowering. However, at no time did SSP staff indicate that the supplement was the right choice for everyone. Staff pointed out that because the supplement does not vary according to family size, single parents with three or more children may be no better off financially on SSP than they are on Income Assistance, particularly if their children are young and require child care. It was acknowledged that some people might prefer to remain at home with their children or to attend school.

During the first year of SSP operations, SRDC staff regularly observed orientations to monitor program group members' reactions, gauge their understanding, and evaluate the delivery methods employed. It was clear that program group members were understanding the program's features sufficiently well for the supplement offer to receive a fair test.

After the Orientation

In mid-1993, SRDC requested that SSP office staff complete a phone survey of program group members oriented through April 1993 to discover whether they knew about the most important features of the SSP program. Over 90 percent of the 700 program group members who were surveyed said they recalled being told by SSP staff about the one-year window, the 30-hour work requirement, how to calculate the supplement, and that they must leave Income Assistance to qualify for the supplement. Nine out of 10 respondents said they thought they would be financially better off on the supplement, and 8 out of 10 said they had no questions about the supplement.

Almost everyone who had attended an orientation had some additional contacts with SSP staff before the close of the one-year take-up window. All program group members were invited to a two-hour money management workshop, where staff discussed ways to manage the income from work and the supplement by budgeting for expenses and dividing the income between chequing and savings accounts and cash. This workshop was attended by 17 percent of program group members in New Brunswick and 7 percent in British Columbia. Other contacts were usually of modest duration (e.g., a 10- or 15-minute phone call). Staff simply wanted to remind people that the SSP offer still stood and that they were available to provide additional information or referrals to job search or other services. Staff strove for a contact once every 90 days; program records indicate that the average program group member had five contacts with staff during the year. The offices created a professional and supportive environment, which encouraged program group members to contact staff if they had questions.

SSP has offered limited information to program group members about services that are available to both program and control group members in the areas of job search, education and training, child care, and transportation and relevant public policies such as taxes, subsidized housing, and daycare. Some information was provided at the orientations, and brochures and reference documents are available for perusal at the SSP offices. Information about job search services has been requested most often: Half the program group indicated at the orientations that they would like to see some material on available job search assistance. Yet very few have reported back to SSP staff that they actually attended a job club or other job search assistance service. Most seemed to have an "I can do it myself" attitude about their job searches. More popular have been some limited résumé-preparation services available in New Brunswick at the local Income Assistance offices and in British Columbia at various community-based organizations.

Initiating the Supplement

In order to "initiate" supplement payments, program group members who found full-time work within the one-year take-up window had to come into the SSP office.[16] Staff reminded potential supplement takers to bring the required documents with them to the initiation meeting. The requirements for initiating the supplement are:

- The program group member must start working at the eligible job or provide evidence of a full-time job offer before the end of the one-year take-up window.
- The program group member must work an average of at least 30 hours per week over a four-week or monthly accounting period. She can meet the minimum-hours requirement with one job or multiple part-time jobs. Earnings must be insurable by Unemployment Insurance (now Employment Insurance), and the program group member must earn at least the provincial minimum wage.[17]

[16]Those who lived in remote areas or had moved out of the study areas could initiate the supplement in the presence of a local welfare worker and mail the required documents to the SSP office.

[17]Fully government-subsidized jobs cannot be used to meet the minimum-hours requirement. Jobs that are partially subsidized by the federal government or the New Brunswick provincial government and intended for on-the-job training can be used to meet the requirement, while similar jobs subsidized by the British Columbia provincial government cannot be used.

- The program group member must agree to leave Income Assistance. SSP staff send a letter signed by the program group member notifying the Income Assistance office of her supplement initiation and directing the office to end Income Assistance payments.
- The program group member must sign a participation agreement, which outlines rules and responsibilities for participating in the program. It also gives permission for SSP staff to share information with the Ministry of Human Resources in British Columbia, Human Resources Development-New Brunswick, HRDC, and Revenue Canada so that SSP can monitor compliance with program rules.

At the supplement initiation meeting, staff informed supplement takers about the tax consequences of the supplement, which is taxable income, and gave them the option of requesting that additional taxes be withheld from their supplement payments.[18] Staff reviewed with supplement takers the procedures for claiming supplement payments and stressed that in order to get paid on time, supplement takers must complete and mail in their vouchers on time. (A voucher contains dates, hours, and wages of employment.)

Finally, staff completed an employment verification — establishing that the employer was legitimate and the job qualified the participant for the supplement — and entered the initial voucher information into the payment system. The payment office in Halifax is responsible for processing subsequent payment information. If the supplement taker changes jobs, she must complete the initiation process again.

The Payment System. The in-person initiation meeting in the SSP office, combined with the mail-in system used for payments, splits responsibility between the program offices and the payment office, reducing the chance of fraud and collusion by supplement takers and staff. Supplement takers fill out a voucher after receiving each paycheque and mail it, along with a copy of the corresponding pay stubs, to the payment office. Staff in the payment office verify each voucher against the enclosed pay stubs before entering the information into the payment system. The system then calculates the supplement amount, based on the earnings received during a four-week or monthly accounting period. Payment system records are cross-matched with Income Assistance records every month to ensure that supplement takers are complying with the rules of the program and not drawing simultaneous benefits.

The payment system was designed to be able both to measure and verify earnings and work hours and to maintain the confidentiality of the supplement takers' involvement in SSP. If employers know about the supplement, it may influence their decisions about hiring and wage levels. In addition, if other employees know that the supplement taker is receiving this extra money, it may cause friction between her and them. The program therefore operates without requiring information to be reported directly by employers. Pay stubs submitted by supplement takers provide the documentation of earnings, hours, and pay dates needed for supplement calculation purposes. Pay stubs can be obtained without employer involvement, but can be verified if necessary.

Other Services. Supplement takers were invited to a life skills workshop after receiving the supplement for several months. This workshop lasted two to three hours and covered

[18]Supplement payments were ruled to be taxable for income tax purposes by Revenue Canada. However, the supplement is not considered pensionable income for the Canada Pension Plan nor insurable earnings for Employment Insurance purposes.

topics such as survival skills on the job, harmonizing work and family responsibilities, paying income taxes, consequences of incurring debt, teaching children about money management, working toward long-term career goals, and a short review of supplement payment procedures. Advantages of contributing to a Registered Retirement Savings Plan were mentioned briefly. Handouts provided tips on sensible shopping for groceries and clothing, buying insurance, and expenses of owning a car. The workshop was attended by 91 percent of supplement takers in New Brunswick but only 15 percent in British Columbia. The difference in attendance rates reflects the differing emphasis that SSP staff in each province have placed on the session, and also differences in the way participants were invited to the session.

The SSP offices have offered a limited range of other services to supplement takers. These include support for payment-related issues, a workshop to help with the adjustment at the end of the three-year supplement period, and information and referrals to service providers in the community. There have been few requests for information and referrals from supplement takers. In British Columbia, a small number of supplement takers who had lost their jobs received help in résumé preparation or phone advice on job search techniques from the SSP offices.

AN OVERVIEW OF THIS REPORT

This report presents evidence on SSP's impacts during the first 18 months after sample members were randomly assigned and program group members were offered the supplement.[19] Because program group members were allowed to qualify for the supplement during the first 12 months and can receive the supplement for three years after qualifying, this is an early point at which to assess the program. The long-term benefits and costs are still unknown. At the same time, because of the one-year take-up window, it is possible at this point to assess how effective the SSP offer was in getting people to begin full-time work and leave Income Assistance. The report also provides an early look at SSP's effects on family incomes, poverty, and living conditions and at the cost of the supplement payments compared with the savings to the government in reduced Income Assistance expenditures.

Chapter 2 examines program group members' participation in the supplement program: how many took up the supplement, their success in maintaining full-time employment and supplement receipt, and why others did not take advantage of the supplement offer. The three remaining chapters present the estimated impacts of SSP. Chapter 3 examines impacts on employment, earnings, and Income Assistance receipt and the implications for both government budgets and sample members' incomes. The chapter also discusses the child care arrangements of sample members who worked full-time and the program's impacts on participation in education and training programs. Chapter 4 looks at whether the impacts on full-time employment and Income Assistance receipt are distributed evenly across the sample or whether they tend to be concentrated among certain subgroups. The analysis includes an investigation of whether impacts are larger among families for whom SSP offers a larger financial incentive relative to Income Assistance. Chapter 5 examines SSP's impacts on

[19]Impacts on Income Assistance receipt are estimated for the first 18 months, but impacts on employment and earnings are estimated for the first 17 months because the follow-up survey typically took place before the end of the eighteenth month.

family incomes and poverty and then looks at how supplement takers used the extra money and how it affected the living conditions of their families.

As will be explained in chapter 3, SSP's maximum impacts on employment and Income Assistance receipt probably appear during the first 18 months after random assignment. The extent to which impacts persist or decline during the remainder of the supplement period and afterward will be seen in future reports that present estimated impacts up to 36 months and 54 months after random assignment. Those reports will also examine SSP's impacts on a wide range of outcomes related to the well-being of sample members' children, and the 54-month report will include a comprehensive analysis of SSP's benefits and costs from the perspectives of eligible Income Assistance recipients, government budgets, and society as a whole.

Chapter 2
Participation in SSP

Program group members contemplating the supplement offer had to consider carefully the implications for their families. Full-time work, together with the supplement, would improve their economic circumstances and could provide other rewards such as a greater sense of being able to provide for their families. At the same time, almost all of them would need to arrange some form of child care and to substantially reduce the time they spent with their families in order to go to work full-time outside the home. Moreover, it was not always easy to find work and to keep it, especially for those who had been out of the labour force for some time. This chapter examines how program group members responded to these and other considerations. How many qualified for the supplement, and how successful were they in maintaining full-time employment? Why did others not take advantage of the offer?

To summarize the main findings:

- Thirty-five percent of program group members successfully qualified for the supplement. Most supplement takers did not maintain continuous full-time employment and therefore forfeited part or all of a supplement payment at least once during the first 18 months after random assignment. The most frequently cited reason was that their employers could not give them enough hours of work. As a result, the percentage of program group members receiving the supplement in any given month was considerably less than the 35 percent who ever took up the supplement: a maximum of 25 percent received the supplement in the fifteenth month after random assignment.
- Among the 65 percent who did not take advantage of the supplement offer, most said they would be much better off financially if they were working full-time and receiving the supplement, but other factors had kept them from taking up the supplement. The most commonly mentioned reasons were difficulties in finding work, personal or family responsibilities, and health problems or disabilities.

The fact that 35 percent of program group members qualified for the supplement does not imply that the program caused them to change their behaviour. In fact, it is not uncommon for single parents on Income Assistance to find work and leave welfare on their own without help from any special programs. Consequently, the findings in this chapter do not indicate whether the supplement offer led *more* people to work full-time and leave Income Assistance than would have in the absence of the offer. That question and others regarding the impacts of SSP are examined in subsequent chapters by comparing the behaviours and experiences of the program and control groups.

This chapter first discusses initial concerns that program group members had when they heard about the supplement offer. The focus then narrows to the supplement takers: how many program group members qualified for the supplement and how quickly, and to what extent they maintained full-time employment and continued to receive the supplement. Finally, the chapter looks at those who did not take up the supplement: how they viewed the supplement offer and why they did not take advantage of it.

INITIAL CONCERNS ABOUT THE SUPPLEMENT OFFER

When presented with the supplement offer, program group members had a variety of concerns about working full-time and leaving Income Assistance. Table 2.1 shows the responses of program group members to a follow-up survey question: "When you first heard that you were eligible for SSP, what was your main concern about participating in the program?" About one in four said they had no concerns about participating. Another one in four said their main concern had been their ability to find a job; a much larger percentage gave this response in New Brunswick (36 percent) than in British Columbia (14 percent). Many others had worried about the impact that working would have on their children: 14 percent said their main concern had been finding adequate child care, and 6 percent said they had felt that working full-time would interfere with raising their children. Other concerns included not being able to find a "good job" and interference with education or training plans.

Table 2.1: Program Group Members' Initial Concerns About the Supplement Offer

Initial Concerns About the Supplement Offer (%)	British Columbia	New Brunswick	All
When you first heard that you were eligible for SSP, what was your main concern about participating in the program?			
No concerns	29.1	23.5	26.5
Didn't think I could get a job	14.4	35.6	24.5
Would not be able to find adequate child care	15.5	11.9	13.8
Interferes with raising children	7.8	3.8	5.9
Won't get a good job to make it worthwhile to leave IA	6.5	2.2	4.4
Interferes with plans to do education/training	3.3	3.0	3.1
Would lose health benefits	1.0	3.6	2.2
Would not be eligible for IA again	1.5	2.2	1.8
Don't have enough education to participate	1.7	1.9	1.8
Other	15.9	11.4	13.7
Don't know	3.4	1.1	2.3
Sample size[a]	**1,380**	**1,254**	**2,634**

Source: Calculations from 18-month follow-up survey data.

[a]The sample size is slightly smaller than the number of program group members in the report sample (2,645) because of missing data.

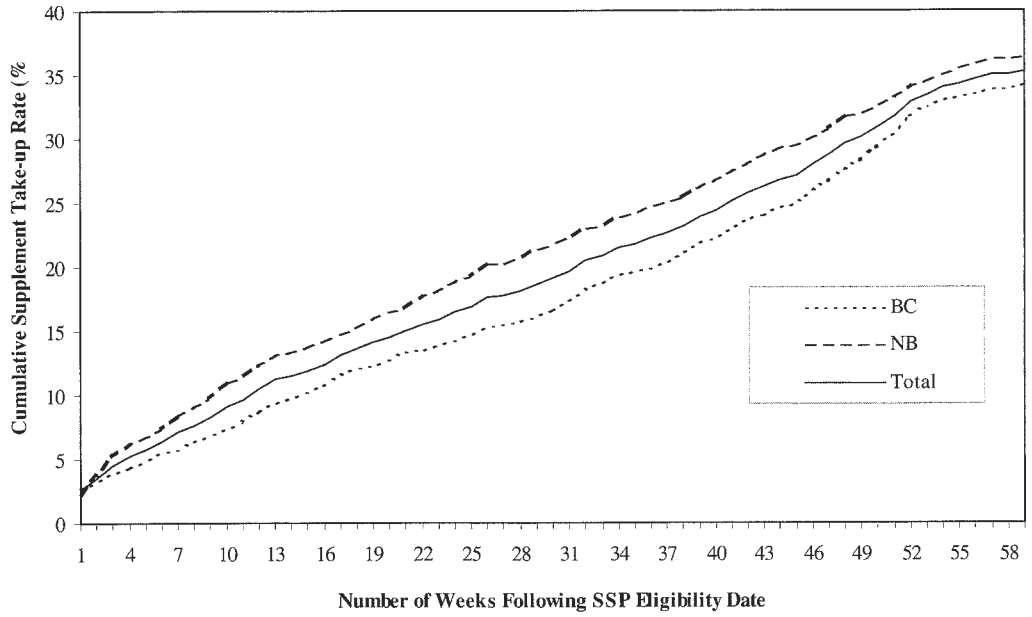
The focus group report by Bancroft and Vernon (1995) explores in greater depth the opinions, attitudes, and experiences of 99 program group members, including their initial concerns about the supplement offer. Many focus group participants said that when they were first contacted about the supplement offer, they did not believe the offer was genuine. (However, virtually all said that after contacts with SSP staff, they came to trust that the program was "real" and that the information they were supplying was confidential and would not be shared with Income Assistance staff.) Others had been concerned that health problems limited their employment prospects or that "once you get a job, if you quit, you can't get back on welfare."[1]

[1]Bancroft and Vernon, 1995, pp. 17–18.

SUPPLEMENT TAKE-UP AND CONTINUING RECEIPT

Program group members were given a "window" of one year to find full-time employment and qualify for the supplement. As Figure 2.1 illustrates, program group members took up (successfully qualified for) the supplement at a steady rate throughout that period.[2] About 3 percent of the program group in each province qualified for the earnings supplement in the first week of their one-year take-up window. Most of these people either were working full-time when they were randomly assigned or were working part-time but were able to quickly increase their work hours to 30 per week or more in order to qualify for the supplement. After this initial burst of supplement take-up, the rate at which program group members qualified for the supplement was virtually constant for the remainder of the year, with about 2.5 additional percentage points of the program group qualifying for the supplement each month.[3] The percentage of program group members eventually taking up the supplement was 35.2 percent (34.2 percent in British Columbia and 36.4 percent in New Brunswick).

Figure 2.1: Cumulative Rate of Taking Up the Supplement by Weeks Following Supplement Eligibility



Source: Calculations from payment records from SSP's Program Management Information System.

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[2]In the figure, program group members are counted as having taken up the supplement in the first week of full-time work for which they received a supplement. The week of supplement take-up is recorded relative to the mailing date of the letter that informed program group members about the supplement offer.

[3]The figure shows that the number of successful supplement initiators continued to increase until the fifty-ninth week. Although they had only 52 weeks to qualify for the supplement, program group members who could document full-time job offers made before the end of the one-year take-up window were given a brief grace period in which to begin meeting the 30-hour work requirement.

On the 18-month follow-up survey, supplement takers who did not take up the supplement in the first month were asked, "Why did it take you that length of time to sign up for the supplement?" The most frequently mentioned reasons were needing time to find a job (cited by 55 percent), needing time to increase their hours (18 percent), and wanting to complete an education or training program (14 percent).

After beginning supplement receipt, most supplement takers had one or more months in which they either could not meet or chose not to meet SSP's requirement to work at least 30 hours per week. Table 2.2 shows that 70 percent of supplement takers said they had forfeited a supplement payment or received a reduced payment (following the rules explained in chapter 1) at least once during the first 18 months after random assignment. The most frequently cited reason was that their employers could not give them enough hours of work (28 percent of supplement takers gave this answer). An additional 15 percent gave other reasons for not working enough hours (such as health problems), while 16 percent said they had lost or left their jobs, 5 percent said they had earned too much to receive the supplement, and 7 percent gave other reasons for not receiving a payment. Supplement takers in New Brunswick were more likely to have never had a missed or reduced payment — i.e., to have maintained continuous full-time employment — than those in British Columbia (33 percent in New Brunswick versus 27 percent in British Columbia).

Table 2.2: Supplement Takers' Reasons for Missed or Reduced Payments

Supplement Taker's Reasons for Missed or Reduced Payments (%)[a]	British Columbia	New Brunswick	All
Never had a missed or reduced payment	26.6	32.7	29.6
Missed a payment or had a payment reduced	73.5	67.3	70.4
Reason for missed or reduced payment			
Did not work enough hours	42.6	42.9	42.8
Reason for not working enough hours:			
Employer could not give enough hours	26.3	29.4	27.9
Health problems	6.9	5.3	6.1
Personal/family responsibilities	2.1	2.4	2.3
Could not find adequate child care	0.4	0.0	0.2
Other reason did not work enough hours	6.9	5.8	6.3
Lost or left job	20.1	11.1	15.7
Earned too much money	4.7	5.1	4.9
Other	6.0	8.2	7.1
Sample size (total = 919)[b]	**467**	**452**	**919**

Source: Calculations from 18-month follow-up survey data.

Notes: "Supplement takers" are those program group members who qualified for the supplement before the close of the one-year take-up window and received at least one supplement payment.

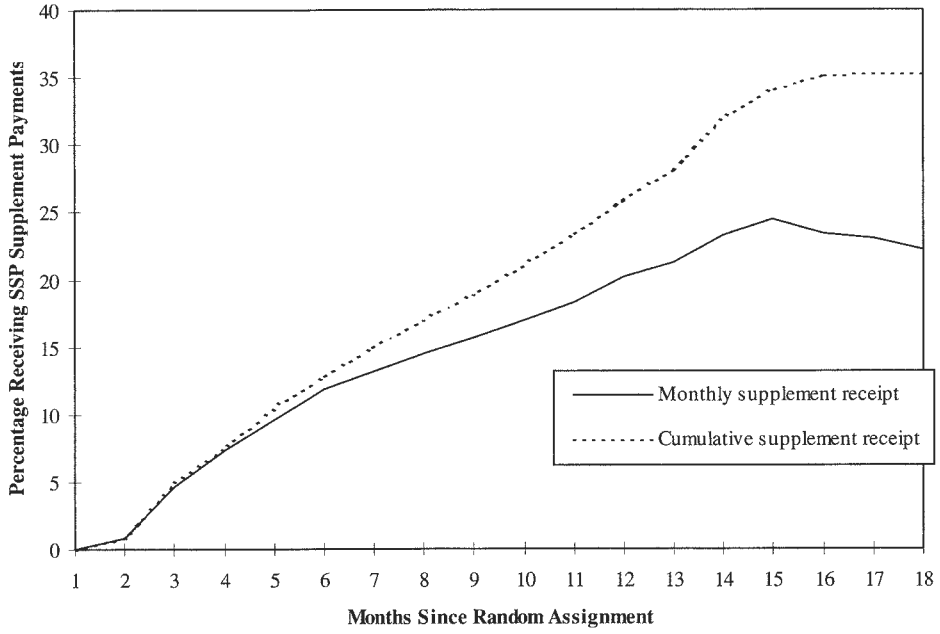
[a]Sample members were first asked, "Has your supplement payment been reduced or not paid to you because you did not work enough hours? For example, because you did not work at least 30 hours per week?" If respondents answered "yes," they were asked the follow-up question, "Why were you unable to maintain enough work hours to get a full supplement payment?" If respondents answered "no," they were asked the follow-up question, "From the time you received your first supplement, were there any other reasons you missed a supplement payment or had a supplement payment reduced?" Responses to these three questions were separated into the mutually exclusive categories shown on the table. Responses that were either the same or similar across questions were collapsed into a single category.

[b]The sample size is slightly smaller than the number of supplement takers in the report sample (932) because of missing data.

Because many supplement takers had months in which a job termination or insufficient hours caused them to forfeit a payment, the percentage of program group members who received the supplement in any given month was lower than the percentage who had *ever* received the supplement. The former percentage is referred to as the monthly supplement receipt rate, or simply the supplement receipt rate; the latter percentage is referred to as the *cumulative* supplement receipt rate. Both receipt rates are shown in Figure 2.2. It should be noted that the time measurement conventions in Figure 2.2 are different from those in Figure 2.1. In Figure 2.1, time was measured in weeks relative to the beginning of the

supplement take-up window (the mailing date of the letter informing program group members about the supplement offer), in order to examine how quickly program group members responded to the supplement offer. In Figure 2.2, for consistency with the analysis of program impacts in chapters 3–5, time is measured relative to the month of random assignment: month 1 denotes the month in which random assignment occurred, month 2 denotes the following month, and so on. Random assignment is used as the point of reference because it can be identified for both program and control group members. Months or quarters (three-month periods) are the time units in which outcomes such as earnings and Income Assistance payments are measured.[4]

Figure 2.2: Percentage of Program Group Members Receiving SSP Supplement Payments, by Months Since Random Assignment



Source: Calculations from payment records from SSP's Program Management Information System.

Each program group member was informed about the SSP offer in month 1, and the one-year take-up window closed 12 months later, in month 13. On average, the program group member received her first supplement payment seven weeks after she qualified for the supplement, because the payment would not be issued until she had mailed in all pay stubs for a four-week or monthly accounting period. As can be seen in Figure 2.2, hardly anyone received supplement payments until month 3. As more program group members took up the supplement, the percentage receiving supplement payments rose steadily until it reached its peak of 24.5 percent in month 15 (which was the first month of supplement receipt for some of those who had taken up the supplement just before the close of the take-up window in

[4] Appendix F provides further details. The beginning of the take-up window (the reference point for Figure 2.1) occurred within 14 days after random assignment (the reference point for Figure 2.2) for 99.6 percent of the program group, and within 7 days for 95.5 percent.

month 13). The cumulative percentage who had received payments reached 34.1 percent in month 15, nearing its final level of 35.2 percent (the take-up rate).

Until month 15, the supplement receipt rate rose over time because in each month, additional takers began receiving the supplement. After month 15, the inflow of additional supplement takers all but stopped: since the take-up window had closed in month 13, almost everyone who would ever receive supplement payments had already begun to do so. Because of an outflow of supplement takers losing or leaving their jobs or falling short of the hours requirement, the percentage receiving supplement payments dropped to 22.2 percent by month 18. It remains to be seen whether the supplement receipt rate will continue to decline during the remainder of the supplement period or whether it will eventually reach a steady level, with the flow out of full-time employment balanced by an equal flow of supplement takers returning to full-time work.

Chapter 4 discusses how supplement receipt rates varied with characteristics of program group members. A diverse group participated in the supplement program, but supplement receipt was more common among those who were already employed or looking for work at the time of random assignment, those with a high school diploma, those with shorter histories of Income Assistance receipt, and those who did not report health problems or disabilities.

REASONS FOR NOT TAKING UP THE SUPPLEMENT

Nearly two-thirds of the program group members never took up the supplement. These program group members are referred to as non-takers. On the 18-month follow-up survey, 79 percent of non-takers answered "yes" to the question, "In the year that you could qualify for the supplement, were you interested in taking advantage of the SSP offer?" If the majority of non-takers were interested in the supplement offer, why didn't they take it up?

Was the size of the financial incentive adequate? On the follow-up survey, non-takers were asked to compare their current financial situation (approximately 18 months after random assignment) with what they thought their financial situation would be if they were to work full-time, collect the SSP earnings supplement, and leave Income Assistance. Sixty-three percent said they would be "a lot better off" financially if they were working full-time and receiving the supplement, and another 22 percent said they would be "slightly better off."[5] Thus, for most non-takers, it does not appear that lack of financial incentive was the main reason for not taking up the supplement.

The most commonly mentioned reasons for not taking up the supplement were difficulties in finding work, personal or family responsibilities, and health problems or disabilities. Table 2.3 shows that 32 percent of non-takers said the main reason was that they were unable to find a job, and another 6 percent (see the bottom panel) said it was one of their reasons (although not the main one). More non-takers in New Brunswick than in British Columbia said inability to find a job was the main reason (38 percent in New Brunswick versus 27 percent in British Columbia). Adding together those who said the main reason was that they were unable to get a job (32 percent), didn't think they could get a job (3 percent), or

[5] In British Columbia, 56 percent thought they would be a lot better off and 27 percent slightly better off. The corresponding numbers for New Brunswick were 71 percent and 15 percent. As explained in chapter 4, the supplement does tend to provide a greater financial advantage, relative to Income Assistance, in New Brunswick.

were unable to get enough hours of work to qualify for the supplement (8 percent), a total of 43 percent cited difficulties in finding work as the main reason. Personal or family responsibilities were the main reason for 15 percent and one of the reasons for another 10 percent. Health problems or disabilities were the main reason for 14 percent and one of the reasons for another 5 percent.

Table 2.3: Non-Takers' Reasons for Not Taking Up the Supplement Offer

Reasons for Not Taking Up the Supplement Offer (%)	British Columbia	New Brunswick	All
Main reason for not taking up the supplement offer[a]			
Unable to find a job	26.8	38.3	32.2
Didn't think I could get a job	2.4	2.5	2.5
Unable to get enough hours of work	9.0	7.0	8.0
Personal/family responsibilities	16.9	13.8	15.4
Health problems/disability	12.6	14.5	13.5
Wanted to complete education/training/program	5.2	5.5	5.3
Do not have enough experience/skills/education	1.9	2.8	2.3
Couldn't find adequate child care	3.9	4.1	4.0
Didn't want to use child care	2.9	1.0	2.0
Did not understand the offer	3.1	0.8	2.0
Wasn't worth it	1.4	0.4	0.9
Income Assistance is more secure/better off	0.8	0.5	0.7
Unable to get a high enough paying job	0.3	0.3	0.3
Other	12.3	8.4	10.5
Don't know	0.6	0.4	0.5
Other reasons for not taking up the supplement offer[a]			
Unable to find a job	7.4	4.5	6.0
Didn't think I could get a job	5.6	3.0	4.4
Unable to get enough hours of work	4.7	2.1	3.5
Personal/family responsibilities	10.3	8.8	9.6
Health problems/disability	6.1	4.3	5.2
Wanted to complete education/training/program	2.1	2.3	2.2
Do not have enough experience/skills/education	8.3	9.6	8.9
Couldn't find adequate child care	8.0	5.4	6.8
Didn't want to use child care	2.8	0.6	1.8
Did not understand the offer	2.4	1.4	1.9
Wasn't worth it	1.0	1.0	1.0
Income Assistance is more secure/better off	1.1	0.6	0.9
Unable to get a high enough paying job	2.8	1.1	2.0
Other	22.5	30.5	26.2
Sample size[b]	**904**	**800**	**1,704**

Source: Calculations from 18-month follow-up survey data.

Notes: "Non-takers" are those program group members who never received a supplement payment.

[a]Respondents were asked, "What was the main reason you did not take advantage of the earnings supplement offer?" and were then asked, "Are there any other reasons you did not take advantage of the earnings supplement offer?" Interviewers coded responses into the categories shown. In the bottom half of the table, the percentages do not add to 100 because (1) a respondent could give more than one "other reason" or could give none, and (2) the analysis excluded any responses to the second question that were coded into the same category as the main reason (unless the category was "other").

[b]The sample size is slightly smaller than the number of program group non-takers in the report sample (1,713) because of missing data.

Non-Takers' Concerns About Poor Job Prospects

These excerpts from Bancroft and Vernon (1995) show some of the comments made by non-takers who, in focus groups, cited discouraging job prospects as a barrier to taking up the supplement:[+]

As one woman in Saint John reported: "If you've been looking for the past ten years to find something anyway, and now you've got nine months to suddenly — you know? After ten years, you're going to find something in nine months? It just didn't mean that much to me."

Further probing of this issue revealed that for perhaps half of the non-takers who cited lack of jobs as a major barrier to taking up the supplement, what they were really saying was that there were no jobs they would consider taking. As one woman said, "Maybe the 30 hours is easy to find, but I wasn't going to take just any job." This sentiment may have been fueled by the fact that non-takers in the focus groups were disproportionately better educated than others in the program population, but there were also many who felt that because of their limited job skills and work experience, they were unlikely to get "good jobs" — in other words, jobs that paid good wages and would lead to a career. As Randi commented, "I don't have education or skills where I'm able to get a nice job. You know, I'm just, like, [a] minimum-wage type, and I feel guilty, but I don't want to do that, I cannot see myself working down at the mall for $5.50 an hour."

Some participants felt that the one-year window wasn't long enough to accommodate any unforeseen circumstances, but most objected to it because it made them feel pressured; they were going to have to go out and find a job, and they did not feel prepared to do that. As Mandy explained, "Most of us have not worked for many years so to run out and get a job — you have to be retrained for all this, and it definitely takes time." These women felt that to get jobs that would make them truly self-sufficient in the long term, they needed more education and training before they embarked on a job search. It is not surprising, then, that non-takers were the most likely to suggest that SSP could be improved with the inclusion of help with job search skills, career counseling, and self-esteem, or for actual job placement, with education and on-the-job training. Without such help, some felt that running into a dead end was a certainty:

> I thought it was a pipe dream. The money sounds wonderful, and I mean for three years it's like, I'm going to live high on the hog. And they're saying, "Go for a management job or something to better yourself in your job." And if you have grade 7 education, there's no way you're bettering yourself in your job. So three years down the road, after having all this money, you're going to go back to welfare and say, "I can't make it. Give me my welfare back."

[+]All names have been changed to protect the privacy of the participants.

Concerns about education and skill levels were also mentioned as reasons for not taking up the supplement. Wanting to complete an education or training program was the main reason for 5 percent and one of the reasons for another 2 percent. Although only 2 percent said the main reason was that they did not have enough experience, skills, or education, another 9 percent mentioned this as one of their reasons. Only 4 percent said inadequate child care was the main reason, although another 7 percent said it was one of their reasons.

In focus groups, non-takers discussed in greater depth their reasons for not taking up the supplement. Forty-four non-takers participated in the focus groups; a detailed analysis of their comments was given by Bancroft and Vernon (1995). Many participants said it was difficult to find a job, especially a full-time job with stable hours. But for about half of those who gave this reason, the problem they perceived was that it was difficult to find a "good" job with good wages and chances for advancement (see the text box opposite). Other reasons for not taking up the supplement included concerns about spending enough time with their children, lack of trustworthy child care, and medical conditions. Some worried that after the three-year supplement period ended, the loss of the extra income would be very hard on their children, and moreover, they might lose their jobs and not be able to return to Income Assistance. And for several non-takers, the supplement offer and the one-year take-up window came at a bad time. For example, one woman said, "I had an opportunity for the SSP, but I was pregnant at the time, and I've been through three miscarriages . . . so I couldn't go out and work. . . . I only had one year for the SSP, and my time ran out. Now I'm ready to work, and I'm not able to now."

Comparing the values, attitudes, and opinions expressed by supplement takers and non-takers, Bancroft and Vernon found that non-takers seemed less stigmatized by and conflicted about their dependence on Income Assistance and appeared to place less importance on financial gain. Other qualities that seemed most to distinguish non-takers from takers were the former's lower self-esteem, determination, and confidence regarding the future.

Additional evidence on how non-takers viewed the supplement offer can be found in their responses when asked what changes they would like to see to make SSP a better program for them. As shown in Table 2.4, about one-third of non-takers did not suggest any changes. Perhaps they could not imagine a change in the program that would have made them more likely to participate. The most frequently heard proposal was that SSP should give people more than one year to find a job: 20 percent gave this as their main suggestion, and another 4 percent made it one of their suggestions. Offering a job placement service was the main suggestion of 12 percent and an additional suggestion of 8 percent; this proposal was especially common in New Brunswick. Somewhat smaller percentages suggested offering education and training. Very few people suggested increasing the monetary value of the supplement.

Table 2.4: Non-Takers' Perceptions of Changes That Would Improve SSP

Improvement (%)	British Columbia	New Brunswick	All
Main change to make SSP a better program[a]			
No change	32.0	33.9	32.9
More than 1 year to find a job	21.1	19.6	20.4
Offer job placement service	7.2	17.5	12.0
Offer education and training	6.6	5.4	6.0
Better coverage of child care/transportation costs	1.7	2.9	2.2
Last longer than 3 years	0.9	0.9	0.9
Increase the supplement amount	1.0	0.5	0.8
Offer financial support during job search	0.7	0.3	0.5
Less administrative paperwork	0.2	0.3	0.2
Other	23.1	16.0	19.8
Don't know	5.6	2.9	4.3
Other change(s) to make SSP a better program[a]			
More than 1 year to find a job	3.5	5.4	4.4
Offer job placement service	5.7	10.5	8.0
Offer education and training	5.7	8.3	6.9
Better coverage of child care/transportation costs	1.8	5.8	3.6
Last longer than 3 years	1.0	0.5	0.8
Increase the supplement amount	0.3	0.1	0.2
Offer financial support during job search	1.8	0.6	1.2
Less administrative paperwork	0.3	0.0	0.2
Other	9.9	7.9	9.0
Sample size[b]	**909**	**800**	**1,709**

Source: Calculations from 18-month follow-up survey data.

Notes: "Non-takers" are those program group members who never received a supplement payment.

[a]Respondents were asked, "If you could change one thing about SSP to make it a better program for you, what would it be?" and were then asked, "Are there any other changes that you would like to see to make SSP a better program for you?" Interviewers coded responses into the categories shown. In the bottom half of the table, the percentages do not add to 100 because (1) a respondent could give more than one "other change" or could give none, and (2) the analysis excluded any responses to the second question that were coded into the same category as the main change (unless the category was "other").

[b]Sample sizes for Tables 2.3 and 2.4 differ because of some item nonresponse on the survey.

CONCLUSION

In general, program group members thought they would be much better off financially if they worked full-time and left Income Assistance to take advantage of the SSP offer, but a variety of concerns and difficulties kept most of them from taking up the supplement. Chief among these were difficulties in finding work, personal or family responsibilities, and health problems or disabilities. Among the 35 percent who did take up the supplement, difficulties in maintaining at least 30 hours of work per week were common. As a result, in any given month, no more than 25 percent of program group members received the supplement.

These findings tell only one side of the story: the response of program group members to the supplement offer. The remaining chapters examine the impacts of SSP — the difference the program made — by comparing the behaviours and experiences of program and control group members.

Chapter 3
Impacts on Employment, Income Assistance, Transfer Payments, and Education and Training

As reported in chapter 2, about one-third of program group members took up the SSP supplement after finding full-time employment and agreeing to leave Income Assistance. This is an *outcome* resulting from several factors such as program group members' willingness to work full-time, the opportunities available to them in the local labour markets, and the extent to which the supplement offer changed their behaviour. To measure the *impacts* of SSP — the changes it produced — it is necessary to compare outcomes for the program group with a benchmark that represents what would have occurred in the absence of the program. The control group produced by the random assignment process provides such a benchmark. In this chapter and the two that follow, data on the program and control groups are used to estimate the impacts of SSP on a variety of outcomes.

This chapter presents estimated impacts on employment, earnings, and Income Assistance receipt; explores SSP's implications for government expenditures on transfer payments and for the incomes of sample members; and investigates the possibility that the increased employment due to SSP displaces time spent in education and training. The chapter also briefly describes the child care arrangements used by sample members who worked full-time.

To summarize the findings:

- SSP doubled the percentage of program group members working full-time. In the fifth quarter after random assignment, the period of maximum impact, SSP had a 15-percentage-point impact on the full-time employment rate: 29 percent of program group members worked 30 hours per week or more, compared with 14 percent of the control group. The estimated impact in the sixth quarter was almost as large. It appears that the program achieved these impacts primarily by inducing people to work full-time who otherwise would not have worked.
- The additional employment generated by SSP appeared to be clustered at wage rates between the minimum wage and $2 per hour above the minimum. Most single parents would not be financially much better off relying on the earnings from this employment than they would be if they received welfare and did not work. Thus, in order for work to remain more attractive than welfare after the end of the three-year supplement period, supplement takers must experience significant progression in wage rates, increases in hours of work, changes in attitudes that strengthen their inclination to work, or changes in circumstances that make it more desirable to continue working.
- SSP reduced Income Assistance receipt among program group members. In the fifth and sixth quarters after random assignment, SSP reduced the percentage receiving Income Assistance by 13 to 14 percentage points and reduced Income Assistance payments by about $100 per month per program group member. The savings in Income Assistance payments, together with an increase in tax revenue, partially offset the cost of the supplement payments.

- Primarily because the cost of the supplement payments exceeded the savings in Income Assistance expenditures during the period studied in this report, it is estimated that SSP incurred a net increase in public expenditures on transfer payments of $55 per month. Viewed together with SSP's substantial impact on earnings, every $1 the government spent on additional transfer payments bought more than $2 of increased earnings and led to more than $3 of additional income for program group members.
- Among sample members who already had a high school diploma or equivalent, SSP had no discernible effects on education and training. Among those who did not have the credential, SSP led to a reduction of 3 percentage points in the percentage taking courses toward a high school credential during the first 18 months after random assignment. However, at this point, SSP has not had an effect on the *attainment* of the credential.

It should be noted that the 18-month period studied in this report ended only a few months after the point at which SSP's impacts on full-time employment and Income Assistance receipt were expected to reach their peaks. As explained later in this chapter, these impacts should peak soon after the close of the one-year supplement take-up window and then decline somewhat over time. The extent to which impacts decline after the 18-month period is not known at this point and will be studied in future reports.

An earlier report (Card and Robins, 1996) presented estimated impacts on employment, earnings, and welfare receipt using data on sample members randomly assigned between November 1992 and October 1993 (just over one-third of the sample for the current report). The current chapter, using the full sample of respondents to the 18-month follow-up survey, confirms the early report's basic findings: the full sample yields estimated impacts on employment, earnings, and Income Assistance receipt that are generally similar to those in the early report. The chapter explains expected and estimated impacts in greater detail and adds to the analysis in the earlier report in several ways: the comparison of the cost of the supplement payments with the reduction in Income Assistance payments is augmented by taking into account the income tax revenue likely to be generated by SSP; estimated impacts on education and training outcomes and descriptive findings on child care arrangements are presented; and complete sets of impact estimates for British Columbia and New Brunswick are presented in addition to the full-sample estimates.[1]

The chapter is organized as follows. The *expected* effects of SSP on some key outcomes are discussed before estimated impacts are presented. First, data on control group members are examined in order to understand the patterns of employment and Income Assistance receipt that would occur in the absence of SSP, and in particular how these outcomes would vary over time. The section that follows discusses how SSP would be expected to affect employment and Income Assistance receipt and how the impacts on Income Assistance payments, together with the cost of the supplement, would affect overall government expenditures on transfer payments. The third section presents the estimated impacts of SSP on employment, earnings, Income Assistance, transfer payments, and the incomes of sample

[1]In addition, two revisions were made to outcome measures. First, the full-time employment measure was revised so that people who began or ended full-time work during a month are counted as working full-time in that month, not part-time. Second, a minor programming error in the early report's measure of "receiving IA or SSP supplement payments" was corrected.

members. Estimates of SSP's impacts on education and training outcomes are presented in the fourth section. The fifth section describes the use of child care by sample members who worked full-time. Finally, a brief conclusion is given.

EMPLOYMENT AND INCOME ASSISTANCE RECEIPT OF THE CONTROL GROUP: THE BENCHMARK FOR ASSESSING IMPACTS

Before discussing how SSP would be expected to affect employment and welfare outcomes for program group members, it is useful to examine selected outcomes for the control group. Data on the control group provide a sense of what would be expected to occur in the absence of SSP.

Figure 3.1 shows the percentage of control group members who received Income Assistance in each month from month – 10 before to month 18 after random assignment.[2] In the month of random assignment and each of the 10 prior months, close to 100 percent of the control group received Income Assistance, because the sample for this study includes only single parents who received Income Assistance in the month of sample selection and 11 of the 12 preceding months. After random assignment, the percentage receiving Income Assistance declined steadily from 99 percent in month 1 to 80 percent in month 18. This decline illustrates the normal process of welfare dynamics, with people leaving Income Assistance because they find work or increase their work hours, because they marry or reunite with their spouses, or for other reasons. The dynamic nature of Income Assistance receipt is also driven in part by the aging of youngest children. When the youngest child in the family turns 19, the case is reclassified at a lower benefit level, which may induce the parent to seek alternative sources of income.

A substantial minority of control group members were employed, even in the early months when virtually all were receiving Income Assistance. Figure 3.2 shows the percentage of control group members working full-time (i.e., at least 30 hours per week) in each month from month –10 before to month 17 after random assignment.[3] In the month of random assignment, 10 percent of control group members worked full-time; another 13 percent, not shown in the figure, worked less than 30 hours per week. The percentage working full-time increased during the months after random assignment, reaching 15 percent in month 17 (with another 15 percent working part-time).

In sum, even without the SSP offer, the percentage of sample members receiving Income Assistance would be expected to fall substantially and the percentage working full-time would be expected to rise somewhat during the first year and a half after sample members entered the study. To avoid mistakenly attributing to the program these changes over time, impacts must be measured relative to the benchmark provided by the control group outcomes.

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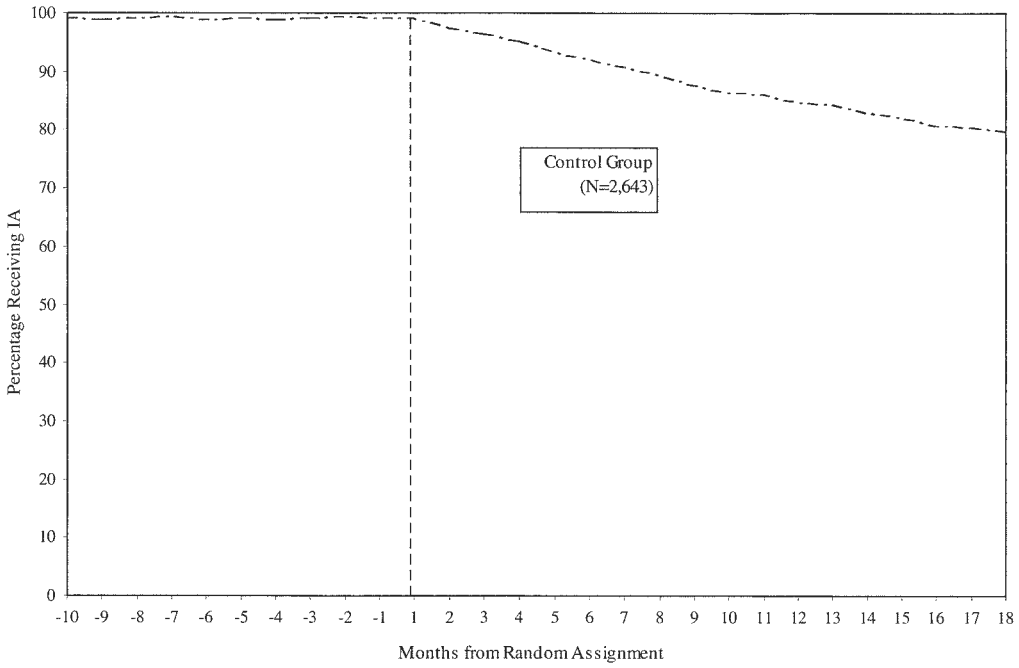
[2]The month of random assignment is month 1, and the preceding month is month –1. There is no month 0.

[3]As explained in Appendix F, employment data for month 18 and later are not analyzed in this report because of insufficient sample sizes.

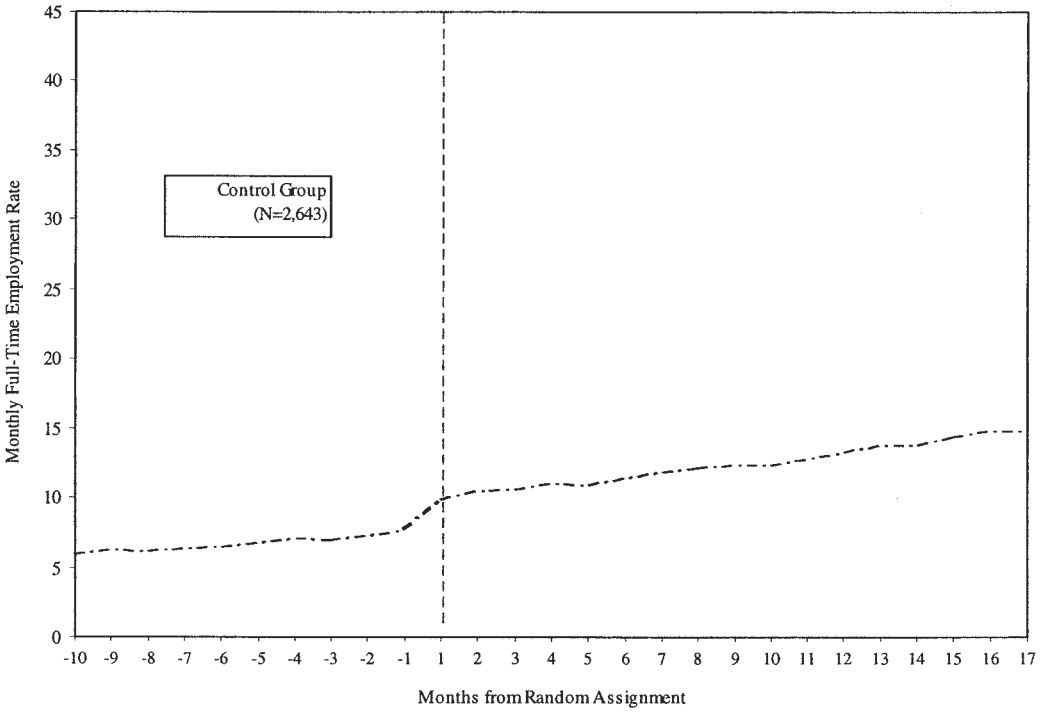
The figure shows a discrete jump between month –1 and month 1. The jump appears because employment before month 1 is measured from the baseline survey, while employment in months 1–17 is measured from the 18-month follow-up survey. Card and Robins (1996) discuss possible measurement errors that may have led to this problem of a "seam" between the two surveys. Since there is no evidence that such errors had unequal effects on the program and control groups' measured outcomes, they are not expected to cause any bias in the impact estimates.

Figure 3.1: Percentage Receiving Income Assistance — Control Group



Source: Calculations from Income Assistance administrative records.

Figure 3.2: Monthly Full-Time Employment Rates — Control Group



Source: Baseline survey and 18-month follow-up survey data.

For example, to produce evidence that the program increased full-time employment, it is necessary to show that the program group achieved an increase in full-time employment *over and above* the increase exhibited by the control group.

EXPECTED EFFECTS ON EMPLOYMENT, INCOME ASSISTANCE RECEIPT, AND PUBLIC EXPENDITURES

Expected Effects on Employment

The control group data presented above show that in any given month, most sample members would not work, and the vast majority would not work full-time, in the absence of the supplement offer. One reason, discussed in chapter 1, is that most single parents on Income Assistance have little financial incentive to work. Some other reasons were discussed in chapter 2, such as difficulties in finding work, personal and family responsibilities, concerns about child care, and health problems and disabilities. By addressing the financial incentive issue, SSP was designed to make the advantages of full-time work outweigh the disadvantages for some subset of single parents on Income Assistance. At the same time, it was expected that many others would still choose not to work, or not to work full-time, for reasons such as those discussed in chapter 2. In particular, the requirement to work at least 30 hours per week would limit the appeal of the supplement offer for many single parents.

To understand the expected effects of SSP, it is useful to consider its effects on different groups of sample members, classified according to whether they would work full-time, work part-time, or not work in the absence of the supplement offer. (These groups are discussed only as an informal device to conceptualize the effects of SSP on different sample members. It is not possible to determine which group a particular program group member would fit into.) To simplify the exposition, the following discussion considers as an example SSP's expected effects in month 17, but the same kinds of effects are expected in other months as well.

First, in any given month during the first year and a half after random assignment, the majority of sample members would not work in the absence of the supplement offer. For example, 70 percent of control group members did not work in month 17. It is expected that the financial incentives of SSP would lead some, but not all, of these people to work full-time.

Second, another group of sample members would work in the absence of the supplement, but would work less than 30 hours per week. For example, 15 percent of control group members worked part-time in month 17. SSP would be expected to lead some, but not all, of these part-time workers to increase their work effort to more than 30 hours per week in order to qualify for the supplement.

Finally, a third group of sample members would work full-time even if they were not offered the supplement. For example, 15 percent of control group members worked full-time in month 17. It is expected that if they had been offered the supplement, many of these people would be receiving it, since SSP's requirement to work at least 30 hours per week is one that they met even in the absence of the offer. (Not all of them would receive the supplement,

because some would not meet the other requirements for supplement receipt or would choose not to take advantage of the supplement offer.)[4] SSP is expected to have no effect on the fraction of this group that works full-time in month 17 (since they would all work full-time anyway), but the supplement still provides a financial reward or "windfall" to those who take advantage of it.

The informal term "windfall" will be used to refer to supplement receipt among people who would be working full-time even in the absence of SSP. These people benefit from the supplement without having to change their work behaviour.[5] As Greenberg et al. (1995) point out, any program that offers financial rewards to promote work effort will give some people a windfall (defined more loosely as a reward for doing what they would have done anyway), in addition to possibly increasing the work effort of others. Windfall payments add to the cost of a program, but they also increase the incomes of the working poor and help make it more attractive to continue working than to depend primarily on welfare.

The net results of the expected effects on the three conceptual groups described above are that the program should increase the percentage of sample members working full-time, by leading people to work full-time who otherwise would not have worked (the first group) and by leading part-time workers (the second group) to increase their hours of work to full-time; the program should reduce the percentage working part-time (through its effect on the second group); and it should increase the overall percentage who work (through its effect on the first group). Because SSP is expected to provide a windfall of supplement payments to members of the third group but to have no effect on the fraction of that group that works full-time, the impact on full-time employment should be smaller than the percentage of program group members receiving the supplement.

The magnitudes of these effects are expected to vary over time. During the first year after random assignment, impacts should grow as more and more program group members enter full-time employment in response to the supplement offer. After the first year, no additional program group members can take up the supplement. Impacts are then expected to decline somewhat over time, for two reasons. First, some supplement takers will be unable or unwilling to maintain full-time employment. Second, the full-time employment rate of the control group rises over time, implying that more and more sample members would work full-time even in the absence of SSP; therefore, part of the expected effect of SSP is to speed up entry into full-time employment among people who would eventually work full-time anyway, and so a portion of the impact will dissipate over time as some of the control group members "catch up." Thus, impacts are expected to peak approximately one year after random assignment.[6]

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[4]The other key requirements for supplement receipt in a given month are (1) having found an eligible job or jobs within the first year after random assignment, (2) earning at least the minimum wage, (3) having earnings covered by Employment Insurance, (4) having terminated Income Assistance payments, and (5) earning less than the benchmark level (the level of earnings at which the supplement payment is reduced to zero). Chapter 1 provides further details.

[5]Although they do not have to change their work behaviour in order to receive the supplement, the supplement-calculation formula may lead them to work more or fewer hours per week (but still at least 30 hours) while participating in SSP than they would otherwise. The reasons are discussed in Appendix D.

Note also that one person's supplement payments will be considered a windfall in one period but not in another if, in the absence of SSP, she would have worked full-time in the former period but not the latter.

[6]It is theoretically possible for impacts to continue to grow after the first year, because SSP could lengthen durations of employment among people who would have worked full-time in the first year even in the absence of the program. SSP

(continued)

Expected Effects on Income Assistance Receipt and Transfer Payments

Because supplement takers are required to leave Income Assistance, SSP should reduce the percentage of sample members receiving Income Assistance. Since it is expected that the typical behavioural change in response to SSP is *both* to find full-time employment and to leave Income Assistance, impacts on Income Assistance receipt during the first year and a half after random assignment are expected to be of similar magnitude to the impacts on full-time employment, though they need not be exactly equal.[7] Like the impact on full-time employment, the impact on the percentage receiving Income Assistance is expected to peak soon after the end of the one-year take-up window.[8]

During the three-year supplement period, SSP-induced reductions in Income Assistance receipt and payments do not imply budgetary savings for the government, because the reductions in Income Assistance costs are accompanied by the addition of public expenditures on SSP supplement payments. To understand the short-run effects of SSP on public expenditures, it is useful to examine the impact on the percentage of sample members receiving *either* Income Assistance *or* SSP payments. SSP should increase this percentage because it is expected (1) to lead some people to leave Income Assistance in order to receive the supplement and (2) to award supplement payments to others who would have left Income Assistance even in the absence of SSP. The first effect does not change the percentage receiving *either* IA *or* SSP payments and could increase or reduce public expenditures, depending on whether the supplement payments are larger or smaller on average than the foregone Income Assistance payments.[9] The second effect increases the percentage receiving either IA or SSP payments and adds to public expenditures.

Thus, an important determinant of the net impact of SSP on public expenditures is the extent to which SSP rewards people who would have left Income Assistance anyway — an effect similar but not exactly the same as the provision of windfall payments discussed earlier. The group of supplement takers receiving a windfall should overlap substantially with the group who would have left IA anyway, but the two groups are not exactly the same, since in the absence of the supplement, some people would leave IA without working full-time and vice versa.

The net effect of SSP on government expenditures and revenues will also reflect administrative, outreach, and other operational costs of the program, as well as any effects that SSP has on other costs and revenues such as Income Assistance administrative costs;

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could thus have an impact on employment after the first year among people who did not experience an impact during the first year.

[7]There are three reasons why impacts on Income Assistance receipt are not expected to be exactly equal to impacts on full-time employment. First, SSP may induce some people to work full-time who otherwise would have left IA without working full-time, and it may also induce some people to leave IA who otherwise would have worked full-time while remaining on IA. Second, as explained in a later footnote, there were lags between supplement take-up and termination of IA benefits. Third, the extent to which control group members "catch up" with the program group need not be the same for IA receipt as for full-time employment.

[8]By reasoning analogous to that in a previous footnote, it is theoretically possible for impacts on Income Assistance receipt to continue to grow after the first year. Among people who would have left IA during the first year even in the absence of the supplement, SSP could reduce the likelihood of a return to IA after the first year.

[9]The supplement payments would almost always be larger than any Income Assistance payments that the sample member could have received while working full-time. However, the relevant question here is whether the supplement payments are larger or smaller than the IA payments that the sample member would have received in the absence of SSP (which often means while not working). The answer would vary from one sample member to another.

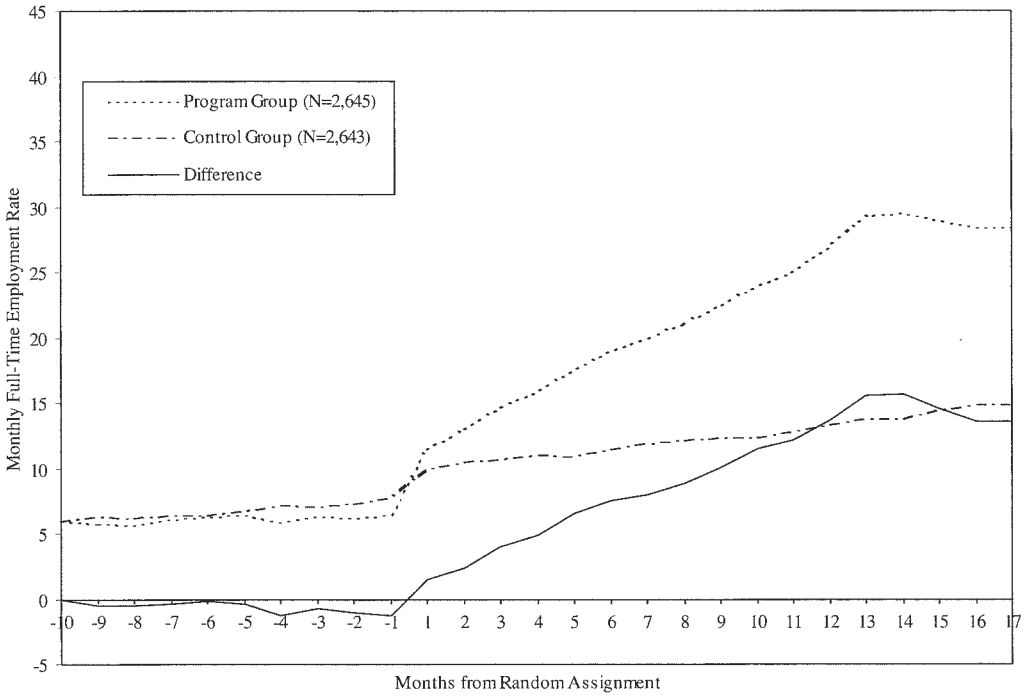
Employment Insurance revenues and payments; income tax revenues; sales and Goods and Services tax revenues; and expenditures on job search, education, training, child care, transportation, and other programs. Information about these costs and revenues is being collected to inform a benefit-cost analysis that will be included in the final report of this evaluation. The current report presents only a partial analysis of SSP's impact on public expenditures, focussing on the two largest components of the impact on *transfer payments* (cash payments from the government to sample members): the cost of the supplement payments and the reduction in Income Assistance payments. Because supplement payments are subject to income taxes but Income Assistance payments are not, the analysis also considers the projected effects of SSP on income tax revenues.

ESTIMATED IMPACTS ON EMPLOYMENT, EARNINGS, INCOME ASSISTANCE, TRANSFER PAYMENTS, AND INCOMES

Impacts on Employment and Average Earnings

Figure 3.3 shows that the full-time employment rate of the program group rose steadily, and substantially in comparison with the control group, during the one-year period in which program group members could take up the supplement (which ended in month 13). As predicted, the estimated impact of SSP on full-time employment (shown by the solid line in the figure) reached its maximum approximately one year after random assignment.

Figure 3.3: Monthly Full-Time Employment Rates — Program and Control Groups



Source: Baseline survey and 18-month follow-up survey data.

A closer look at the exact magnitudes of estimated impacts is provided by Table 3.1, which shows estimated impacts on full-time, part-time, and overall employment as well as average earnings. The estimates shown are monthly averages for each quarter (three-month period), beginning with the quarter of random assignment.[10] The first column of the table shows the program group's full-time, part-time, and overall employment rates and the average earnings of program group members. The second column shows the same outcomes for the control group. The third column shows the estimated impact of SSP — the *difference* between the program and control groups in each of these outcomes.

The table also shows two indicators of the statistical precision of the estimated impacts. Asterisks next to an impact estimate indicate that the estimate is *statistically significant*, meaning that it is large enough to be regarded as evidence that the program had an impact. Impact estimates without asterisks are not statistically significant and should not be regarded as evidence of an impact, because small differences between the program and control groups' outcomes could occur even if SSP had no impact. The last column of the table shows the *standard error* in parentheses. The standard error, which is equivalent to the "margin of error" often published with public opinion poll results, is a measure of the statistical uncertainty associated with the impact estimate. One can be about 95 percent confident that the actual impact of SSP lies within the range defined by the estimated impact, plus or minus two standard errors. For further discussion of the interpretation of statistical significance and standard errors, see Appendix A.

The first panel of the table shows that SSP had a substantial impact on full-time employment. The largest estimated impacts occurred in quarter 5, in which SSP increased the full-time employment rate by 15.2 percentage points: 29.3 percent of program group members were working at least 30 hours per week, more than double the control group rate of 14.0 percent.[11] The estimated impact in quarter 6 was somewhat smaller but still substantial.

As expected, the impact on full-time employment was smaller than the percentage of program group members receiving the supplement. In quarter 5, a monthly average of 23.0 percent of program group members received supplement payments.[12] This percentage includes supplement receipt both by people who were led by SSP to work full-time (15.2 percent in quarter 5, as shown by the impact estimate) and by people who received a windfall from SSP — that is, people who would have worked full-time in that quarter even in

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[10]For example, the first row of Table 3.1 shows that in quarter 1, the program group's average monthly full-time employment rate was 13.0 percent. This is the average of three numbers not shown in the table: 11.5 percent in month 1 (the month of random assignment), 12.9 percent in month 2, and 14.7 percent in month 3.

In Table 3.1, the estimates for quarter 6 are averages for months 16 and 17. The sample with data for quarter 6 is slightly smaller than the full report sample, but the small sample reduction is unlikely to have affected the estimates appreciably. Details are provided in Appendix F.

All impact estimates shown in the chapters of this report are unadjusted differences between program and control group means. Appendix C shows regression-adjusted impact estimates for selected outcomes and discusses some advantages and disadvantages of regression adjustment.

[11]All percentages are rounded to the nearest tenth of a percentage point. The impact estimate shown in the table (15.2 percentage points) is rounded *after* taking the difference between the exact program and control group percentages and is therefore more accurate than the difference between the rounded percentages (29.3 minus 14.0, or 15.3 percentage points).

[12]The percentage receiving supplement payments, which is not shown in Table 3.1 but was shown graphically in Figure 2.2, was smaller than the percentage working full-time because some program group members who worked full-time either were not working at an eligible job (see chapter 1 for a discussion of requirements for supplement receipt), did not start working full-time before the close of the take-up window, or chose not to take advantage of the supplement offer.

the absence of SSP, so that the supplement was a reward for doing what they would have done anyway.

Table 3.1: SSP Impacts on Employment and Earnings

Outcome (monthly average)	Program Group	Control Group	Difference (Impact)	Standard Error
Full-time employment rate (%)[a]				
Quarter 1	13.0	10.4	2.6***	(0.8)
Quarter 2	17.5	11.1	6.3***	(0.9)
Quarter 3	21.1	12.2	9.0***	(1.0)
Quarter 4	25.3	12.8	12.4***	(1.0)
Quarter 5	29.3	14.0	15.2***	(1.1)
Quarter 6	28.5	14.8	13.7***	(1.1)
Part-time employment rate (%)[b]				
Quarter 1	10.8	12.7	-1.9**	(0.9)
Quarter 2	9.9	13.3	-3.5***	(0.8)
Quarter 3	10.3	13.5	-3.2***	(0.9)
Quarter 4	10.8	13.5	-2.7***	(0.9)
Quarter 5	11.7	13.9	-2.2**	(0.9)
Quarter 6	12.1	15.2	-3.2***	(0.9)
Overall employment rate (%)				
Quarter 1	23.8	23.1	0.7	(1.1)
Quarter 2	27.3	24.5	2.9**	(1.2)
Quarter 3	31.4	25.6	5.8***	(1.2)
Quarter 4	36.0	26.3	9.7***	(1.2)
Quarter 5	41.0	28.0	13.0***	(1.2)
Quarter 6	40.6	30.0	10.6***	(1.3)
Average earnings ($/month)				
Quarter 1	172	164	8	(12)
Quarter 2	220	180	40***	(13)
Quarter 3	262	193	69***	(13)
Quarter 4	308	198	110***	(14)
Quarter 5	352	218	134***	(14)
Quarter 6	352	232	120***	(15)
Sample size (total = 5,288)[c]	**2,645**	**2,643**		

Source: Calculations from 18-month follow-up survey data.

Notes: The estimates for quarter 1-5 are calculated by averaging the monthly estimates for the three months within a quarter. The estimates for quarter 6 are calculated by averaging the estimates for months 16 and 17.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a]"Full-time employment" is defined as working 30 hours or more per week in at least one week during the month.

[b]"Part-time employment" is defined as having some employment but no full-time employment during the month.

[c]The sample size for quarter 6 is 5,048.

The size of the impact on full-time employment reflects the net result of two effects. First, SSP encourages full-time employment among people who would otherwise not work at all. Second, SSP encourages people who would otherwise work part-time to increase their work hours to at least 30 hours per week. It appears that most of the impact on full-time employment was due to the first effect. For example, in quarter 5, SSP increased the percentage who worked at all by 13.0 percentage points and reduced the percentage working part-time by 2.2 percentage points.

The last panel of Table 3.1 shows estimated impacts on average earnings. The averages are taken over all program group members or all control group members, including those who had zero earnings because they did not work.[13] To illustrate, in quarter 5, program group members had average monthly earnings of $352; looking at each month within the quarter, average earnings were $342 in month 13, $357 in month 14, and $356 in month 15. Each of these averages is taken over all program group members. For example, the average for month 15 is taken over both the 40.8 percent who worked (who earned an average of $871 that month) and the 59.2 percent who did not work (and had zero earnings that month).

Since SSP induced a substantial fraction of program group members to work full-time when they otherwise either would not have worked at all or would only have worked part-time, it is not surprising that the program generated a large increase in average earnings. In quarter 5, control group members had average earnings of $218 per month, while program group members had substantially higher average earnings of $352 per month. Thus, SSP increased average earnings by an estimated $134 per month.

Table 3.2 shows estimated impacts on employment and earnings separately for the British Columbia and New Brunswick samples. Estimated impacts on employment and earnings in the two provinces were generally similar and did not differ from each other by statistically significant amounts. For example, in quarter 5, the estimated impact on full-time employment was 15.2 percentage points in British Columbia and 15.3 percentage points in New Brunswick. One might not have expected SSP to achieve as large an impact in New Brunswick as in British Columbia, given the higher unemployment rate in New Brunswick (11.7 percent in 1996, compared with 8.9 percent in British Columbia) and the concerns that sample members there expressed about finding jobs (see chapter 2).[14] On the other hand, as discussed in chapter 4, SSP tends to provide larger financial incentives to work (relative to Income Assistance benefits) in New Brunswick than in British Columbia. In any case, the results show that SSP was able to produce substantial impacts on full-time employment in two very different provincial settings and that welfare recipients could respond to financial incentives to work even in a depressed labour market. There is thus reason to believe that these findings have some generalizability to the rest of Canada.

It should be remembered that these estimates represent what is probably the peak of SSP's impacts. As explained earlier, it is expected that the impact on full-time employment will decline somewhat over time, both because not all supplement takers will maintain full-time employment and because part of the early impact occurs among people who would eventually work full-time even in the absence of SSP. At this point, it is not known how much of the impact will persist over time. Future reports will answer that question.

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[13]Appendix A explains why the zero dollar amounts must be included in the averages.

[14]However, the overall and full-time employment rates of the control group were higher in New Brunswick than in British Columbia, as can be seen in Table 3.2. Moreover, a higher unemployment rate would not always be expected to lower the impact of SSP. If higher unemployment reflects a scarcity of "good" jobs but not a scarcity of low-wage jobs, then the SSP supplement might encourage a substantial number of people to take the available low-wage jobs.

Table 3.2: SSP Impacts on Employment and Earnings, by Province

Outcome (monthly average)	British Columbia				New Brunswick			
	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error
Full-time employment rate (%)[a]								
Quarter 1	11.7	10.0	1.7	(1.1)	14.5	10.8	3.7***	(1.3)
Quarter 2	15.5	10.6	4.9***	(1.2)	19.7	11.8	7.9***	(1.4)
Quarter 3	19.3	11.4	7.9***	(1.3)	23.1	13.0	10.1***	(1.5)
Quarter 4	23.6	12.3	11.3***	(1.4)	27.1	13.4	13.7***	(1.5)
Quarter 5	27.8	12.6	15.2***	(1.5)	30.9	15.6	15.3***	(1.6)
Quarter 6	25.6	12.9	12.7***	(1.5)	31.8	17.0	14.8***	(1.7)
Part-time employment rate (%)[b]								
Quarter 1	11.6	12.3	-0.8	(1.2)	9.8	13.1	-3.2***	(1.2)
Quarter 2	10.3	12.5	-2.2*	(1.2)	9.3	14.2	-4.9***	(1.2)
Quarter 3	10.7	12.7	-2.1*	(1.2)	9.8	14.3	-4.4***	(1.3)
Quarter 4	11.2	13.6	-2.4**	(1.2)	10.3	13.4	-3.1**	(1.2)
Quarter 5	12.3	14.0	-1.8	(1.2)	11.1	13.9	-2.7**	(1.3)
Quarter 6	13.1	15.3	-2.3*	(1.3)	10.9	15.1	-4.1***	(1.3)
Overall employment rate (%)								
Quarter 1	23.2	22.3	0.9	(1.5)	24.3	23.9	0.4	(1.6)
Quarter 2	25.8	23.1	2.7*	(1.6)	29.0	26.0	3.0*	(1.7)
Quarter 3	30.0	24.1	5.9***	(1.6)	33.0	27.3	5.7***	(1.8)
Quarter 4	34.8	25.9	8.8***	(1.7)	37.4	26.8	10.6***	(1.8)
Quarter 5	40.1	26.7	13.4***	(1.7)	42.0	29.4	12.6***	(1.8)
Quarter 6	38.6	28.2	10.4***	(1.8)	42.7	32.0	10.7***	(1.9)
Average earnings ($/month)								
Quarter 1	191	195	-5	(19)	151	131	21	(13)
Quarter 2	232	212	20	(20)	207	146	61***	(15)
Quarter 3	281	223	58***	(21)	241	161	80***	(16)
Quarter 4	337	230	107***	(22)	276	164	112***	(16)
Quarter 5	393	243	151***	(23)	306	191	115***	(17)
Quarter 6	381	249	132***	(24)	319	213	106***	(18)
Sample size (total = 5,288)[c]	**1,386**	**1,380**			**1,259**	**1,263**		

Source: Calculations from 18-month follow-up survey data.

Notes: The estimates for quarter 1-5 are calculated by averaging the monthly estimates for the three months within a quarter. The estimates for quarter 6 are calculated by averaging the estimates for months 16 and 17.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a] "Full-time employment" is defined as working 30 or more hours per week in at least one week during the month.

[b] "Part-time employment" is defined as having some employment but no full-time employment during the month.

[c] The sample size for quarter 6 is 5,048.

Impacts on the Distributions of Wages, Hours, and Earnings

Having seen that SSP had substantial impacts on employment and average earnings, it is interesting to try to characterize the wage rates, hours of work, and earnings associated with the additional employment generated by the program. Economic models of the work-welfare decision suggest that people who face relatively low-paying job opportunities are less likely to work and more likely to stay on welfare in the absence of an earnings supplement. In contrast, people with higher-paying opportunities might be expected to leave welfare for work even without the supplement offer. Therefore, it would be expected that the *additional* employment generated by SSP — employment of people who would not work in the absence of the supplement — is concentrated at low wage rates. Empirical confirmation of this prediction would provide some evidence that low wages are a primary reason for continuing welfare participation. It is also interesting to ask whether supplement takers who were induced to work by SSP will eventually be able to earn enough so that work remains financially more attractive than welfare after the supplement period. Although the period studied in this report occurred too early for an answer to this important question, examining the distributions of wage rates, hours worked, and earnings may provide some sense of how much future earnings growth (through increases in wages or hours) would be needed.[15]

In exploring these questions, it is useful to analyze employment outcomes for a month instead of a quarter, because the shorter time unit allows one to focus on how much people were able to earn when they were working and how many hours per week they worked, minimizing the extent to which the data are averaged across different jobs, periods of employment and non-employment, or periods of full-time and part-time employment. Month 15 after random assignment was chosen as the time period for this analysis because it is the latest month for which employment data are available for the entire report sample.[16] Tables 3.3–3.5 show the program and control group distributions of hourly wage rates, hours worked per week, and *earnings per month employed* in month 15. Earnings per month employed are simply total earnings for month 15, except if a sample member worked for only a portion of the month. In that case, her earnings are multiplied by an appropriate factor to arrive at a "per month" figure. For example, if she was to be paid $500 per month and she began working halfway through month 15, then her total earnings for month 15 were $250, but her earnings per month employed were $500, the amount that she would earn for a whole month of work.

The calendar month corresponding to month 15 ranged from January 1994 to May 1996. During this period, the minimum wage in British Columbia was initially $6.00 per hour and was raised to $6.50 in March 1995 and to $7.00 in October 1995; the minimum wage in New Brunswick was initially $5.00 per hour and was raised to $5.25 in January 1996. In Table 3.3, wage rates are classified according to their position relative to the minimum wage for the relevant province and time period.[17] The table shows the number of program or control group

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[15] A more extensive analysis of SSP's effects on wage rates, using data for sample members randomly assigned between November 1992 and October 1993, is given in Card and Robins (1996, pp. 38–41).

[16] The sample with employment data for months 16 and 17 is slightly smaller, as explained in Appendix F.

[17] Wage rates were derived from information reported for each job rather than each month. The calculated wage rate for month 15 may not be exactly the same as actual hourly earnings in that month. Thus, some of the sample members in the "Less than minimum wage" category may actually have been paid the minimum wage or higher.

(continued)

members in each wage category as a percentage of *all* program or control group members, not just those who were working. To complete the picture, the percentage who were *not* working is also shown. SSP decreased the percentage not working in month 15 — in other words, increased the employment rate — by 12.1 percentage points. (Because this is an estimate for month 15 only, it differs somewhat from the estimated impact of 13.0 percentage points for quarter 5 in Table 3.1.)

Table 3.3: SSP Impacts on the Distributions of Wages, Hours, and Earnings — Month 15

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Hourly wage rate (% in each category)				
Not working	59.2	71.3	-12.1***	(1.3)
Wage unreported [a]	2.0	2.7	-0.7*	(0.4)
Less than minimum wage[b]	3.2	3.3	-0.2	(0.5)
Minimum to $.99 above minimum	15.7	6.7	8.9***	(0.9)
$1.00–$1.99 above minimum	8.3	4.8	3.5***	(0.7)
$2.00–$2.99 above minimum	3.5	2.6	0.9*	(0.5)
$3.00 or more above minimum	8.2	8.6	-0.3	(0.8)
Hours worked per week (% in each category)				
Not working	59.2	71.3	-12.1***	(1.3)
Hours per week unreported[a]	0.8	1.1	-0.2	(0.3)
Less than 30	11.1	13.3	-2.2**	(0.9)
30	6.4	1.9	4.5***	(0.5)
31–34	2.9	0.6	2.3***	(0.4)
35	5.3	2.4	2.9***	(0.5)
36–39	2.8	1.5	1.3***	(0.4)
40	8.2	5.0	3.2***	(0.7)
More than 40	3.4	3.1	0.3	(0.5)
Earnings (% in each category)				
Not working	59.2	71.3	-12.1***	(1.3)
Earnings unreported[a]	2.0	2.7	-0.7*	(0.4)
Less than $600	8.3	9.2	-0.9	(0.8)
$600–799	6.4	3.1	3.3***	(0.6)
$800–999	7.6	3.7	3.9***	(0.6)
$1,000–1,199	5.3	2.6	2.6***	(0.5)
$1,200–1,499	5.4	2.3	3.1***	(0.5)
$1,500–1,999	3.9	2.9	1.0***	(0.5)
$2,000 or more	2.0	2.1	-0.1	(0.4)
Sample size (total = 5,288)	**2,645**	**2,643**		

Source: Calculations from 18-month follow-up survey data.

Notes: A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a]Sample members in this category were employed during the month but did not report enough information about hours worked and/or earnings for the outcome in question to be calculated.

[b]In British Columbia, the minimum wage was $5.50 per hour from the beginning of the random assignment period in November 1992 until April 1993, when it rose to $6.00. In March 1995, it was increased to $6.50 and, in October 1995, it increased again to $7.00 per hour. In New Brunswick the minimum wage was $5.00 per hour from 1992 to 1995. In January 1996, it increased to $5.25 and, in July 1996, it rose again to $5.50.

The classifications "Wage unreported," "Hours per week unreported," and "Earnings unreported" indicate that the sample member reported working that month but did not report hours worked and/or earnings. In the analysis of impacts on average earnings, unreported monthly earnings were set to either zero or (if earnings were reported for some jobs but not others) total reported earnings from jobs held in the month. Because the incidence of unreported earnings was low and similar between the program and control groups, alternative procedures would produce similar impact estimates.

Table 3.4: SSP Impacts on the Distributions of Wages, Hours, and Earnings, in British Columbia — Month 15

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Hourly wage rate (% in each category)				
Not working	60.0	72.8	-12.7***	(1.8)
Wage unreported[a]	2.5	3.2	-0.7	(0.6)
Less than $6.00	2.6	2.6	0.0	(0.6)
$6.00–6.99	6.1	2.8	3.4***	(0.8)
$7.00–7.99	10.2	3.5	6.7***	(1.0)
$8.00–8.99	6.2	3.5	2.7***	(0.8)
$9.00–9.99	2.6	1.7	0.9*	(0.5)
$10.00 or higher	9.8	10.1	-0.3	(1.1)
Hours worked per week (% in each category)				
Not working	60.0	72.8	-12.7***	(1.8)
Hours per week unreported[a]	1.2	1.4	-0.3	(0.4)
Less than 30	11.4	13.0	-1.6	(1.2)
30	5.4	2.1	3.3***	(0.7)
31–34	2.7	0.7	2.1***	(0.5)
35	4.3	1.4	2.9***	(0.6)
36–39	2.7	1.3	1.4**	(0.5)
40	8.5	4.6	3.9***	(0.9)
More than 40	3.8	2.8	1.1	(0.7)
Earnings (% in each category)				
Not working	60.0	72.8	-12.7***	(1.8)
Earnings unreported[a]	2.5	3.2	-0.7	(0.6)
Less than $600	7.0	7.0	0.0	(1.0)
$600–799	2.5	2.7	-0.2	(0.6)
$800–999	5.6	2.7	2.9***	(0.8)
$1,000–1,199	5.7	2.2	3.5***	(0.7)
$1,200–1,499	8.1	2.5	5.5***	(0.8)
$1,500–1,999	5.5	3.3	2.2***	(0.8)
$2,000 or more	3.2	3.6	-0.4	(0.7)
Sample size (total = 2,766)	**1,386**	**1,380**		

Source: Calculations from 18-month follow-up survey data.

Notes: A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a]Sample members in this category were employed during the month but did not report enough information about hours worked and/or earnings for the outcome in question to be calculated.

Table 3.5: SSP Impacts on the Distributions of Wages, Hours, and Earnings, in New Brunswick — Month 15

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Hourly wage rate (% in each category)				
Not working	58.2	69.7	-11.5***	(1.9)
Wage unreported[a]	1.5	2.2	-0.7	(0.5)
Less than $5.00	2.8	3.6	-0.9	(0.7)
$5.00–5.99	20.4	9.1	11.3***	(1.4)
$6.00–6.99	9.3	6.3	3.0***	(1.1)
$7.00–7.99	2.7	2.5	0.2	(0.6)
$8.00 or higher	5.1	6.5	-1.4	(0.9)
Hours worked per week (% in each category)				
Not working	58.2	69.7	-11.5***	(1.9)
Hours per week unreported[a]	0.5	0.6	-0.2	(0.3)
Less than 30	10.8	13.6	-2.8**	(1.3)
30	7.5	1.6	5.9***	(0.8)
31–34	3.2	0.6	2.6***	(0.5)
35	6.4	3.5	2.9***	(0.9)
36–39	2.9	1.7	1.2**	(0.6)
40	7.8	5.4	2.4**	(1.0)
More than 40	2.9	3.4	-0.5	(0.7)
Earnings (% in each category)				
Not working	58.2	69.7	-11.5***	(1.9)
Earnings unreported[a]	1.5	2.2	-0.7	(0.5)
Less than $600	9.7	11.6	-1.9	(1.2)
$600–799	10.7	3.6	7.1***	(1.0)
$800–999	9.8	4.8	4.9***	(1.0)
$1,000–1,199	4.8	3.1	1.8**	(0.8)
$1,200–1,499	2.4	2.1	0.3	(0.6)
$1,500–1,999	2.1	2.4	-0.3	(0.6)
$2,000 or more	0.8	0.6	0.2	(0.3)
Sample size (total = 2, 522)	**1,259**	**1,263**		

Source: Calculations from 18-month follow-up survey data.

Notes: A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.
[a]Sample members in this category were employed during the month but did not report enough information about hours worked and/or earnings for the outcome in question to be calculated.

Table 3.3 shows that SSP increased the percentage of sample members working for hourly wages between the minimum wage and $1.99 above the minimum but had very little effect on the percentages in higher wage categories. Thus, it appears that most of the additional employment generated by SSP occurred at relatively low wages — no more than $1.00 or $2.00 above the minimum wage.[18] Tables 3.4 and 3.5 show the distributions of wage

[18]One caveat to this interpretation should be given. The comparison of program and control group wage distributions cannot provide definitive evidence that the program shifted people from one category to another. Although the results in Table 3.3 are consistent with an interpretation that SSP led 8.9 percent of the program group to work for hourly wages between the minimum and $.99 above the minimum when they otherwise would have been in the "Not working" category, other scenarios are consistent with the data. For example, it is possible that SSP shifted 4.0 percent of program group members from "Not working" to the highest wage category ($3.00 or more above the minimum), 4.6 percent from "Not working" to

(continued)

rates in each province, now shown in absolute dollar terms for concreteness. It appears that in British Columbia, the additional employment generated by SSP was concentrated between wages of $6.00 and $8.99 per hour, and in New Brunswick, the additional employment was concentrated between wages of $5.00 and $6.99 per hour (and mostly between $5.00 and $5.99).

The middle panels of Tables 3.3–3.5 show the program and control group distributions of hours worked per week in month 15. It is of interest to ask whether SSP's 30-hour-per-week work requirement gave rise to a "clustering" at *exactly* 30 hours per week. An analysis of federal and provincial tax and transfer program interactions with the SSP program suggests that for a substantial fraction of supplement takers, a very large percentage of each additional dollar earned is given back to the government (in increased taxes or reduced benefits) when they work more than 30 hours per week. If supplement takers can freely choose their hours of work and are influenced by this high "implicit tax rate" (two assumptions that need not be true), economic theory suggests that many of them will choose to work no more than 30 hours per week. The tables show that SSP raised the percentages of program group members in all hours categories from 30 to 40 hours per week (and had no discernible effect on the percentage working more than 40 hours per week). There was some clustering at 30 hours per week in New Brunswick; it is not clear whether this clustering reflects a preference for 30 hours or a shortage of jobs that offer more hours. In British Columbia, by contrast, the increase in the 30-hours category was only about the same as in the 35- and 40-hours categories. Overall, the results show that SSP's impact on full-time employment was *not* concentrated at the minimum required hours of work per week.

The hours per week worked by sample members, combined with the hourly wage rates they were paid, resulted in the distributions of earnings per month employed shown in the bottom panels of Tables 3.3–3.5. In British Columbia, SSP added workers to the earnings categories between $800 and $2,000 per month worked but not the other categories. (A supplement taker working 30 hours per week at the minimum wage of $6.00 per hour would earn almost $800 per month.) It is interesting to compare these amounts with the Income Assistance payments that sample members could receive if they were not working. During the time period represented by these earnings data, the basic monthly Income Assistance grant to a single parent was $982 if she had one child and $1,175 if she had two children.[19] Since 6.4 percentage points of SSP's impact on employment were associated with earnings between $800 and $1,200 per month, it appears that at least half of the additional employment generated by SSP in British Columbia paid no better or not much better than welfare (not counting the supplement payments).

In New Brunswick, SSP's impact on employment appeared to be concentrated at levels of earnings between $600 and $1,200 per month worked. The basic monthly Income Assistance grant during the same period increased slightly each year but was about $720 for a single parent with one child and $770 for a single parent with two children. Since 7.1 percentage

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"Minimum to $.99 above minimum," and 4.3 percent from the highest wage category to "Minimum to $.99 above minimum." The latter shift might occur if the supplement enabled some program group members to take jobs that paid lower wages but were more attractive in other aspects such as work conditions, stability, or long-term prospects.

[19]Shortly afterward (in August 1996), these rates were lowered to $879 and $969 when the province introduced a "Family Bonus" of $103 per child for all low-income families with children (thus increasing support for working poor families and leaving total benefits for Income Assistance recipients unchanged).

points of SSP's impact were associated with earnings between $600 and $800 and another 4.9 percentage points were associated with earnings between $800 and $1,000, it appears that, in general, the additional employment generated by SSP in New Brunswick (i.e., employment of program group members who worked in month 15 but would not have worked that month in the absence of the supplement) paid no better or not much better than welfare. After paying for work-related expenses (such as child care and transportation), many single parents would be financially worse off relying on these earnings than they would be if they received welfare and did not work.

It is not surprising to find that the program group members induced to work by SSP tended to have low earnings — the program was designed to make full-time work more attractive to people who would otherwise have little financial incentive to work. The empirical evidence supports the view that a significant proportion of single parents on Income Assistance are interested in full-time work and able to find it, but are discouraged from working because the wages they could earn are too low to make their families better off. The data also show that an earnings supplement can succeed in inducing many of them to work. An unanswered question at this point is whether they will continue working after the three-year supplement period ends. In order for work to remain more attractive than welfare, these supplement takers would need to experience one or more of the following developments over time:

- Progression in the wage rates they are able to earn.
- Increases in the weekly hours of employment they are able to obtain. (This development would only be relevant for supplement takers who are initially unable to find as many hours per week as they desire to work.)[20]
- Changes in values, attitudes, or perceptions that result in a stronger inclination to work and disinclination to receive welfare.
- Changes in circumstances that make it more desirable to continue working. For example, if a supplement taker marries or begins living with a partner, she could be more likely to continue working, either because the partner's income makes it easier to stay off welfare, because the partner's income disqualifies them from welfare or reduces the benefits they could receive, or because the partner helps take care of the children while she works.

In order for any such developments to contribute to a long-term *impact* of SSP — an increase in employment compared with what would have occurred in the absence of SSP — they would have to occur to a greater extent for the program group than the control group.

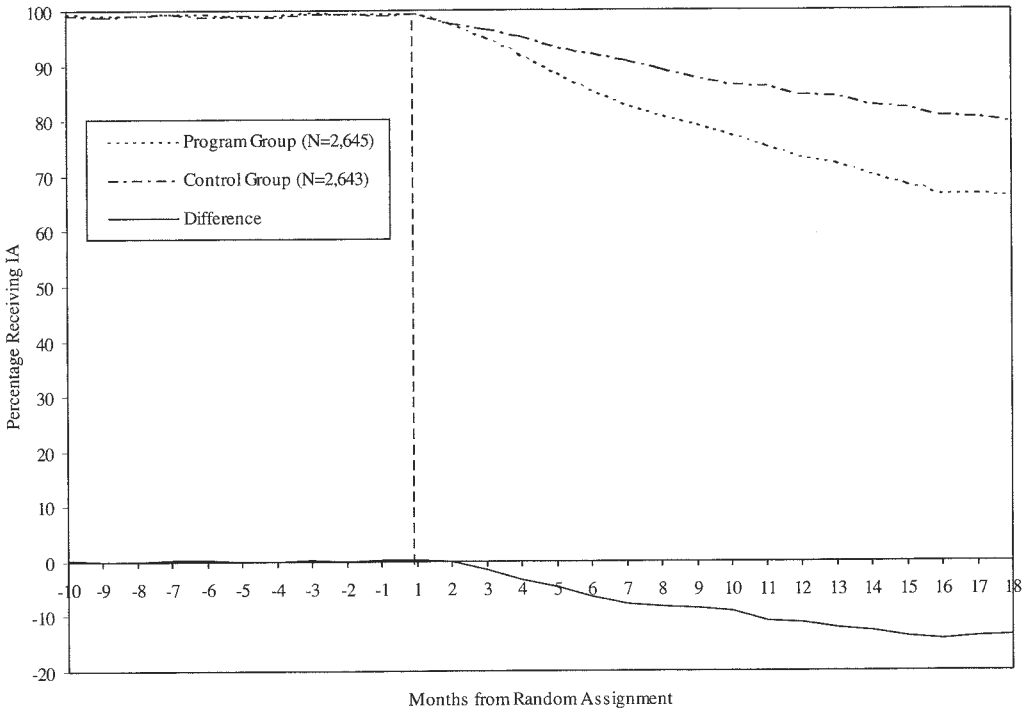
Impacts on Income Assistance, Transfer Payments, and Incomes

Income Assistance. It was shown earlier in this chapter that the percentage of control group members receiving Income Assistance declined substantially during months 1–18 after

[20]It is also possible that some supplement takers are limiting their hours because of the $.50 reduction in supplement payments for each additional $1 of earnings. If so, they are able to earn more than was suggested by the analysis above, and they may choose to work longer hours after the supplement period. But since such an hours increase would not raise their earnings opportunities above what they would have been in the absence of SSP, it would not affect the expected long-term impact of SSP.

random assignment. Figure 3.4 shows that the Income Assistance receipt rate of the program group declined even further, as expected given the requirement to withdraw from Income Assistance in order to receive the SSP supplement. The estimated impact (shown by the solid line in the figure) reached its maximum in month 16, a few months after the supplement take-up window closed.[21] It is expected that after the 18-month period studied here, the Income Assistance receipt rates of both the program and control groups will continue to decline, but the decline will be slower for the program group, because some program group members who normally would leave Income Assistance after month 18 were led by SSP's one-year time limit on supplement take-up to leave IA earlier. Therefore, the impact of SSP on Income Assistance receipt should decline somewhat over time.

Figure 3.4: Percentage Receiving Income Assistance — Program and Control Groups



Source: Calculations from Income Assistance administrative records.

The first panel of Table 3.6 shows estimated impacts on the average monthly percentage receiving Income Assistance in quarter 1 to 6. In quarter 5, the average monthly percentages of program and control group members receiving Income Assistance were 70.2 percent and 83.2 percent, respectively. Thus, SSP reduced the Income Assistance receipt rate by an estimated 13.0 percentage points. As expected, the impacts on Income Assistance receipt were roughly the same size as the impacts on full-time employment.

[21] The reason why the impact on Income Assistance receipt peaked later than the impact on full-time employment is probably because, for most supplement takers, the SSP office waited until after the first supplement cheque was issued before notifying the Income Assistance office that IA payments should be terminated. As explained in chapter 2, the average time between qualifying for the supplement and receiving the first cheque was seven weeks, and the percentage of program group members receiving supplement payments reached its peak in month 15. IA payments often were not terminated until the month after the first supplement cheque.

Table 3.6: SSP Impacts on Income Assistance and Supplement Receipt and Payments

Outcome (monthly average)	Program Group	Control Group	Difference (Impact)	Standard Error
Receiving IA (%)				
Quarter 1	97.4	97.9	-0.4	(0.3)
Quarter 2	88.7	93.6	-4.9***	(0.7)
Quarter 3	81.0	89.4	-8.3***	(0.9)
Quarter 4	75.4	85.8	-10.4***	(1.0)
Quarter 5	70.2	83.2	-13.0***	(1.1)
Quarter 6	66.5	80.4	-13.9***	(1.2)
Receiving either IA or SSP (%)				
Quarter 1	98.0	97.9	0.1	(0.3)
Quarter 2	95.1	93.6	1.5***	(0.6)
Quarter 3	92.7	89.4	3.3***	(0.7)
Quarter 4	90.8	85.8	4.9***	(0.8)
Quarter 5	89.6	83.2	6.4***	(0.9)
Quarter 6	87.8	80.4	7.4***	(0.9)
Average IA payments ($/month)				
Quarter 1	852	845	8	(8)
Quarter 2	786	813	-27***	(10)
Quarter 3	721	779	-59***	(11)
Quarter 4	679	755	-76***	(11)
Quarter 5	630	731	-102***	(12)
Quarter 6	597	710	-113***	(12)
Average SSP supplement ($/month)				
Quarter 1	14	0	14***	(1)
Quarter 2	82	0	82***	(5)
Quarter 3	122	0	122***	(6)
Quarter 4	155	0	155***	(6)
Quarter 5	199	0	199***	(7)
Quarter 6	201	0	201***	(7)
Sample size (total = 5,288)	**2,645**	**2,643**		

Sources: Calculations from Income Assistance administrative records and payment records from SSP's Program Management Information System.

Notes: The estimates for each quarter are calculated by averaging the monthly estimates for the three months within the quarter.
A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.

The percentages receiving *either* Income Assistance or SSP supplement payments are shown in the second panel. (For the control group, this is the same as the percentage receiving Income Assistance.) As explained earlier, this percentage was expected to be higher in the program group than the control group. In quarter 5, a monthly average of 89.6 percent of program group members received either Income Assistance or SSP payments.[22] By comparison, 83.2 percent of control group members received Income Assistance. Thus, SSP increased the fraction receiving either IA or SSP payments by 6.4 percentage points. To understand why, first note that the reduction in Income Assistance receipt that SSP induced did not translate into any reduction in the percentage receiving either IA or SSP payments,

[22]In quarter 5, a monthly average of 70.2 percent received Income Assistance, and a monthly average of 23.0 percent received supplement payments. These percentages add up to more than 89.6 percent because in each month, a small percentage of program group members received both their last IA payment and their first supplement payment.

because SSP essentially led people to give up the Income Assistance cheque in order to gain a paycheque and a supplement cheque. Second, SSP also provided supplement cheques to some people who would have left Income Assistance even in the absence of the supplement.

The impact on the percentage receiving either Income Assistance or SSP payments increased over time. A large percentage of control group members left Income Assistance during quarter 1–6; by quarter 6, 20 percent of control group members were not receiving Income Assistance. In the program group, the percentage receiving either Income Assistance or the supplement did not decline as steeply, because many of the program group members who left Income Assistance were receiving the supplement.

Transfer Payments and Income. Because the percentage of the program group receiving either Income Assistance or the supplement was higher than the percentage of the control group receiving Income Assistance, SSP generated a net increase in transfer payments from the government to sample members. In quarter 5, SSP reduced average monthly Income Assistance payments by $102 per program group member, but these savings were more than offset by the monthly supplement payments, which averaged $199 per program group member. Thus, SSP increased public expenditures on transfer payments during this period. The additional transfer payments, along with the impact of SSP on earnings, contributed to an increase in the incomes of sample members.

The comparison of average supplement payments with the Income Assistance reduction overstates SSP's net impact on government transfer payments to sample members, because both the supplement itself and the increased earnings are subject to federal and provincial income taxes, while Income Assistance is not taxed. Table 3.7 presents an analysis that takes into account estimated tax obligations. Income taxes were projected from federal and provincial tax schedules and data on earned and unearned income and SSP supplement payments; the actual taxes paid by sample members may differ from these projections. Because the data on unearned income were collected only for the six-month period preceding the month of the follow-up survey, the tax projections are based on reported income for that period, which for most sample members corresponds to months 12–17 (a period that overlaps with quarter 5 and 6 but begins and ends a month earlier).[23] For consistency, the estimates of average earnings, supplement payments, and Income Assistance payments in Table 3.7 all pertain to months 12–17. They are therefore similar to the estimates for quarters 5 and 6 in Tables 3.1 and 3.6, but the correspondence is not exact.

To illustrate the effect of SSP on government transfer payments, Table 3.7 shows that in months 12–17, SSP led to a monthly outlay of $196 per program group member for supplement payments (row 2), which was partially offset by the $103 reduction in Income Assistance payments (row 3) and the $39 increase in income tax revenue (row 4c).[24] The increase in tax revenue reflected taxes on both the $196 of supplement payments and the

[23]Appendix F discusses the exact timing of the six-month period and the calculation of projected income taxes.

[24]Earnings are also subject to payroll taxes for Employment Insurance (EI) and Canada Pension Plan (CPP) premiums, paid by both employees and employers. Payroll taxes were not included in the tax projections for this chapter because the additional payroll tax revenue due to SSP is accompanied by additional liabilities for future EI and CPP benefits. However, in the analysis of impacts on incomes in chapter 5, estimates of the payroll taxes paid by employees are subtracted from income.

$124 increase in earnings (row 1). The net increase in public expenditures on transfer payments was $55 per month per program group member.[25]

Table 3.7: SSP Impacts on Public Expenditures and Sample Members' Incomes, After Accounting for Income Taxes, Months 12–17

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
1. Average earnings ($/month)	347	222	124***	(14)
2. Average SSP supplement payments ($/month)	196	0	196***	(6)
3. Average IA payments ($/month)	621	723	-103***	(12)
4. Projected income taxes ($/month)				
a. Federal	34	9	25***	(2)
b. Provincial	18	5	14***	(1)
c. Total	53	14	39***	(3)
5. Public expenditures on SSP and IA payments, net of income tax revenue ($/month) (row 2 + row 3 - row 4c)	764	709	55***	(11)
6. Average income of sample members from earnings, SSP, and IA, net of income taxes ($/month) (row 1 + row 2 + row 3 - row 4c)	1,111	932	179***	(13)
Sample size (total = 5,288)	**2,645**	**2,643**		

Sources: Calculations from 18-month follow-up survey data, Income Assistance administrative records, and payment records from SSP's Program Management Information System.

Notes: A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

Table 3.7 also indicates SSP's effect on sample members' income. The table shows that SSP led program group members to earn an additional $124 per month on average (row 1) and provided supplement payments of $196 (row 2). In return, program group members gave up $103 of Income Assistance (row 3) and paid an additional $39 in income taxes (row 4c). On balance, the program group gained $179 per month per program group member.[26]

In sum, during months 12–17, SSP incurred a net increase in government transfer payments of $55 per month per program group member and achieved an increase in monthly earnings of $124. As a result, program group members' incomes increased by $179. Thus, during this period, every $1 spent on additional transfer payments bought more than $2 of increased earnings and led to more than $3 of additional income for program group members. These findings stand in contrast to the results from the negative income tax experiments[27] and to the usual "leaky bucket" problem in which additional money spent on income support programs results in a reduction in earnings, as the additional income support allows people to cut back on work.

[25]This calculation excludes impacts on certain transfer payments such as the Child Tax Benefit, the Goods and Services Tax credit, and Employment Insurance. SSP's impacts on these other transfers are expected to be modest.

[26]Chapter 5 presents estimates of impacts on more comprehensive measures of income, taking into account other sources of unearned income and earnings of other family members. Because SSP did not have much impact on these other sources of income during months 12–17, the estimated impacts in chapter 5 do not differ much from those shown in Table 3.7.

[27]See Munnell (1987) and Hum and Simpson (1991).

Tables 3.8 and 3.9 show estimated impacts for the two provinces separately. Estimated impacts on Income Assistance receipt rates were larger in New Brunswick, but since Income Assistance grants in New Brunswick tend to be smaller, the reductions in average Income Assistance payments were similar between the two provinces. There were no statistically significant differences between the provinces in the estimated impacts on Income Assistance payments, public expenditures on transfer payments, and incomes.

These estimates provide only a short-term and incomplete picture of SSP's effects on government budgets and sample members' incomes. First, as explained earlier, SSP incurs other operational costs and is expected to have some effects on expenditures and revenues of other government programs. Second, SSP's impacts on public expenditures and incomes are likely to change over time. During the remainder of the three-year supplement period, the net cost of SSP to government budgets should be influenced by two trends in opposing directions. A trend tending to increase net costs is that the reduction in Income Assistance payments is expected to decrease over time as the control group starts to "catch up" with the program group. An opposing trend is that the cost of supplement payments should decrease somewhat over time, both because some supplement takers will not maintain full-time employment and because if supplement takers' earnings rise over time, their supplement payments will decrease.

After the supplement expires, SSP will no longer incur a cost to government budgets. If reductions in Income Assistance payments or increases in tax revenue persist, then the program will produce savings for the government that offset some, or possibly all, of the costs incurred during the supplement period. Thus, whether SSP increases or reduces government expenditures in the long run — and by how much — depends in large part on the extent to which supplement takers remain working and off welfare after the supplement expires.

SSP should continue to have a positive impact on sample members' incomes during the remainder of the supplement period. The impact could either decrease over time (because impacts on earnings are expected to decline) or increase (because reductions in Income Assistance payments are expected to decline), but will remain sizable if a substantial percentage of program group members continue to receive supplement payments. After the supplement expires, SSP's impact on incomes could be positive, zero, or negative. SSP could continue to have a positive impact on incomes if supplement takers experience enough progression in earnings so that work pays better than welfare even after the supplement expires, or if SSP increases the likelihood that sample members enter into dual-income marriages or cohabitations. On the other hand, SSP could have a negative impact on incomes if supplement takers remain off welfare but do not earn enough to make up for the loss of welfare payments.

Thus, the long-term benefits and costs of SSP are not known at this point. A benefit-cost analysis later in this evaluation will assess the cost-effectiveness of SSP from the perspectives of government budgets, sample members, and society as a whole, taking into account the issues discussed here.[28]

[28]The issues that will be involved in the benefit-cost analysis are discussed in more detail in Mijanovich and Long (1995, chapter 8).

Table 3.8: SSP Impacts on Income Assistance and Supplement Receipt and Payments, by Province

Outcome (monthly average)	British Columbia				New Brunswick			
	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error
Receiving IA (%)								
Quarter 1	97.6	97.6	-0.1	(0.4)	97.3	98.1	-0.8*	(0.4)
Quarter 2	91.1	93.9	-2.8***	(0.9)	86.2	93.3	-7.1***	(1.1)
Quarter 3	85.3	90.7	-5.4***	(1.1)	76.3	87.9	-11.6***	(1.4)
Quarter 4	81.0	87.6	-6.7***	(1.3)	69.3	83.9	-14.6***	(1.6)
Quarter 5	75.6	86.0	-10.4***	(1.4)	64.3	80.1	-15.8***	(1.7)
Quarter 6	71.2	83.2	-12.0***	(1.5)	61.4	77.4	-15.9***	(1.7)
Receiving either IA or SSP (%)								
Quarter 1	98.0	97.6	0.4	(0.4)	97.9	98.1	-0.2	(0.4)
Quarter 2	96.3	93.9	2.4***	(0.7)	93.7	93.3	0.4	(0.9)
Quarter 3	94.7	90.7	4.1***	(0.9)	90.4	87.9	2.5**	(1.1)
Quarter 4	93.3	87.6	5.7***	(1.0)	88.0	83.9	4.1***	(1.3)
Quarter 5	92.4	86.0	6.4***	(1.1)	86.4	80.1	6.3***	(1.4)
Quarter 6	90.4	83.2	7.2***	(1.2)	85.0	77.4	7.6***	(1.5)
Average IA payments ($/month)								
Quarter 1	1,014	1,003	11	(11)	674	672	2	(7)
Quarter 2	950	969	-19	(13)	604	642	-38***	(10)
Quarter 3	885	937	-52***	(15)	540	607	-67***	(12)
Quarter 4	841	910	-69***	(16)	499	585	-86***	(13)
Quarter 5	781	885	-104***	(17)	463	564	-101***	(13)
Quarter 6	741	861	-120***	(18)	439	544	-106***	(14)
Average SSP supplement payments ($/month)								
Quarter 1	14	0	14***	(2)	13	0	13***	(2)
Quarter 2	73	0	73***	(6)	92	0	92***	(7)
Quarter 3	113	0	113***	(8)	133	0	133***	(8)
Quarter 4	147	0	147***	(9)	164	0	164***	(9)
Quarter 5	205	0	205***	(10)	193	0	193***	(9)
Quarter 6	198	0	198***	(10)	205	0	205***	(10)
Sample size (total = 5,288)	**1,386**	**1,380**			**1,259**	**1,263**		

Sources: Calculations from Income Assistance administrative records and payment records from SSP's Program Management Information System.

Notes: The estimates for each quarter are calculated by averaging the monthly estimates for the three months within the quarter.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

Table 3.9: SSP Impacts on Public Expenditures and Sample Members' Incomes, After Accounting for Income Taxes, Months 12–17, by Province

Outcome	British Columbia				New Brunswick			
	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error
1. Average earnings ($/month)	383	243	140***	(22)	307	200	107***	(17)
2. Average SSP supplement payments ($/month)	196	0	196***	(9)	196	0	196***	(9)
3. Average IA payments ($/month)	770	875	-105***	(17)	457	557	-101***	(13)
4. Projected income taxes ($/month)								
a. Federal	44	14	30***	(3)	24	4	19***	(2)
b. Provincial	21	6	15***	(1)	15	3	12***	(1)
c. Total	65	20	45***	(4)	39	7	31***	(3)
5. Public expenditures on SSP and IA payments, net of income tax revenue ($/month) (row 2 + row 3 - row 4c)	901	855	45***	(16)	614	550	64***	(12)
6. Average income of sample members from earnings, SSP, and IA, net of income taxes ($/month) (row 1 + row 2 + row 3 - row 4c)	1,284	1,098	185***	(18)	921	750	171***	(16)
Sample size (total = 5,288)	**1,386**	**1,380**			**1,259**	**1,263**		

Sources: Calculations from 18-month follow-up survey data, Income Assistance administrative records, and payment records from SSP's Program Management Information System.

Notes: A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

ESTIMATED IMPACTS ON EDUCATION AND TRAINING

There are a number of reasons why SSP might affect program group members' decisions regarding education and training. The primary reason is perhaps the time constraint on those who decide to take advantage of the supplement offer. Supplement takers must find employment quickly (within one year after random assignment) and then must maintain full-time employment (at least 30 hours per week). Add the responsibilities of child-raising, and supplement takers are left with relatively little time to engage in education or training outside the workplace. Thus, it might be expected that SSP would reduce program group members' participation in education and training during the three-year supplement period.

To the extent that education and training lead to higher earnings, a reduction in education and training due to SSP might lead program group members' earnings to grow more slowly than they otherwise would. However, SSP could well have the opposite effect on earnings growth: work experience in full-time employment may itself lead to higher earnings over time. Education and training do not necessarily yield more improvement in labour market opportunities than do work experience and steady employment. Moreover, since SSP is a voluntary program, program group members were free to choose the path that they thought was wisest given their own circumstances.

Table 3.10 shows SSP's estimated impacts on education and training during the first 18 months after random assignment, for sample members who *did not* have a high school diploma or equivalent at the time of random assignment. There was no discernible impact on training described as work-related (such as on-the-job training or apprenticeships). SSP reduced the percentage of program group members who took courses toward a high school diploma or equivalent by an estimated 3.4 percentage points, and it reduced the percentage who took courses toward a trade or vocational certificate by 0.9 percentage point. There was no discernible impact on the percentage who *attained* a high school credential during this period, however. It may take more time for an impact on taking courses to result in an impact on attainment of the credential. Future reports will examine whether such an impact appears.

Table 3.11 shows the estimated impacts for sample members who *did* have a high school diploma at the time of random assignment. SSP had no discernible impacts on education and training outcomes for this group.

Tables 3.12 and 3.13 show the estimated impacts by province, which are similar to the overall estimates. The estimated reduction in the percentage who took courses toward a high school diploma was larger in British Columbia, but the difference between estimated impacts in the two provinces is not statistically significant.

In sum, among sample members *with* a high school credential, SSP had no discernible impacts on education and training during the first 18 months after random assignment. Among sample members *without* a high school credential, SSP led to a small reduction in the percentage who took courses toward the credential, but had no impact on attainment of the credential during this period. It may take more time for SSP's full impacts on education and training outcomes to appear.

Table 3.10: SSP Impacts on Education and Training — Sample Members Without a High School Diploma at Random Assignment

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Work-related training, quarters 1–6:				
Ever participated (%)[a]	15.7	14.8	0.9	(1.3)
Total hours of training	66	62	5	(11)
Courses not directly work-related, quarters 1–6:[b]				
Toward high school diploma or equivalent (%)	7.2	10.5	-3.4***	(1.1)
Toward trade/vocational certificate (%)	0.6	1.4	-0.9**	(0.4)
Credentials attained during quarters 1–6:				
High school diploma or equivalent (%)[c]	10.3	11.0	-0.7	(1.2)
Certificate for work-related training (%)	8.3	7.4	0.9	(1.0)
Sample size (total = 2,863)	**1,410**	**1,453**		

Sources: Calculations from 18-month follow-up survey data and baseline survey data.

Notes: Except for attainment of a high school diploma, all measures come from a set of questions asked at the 18-month interview about participation in education and training since random assignment.
Sample sizes vary for individual measures because of missing values.
A two-tailed t-test was applied to differences between program and control group outcomes. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.
[a]The precise question asked at the 18-month interview was, "Have you taken any work-related training or education including correspondence courses, on-the-job training, apprenticeship training or other courses?"
[b]After a set of questions about work-related training and education, sample members were asked, "Since your last interview, have you taken any other courses that are not directly work-related such as courses towards the completion of a high school diploma, college diploma or university degree?" Sample members responding affirmatively were then asked, "What have you taken these courses towards?" The question was open-ended, and one answer was recorded for each respondent.
[c]At the 18-month interview, sample members were asked a set of questions about their levels of education. It is inferred that sample members who reported not having the high school credential at the baseline interview just before random assignment, but who reported having the credential at the 18-month interview, attained the credential during quarter 1–6. However, it is possible that some of those sample members attained the high school credential before random assignment but failed to report the credential at the baseline interview

Table 3.11: SSP Impacts on Education and Training — Sample Members With a High School Diploma at Random Assignment

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Work-related training, quarters 1–6:				
Ever participated (%)[a]	24.6	23.8	0.8	(1.7)
Total hours of training	106	108	-1	(15)
Courses not directly work-related, quarters 1–6:[b]				
Toward trade/vocational certificate (%)	2.8	2.2	0.7	(0.6)
Toward college diploma/certificate (%)	2.0	2.1	-0.1	(0.6)
Toward university degree (%)	2.8	2.5	0.2	(0.7)
Credentials attained during quarters 1–6:				
Certificate for work-related training (%)	12.7	13.2	-0.5	(1.4)
Sample size (total = 2,421)	**1,231**	**1,190**		

Sources: Calculations from 18-month follow-up survey data and baseline survey data.

Notes: All measures come from a set of questions asked at the 18-month interview about participation in education and training since random assignment.
Sample sizes vary for individual measures because of missing values.
A two-tailed t-test was applied to differences between program and control group outcomes. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.
[a]The precise question asked at the 18-month interview was, "Have you taken any work-related training or education including correspondence courses, on-the-job training, apprenticeship training or other courses?"
[b]After a set of questions about work-related training and education, sample members were asked, "Since your last interview, have you taken any other courses that are not directly work-related such as courses towards the completion of a high school diploma, college diploma or university degree?" Sample members responding affirmatively were then asked, "What have you taken these courses towards?" The question was open-ended, and one answer was recorded for each respondent.

Table 3.12: SSP Impacts on Education and Training — Sample Members Without High School Diploma at Random Assignment, by Province

Outcome	British Columbia				New Brunswick			
	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error
Work-related training, quarters 1–6:								
Ever participated (%)[a]	17.9	16.7	1.2	(2.0)	13.3	12.6	0.7	(1.8)
Total hours of training	73	65	9	(15)	59	58	1	(15)
Courses not directly work-related, quarters 1–6:[b]								
Toward high school diploma or equivalent (%)	8.0	12.0	-4.1***	(1.6)	6.3	8.8	-2.5*	(1.4)
Toward trade/vocational certificate (%)	1.0	2.3	-1.4***	(0.7)	0.1	0.4	-0.3	(0.3)
Credentials attained during quarters 1–6:								
High school diploma or equivalent (%)[c]	13.0	13.9	-0.9	(1.8)	7.5	7.8	-0.3	(1.4)
Certificate for work-related training (%)	9.2	7.9	1.3	(1.4)	7.3	6.8	0.5	(1.4)
Sample size (total = 2,863)	**727**	**772**			**683**	**681**		

Sources: Calculations from 18-month follow-up survey data and baseline survey data.

Notes: Except for attainment of a high school diploma, all measures come from a set of questions asked at the 18-month interview about participation in education and training since random assignment.

Sample sizes vary for individual measures because of missing values.

A two-tailed t-test was applied to differences between program and control group outcomes. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a]The precise question asked at the 18-month interview was, "Have you taken any work-related training or education including correspondence courses, on-the-job training, apprenticeship training or other courses?"

[b]After a set of questions about work-related training and education, sample members were asked, "Since your last interview, have you taken any other courses that are not directly work-related such as courses towards the completion of a high school diploma, college diploma or university degree?" Sample members responding affirmatively were then asked, "What have you taken these courses towards?" The question was open-ended and one answer was recorded for each respondent.

[c]At the 18-month interview, sample members were asked a set of questions about their levels of education. It is inferred that sample members who reported not having the high school credential at the baseline interview just before random assignment, but who reported having the credential at the 18-month interview, attained the credential during quarter 1–6. However, it is possible that some of those sample members attained the high school credential before random assignment but failed to report the credential at the baseline interview.

Table 3.13: SSP Impacts on Education and Training — Sample Members With a High School Diploma at Random Assignment, by Province

Outcome	British Columbia				New Brunswick			
	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error
Work-related training, quarters 1–6:								
Ever participated (%)[a]	26.9	25.5	1.4	(2.5)	22.0	22.0	0.1	(2.4)
Total hours of training	128	115	13	(23)	81	99	-19	(19)
Courses not directly work-related, quarters 1–6:[b]								
Toward trade/vocational certificate (%)	4.1	3.1	1.0	(1.1)	1.4	1.2	0.2	(0.7)
Toward college diploma/certificate (%)	3.2	3.6	-0.4	(1.0)	0.7	0.5	0.2	(0.5)
Toward university degree (%)	2.4	1.5	1.0	(0.8)	3.1	3.6	-0.5	(1.1)
Credentials attained during quarters 1–6:								
Certificate for work-related training (%)	13.8	13.0	0.8	(1.9)	11.5	13.3	-1.8	(1.9)
Sample size (total = 2,421)	**655**	**608**			**576**	**582**		

Sources: Calculations from 18-month follow-up survey data and baseline survey data.

Notes: All measures come from a set of questions asked at the 18-month interview about participation in education and training since random assignment.

Sample sizes vary for individual measures because of missing values.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a]The precise question asked at the 18-month interview was, "Have you taken any work-related training or education including correspondence courses, on-the-job training, apprenticeship training or other courses?"

[b]After a set of questions about work-related training and education, sample members were asked, "Since your last interview, have you taken any other courses that are not directly work-related such as courses towards the completion of a high school diploma, college diploma or university degree?" Sample members responding affirmatively were then asked, "What have you taken these courses towards?" The question was open-ended and one answer was recorded for each respondent.

CHILD CARE USE BY SAMPLE MEMBERS WORKING FULL-TIME

One question that must be answered by any working parent is what to do about child care. Since SSP led a substantial number of single parents to leave welfare for full-time work, it is of particular interest to learn what kinds of child care arrangements are used by low-income single parents who work full-time. The amount of time that children spend away from their parents, their learning experiences in child care, and the reliability of the care they receive may have important effects on the well-being of both the children and their parents. Additionally, the expenses that both the parents and the government pay for child care are an important cost of working. Some of these issues will be explored in future reports.

The 18-month follow-up survey data on child care are too limited to permit an analysis of SSP's impacts in this report, but they do allow a partial description of sample members' child care arrangements.[29] Table 3.14 summarizes the data on the use of child care by sample members who had worked full-time since random assignment: what kind of child care arrangements they used, the hours the children were in care, and the cost of the care.[30]

Table 3.14: Child Care Use Among SSP Sample Members Employed Full-Time

Outcome	Overall	Program Group	Control Group
Child care arrangements (%):[a]			
No care required for any children	27.5	26.5	29.1
Before- or after-school program	4.3	4.0	4.9
Daycare center	18.7	18.2	19.6
Relative in home	18.8	19.9	16.8
Non-relative in home	18.6	18.8	18.4
Relative out of home	18.4	19.3	16.8
Non-relative out of home	20.8	21.7	19.3
Older brother or sister	3.0	2.9	3.0
Child in own care	1.8	1.4	2.4
Other	1.9	1.9	2.0
Average hours per week children in care[b]	30	31	29
Received government subsidy for child care (%)	34.8	31.3	40.6
Average child care cost paid by sample members ($/month)[b]	116	130	93
Sample size	**1,750**	**1,090**	**660**

Source: Calculations from 18-month follow-up survey data.

Notes: Sample consists only of persons who worked 30 or more hours per week in at least one week during months 1–17.
Sample sizes vary for individual measures because of missing values.
[a]Respondents were asked about all child care arrangements during periods of employment between random assignment and the 18-month follow-up interview. Percentages add to more than 100 because multiple responses were allowed.
[b]Averages include zeros for sample members with no care required for any children.

[29]The reason why SSP's impacts on child care use cannot be estimated from the 18-month survey data is that, on this survey, questions about child care were asked only of sample members who had worked since random assignment. Since child care is also used by a significant fraction of low-income parents who are not working (Brayfield, Deich, and Hofferth, 1993), data on child care use by sample members who worked are not sufficient for measuring the effects of SSP on care arrangements.

[30]Includes anyone who worked 30 hours per week in at least one week during months 1–17 (sample size = 1,750).

Estimates for program group members and control group members are shown in addition to the overall statistics, but it is important to note that since SSP increased full-time employment, the set of program group members who had worked full-time is much larger than the set of control group members who had worked full-time and probably includes people with different characteristics. Therefore, SSP's effects cannot be inferred from a comparison of the two groups.

Nearly three-fourths of sample members who had worked full-time reported using some form of child care while they were working. Daycare centres, non-relatives at or away from home, and relatives at or away from home were all commonly used. Roughly one-fifth of sample members used each of these types of care at some time between random assignment and the 18-month interview. Leaving children in the care of older siblings or on their own was relatively uncommon. On average, the children were in care for a total of 30 hours per week.[31] Roughly one-third of sample members who had worked full-time said they had received a subsidy for child care from the government; their average out-of-pocket spending on child care was $116 per month.

CONCLUSION

A significant proportion of single parents on welfare are interested in full-time work and able to find it, but are discouraged from working because the wages they could earn are too low to make their families better off. This chapter has shown that an earnings supplement can succeed in inducing many of them to work. SSP substantially increased employment and earnings and reduced Income Assistance receipt during the first year and a half after program group members were offered the supplement. Although the program increased public expenditures on transfer payments to sample members, every $1 the government spent on additional transfer payments bought more than $2 of increased earnings and thus led to more than $3 of additional income for program group members.

As expected, the additional employment generated by SSP appeared to occur primarily at low wage rates and at levels of earnings that would not make work pay much better than welfare in the absence of the supplement. After the supplement period ends, whether SSP's impacts on employment, earnings, and Income Assistance receipt persist is likely to depend on the extent to which supplement takers experience significant progression in wage rates, increases in hours of work, changes in attitudes that strengthen their inclination to work and remain off welfare, or changes in circumstances that make it more desirable to continue working.

[31] Sample members were asked to add together the hours of care used per week for each child. The 30-hour average is derived from these sums and includes zeros for sample members with no care required for any children. Among sample members requiring care for one child, the average time the child spent in care was 32 hours per week.

Chapter 4
Impacts on the Employment and Income Assistance Receipt of Subgroups

INTRODUCTION

Chapter 3 showed that SSP increased full-time employment and reduced Income Assistance receipt. Specifically, by the fifth quarter after random assignment, the full-time employment rate was increased by about 15 percentage points and the percentage receiving Income Assistance was reduced by about 13 percentage points. These are sizable impacts and suggest that the financial incentives offered by SSP had a significant effect on behaviour. Because the program had such sizable impacts, it is natural to ask whether these impacts were distributed evenly across the research sample or whether they tended to be concentrated among certain subgroups. In this chapter, impacts are examined for a variety of subgroups defined according to sample members' characteristics at the time of random assignment.

Two broad classes of subgroups are defined. One class breaks down the sample into subgroups that loosely reflect the program environment, family structure, family background, job-readiness, and barriers to employment. The second class of subgroups differentiates families on the basis of the financial incentives offered by SSP. Although the supplement-calculation formula is the same for all supplement takers within a province, there are substantial differences between sample members in the relative "generosity" of SSP — the extra income provided by SSP relative to Income Assistance. For example, since Income Assistance payments increase with family size but the SSP supplement does not, the financial incentive offered by SSP, relative to Income Assistance benefits, tends to be greater for small families than for large families.

The results presented in this chapter indicate that SSP's impacts were spread quite evenly among different subgroups, despite the fact that the percentage of each subgroup receiving the supplement varied considerably. This suggests that an earnings supplement can lead a broad range of people to leave welfare for work. There were, however, a few specific subgroups that exhibited larger impacts than others. In particular, subgroups that were more job-ready or faced fewer barriers to employment tended to have larger impacts. There is also some evidence that the size of the financial incentive offered by SSP mattered, but this evidence exists only for sample members in New Brunswick. Overall, it appears that getting the message across that SSP makes work pay may have been just as important as the size of the financial incentive offered.

The remainder of the chapter is organized as follows. First, the various subgroups are defined. Second, the subgroup impact estimates are presented for three outcome measures: the full-time employment rate, the percentage receiving Income Assistance, and the percentage receiving either Income Assistance or the supplement. Third, two measures of the generosity of SSP are presented and analyzed. Finally, variation in impacts with SSP generosity is examined.

DEFINING SUBGROUPS

The subgroups examined in this chapter are defined on the basis of sample members' characteristics at the time of random assignment. Using these "baseline" characteristics to define subgroups preserves the validity of the estimated program impacts, because within each subgroup, the program and control group members will be similar to each other with regard to all factors that affect employment and other outcomes, except that program group members were offered the supplement and control group members were not. If a subgroup had instead been defined on the basis of a characteristic measured *after* random assignment, the program and control group members within the subgroup would not necessarily be comparable to each other, and it might not be possible to obtain reliable estimates of SSP's impact.[1]

Differences between subgroups in estimated impacts may reflect differences in other characteristics besides the one used to define the subgroups. For example, sample members who were employed at random assignment were somewhat more likely to have a high school diploma than sample members who were not employed. Differences between estimated impacts for those employed at random assignment and those not employed may be partly related to this difference in educational attainment.[2]

The subgroups examined were chosen because there are theoretical reasons for believing that the impacts of SSP would vary over these subgroups. The subgroups fall roughly into five major categories: program environment, family structure, family background, job-readiness, and barriers to employment. The subgroups in each category, along with a brief explanation of how impacts might vary between them, are presented below.

Program Environment

Province. As explained in the next section, SSP tends to offer a larger financial incentive (relative to Income Assistance) in New Brunswick than in British Columbia. One might therefore expect the impact of SSP to be larger in New Brunswick. However, economic conditions are somewhat worse in New Brunswick compared with British Columbia. From 1992 to 1996, for example, the unemployment rate in British Columbia averaged 9.5 percent, while in New Brunswick the unemployment rate averaged 12.2 percent. If sample members have more difficulty finding jobs in New Brunswick, this may temper SSP's impact on employment, offsetting the effect of a higher generosity in New Brunswick. (However, as explained in chapter 3, if sample members in New Brunswick are able to find jobs but remain unemployed because the wage rates are too low, they may respond to SSP's financial incentives.) The net effect of greater financial incentives and higher unemployment in New Brunswick could potentially lead to similar impacts in the two provinces.

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[1]For example, suppose one wanted to estimate the impact on earnings in quarter 6 for a subgroup consisting of all sample members who were still on Income Assistance in quarter 2. Since SSP reduced IA receipt, this subgroup would contain fewer program group members than control group members, and more important, it is quite likely that the program group members within the subgroup would have systematically different characteristics from the control group members. Although one could make statistical adjustments for some of these differences, there might still be important differences in unmeasured characteristics (such as motivation).

[2]As a next step, it might be useful to control for other characteristics through a multivariate analysis.

Period of Intake into the Sample. Random assignment took place between November 1992 and March 1995. A distinction is made between an "early" random assignment cohort (November 1992 to October 1993) and a "late" cohort (January 1994 to March 1995). Just over one-third of the report sample belongs to the early cohort. The impact of SSP might vary between the cohorts for several reasons. First, economic conditions changed over time (for example, the unemployment rate in British Columbia and New Brunswick fell between 1992 and 1995). Second, changes occurred in the provincial Income Assistance systems (see chapter 1). Third, as with any new program, SSP administrators went through a learning period as the program matured.

In the early cohort, 67 percent of sample members were in British Columbia and 33 percent in New Brunswick, whereas in the late cohort, 44 percent were in British Columbia and 56 percent were in New Brunswick. To avoid confounding differences in impact by cohort with differences in impact by province, this subgroup analysis is performed separately for British Columbia and New Brunswick.

Family Structure

Age of Sample Member. One of the purposes of SSP is to induce single parents to acquire work experience so that their skills and, hence, their earnings capacity are increased. The economic theory of human capital suggests that the decision to invest time in skill-building activities depends on a person's age. Specifically, one of the major reasons for acquiring new skills is the expected increase in lifetime earnings. Human capital theory predicts, other things held constant, that an older person will be less inclined to invest in human capital than a younger person because the period over which to reap the returns to the increased investment will be shorter.[3] If this theory is applied to SSP, younger people might be more inclined to be induced by the SSP offer to work full-time than older people, because of the expected higher returns to the job experience. Thus, the impact of SSP may decline with age. For purposes of examining variation in impacts with age, four subgroups are defined according to age at random assignment: 19–24 years of age (22 percent of the sample), 25–29 years (21 percent), 30–39 years (40 percent of the sample), and 40 years or older (18 percent of the sample).

Age of Youngest Child. In contemplating whether or not to take up the SSP offer, sample members must evaluate the costs and benefits of going to work. Single parents with very young children might be less willing to work and place the children in child care than those whose children are older. However, in recent years, child care has become more accepted and mothers of young children have become more likely to work and use child care (Robins, 1991; Michalopoulos and Robins, forthcoming). Nonetheless, it is of interest to determine whether the impact of SSP varies with the age of the youngest child.

Because the age of the youngest child is highly correlated with the age of the sample member (the correlation is .71), composite categories were created that distinguish three age-of-youngest-child categories within each of two age-of-sample-member categories. The three age-of-youngest-child categories are younger than 6 years (54 percent of the sample),

[3]This consideration will be less relevant if sample members tend to base decisions primarily on the basis of current income. In that case, differences in impacts between older and younger people may reflect mainly differences in current job opportunities.

6–11 years (27 percent), and 12 years or older (20 percent). The two age-of-sample-member categories are 19–39 years (82 percent of the sample) and 40 years or older (18 percent).

Family Background

Ancestry. There are numerous differences between ethnic groups in labour market outcomes. Some of the reasons for these differences are cultural and some are due to different economic circumstances facing a particular ethnic group. In this report, the only ethnic minority with a large enough sample to be analyzed separately is people of First Nations ancestry in British Columbia. For purposes of analysis, impacts for First Nations people in British Columbia are compared with impacts for all other sample members in British Columbia.

Studies have shown that people of First Nations ancestry have lower wages and fewer job opportunities than other ethnic groups in Canada, perhaps because of discrimination or because of differences in characteristics that are correlated with wages and employment (George and Kuhn, 1994). Because of this, people of First Nations ancestry who attempt to find a full-time job in response to the SSP offer might be at a disadvantage in the labour market relative to other sample members. Thus, SSP might have a smaller impact on full-time employment for people of First Nations ancestry than for other sample members.

Immigrant Status. Because of possible language and cultural differences, the impact of SSP might vary with immigrant status. Since few sample members in New Brunswick are immigrants, the analysis is restricted to sample members in British Columbia. Two subgroups are defined according to whether or not the sample member reported being born in Canada. In British Columbia, 23 percent of sample members reported being born outside of Canada. If job opportunities are greater for native-born Canadians (perhaps because of discrimination in the labour market against immigrants), it is possible that the impact of SSP for people born in Canada would be greater than the impact for immigrants.

Family Circumstances While Growing Up. A number of studies suggest that family circumstances during childhood affect the probability of ultimately achieving economic self-sufficiency as an adult. For example, Fronstin, Greenberg, and Robins (1997) find that earnings are lower among sample members who spent part of their childhood in a disrupted household.[4] Similarly, there is some evidence of the intergenerational transmission of welfare dependence (Antel, 1992; Duncan, Hill, and Hoffman, 1988; and references cited in Levine and Zimmerman, 1996). These findings suggest that the likelihood of taking up the SSP supplement might vary with whether or not the sample member grew up in a single-parent (or foster-parent) household or a household receiving welfare. The impact of SSP might also vary with these circumstances. Two subgroups are defined on the basis of whether or not both parents of the sample member were present in the home while she was growing up (60 percent of the sample had lived with both parents) and whether or not the family received welfare payments while growing up (25 percent grew up in families receiving welfare).[5]

[4]For a summary of studies prior to 1991, see Amato and Keith (1991). A "disrupted household" is one in which a parental divorce or separation occurred or a parent died.

[5]The precise questions on the baseline survey were as follows. For growing up in a single parent household, "Up until you were 16 years old, were you living with both your mother and father?" For welfare receipt while growing up, "Up until you were 16 years old, did anyone in your household ever receive social assistance or welfare aid?"

Based on the prior research, the impact of SSP is expected to be lower for sample members who grew up in a disrupted household or in a household that received welfare payments.

Job-readiness

Education and Training. There is substantial evidence that lack of education and training significantly inhibits a person's ability to find a job and leads to lower earnings levels (Levy and Murnane, 1992). As a result, sample members with lower levels of education and training might have fewer job opportunities and face other disadvantages in the labour market while attempting to respond to the SSP offer. To analyze differences in impacts by education and training, three sets of subgroups are defined. For the first set, a comparison is made between sample members with and without a high school diploma at the time of random assignment (54 percent of the sample lacked a high school diploma). For the second set, a comparison is made between sample members who, prior to random assignment, had received a vocational or community college certificate, had attended such programs but not received a certificate, or had not attended such programs (51 percent had received at least some vocational training or community college education). For the third set, a comparison is made between sample members who were and were not enrolled in education or training at the time of random assignment (14 percent were enrolled).

Employment Status at Random Assignment. In order to receive the SSP supplement, sample members must be employed full-time (30 hours per week or more). Because of the many fixed costs of working (transportation, clothing, etc.), plus the fact that many nonworking sample members are not familiar with the world of work and are inexperienced at job search, it is generally easier to switch to full-time employment from part-time employment than from nonemployment. Furthermore, among those already employed full-time, SSP should provide a powerful incentive to remain employed full-time. For these reasons, impacts are examined separately by employment status at the time of random assignment. Four groups are distinguished: those not employed and not looking for work at the time of random assignment (58 percent of the sample), those not employed and looking for work (23 percent), those employed part-time (13 percent), and those employed full-time (7 percent of the report sample). Impacts on full-time employment are expected for all four groups, but the impact is expected to be largest among those employed part-time.

Welfare History. A number of studies show that the rate of leaving welfare declines with time spent on welfare (see, for example, Bane and Ellwood, 1983; Barrett and Cragg, 1998; Sandefur, 1997). This "negative duration dependence" suggests that a small group of welfare recipients are likely to stay on welfare for a very long period of time. For a variety of reasons, these people are less likely to take up the SSP supplement, and the impact of SSP might be smaller for this group. First, such people tend to be severely disadvantaged and lack the skills to qualify for most jobs. Second, because they have been on welfare for so long, they may be unfamiliar with what is required to undertake job search. Third, they may be so "entrenched" in welfare that they do not view work as a realistic alternative. To examine the possibility that the impact of SSP varies with time spent on welfare, three subgroups are defined: those who had been on Income Assistance for 10 to 23 of the last 36 months before random assignment

(24 percent of the sample),[6] for 24 to 35 of the last 36 months (34 percent), and for all of the last 36 months (42 percent). Because the ability to find full-time employment is likely to vary inversely with the length of time on welfare, the impacts of SSP are expected to be largest for the first group and smallest for the last group.

Barriers to Employment

Availability of Child Care. A number of studies have shown that lack of adequate child care is a significant barrier to employment (Kimmel, forthcoming; Hofferth et al., 1991). To determine the importance of child care in responding to the SSP supplement offer, three groups are distinguished based on responses to a question in the baseline survey about the adequacy of child care:[7] those who thought they could find trustworthy care if they got a job (64 percent of the sample), those who did not think they could find trustworthy care (17 percent), and those who would not need child care if they were to find a job (19 percent). The impacts of SSP are expected to be larger for those without child care problems.

Work Limitations. In order to take up the supplement, sample members must not only be willing to work full-time, they must also be capable of working full-time. Many people suffer from physical or mental impairments that either prohibit work or limit the amount and kind of work they can do. Other people are prevented from working full-time by lack of child care or other constraints. Based on responses to questions in the baseline survey, five sets of subgroups are defined based on the presence or absence of certain kinds of work limitations. In the first set, a distinction is made between those who reported physical conditions that limited their activity at home, school, work, or leisure (26 percent of the report sample) and all others (74 percent).[8] In the second set, sample members are classified according to their answers to the question, "During the last week, how many days did you feel that you could not shake off the blues, even with the help of family and friends?" The respondents were broken down into those who reported three or more days (15 percent), one or two days (15 percent), and less than one day (70 percent).[9] In the third set, a distinction is made between nonworkers who could not work in the four weeks preceding the baseline survey due to illness or disability (14 percent), nonworkers for whom illness or disability was not a

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[6]One condition used to select the sample for the SSP study is receipt of Income Assistance in the month of selection and in at least 11 of the 12 previous months. However, as explained in chapter 1, because of voided IA cheques, three sample members are recorded as having received IA in only 10 of the 12 months preceding sample selection.

[7]Sample members were asked whether they agreed strongly, agreed, disagreed, or disagreed strongly with the statement, "If I got a job, I could find someone I trust to take care of my children." Those who "agreed strongly" or "agreed" were included in one subgroup; those who "disagreed" or "disagreed strongly" were included in another subgroup; those who said that no care would be required for any children were included in a third subgroup.

[8]Sample members are considered to have an activity-limiting physical condition if they answered yes to any of the following: "Do you have a long-term physical condition or health problem that limits you in the kind or amount of activity you can do . . . (a) at home? (b) at school? (c) at work? (d) in other activities such as travel, sports, or leisure?" Those who were not working generally did not answer the "at work" part of the question, so their classifications are based on answers to the other parts.

The conditions reported were not necessarily permanent. Of the sample members who reported an activity-limiting physical condition at the baseline interview, one-third indicated no such problems at the 18-month follow-up interview.

[9]This question was taken from the Center for Epidemiologic Studies Depression (CES-D) Scale (Radloff, 1977), a 20-item questionnaire designed to measure the prevalence of major depression in the general population. (The full CES-D was not administered.) Validation studies of the CES-D have shown very imperfect correspondence between the scale and diagnoses based on psychiatric interviews; researchers have expressed concerns that the CES-D may reflect symptoms of not only major depression but anxiety, demoralization, or physical ill health (Tsuang, Tohen, and Zahner 1995, pp. 9, 234–36).

reason for not working (67 percent), and workers (those employed at random assignment, 19 percent of the sample). In the fourth set, a distinction is made between nonworkers who could not work in the four weeks preceding the baseline survey because of a lack of adequate child care (14 percent), nonworkers for whom lack of adequate child care was not a reason for not working (66 percent of the report sample), and workers (19 percent). In the fifth set, a distinction is made between nonworkers who could not work in the four weeks preceding the baseline survey because of personal or family responsibilities (22 percent), nonworkers for whom personal or family responsibilities were not reasons for not working (59 percent), and workers (19 percent).[10] Generally, because finding a job is less likely for those facing barriers to employment, the impact of SSP is expected to be lower for such people.

Self-Expressed Needs. On the baseline survey, sample members were asked, "At present, which of these best describes your greatest need: immediate full-time employment, immediate part-time employment, education or training, or something else?" Subgroups are defined according to their answers: full-time employment (29 percent), part-time employment (9 percent), education and training (47 percent), or something else (14 percent). The impact of SSP is expected to be greatest among those in need of full-time employment.

RESULTS

The results of the subgroup analysis are presented in Tables 4.1, 4.2, and 4.3, which present estimated subgroup impacts of SSP on the average monthly full-time employment rate, the average monthly percentage receiving Income Assistance, and the average monthly percentage receiving either Income Assistance or SSP, respectively. The outcomes are measured in quarter 5 after random assignment. The tables show, for each subgroup, the sample size;[11] the average monthly supplement receipt rate of the program group in quarter 5; the average outcomes for program group members and control group members; the estimated impact of SSP (the difference between the program and control group averages), with asterisks if the estimate is statistically significant; and the standard error of the estimated impact, in parentheses.

[10]Sample members who were not working at random assignment were asked at the baseline interview, "Was there any reason you could not take a job in the last four weeks?" Those who said yes were then asked about specific reasons why they could not take a job, including: own illness or disability; lack of adequate child care; and personal or family responsibility. They could say yes to more than one reason.

[11]The full report sample contains 5,288 people. The subgroup sample sizes do not always add up to 5,288, because any sample members answering "don't know" to a question that contributed to defining a set of subgroups are excluded from those subgroups.

Table 4.1: SSP Impacts on Full-Time Employment, by Subgroup

Subgroup	Sample Size	Supplement Receipt Rate (%)[a]	Average Monthly Full-Time Employment Rate, Quarter 5 (%)				Significance of Variation in Impacts
			Program Group	Control Group	Difference (Impact)	Standard Error	
Program environment							
Province							n.s.
British Columbia	2,766	21.6	27.8	12.6	15.2***	(1.5)	
New Brunswick	2,522	24.5	30.9	15.6	15.3***	(1.6)	
Period of intake by province							
British Columbia							
January 1993–October 1993	1,260	23.1	30.9	14.4	16.4***	(2.2)	n.s.
January 1994–February 1995	1,506	20.5	25.4	11.1	14.3***	(1.9)	
New Brunswick							
November 1992–June 1993	625	22.8	29.4	15.2	14.2***	(3.2)	n.s.
January 1994–March 1995	1,897	25.0	31.3	15.7	15.7***	(1.8)	
Family structure							
Age of sample member							n.s.
19–24	1,141	23.8	31.0	14.3	16.8***	(2.3)	
25–29	1,091	24.6	30.4	13.6	16.9***	(2.4)	
30–39	2,090	23.8	29.9	14.2	15.7***	(1.7)	
40 and over	958	18.1	24.4	13.9	10.4***	(2.4)	
Age of youngest child by age of sample member							n.s.
19–39							
Youngest child 0–5	2,701	23.0	30.3	13.0	17.3***	(1.5)	
Youngest child 6–11	1,128	26.0	30.8	15.7	15.1***	(2.4)	
Youngest child 12 and over	452	25.7	30.4	17.1	13.3***	(3.9)	
40 and over							
Youngest child 0–5	95	13.2	18.4	11.7	6.7	(7.3)	
Youngest child 6–11	260	15.6	24.4	10.9	13.5***	(4.5)	
Youngest child 12 and over	574	20.2	25.2	16.0	9.2***	(3.3)	
Family background							
Ancestry (British Columbia only)							n.s.
Reported First Nations ancestry	333	15.7	20.9	10.5	10.5***	(3.8)	
All others	2,429	22.4	28.7	13.0	15.7***	(1.6)	
Immigrant status (British Columbia only)							n.s.
Born in Canada	2,122	22.0	28.9	13.8	15.1***	(1.7)	
Not born in Canada	641	20.0	24.1	9.0	15.1***	(2.8)	
Both parents were present in home while growing up[b]							n.s
Yes	3,191	23.5	30.5	14.6	15.8***	(1.4)	
No	2,089	22.3	27.5	13.2	14.3***	(1.7)	

Table 4.1: SSP Impacts on Full-Time Employment, by Subgroup (Cont'd)

Subgroup	Sample Size	Supplement Receipt Rate (%)[a]	Average Monthly Full-Time Employment Rate, Quarter 5 (%)				Significance of Variation in Impacts
			Program Group	Control Group	Difference (Impact)	Standard Error	
Family received welfare when growing up[c]							n.s.
Yes	1,283	21.5	26.8	12.9	13.8***	(2.1)	
No	3,859	23.6	30.1	14.4	15.7***	(1.3)	
Job readiness							*
Has high school diploma or equivalent							
Yes	2,421	29.3	35.9	18.8	17.1***	(1.7)	
No	2,863	17.5	23.6	10.1	13.5***	(1.3)	
Community college, technical institute, or trade or vocational school attendance							n.s.
Attended and received certificate/diploma	1,618	30.3	35.5	20.5	15.0***	(2.1)	
Attended, no certificate/diploma received	1,063	23.8	31.9	12.4	19.5***	(2.4)	
Did not attend	2,600	18.4	24.6	10.5	14.1***	(1.4)	
Enrolled in education/training at random assignment							*
Yes	739	27.6	36.6	16.4	20.2***	(3.0)	
No	4,546	22.2	28.1	13.7	14.4***	(1.1)	
Employment status at random assignment							**
Full-time	345	56.8	64.2	50.8	13.4***	(5.1)	
Part-time	672	37.9	46.9	23.7	23.2***	(3.5)	
Not employed, looking for work	1,211	26.0	32.0	15.1	16.9***	(2.3)	
Neither employed nor looking for work	3,035	14.9	20.5	7.0	13.5***	(1.2)	
Income Assistance receipt over past 3 years							n.s.
10–23 months	1,259	26.8	34.7	17.6	17.1***	(2.3)	
24–35 months	1,785	25.6	31.5	15.3	16.2***	(1.9)	
All 36 months	2,244	18.9	24.7	10.9	13.8***	(1.5)	
Barriers to employment							**
If got a job, could find trustworthy child care[d]							
Yes	3,365	24.9	31.8	14.6	17.2***	(1.4)	
No	902	16.1	21.9	8.5	13.4***	(2.3)	
No child care required	987	23.2	28.1	17.6	10.4***	(2.6)	
Reported physical condition that limited activity[e]							*
Yes	1,350	16.7	21.3	9.2	12.1***	(1.9)	
No	3,930	25.0	31.9	15.7	16.2***	(1.3)	
Number of days couldn't shake the blues last week[f]							n.s.
0 or less than 1	3,671	24.2	30.7	14.7	16.0***	(1.3)	
1–2	798	20.9	27.6	11.8	15.8***	(2.7)	
3–7	793	19.0	24.3	13.0	11.2***	(2.6)	

Table 4.1: SSP Impacts on Full-Time Employment, by Subgroup (Cont'd)

Subgroup	Sample Size	Supplement Receipt Rate (%)[a]	Average Monthly Full-Time Employment Rate, Quarter 5 (%)				Significance of Variation in Impacts
			Program Group	Control Group	Difference (Impact)	Standard Error	
Couldn't work due to illness or disability[g]							** [h]
Yes	742	11.4	14.7	5.4	9.3***	(2.1)	
No	3,519	19.5	25.8	10.2	15.6***	(1.2)	
Working, question skipped	1,017	44.0	52.5	33.3	19.2***	(2.9)	
Couldn't work due to lack of good child care[g]							n.s.[h]
Yes	757	13.3	18.7	4.2	14.5***	(2.2)	
No	3,504	19.1	24.9	10.5	14.4***	(1.2)	
Working, question skipped	1,017	44.0	52.5	33.3	19.2***	(2.9)	
Couldn't work due to personal or family responsibilities[g]							n.s.[h]
Yes	1,151	14.4	20.8	5.2	15.5***	(1.9)	
No	3,110	19.4	24.9	10.9	14.0***	(1.3)	
Working, question skipped	1,017	44.0	52.5	33.3	19.2***	(2.9)	
Self-expressed greatest need[i]							n.s.
Full-time employment	1,544	32.3	39.9	22.1	17.8***	(2.2)	
Part-time employment	496	20.1	24.8	10.7	14.1***	(3.2)	
Education or training	2,497	19.3	24.8	10.7	14.1***	(1.4)	
Something else/Don't know	744	17.7	25.0	10.6	14.3***	(2.7)	

Sources: Calculations from baseline survey data, 18-month follow-up survey data, and Income Assistance administrative records.

Notes: The subgroups are defined according to characteristics at random assignment. Persons answering "don't know" to a particular question that contributed to defining a subgroup are excluded from the analysis of that subgroup.

Average monthly full-time employment rate in quarter 5 is average of the percentages employed full-time in each of months 13–15. "Full-time employment" is defined as working 30 or more hours per week in at least one week during the month. A two-tailed t-test was applied to differences between the outcomes for the program and control groups. An F-test was applied to differences between subgroups in estimated impacts. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The abbreviation "n.s." indicates that the variation in impacts between the subgroups is not statistically significant.

Rounding may cause slight discrepancies in sums and differences.

[a]Average of the percent who received supplement payments in each of months 13–15 among the program group.

[b]The precise question on the baseline survey was, "Up until you were 16 years old, were you living with both your mother and father?"

[c]The precise question on the baseline survey was, "Up until you were 16 years old, did anyone in your household ever receive social assistance or welfare aid?"

[d]Sample members were asked at the baseline interview whether they agreed strongly, agreed, disagreed, or disagreed strongly with the statement, "If I got a job, I could find someone I trust to take care of my children." The "yes" subgroup includes sample members who "agreed strongly" or "agreed." The "no" subgroup includes sample members who "disagreed" or "disagreed strongly." Sample members were also allowed to indicate that no care would be required.

[e]The "yes" subgroup includes sample members who indicated having a long-term physical condition or health problem that limited the kind or amount of activity they could do at any of the following: at home; at school; at work; or in other activities such as travel, sports, or leisure.

[f]The precise question on the baseline survey was, "During the last week, how many days did you feel that you could not shake off the blues, even with the help of family and friends?"

[g]Sample members who were not working at random assignment were asked at the baseline interview, "Was there any reason you could not take a job in the last four weeks?" Those who said yes were then asked about specific reasons why they could not take a job, including own illness or disability, lack of adequate child care, and personal or family responsibility. Sample members were allowed to say yes to more than one reason.

[h]An F-test was applied to differences in impacts between nonworkers who reported and who did not report each reason they did not take a job. Impacts are significantly different at the 5 percent level between nonworkers who reported and who did not report illness/disability as a reason. Impacts are not significantly different between nonworkers who reported and who did not report child care or family responsibilities as a reason for not working.

[i]The precise question on the baseline survey was, "At present, which of these best describes your greatest need?" Sample members were allowed to choose among: immediate full-time employment, immediate part-time employment, education or training, or something else.

Table 4.2: SSP Impacts on Percentage Receiving Income Assistance, by Subgroup

Subgroup	Sample Size	Supplement Receipt Rate (%)[a]	Average Monthly Percentage Receiving IA, Quarter 5				Significance of Variation in Impacts
			Program Group	Control Group	Difference (Impact)	Standard Error	
Program environment							
Province							**
British Columbia	2,766	21.6	75.6	86.0	-10.4***	(1.4)	
New Brunswick	2,522	24.5	64.3	80.1	-15.8***	(1.7)	
Period of intake by province							
British Columbia							
January 1993–October 1993	1,260	23.1	73.9	86.8	-12.8***	(2.1)	n.s.
January 1994–February 1995	1,506	20.5	76.9	85.4	-8.5***	(1.9)	
New Brunswick							
November 1992–June 1993	625	22.8	65.8	79.7	-13.9***	(3.4)	n.s.
January 1994–March 1995	1,897	25.0	63.8	80.2	-16.4***	(1.9)	
Family structure							
Age of sample member							**
19–24	1,141	23.8	67.6	83.6	-16.0***	(2.4)	
25–29	1,091	24.6	66.3	81.9	-15.6***	(2.5)	
30–39	2,090	23.8	71.1	83.5	-12.5***	(1.7)	
40 and over	958	18.1	76.1	83.3	-7.2***	(2.4)	
Age of youngest child by age of sample member							
19–39							n.s.
Youngest child 0–5	2,701	23.0	69.4	83.0	-13.6***	(1.5)	
Youngest child 6–11	1,128	26.0	66.7	82.9	-16.2***	(2.4)	
Youngest child 12 and over	452	25.7	72.1	83.6	-11.5***	(3.7)	
40 and over							
Youngest child 0–5	95	13.2	86.0	87.7	-1.8	(6.7)	
Youngest child 6–11	260	15.6	80.0	87.2	-7.2	(4.4)	
Youngest child 12 and over	574	20.2	73.1	80.8	-7.7**	(3.3)	
Family background							
Ancestry (British Columbia only)							n.s.
Reported First Nations ancestry	333	15.7	82.7	88.0	-5.2	(3.6)	
All others	2,429	22.4	74.7	85.7	-11.0***	(1.5)	
Immigrant status (British Columbia only)							n.s.
Born in Canada	2,122	22.0	75.6	85.8	-10.2***	(1.6)	
Not born in Canada	641	20.0	75.7	86.8	-11.1***	(2.9)	
Both parents were present in home while growing up[b]							n.s.
Yes	3,191	23.5	68.5	81.5	-13.0***	(1.4)	
No	2,089	22.3	72.8	85.8	-13.0***	(1.7)	

Table 4.2: SSP Impacts on Percentage Receiving Income Assistance, by Subgroup (Cont'd)

Subgroup	Sample Size	Supplement Receipt Rate (%)[a]	Average Monthly Percentage Receiving IA, Quarter 5				Significance of Variation in Impacts
			Program Group	Control Group	Difference (Impact)	Standard Error	
Family received welfare when growing up[c]							n.s.
Yes	1,283	21.5	72.0	86.2	-14.2***	(2.1)	
No	3,859	23.6	69.4	82.3	-12.8***	(1.3)	
Job readiness							
Has high school diploma or equivalent							*
Yes	2,421	29.3	63.3	78.4	-15.1***	(1.7)	
No	2,863	17.5	76.2	87.1	-10.9***	(1.4)	
Community college, technical institute, or trade or vocational school attendance							n.s.
Attended and received certificate/diploma	1,618	30.3	63.7	77.1	-13.4***	(2.1)	
Attended, no certificate/diploma received	1,063	23.8	69.0	83.6	-14.6***	(2.4)	
Did not attend	2,600	18.4	74.6	87.0	-12.4***	(1.4)	
Enrolled in education/training at random assignment							n.s.
Yes	739	27.6	66.8	79.3	-12.5***	(3.0)	
No	4,546	22.2	70.8	83.8	-13.0***	(1.2)	
Employment status at random assignment							***
Full-time	345	56.8	34.0	57.0	-23.1***	(5.0)	
Part-time	672	37.9	52.8	76.7	-23.9***	(3.4)	
Not employed, looking for work	1,211	26.0	66.4	81.8	-15.4***	(2.3)	
Neither employed nor looking for work	3,035	14.9	79.3	88.5	-9.2***	(1.3)	
Income Assistance receipt over past 3 years							n.s.
10–23 months	1,259	26.8	61.6	76.5	-14.9***	(2.4)	
24–35 months	1,785	25.6	67.5	81.7	-14.2***	(1.9)	
All 36 months	2,244	18.9	76.9	88.4	-11.6***	(1.5)	
Barriers to employment							
If got a job, could find trustworthy child care[d]							*
Yes	3,365	24.9	67.0	81.9	-14.9***	(1.4)	
No	902	16.1	81.5	90.7	-9.1***	(2.2)	
No child care required	987	23.2	70.3	80.2	-9.9***	(2.6)	
Reported physical condition that limited activity[e]							n.s.
Yes	1,350	16.7	77.3	87.6	-10.4***	(1.9)	
No	3,930	25.0	67.9	81.6	-13.7***	(1.3)	
Number of days couldn't shake the blues last week[f]							n.s.
0 or less than 1	3,671	24.2	68.4	81.9	-13.5***	(1.3)	
1–2	798	20.9	72.3	84.5	-12.1***	(2.8)	
3–7	793	19.0	76.6	87.7	-11.1***	(2.5)	

Table 4.2: SSP Impacts on Percentage Receiving Income Assistance, by Subgroup (Cont'd)

Subgroup	Sample Size	Supplement Receipt Rate (%)[a]	Average Monthly Percentage Receiving IA, Quarter 5				Significance of Variation in Impacts
			Program Group	Control Group	Difference (Impact)	Standard Error	
Couldn't work due to illness or disability[g]							***[h]
Yes	742	11.4	83.9	90.1	-6.2***	(2.3)	
No	3,519	19.5	73.9	85.7	-11.8***	(1.3)	
Working, question skipped	1,017	44.0	46.7	69.7	-23.0***	(2.9)	
Couldn't work due to lack of good child care[g]							***[h]
Yes	757	13.3	82.0	90.6	-8.6***	(2.3)	
No	3,504	19.1	74.3	85.6	-11.2***	(1.3)	
Working, question skipped	1,017	44.0	46.7	69.7	-23.0***	(2.9)	
Couldn't work due to personal or family responsibilities[g]							***[h]
Yes	1,151	14.4	81.3	89.8	-8.5***	(1.9)	
No	3,110	19.4	73.6	85.2	-11.6***	(1.4)	
Working, question skipped	1,017	44.0	46.7	69.7	-23.0***	(2.9)	
Self-expressed greatest need[i]							n.s.
Full-time employment	1,544	32.3	58.4	75.0	-16.5***	(2.2)	
Part-time employment	496	20.1	71.5	87.1	-15.5***	(3.4)	
Education or training	2,497	19.3	75.4	86.7	-11.2***	(1.5)	
Something else/Don't know	744	17.7	76.3	86.1	-9.8***	(2.7)	

Sources: Calculations from baseline survey data, 18-month follow-up survey data, and Income Assistance administrative records.

Notes: The subgroups are defined according to characteristics at random assignment. Persons answering "don't know" to a particular question that contributed to defining a subgroup are excluded from the analysis of that subgroup.

Average monthly percentage receiving Income Assistance payments in quarter 5 is average of the percentages receiving Income Assistance payments in each of months 13–15.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. An F-test was applied to differences between subgroups in estimated impacts. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The abbreviation "n.s." indicates that the variation in impacts between the subgroups is not statistically significant.

Rounding may cause slight discrepancies in sums and differences.

[a]Average of the percent who received supplement payments in each of months 13–15 among the program group.

[b]The precise question on the baseline survey was, "Up until you were 16 years old, were you living with both your mother and father?"

[c]The precise question on the baseline survey was, "Up until you were 16 years old, did anyone in your household ever receive social assistance or welfare aid?"

[d]Sample members were asked at the baseline interview whether they agreed strongly, agreed, disagreed, or disagreed strongly with the statement, "If I got a job, I could find someone I trust to take care of my children." The "yes" subgroup includes sample members who "agreed strongly" or "agreed." The "no" subgroup includes sample members who "disagreed" or "disagreed strongly." Sample members were also allowed to indicate that no care would be required.

[e]The "yes" subgroup includes sample members who indicated having a long-term physical condition or health problem that limited the kind or amount of activity they could do at any of the following: at home; at school; at work; or in other activities such as, travel, sports, or leisure.

[f]The precise question on the baseline survey was, "During the last week, how many days did you feel that you could not shake off the blues, even with the help of family and friends?"

[g]Sample members who were not working at random assignment were asked at the baseline interview, "Was there any reason you could not take a job in the last four weeks?" Those who said yes were then asked about specific reasons why they could not take a job, including own illness or disability, lack of adequate child care, and personal or family responsibility. Sample members were allowed to say yes to more than one reason.

[h]An F-test was applied to differences in impacts between nonworkers who reported and who did not report each reason they did not take a job. Impacts are significantly different at the 10 percent level between nonworkers who reported and who did not report illness/disability as a reason. Impacts are not significantly different between nonworkers who reported and who did not report child care or family responsibilities as a reason for not working.

[i]The precise question on the baseline survey was, "At present, which of these best describes your greatest need?" Sample members were allowed to choose among immediate full-time employment, immediate part-time employment, education or training, or something else.

Table 4.3: SSP Impacts on Percentage Receiving Either Income Assistance or SSP Supplement Payments, by Subgroup

Subgroup	Sample Size	Supplement Receipt Rate (%)[a]	Average Monthly Percentage Receiving IA or SSP, Quarter 5				Significance of Variation in Impacts
			Program Group	Control Group	Difference (Impact)	Standard Error	
Program environment							
Province							n.s.
British Columbia	2,766	21.6	92.4	86.0	6.4***	(1.1)	
New Brunswick	2,522	24.5	86.4	80.1	6.3***	(1.4)	
Period of intake by province							
British Columbia							.
January 1993–October 1993	1,260	23.1	92.1	86.8	5.3***	(1.6)	n.s
January 1994–February 1995	1,506	20.5	92.6	85.4	7.2***	(1.5)	
New Brunswick							
November 1992–June 1993	625	22.8	87.1	79.7	7.4***	(2.8)	n.s.
January 1994–March 1995	1,897	25.0	86.2	80.2	6.0***	(1.6)	
Family structure							.
Age of sample member							n.s
19–24	1,141	23.8	87.9	83.6	4.3**	(1.9)	
25–29	1,091	24.6	87.9	81.9	6.0***	(2.0)	
30–39	2,090	23.8	90.7	83.5	7.2***	(1.4)	
40 and over	958	18.1	90.8	83.3	7.5***	(2.0)	
Age of youngest child by age of sample member							
19–39							
Youngest child 0–5	2,701	23.0	88.8	83.0	5.8***	(1.2)	
Youngest child 6–11	1,128	26.0	88.8	82.9	5.8***	(1.9)	
Youngest child 12 and over	452	25.7	93.5	83.6	9.9***	(2.7)	
40 and over							
Youngest child 0–5	95	13.2	94.7	87.7	7.0	(5.8)	
Youngest child 6–11	260	15.6	92.1	87.2	4.9	(3.5)	
Youngest child 12 and over	574	20.2	89.9	80.8	9.2***	(2.7)	
Family background							
Ancestry (British Columbia only)							n.s.
Reported First Nations ancestry	333	15.7	94.9	88.0	7.0**	(2.7)	
All others	2,429	22.4	92.1	85.7	6.4***	(1.2)	
Immigrant status (British Columbia only)							n.s.
Born in Canada	2,122	22.0	92.9	85.8	7.1***	(1.2)	
Not born in Canada	641	20.0	90.7	86.8	3.9*	(2.4)	
Both parents were present in home while growing up[b]							n.s.
Yes	3,191	23.5	88.4	81.5	6.9***	(1.2)	
No	2,089	22.3	91.3	85.8	5.6***	(1.3)	

Table 4.3: SSP Impacts on Percentage Receiving Either Income Assistance or SSP Supplement Payments, by Subgroup (Cont'd)

Subgroup	Sample Size	Supplement Receipt Rate (%)[a]	Average Monthly Percentage Receiving IA or SSP, Quarter 5				Significance of Variation in Impacts
			Program Group	Control Group	Difference (Impact)	Standard Error	
Family received welfare when growing up[c]							n.s.
Yes	1,283	21.5	90.2	86.2	4.1**	(1.7)	
No	3,859	23.6	89.3	82.3	7.0***	(1.0)	
Job readiness							
Has high school diploma or equivalent							***
Yes	2,421	29.3	88.2	78.4	9.8***	(1.4)	
No	2,863	17.5	90.8	87.1	3.6***	(1.1)	
Community college, technical institute, or trade or vocational school attendance							***
Attended and received certificate/diploma	1,618	30.3	89.6	77.1	12.5***	(1.7)	
Attended, no certificate/diploma received	1,063	23.8	88.3	83.6	4.7**	(2.0)	
Did not attend	2,600	18.4	90.1	87.0	3.0***	(1.2)	
Enrolled in education/training at random assignment							*
Yes	739	27.6	89.6	79.3	10.3***	(2.4)	
No	4,546	22.2	89.5	83.8	5.7***	(0.9)	
Employment status at random assignment							***
Full-time	345	56.8	85.8	57.0	28.8***	(4.4)	
Part-time	672	37.9	86.9	76.7	10.2***	(2.7)	
Not employed, looking for work	1,211	26.0	87.8	81.8	5.9***	(1.9)	
Neither employed nor looking for work	3,035	14.9	91.2	88.5	2.7***	(1.0)	
Income Assistance receipt over past 3 years							n.s.
10–23 months	1,259	6.8	84.8	76.5	8.3***	(2.1)	
24–35 months	1,785	25.6	88.9	81.7	7.2***	(1.5)	
All 36 months	2,244	18.9	92.6	88.4	4.2***	(1.1)	
Barriers to employment							
If got a job, could find trustworthy child care[d]							**
Yes	3,365	24.9	88.5	81.9	6.6***	(1.1)	
No	902	16.1	93.3	90.7	2.7	(1.7)	
No child care required	987	23.2	90.1	80.2	9.9***	(2.1)	
Reported physical condition that limited activity[e]							**
Yes	1,350	16.7	90.5	87.6	2.9*	(1.6)	
No	3,930	25.0	89.2	81.6	7.6***	(1.0)	
Number of days couldn't shake the blues last week[f]							n.s.
0 or less than 1	3,671	24.2	89.1	81.9	7.1***	(1.1)	
1–2	798	20.9	90.2	84.5	5.7***	(2.2)	
3–7	793	19.0	91.2	87.7	3.5*	(2.0)	

Table 4.3: SSP Impacts on Percentage Receiving Either Income Assistance or SSP Supplement Payments, by Subgroup (Cont'd)

Subgroup	Sample Size	Supplement Receipt Rate (%)[a]	Average Monthly Percentage Receiving IA or SSP, Quarter 5				Significance of Variation in Impacts
			Program Group	Control Group	Difference (Impact)	Standard Error	
Couldn't work due to illness or disability[g]							***[h]
Yes	742	11.4	93.0	90.1	2.8	(1.9)	
No	3,519	19.5	89.7	85.7	4.0***	(1.0)	
Working, question skipped	1,017	44.0	86.6	69.7	16.9***	(2.3)	
Couldn't work due to lack of good child care[g]							***[h]
Yes	757	13.3	92.3	90.6	1.7	(1.9)	
No	3,504	19.1	89.8	85.6	4.3***	(1.0)	
Working, question skipped	1,017	44.0	86.6	69.7	16.9***	(2.3)	
Couldn't work due to personal or family responsibilities[g]							***[h]
Yes	1,151	14.4	92.4	89.8	2.6*	(1.6)	
No	3,110	19.4	89.5	85.2	4.2***	(1.1)	
Working, question skipped	1,017	44.0	86.6	69.7	16.9***	(2.3)	
Self-expressed greatest need[i]							***
Full-time employment	1,544	32.3	87.3	75.0	12.4***	(1.8)	
Part-time employment	496	20.1	88.1	87.1	1.0	(2.8)	
Education or training	2,497	19.3	90.8	86.7	4.1***	(1.2)	
Something else/Don't know	744	17.7	91.1	86.1	5.0**	(2.2)	

Sources: Calculations from baseline survey data, 18-month follow-up survey data, Income Assistance administrative records, and payment records from SSP's Program Management Information System.

Notes: The subgroups are defined according to characteristics at random assignment. Persons answering "don't know" to a particular question that contributed to defining a subgroup are excluded from the analysis of that subgroup.

Average monthly percentage receiving Income Assistance or SSP supplement payments in quarter 5 is average of the percentages receiving either payment in each of months 13–15.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. An F-test was applied to differences between subgroups in estimated impacts. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. The abbreviation "n.s." indicates that the variation in impacts between the subgroups is not statistically significant. Rounding may cause slight discrepancies in sums and differences.

[a]Average of the percent who received supplement payments in each of months 13–15 among the program group.

[b]The precise question on the baseline survey was, "Up until you were 16 years old, were you living with both your mother and father?"

[c]The precise question on the baseline survey was, "Up until you were 16 years old, did anyone in your household ever receive social assistance or welfare aid?"

[d]Sample members were asked at the baseline interview whether they agreed strongly, agreed, disagreed, or disagreed strongly with the statement, "If I got a job, I could find someone I trust to take care of my children." The "yes" subgroup includes sample members who "agreed strongly" or "agreed." The "no" subgroup includes sample members who "disagreed" or "disagreed strongly." Sample members were also allowed to indicate that no care would be required.

[e]The "yes" subgroup includes sample members who indicated having a long-term physical condition or health problem that limited the kind or amount of activity they could do at any of the following: at home; at school; at work; or in other activities such as, travel, sports, or leisure.

[f]The precise question on the baseline survey was, "During the last week, how many days did you feel that you could not shake off the blues, even with the help of family and friends?"

[g]Sample members who were not working at random assignment were asked at the baseline interview, "Was there any reason you could not take a job in the last four weeks?" Those who said yes were then asked about specific reasons why they could not take a job, including own illness or disability, lack of adequate child care, and personal or family responsibility. Sample members were allowed to say yes to more than one reason.

[h]An F-test was applied to differences in impacts between nonworkers who reported and who did not report each reason they did not take a job. Impacts are not significantly different between nonworkers who reported and who did not report illness/disability, child care, or family responsibilities as a reason for not working.

[i]The precise question on the baseline survey was, "At present, which of these best describes your greatest need?" Sample members were allowed to choose among immediate full-time employment, immediate part-time employment, education or training, or something else.

In trying to determine whether impacts were larger for certain subgroups than for others, it is important to remember that estimated impacts could be larger for particular subgroups simply by chance, even if SSP's actual impacts were no larger for those subgroups than for others. For example, it could happen by chance that in New Brunswick, fewer program group members than control group members had health problems in quarter 5 that limited their ability to work. This random difference could make the estimated impact on employment (the difference between program and control group outcomes) larger in New Brunswick than in British Columbia, even if the actual impact (the difference that was due to SSP, not to random factors) was the same for the two provinces. A statistical test (the F-test) was performed to determine whether differences between subgroup impact estimates could easily be due to such chance factors. For each set of related subgroups (e.g., the four subgroups defined by age of sample member), the results of the test are shown in the rightmost columns of Tables 4.1–4.3. The abbreviation "n.s." (not significant) indicates that the variation in estimated impacts is not statistically significant — i.e., the observed subgroup differences could easily be due to chance and should not be regarded as evidence that impacts actually differed between the subgroups. Asterisks indicate that the variation is statistically significant, meaning that one can be reasonably confident that there was a real difference between subgroups in the impact of SSP.[12]

Supplement Receipt Rates

There were substantial differences between subgroups in supplement receipt rates in quarter 5. Recall that the supplement receipt rate is not the same as the impact of SSP, although the two are related. People who receive the supplement without altering their labour market behaviour — that is, people who would go to work full-time regardless of the SSP offer — are included in the supplement receipt rate, but do not contribute to SSP's impact on full-time employment. Therefore, the supplement receipt rate will generally be greater than the impact of the program on full-time employment.[13] In fact, in any given quarter, the difference between the supplement receipt rate and the estimated impact on the full-time employment rate is an indicator of the fraction of program group members who received the supplement but would have worked full-time in that quarter even in the absence of SSP ("windfall beneficiaries").

As can be seen in Table 4.1, supplement receipt rates in quarter 5 were similar for many subgroups, but not all.[14] Perhaps the greatest differences were between subgroups in the job-readiness category. For example, the supplement receipt rate was 12 percentage points higher for program group members who had a high school diploma or equivalent at random assignment than for those who did not (29.3 percent versus 17.5 percent). Even more striking

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[12]The number of asterisks indicates whether the variation in subgroup impacts would be considered statistically significant according to each of three standards. The standard for this report is the 10 percent significance level, and whenever one or more asterisks appear, differences are considered significant. Analysts wishing to apply the stricter standard of the 5 percent level will restrict attention to differences accompanied by two or three asterisks. These significance levels are defined in Appendix A.

[13]Empirically, there are some exceptions because, as explained in chapters 1 and 2, each supplement payment was issued after the supplement taker had mailed in all pay stubs for the accounting period. Thus, a supplement payment may reflect employment in a previous month, and changes in employment will tend to be reflected in the estimated impact on full-time employment before they are reflected in the supplement receipt rate.

[14]The supplement receipt rates are identical in Tables 4.1, 4.2, and 4.3, but the impact estimates are not.

were the differences by employment status at random assignment. Among those employed full-time at random assignment, for example, the supplement receipt rate in quarter 5 was 56.8 percent, compared with only 14.9 percent among those neither employed nor looking for work at random assignment. Clearly, most sample members in the former category (employed full-time at random assignment) did not need to change their work behaviour to qualify for the supplement — almost all automatically qualified by virtue of the fact that they were already employed full-time when SSP was introduced.[15] Thus, the supplement receipt rate was much greater than the impact for this group. In contrast, a much greater proportion of supplement takers in the latter category (neither employed nor looking for work) changed their behaviour in response to the supplement offer.

In discussing the subgroup impacts below, impacts are occasionally compared with the supplement receipt rates. Differences between the two, as indicated above, will reflect the number of windfall beneficiaries — those who received supplement payments but would have worked full-time even in the absence of SSP.

Subgroup Impacts on Full-Time Employment

Table 4.1 reports the estimated subgroup impacts on full-time employment. For the most part, there is remarkable consistency across the various sets of subgroups analyzed, and the estimated impacts are generally large and statistically significant. In most cases, the variation in estimated impacts within a set of related subgroups is not statistically significant, although in many instances the variation is consistent with prior expectations. Estimated impacts were nearly identical in British Columbia and New Brunswick, despite the fact that the relative generosity of SSP is greater in New Brunswick. It is possible that relative generosity was not a major determinant of impacts. Alternatively, the greater generosity of SSP in New Brunswick may have been counterbalanced by other factors such as New Brunswick's high unemployment.

There was no statistically significant variation in impacts by period of intake. For both cohorts and in each province, the estimated impacts were very similar. Thus, differences in the program environment, if any, did not result in differences in the impacts on full-time employment.

There were also no statistically significant differences in impact by family structure. The estimated impact tended to decline with the age of the sample member, as expected, but the variation was not statistically significant. The estimates exhibited a mixed pattern with respect to the age of the youngest child, within age categories of the sample member. For sample members who were younger than age 40 at random assignment, the estimated impact declined slightly with the age of the youngest child. For those who were age 40 or older, the largest estimated impact occurred for the subgroup whose youngest children were between the ages of 6 and 11 at random assignment. However, again the variation was not statistically significant.

Impacts also did not vary significantly with measures of family background. People of First Nations ancestry in British Columbia had a smaller estimated impact than other sample members in that province, as expected, but the difference was not statistically significant.

[15]However, some of them might have quit their jobs in the absence of SSP, but were induced by the offer of the supplement to retain their jobs or find new ones.

There was also no difference in impacts between native Canadians and people born outside of Canada. The estimated impact was slightly larger for sample members who grew up in two-parent households as opposed to one-parent or foster households, as expected, but the difference is very small and not statistically significant. Similarly, the estimated impact was larger for sample members who grew up in households that did not receive welfare payments, but the difference was slight and not statistically significant.

Impacts on full-time employment varied significantly with several measures of job-readiness. As expected, education is a significant determinant of impacts. The estimated impact was 17.1 percentage points among sample members who had a high school credential, compared with 13.5 percentage points among those who did not. This difference is statistically significant. The fraction of windfall beneficiaries was also much greater among those with a high school credential, as evidenced by the greater difference between the supplement receipt rate and the estimated impact. Estimated impacts tended to be higher among people who had some vocational or community college education, but the variation was not statistically significant. Finally, the estimated impact on full-time employment was 20.2 percentage points among people who were enrolled in an education or training program at random assignment, significantly higher than the estimated impact among those who were not enrolled (14.4 percentage points).[16] These results suggest that education is an important element in facilitating employment and that having more education increases the impact of SSP. Whether education increased impacts through creating better job opportunities or through stimulating greater interest in work is not known.[17] Nonetheless, the results provide mild support for the notion that policies to improve education might be an important complement to financial incentives in increasing economic self-sufficiency among welfare recipients.

Employment status at random assignment was also an important determinant of SSP's impact on full-time employment. The impact was largest among those employed part-time at random assignment. This is as expected, because part-time workers have already exhibited an attachment to the labour force and are more likely to be successful at finding a full-time job. They also may already be using child care and may find it easier to arrange for full-time care than someone just entering the labour force would. The second highest impact was among people who were not working but looking for work at random assignment. The fact that these people were already engaged in job search suggests a commitment to the labour force. Surprisingly, the impact was also fairly high among those already employed full-time at random assignment, although considerably less than their supplement receipt rate, implying that most supplement takers in this subgroup were receiving a windfall from SSP. One might have expected low impacts for this group because they were already employed full-time at random assignment, but employment turnover is high among welfare recipients, and the large impact among full-time workers may suggest that they are induced by the financial incentives of SSP to stay employed full-time for a longer period of time or to more quickly regain full-time employment if they lose a job.

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[16]The education or training may have made this subgroup more likely to find employment. Alternatively, people enrolled in education or training at random assignment might exhibit higher impacts because many of them were motivated to improve their employment prospects and were able to spend time away from their children, but in the absence of SSP would not have worked full-time.

[17]Education is also positively correlated with labour market experience, which also may help explain why impacts are higher among more educated sample members.

There were systematic differences in supplement receipt rates in quarter 5 between the welfare history subgroups, ranging from 19 percent for those who had received Income Assistance throughout the three years before random assignment to 27 percent for those who had received IA for less than 24 months during that period. However, there were no statistically significant differences in impacts on full-time employment. These results may have some relevance to the discussion of sample selection in chapter 1, where it was noted that if SSP became a large-scale, ongoing program with the same eligibility rules, single parents would be offered the supplement just after their first year of Income Assistance receipt. Because SSP's estimated impacts did not vary much with the extent of prior Income Assistance receipt, the impacts of an ongoing program on full-time employment might be similar to those observed in this study, despite the fact that most sample members in the study had received Income Assistance for considerably more than a year when they were offered the supplement.

Estimated impacts varied significantly with the presence or absence of several barriers to employment. Lack of trustworthy child care is one potential barrier to employment. The impact of SSP was greater among sample members who, in response to a baseline survey question, said they could find trustworthy care if they were to become employed, compared with those who said they could not find trustworthy care (17.2 percentage points versus 13.4 percentage points). This difference, however, is not statistically significant.[18] Of course, it is not known whether trustworthy care was less available to those who said they could not find it, or whether they were generally more reluctant to put their children in care. Increased quality of care in the community, however, should lead to more trustworthy care and a greater impact of programs such as SSP.

Physical limitations reduced the impact of SSP. Among sample members who reported physical conditions that limited their activity at home, school, work, or leisure, impacts were significantly lower than among sample members who did not report any such conditions (12.1 percentage points versus 16.2 percentage points). However, the impact among those who reported physical limitations was still sizable.

The impact of SSP was also significantly lower among sample members who were unable to work in the four weeks prior to random assignment because of an illness or a disability (9.3 percentage points, versus 15.6 percentage points for those without an illness or disability). The other major reasons for being unable to work — lack of child care and personal or family responsibilities — were not associated with significant differences in estimated impacts. Finally, although estimated impacts were lower among sample members who reported more days in which they "could not shake off the blues" (a possible indicator of depression, discussed earlier in the chapter), the differences were not statistically significant.

Subgroup Impacts on Receipt of Income Assistance

As indicated in chapter 3, impacts on the Income Assistance receipt rate are expected to be similar to but not exactly the same as impacts on the full-time employment rate. The strength of the similarity may vary between subgroups.

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[18]The overall variation in impacts between the *three* related subgroups — these two groups and those not requiring child care — is statistically significant, however, as indicated in Table 4.1. Surprisingly, the impact was lowest among those not requiring child care.

As shown in Table 4.2, the estimated subgroup impacts on the Income Assistance receipt rate generally mirrored the impacts on full-time employment, but there are a number of exceptions. Most notably, there were significant differences in impacts on Income Assistance receipt by province, whereas there were no differences in impacts on full-time employment by province. The reduction in Income Assistance receipt due to SSP in New Brunswick was over 5 percentage points higher than in British Columbia (15.8 versus 10.4 percentage points), while the full-time employment impacts were virtually identical in the two provinces (15.3 versus 15.2 percentage points). The lower impacts on Income Assistance receipt in British Columbia suggest that a number of program group members in British Columbia who were induced to work full-time by SSP would have left Income Assistance even in the absence of SSP (without working full-time).[19]

The subgroup impacts by age of the sample member were also significantly different for Income Assistance receipt but not for full-time employment. However, the patterns of impacts were consistent for the two outcomes. That is, estimated impacts on both full-time employment and Income Assistance receipt declined with the age of the sample member.

Impacts on Income Assistance receipt mirrored the impacts on full-time employment for sample members with and without a high school diploma. The subgroup with a high school diploma experienced larger impacts on both full-time employment and Income Assistance receipt. The Income Assistance impacts by employment status at random assignment are also consistent with the impacts on full-time employment, with one major exception. SSP induced just as large a reduction in Income Assistance receipt among those who had been working full-time at random assignment as among those who had been working part-time (23.1 percentage points versus 23.9 percentage points), but the impact on full-time employment was considerably less among the former group (13.4 percentage points versus 23.2 percentage points). This difference reflects the fact that people who would normally work full-time and remain on Income Assistance chose to leave Income Assistance in order to receive the SSP supplement.

Reductions in Income Assistance receipt were essentially the same regardless of whether or not the sample members were enrolled in education or training at random assignment (12.5 percentage points versus 13.0 percentage points), while the full-time employment impacts were higher for those enrolled in education or training at random assignment (20.2 percentage points versus 14.4 percentage points). This suggests that a number of program group members in this subgroup were induced by SSP to work full-time, but would have left Income Assistance anyway in the absence of SSP.

Barriers to employment seemed to be a more important factor for impacts on Income Assistance receipt than for impacts on full-time employment. SSP had significantly smaller impacts on Income Assistance receipt among sample members who reported a lack of trustworthy child care, an inability to work because of illness or disability, or an inability to work because of personal or family responsibilities than among those not facing such barriers.

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[19]The estimated impacts by period of intake within province, shown in Table 4.2, suggest that the provincial difference in impact occurred only for the second cohort (randomly assigned in 1994 and early 1995). However, the differences in impact by intake period (within each province) were not statistically significant, and there were no changes in the provincial Income Assistance systems that would be expected to produce these differences.

Subgroup Impacts on Receipt of Either Income Assistance or Supplement Payments

As indicated in chapter 3, SSP increased the percentage receiving *either* Income Assistance *or* the supplement because many people received supplement payments who would have normally left Income Assistance in the absence of SSP. As a result, public expenditures on transfer payments increased.

Table 4.3 reports subgroup impacts on the percentage receiving either Income Assistance or SSP supplement payments. The estimated impacts did not vary with the program environment, family background, or family structure, but did vary with indicators of job-readiness and barriers to employment. For almost every set of subgroups examined in these two general categories, the impacts on receipt of either IA or SSP payments varied significantly. Impacts for people who appeared more job-ready at random assignment were significantly larger. For example, among those who were working full-time at random assignment, the impact of SSP on the percentage receiving either IA or SSP payments was 28.8 percentage points, compared with an impact of only 2.7 percentage points among those who were neither employed nor looking for work at random assignment. Similarly, among those reporting a barrier to employment at random assignment, the impact on the percentage receiving either IA or SSP payments was lower than among those not reporting a barrier to employment. For example, among those who reported a physical condition that limited activity, the impact of SSP on the percentage receiving either IA or SSP payments was 2.9 percentage points, compared with an impact of 7.6 percentage points for those not reporting such limitations.

The pattern of estimated impacts by length of prior Income Assistance receipt is worth mentioning, although there is no firm evidence of a systematic relationship since the variation is not statistically significant. Estimated impacts on the percentage receiving either IA or SSP payments declined with the length of prior IA receipt. The estimated impact was smallest (4.2 percentage points) among sample members who had received Income Assistance throughout the three years prior to random assignment, because fewer people in this group would have left Income Assistance in the absence of the SSP offer. This suggests that the increase in public expenditures on transfer payments also declines with length of prior IA receipt. Thus, one way of reducing the net cost to government of an earnings supplement program may be to restrict eligibility to people who have received welfare for at least a few years.[20] However, if one objective of the program is to provide income support to working poor families, then broader eligibility criteria may be desired.

[20]Such a restriction might have the unintended consequence of leading some people to stay on welfare longer than they otherwise would have in order to qualify for the supplement — a "delayed exit" effect. However, the SSP entry effects study found only a modest delayed-exit effect among a sample of new Income Assistance recipients who were informed that if they stayed on IA for 12 months, they would be given the opportunity to qualify for the supplement (Berlin et al., 1998).

VARIATION IN THE IMPACTS BY PROGRAM GENEROSITY

Measures of SSP Generosity

Although the supplement-calculation formula is the same for all supplement takers within a province, there are substantial differences between sample members in the "generosity" of the program (that is, the extra income provided by SSP relative to Income Assistance). This variation in generosity arises for several reasons. First, sample members with higher wage rates receive lower supplement payments for the same amount of work (although their total income is higher). For example, a person in British Columbia working 30 hours per week at the minimum wage of $6 per hour will earn $780 per month and receive a monthly SSP supplement of $1,152, whereas a person with a wage of $10 per hour will earn $1,300 per month and receive a monthly supplement of $892. Second, because of different SSP earnings benchmarks in the two provinces, a person with the same wage rate will receive a higher supplement in British Columbia than in New Brunswick. Third, the generosity of the SSP program relative to Income Assistance varies between sample members because of variation in the Income Assistance payments that they can receive while working full-time. IA payments tend to be higher for those who live in British Columbia, have larger families, or have lower earnings. Since most sample members would be on Income Assistance in the absence of the SSP supplement offer, the difference in net incomes between SSP and Income Assistance is expected to be a key determinant of behavioural responses to the program. Finally, the relative generosity of SSP depends on person-specific circumstances, such as child support payments and non-wage income sources.[21]

To assess the degree of variation in the relative generosity of the SSP supplement, two measures of relative generosity have been calculated for each program group member.[22] The "unadjusted" measure is based on a simple comparison between the total earnings, maintenance income (alimony and child support), and supplement payments that the person would receive while working 30 hours per week and receiving the SSP supplement, versus the total earnings, maintenance income, and Income Assistance payments (based on family size and province) that she would receive while working 30 hours per week and receiving Income Assistance. This measure makes no adjustments for taxes, tax credits, or other transfers. The "adjusted" measure is based on the estimated difference in *net* incomes between working 30 hours per week while receiving the supplement and working 30 hours per week while receiving Income Assistance. This measure takes into account differences in federal and provincial tax payments, child care subsidies, and other transfers, using detailed tax tables and person-specific information on family size, alimony and child support payments, and other income sources. It is important to emphasize that this net generosity calculation measures what families would experience *if* they were to take advantage of the benefits available from other transfer programs and were to pay taxes in strict accordance with the tax laws, not necessarily what they *actually* experience. If families do not take advantage of the benefits from other transfer programs (for example, they do not make use of

[21] Alimony, child support payments, and income of other family members all reduce Income Assistance payments. In contrast, SSP supplement payments are independent of both non-wage income and the incomes of other family members.

[22] Similar calculations have been made for each control group member and are used in estimating a regression model that attempts to explain variation in impacts of SSP with generosity. All generosity calculations are hypothetical and are based on characteristics of sample members prior to random assignment (as reported in the baseline survey). For details of the calculations, see Appendix G.

available child care subsidies because they have relatives or friends take care of their children) and if they do not pay taxes in strict accordance with the tax laws, then the unadjusted measure could more closely reflect the actual generosity experienced by program group members than the adjusted measure.

Both generosity measures require an estimate of the gross hourly wage for sample members. Observed wages for workers in the months before random assignment were used to estimate a standard human capital wage equation, and this equation was then used to impute a wage for each program group member.[23]

Table 4.4 presents an overview of the alternative generosity measures. An initial analysis revealed that much of the systematic variation in either generosity measure is accounted for by knowing only two pieces of information: the province of residence, and whether a person has one, two, or three or more dependent children. Based on this fact, averages for the six province/family size subgroups are shown in the table.

The first row shows the predicted hourly wage by province and family size and can be used to provide a rough indication of what average earnings for each group would be at 30 hours per week.[24] Rows 2 through 5 present information on the unadjusted generosity measure, which compares gross income while receiving the SSP supplement and working 30 hours per week with gross income while receiving Income Assistance and working the same hours. A comparison between subgroups reveals that while gross income on Income Assistance (row 2) increases with family size (especially in British Columbia), gross income on SSP (row 3) is about the same for different family sizes. Therefore, the relative generosity of the SSP program is smallest for larger families in British Columbia. In dollar terms, SSP is most generous for families with one child in British Columbia (additional income of $9,517 per year, shown in row 4). If generosity is expressed as a fraction of earnings, maintenance income, and the basic Income Assistance benefit level, however (as in row 5), SSP is most generous for small families in New Brunswick (a 78 percent increase in income).

Rows 6 to 9 present similar information using the adjusted generosity measure based on net (that is, after tax and transfer) income comparisons at 30 hours per week. Consideration of taxes and transfers leads to a noticeable *reduction* in the apparent generosity of the SSP program across family size categories, mainly because supplement payments are taxable income but Income Assistance payments are not. Nonetheless, the ranking of relative generosity among the four family size/province subgroups is similar to that under the gross measure: SSP is least generous for single parents with three or more children in British Columbia, and most generous for single parents in New Brunswick with one child.[25]

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[23]See Appendix G for details of the estimation procedure and estimates of the parameters of the wage equation.

[24]For example, the average wage rate in British Columbia for a family with one child is $6.20. Thus, at 30 hours of work per week (1,560 hours per year), earnings would be $9,672.

[25]For the gross generosity measure, only one family (in British Columbia, with six children) is predicted to have higher gross income under IA than SSP. Even accounting for taxes and transfers, SSP yields a higher predicted net income than IA (at 30 hours of work per week) for all but seven families in British Columbia, all of which have more than three children.

Table 4.4: Relative Generosity of SSP, by Province and Family Size

Measure	British Columbia				New Brunswick			
	1 Child	2 Children	3 or More Children	All Families	1 Child	2 Children	3 or More Children	All Families
1. Predicted hourly wage ($)	6.20	6.25	6.30	6.24	5.53	5.50	5.44	5.51
Generosity, ignoring taxes and other transfers[a]								
2. Income while receiving IA and working 30 hours/week ($/year)	14,303	16,568	18,788	15,808	11,090	11,598	12,227	11,360
3. Income while receiving SSP payments and working 30 hours/week ($/year)	23,820	24,110	24,425	24,018	19,714	19,813	19,856	19,760
4. Additional income from SSP (row 3 - row 2)	9,517	7,542	5,637	8,209	8,623	8,216	7,629	8,400
5. Average ratio of row 4 to row 2[b]	0.67	0.46	0.30	0.54	0.78	0.71	0.62	0.74
Generosity, accounting for taxes and other transfers[c]								
6. Income while receiving IA and working 30 hours/week ($/year)	19,140	24,912	30,958	23,039	12,961	14,833	17,255	13,971
7. Income while receiving SSP payments and working 30 hours/week ($/year)	26,332	30,046	34,213	28,886	18,914	20,226	21,830	19,612
8. Additional income from SSP (row 7 - row 6)	7,192	5,134	3,256	5,847	5,953	5,393	4,575	5,641
9. Average ratio of row 8 to row 6[d]	0.39	0.21	0.11	0.28	0.46	0.37	0.27	0.41
Sample size (total = 2,645)[e]	**682**	**462**	**230**	**1,386**	**733**	**397**	**125**	**1,259**

Sources: Calculations from baseline survey data and Income Assistance administrative records.

Notes: Averages are based on program group subsamples only. Details of the calculations are given in Appendix G.

[a]Calculations ignore federal and provincial taxes and other transfers. Income includes earnings based on predicted hourly wage, maintenance income (income from alimony and child support), and Income Assistance or SSP supplement payments.

[b]Estimates are the averages of the ratio over program group members, not the ratio of the averages shown in lines 2 and 4.

[c]Taxes include federal and provincial income taxes plus Unemployment Insurance and Canada Pension Plan premiums deducted at payroll. Other transfers include the Goods and Services Tax Credit, the Child Tax Benefit, daycare subsidies, and, in British Columbia, bridging benefits for Income Assistance recipients who leave Income Assistance for full-time work.

[d]Estimates are the averages of the ratio over program group members, not the ratio of the averages shown in lines 6 and 8.

[e]"All families" include a small number of observations where number of children (age 0–18) is zero or missing.

Variation in SSP Impacts with Generosity

In light of the variation in relative generosity of the SSP program by province and family size, and the theoretical prediction from simple labour supply models that the program's impact should vary with its relative generosity, it is of interest to compare SSP's impacts across generosity levels. As a first step in this comparison, separate impacts were estimated in each province for families with one, two, and three or more children.

Table 4.5 summarizes the average monthly impacts on hours of work, earnings, employment, and Income Assistance receipt by quarter for each of the six family size/province subgroups. There was a slight pattern of decreasing impacts with family size, but the pattern was by no means clear. For example, in quarter 6, the impacts tended to be among the highest for families with three or more children in British Columbia, despite the fact that SSP is least generous for this group. However, because the other factors determining generosity are not held constant in this comparison, it is difficult to draw firm conclusions from these results.

Therefore, focus is directed on the calculated measures of generosity, which fully take into account differences between families in the factors determining generosity. Generosity measures for both program and control group members are used in this analysis. Table 4.6 reports results that show how impacts in month 15 vary with generosity. For each of the two alternative generosity measures, two subgroups were defined according to whether the value of the generosity measure was above or below the median for sample members in the province. (For example, in the analysis based on the generosity measure that is not adjusted for taxes and other transfers, sample members in British Columbia were classified according to whether the calculated generosity of SSP was above or below $8,920 per year.) The impacts of SSP were estimated for each subgroup.[26]

The analysis is based on comparisons between the estimated impacts for the higher- and lower-generosity subgroups. It should be noted that the characteristics of sample members differ between the subgroups. For example, members of the higher-generosity subgroups have smaller families, on average, than members of the lower-generosity subgroups. Single parents with small families could be either more likely or less likely than those with large families to respond to financial incentives to work, for reasons unrelated to relative generosity. Therefore, the observed relationship between generosity and impact may be stronger or weaker than the causal relationship (the extent to which the impact will increase if the program is made more generous). The causal relationship could be measured more reliably if sample members were randomly assigned to several different program groups with different earnings benchmarks, but within the constraints of the project's budget it was not feasible to implement such a design with an adequate sample size for each group.

[26]Formally, the model estimated was $Y = a + bH + cP + dP \times H + eZ + u$, where Y is the outcome in month 15, H is the higher-generosity dummy variable, P is the program group dummy variable, Z is the outcome in the month before random assignment, u is a random error term, and a, b, c, d, and e are estimated coefficients. The key coefficients are c (the impact for the lower-generosity subgroup) and d (the incremental impact for the higher-generosity subgroup). The sum of these two coefficients (c + d) is the impact for the higher-generosity subgroup. Appendix H gives results from an alternative specification in which the change in impact per $1,000 increase in generosity is estimated.

Table 4.5: SSP Impacts on Hours Worked, Earnings, Employment, and Income Assistance Receipt, by Province and Family Size

Outcome (monthly average)	British Columbia				New Brunswick			
	1 Child	2 Children	3 or More Children	Significance of Variation in Impacts	1 Child	2 Children	3 or More Children	Significance of Variation in Impacts
Average hours worked								
Quarter 1	-4	7*	1	*	1	4	1	n.s.
Quarter 2	1	10***	5	n.s.	6**	13***	3	n.s.
Quarter 3	8**	12***	9*	n.s.	9***	16***	9	n.s.
Quarter 4	14***	18***	12**	n.s.	13***	24***	16**	n.s.
Quarter 5	20***	23***	21***	n.s.	14***	27***	18**	*
Quarter 6	13***	20***	26***	n.s.	15***	24***	19**	n.s.
Average earnings ($/month)								
Quarter 1	-38	37	-3	n.s.	18	28	2	n.s.
Quarter 2	-8	64*	10	n.s.	54***	85***	13	n.s.
Quarter 3	44	86**	35	n.s.	77***	94***	48	n.s.
Quarter 4	100***	138***	59	n.s.	99***	142***	93*	n.s.
Quarter 5	149***	166***	129**	n.s.	101***	153***	71	n.s.
Quarter 6	98***	147***	193***	n.s.	98***	131***	67	n.s.
Overall employment rate (%)								
Quarter 1	-1.6	4.1	2.1	n.s.	-1.7	2.6	4.3	n.s.
Quarter 2	0.2	6.0**	4.4	n.s.	-0.2	8.0**	4.9	*
Quarter 3	3.9*	8.5***	6.8*	n.s.	2.5	10.8***	6.9	n.s.
Quarter 4	8.0***	11.1***	7.6*	n.s.	6.4***	16.6***	14.4***	**
Quarter 5	13.0***	14.9***	13.2***	n.s.	8.9***	19.2***	12.6**	**
Quarter 6	7.5***	12.0***	17.2***	n.s.	7.2***	15.7***	14.8**	n.s.
Receiving IA (%)								
Quarter 1	-0.1	-0.3	-0.2	n.s.	-1.3**	0.0	-0.3	n.s.
Quarter 2	-2.5**	-4.2***	-2.5	n.s.	-7.3***	-8.0***	-2.3	n.s.
Quarter 3	-4.7***	-7.3***	-3.7	n.s.	-10.6***	-14.7***	-6.7	n.s.
Quarter 4	-7.0***	-7.6***	-4.1	n.s.	-14.5***	-16.3***	-8.4*	n.s.
Quarter 5	-11.3***	-10.8***	-8.1**	n.s.	-15.9***	-17.0***	-10.1**	n.s.
Quarter 6	-12.5***	-11.5***	-13.0***	n.s.	-15.1***	-18.6***	-11.2**	n.s.
Sample size (total = 5,256)[a]	**1,377**	**916**	**447**	**2,740**	**1,474**	**765**	**277**	**2,516**

Sources: Calculations from baseline survey data, 18-month follow-up survey data, and Income Assistance administrative records.

Notes: The estimates for quarters 1–5 are calculated by averaging the monthly estimates for the three months within a quarter. The estimates for average hours worked, average earnings, and overall employment rate in quarter 6 are calculated by averaging the estimates for months 16 and 17. The estimates for Income Assistance receipt in quarter 6 are calculated by averaging the estimates for months 16–18.

For each family size subgroup in each province, a two-tailed t-test was applied to differences between the outcomes for the program and control groups. For each province, an F-test was applied to differences between family size subgroups in estimated impacts. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. Impacts which are not significantly different between family size subgroups at the 10 percent significance level are indicated by "n.s."

[a]Sample size does not total 5,288 because in a small number of observations the number of children (age 0–18) is zero or missing. The sample size for employment-related outcomes in quarter 6 is 5,018.

Table 4.6: SSP Impacts in Month 15 After Random Assignment, by Province and SSP Generosity

Measure and Outcome	British Columbia			New Brunswick		
	Lower-Generosity Subgroup	Higher-Generosity Subgroup	Significance of Variation in Impacts	Lower-Generosity Subgroup	Higher-Generosity Subgroup	Significance of Variation in Impacts
Unadjusted for taxes and other transfers						
Estimated impact on:						
Average hours worked	23***	20***	n.s.	17***	22***	n.s.
Average earnings ($/month)	170***	144***	n.s.	111***	127***	n.s.
Overall employment rate (%)	12.3***	13.2***	n.s.	12.5***	12.5***	n.s.
Full-time employment rate (%)[a]	14.9***	14.9***	n.s.	12.1***	18.5***	**
Receiving IA (%)	-12.0***	-12.8***	n.s.	-15.7***	-16.0***	n.s.
Receiving either IA or SSP (%)	5.1***	8.0***	n.s.	2.6	13.3***	***
Mean generosity ($/year)	6,640	9,905		7,769	9,108	
Minimum ($/year)	-242	8,921		5,607	8,257	
Maximum ($/year)	8,919	14,210		8,256	11,713	
Adjusted for taxes and other transfers						
Estimated impact on:						
Average hours worked	24***	19***	n.s.	18***	21***	n.s.
Average earnings ($/month)	177***	138***	n.s.	114***	124***	n.s.
Overall employment rate (%)	13.3***	12.2***	n.s.	12.9***	12.2***	n.s.
Full-time employment rate (%)[a]	15.0***	14.9***	n.s.	14.1***	16.2***	n.s.
Receiving IA (%)	-12.7***	-12.1***	n.s.	-16.7***	-15.1***	n.s.
Receiving either IA or SSP (%)	4.9***	8.1***	n.s.	3.4	11.9***	***
Mean generosity ($/year)	4,280	7,498		4,938	6,368	
Minimum ($/year)	-2,432	6,768		1,714	5,688	
Maximum ($/year)	6,752	10,803		5,686	8,576	
Sample size (total = 5,288)		**2,766**			**2,522**	

Sources: Calculations from baseline survey data, 18-month follow-up survey data, Income Assistance administrative records, and payment records from SSP's Program Management Information System.

Notes: Lower and higher generosity are defined on the basis of the median in the sample. Generosities at or below the median are considered lower, and generosities above the median are considered higher.

For each province, a two-tailed t-test was applied to differences between the outcomes for the program and control groups in the lower-generosity subgroup and the higher-generosity subgroup. The significance of the variation in impacts between the lower- and higher-generosity subgroups was determined from a two-tailed t-test applied to differences in impacts between the two subgroups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent. Impacts which are not significantly different between the lower- and higher-generosity subgroups at the 10 percent level are indicated by "n.s."

[a]"Full-time employment" is defined as working 30 or more hours per week in at least one week during the month.

The results in Table 4.6 are reported separately for the generosity measure that does not adjust for taxes and other transfers and the measure that does adjust. Six monthly outcomes are examined: average hours of work, average earnings, the overall employment rate, the full-time employment rate, the percentage receiving Income Assistance, and the percentage receiving either Income Assistance or the SSP supplement.

For the unadjusted measure, the results indicate that in New Brunswick, impacts on some of the outcomes did vary systematically with the generosity of SSP. The impact on full-time employment was 6.4 percentage points larger for the higher-generosity subgroup than for the lower-generosity subgroup (18.5 versus 12.1 percentage points). The impact on receipt of either Income Assistance or SSP payments was 2.6 percentage points for the lower-generosity subgroup and 13.3 percentage points for the higher-generosity subgroup. When the measure that adjusts for taxes and other transfers was used, the differences in estimated impacts on most outcomes were small; only the impact on receipt of either IA or SSP payments varied significantly with generosity.

Except for the unadjusted measure in New Brunswick, these results do not provide evidence that the impacts of SSP vary systematically with generosity. It is possible that families are not fully aware of all the transfers they are eligible to receive and the complexities of the tax and transfer system. Nonetheless, because sizable impacts were observed at almost every generosity level, it appears that program staff have been successful in getting across the message that SSP makes work pay to a wide spectrum of program group members.

While generosity was only weakly related to impacts in the fifteenth month after random assignment, it is possible that a stronger relationship will emerge in a later period. Over time, families for whom SSP is not very generous relative to Income Assistance (for example, large families) may conclude that they are not much better off under SSP and thus might be more likely to return to Income Assistance.

CONCLUSION

SSP's estimated impacts tended to be larger for subgroups that were more job-ready or faced fewer barriers to employment. There is also some evidence that impacts in New Brunswick were larger for people who were offered a larger financial incentive by SSP, relative to Income Assistance. Nevertheless, SSP's estimated impacts on full-time employment were sizable and statistically significant for virtually every one of the many subgroups that were defined according to indicators of program environment, family structure, family background, job-readiness, barriers to employment, and the size of the financial incentive. Income Assistance recipients facing a broad range of circumstances left welfare for full-time work in response to the SSP offer.

Chapter 5
Impacts on Incomes, Living Standards, and Expenditure Patterns

INTRODUCTION AND SUMMARY

As explained in chapters 3 and 4, SSP increased the employment and earnings of program group members. Moreover, although SSP led to a significant reduction in average Income Assistance payments, the earnings supplement payments received by the program group more than made up for the lower Income Assistance payments. SSP therefore raised both the labour earnings and transfer income of program group members, leading to a substantial increase in the incomes of long-term Income Assistance recipients. This chapter attempts to explain how this extra income affected the living conditions of the individuals and families offered the program.

The chapter begins with a summary of SSP's effect on the individual earnings and incomes of program group members. The summary is followed by a consideration of the program's effect on *family* income and the family's "income-to-need" ratio — the ratio of family income relative to the low-income threshold used by Statistics Canada to identify economically disadvantaged families. SSP increased average family income by about as much as it increased individual income, and reduced the fraction of families with incomes below the low-income threshold by 12 percentage points — a significant anti-poverty effect. As noted in chapter 3, whether SSP continues to raise incomes after the supplement period will depend on such factors as the extent to which supplement takers experience a progression in earnings.

The chapter turns next to expenditures, focusing on three main types of expenditures — food, housing, and children's clothing — that together account for most of household spending among long-term Income Assistance recipients in the SSP target population. On average, program group members and their families spent about 20 percent of the additional income generated by SSP on these three items. Another 22 percent is projected to have been spent on higher taxes (income and payroll). As one might expect, however, spending patterns differed between different types of families. Larger families in New Brunswick, who are relatively disadvantaged in the absence of SSP, spent about one-fourth of their SSP-related income gains on food alone. The use of such a large share of income gains to buy necessities like food and shelter is a clear indication of the financial constraints facing these families in the absence of SSP, and suggests that SSP resources are helping poor families meet their basic needs.

In addition to analyzing housing expenditures, the chapter examines the effects of SSP on housing quality and on the probability that people changed location during the first 18 months after random assignment. There are varying responses to the SSP program depending on a person's initial housing situation. Among people who rented a home at random assignment and were not receiving a housing subsidy, SSP had no significant effects on the probability of

moving, housing quality, or average rent paid. Among homeowners, SSP had no effect on the decision to move, but in one of the two provinces (New Brunswick) it led to a significant improvement in housing quality, suggesting that homeowners used some of their SSP-related income gains to alleviate housing problems. Finally, among renters who were receiving a housing subsidy at random assignment, SSP increased the probability of moving, with a significant net flow out of subsidized housing in New Brunswick, at least.

The last section of the chapter examines the effect of SSP on asset holdings. Given the three-year time limit on supplement receipt, one might expect families whose food and shelter needs were reasonably satisfied to save a portion of the extra income generated by SSP. The analysis here confirms this expectation: statistically significant increases are found in the fractions of sample members with a savings account and a registered retirement savings plan, concentrated among groups who were more advantaged in the absence of SSP.

ESTIMATED IMPACTS ON FAMILY INCOME AND INCOME-TO-NEED RATIO

Table 5.1 reports means of various earnings and income measures for the program group and control group, along with estimated program impacts (the mean for the program group minus the mean for the control group). The first row of the table reports average monthly earnings during the six months prior to the 18-month interview (roughly months 12–17).[1] As noted in chapter 3, the program group earned $124 more per month than the control group during this period. The second row of the table shows average monthly Income Assistance payments that the two groups received over the same interval. The significantly lower payments received by the program group reflect the move off Income Assistance attributable to the incentive effects of SSP. As shown in the next row of the table, the reduction in Income Assistance payments among the program group was more than offset by the SSP earnings supplements. Adding together Income Assistance and SSP supplement payments, the program group received $93 more per month than the control group during months 12–17. The total effect of SSP on the three main components of individual income — labour earnings, Income Assistance benefits, and SSP supplement payments — is summarized in the fourth row of Table 5.1, and amounts to a $218 impact.

Row 5 of the table includes the effects of various other transfers that sample members received, including Unemployment Insurance, federal and provincial tax credits, and child support. As described in more detail in Appendix E, these other sources amounted on average to $270 per month for members of the control group and $260 per month for members of the program group. The similarity of the "other income" amounts for members of the program and control groups suggests that the higher earnings and Income Assistance/SSP payments received by the program group were not significantly offset by reductions in other income flows. Thus, the program impact on average monthly individual income from *all* sources ($208) was only $10 per month less than the program impact on combined earnings, Income Assistance, and SSP income.

[1] In chapter 3, estimates for this period were presented in the analysis of impacts on public expenditures and sample members' incomes (Tables 3.7, 3.9), but not the analyses of quarterly impacts on employment, earnings, and Income Assistance receipt (Tables 3.1, 3.2, 3.6, 3.8).

Table 5.1: SSP Impacts on Individual and Family Income, Months 12–17

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
1. Individual earnings ($/month)	347	222	124***	(14)
2. Income Assistance payments ($/month)	621	723	-103***	(12)
3. Income Assistance and SSP payments ($/month)	817	723	93***	(10)
4. Earnings, Income Assistance, and SSP payments ($/month)	1,163	946	218***	(15)
5. Individual income[a] ($/month)	1,423	1,215	208***	(16)
6. Individual income net of taxes (income and payroll)[b] ($/month)	1,355	1,192	163***	(14)
7. Family income[c] ($/month)	1,486	1,286	199***	(18)
8. Income-need ratio (family income/low-income cut-off) x 100[d]	78.9	68.1	10.8***	(1.0)
9. Income gap[c] ($/month)	599	719	-120***	(14)
Sample size (total = 5,288)	**2,645**	**2,643**		

Sources: Calculations from 18-month follow-up survey data, Income Assistance administrative records, and payment records from SSP's Program Management Information System.

Notes: All estimates are monthly averages pertaining to the six months prior to the 18-month follow-up survey.
Sample sizes vary for individual measures because of missing values.
A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.
[a]Individual income includes earnings, Income Assistance, and SSP payments, as well as all other sources of individual cash income (tax credits, other transfers, etc.).
[b]Taxes were imputed using federal and provincial tax rules and include payroll deductions for Unemployment Insurance (now Employment Insurance) and Canada Pension Plan premiums.
[c]Family income is measured by the sum of the individual's income plus the labour earnings of any other members in the individual's family.
[d]The income-need ratio is annualized family income divided by the low-income cut-off defined by Statistics Canada for the sample member's location and family size.
[e]The income gap is the difference between the low-income cut-off income level for the family and total family income. The gap is set to zero if family income exceeds the low-income cut-off.

An important feature of SSP that was emphasized in chapter 3 is that the higher earnings and supplement payments received by the program group are subject to income taxes. Earnings (but not the supplement payments) are also subject to payroll taxes for Unemployment Insurance (now Employment Insurance) and Canada Pension Plan premiums. The final measure of individual income used in this report takes account of this feature by subtracting projected tax obligations from the pre-tax incomes of individuals in the program and control groups. Average taxes were estimated at $68 per month for members of the program group and $24 for the control group.[2] Adjusting for the higher taxes of the program group, SSP's impact on after-tax income falls to $163 per month.

Family Composition and Income

While SSP's impacts on individual incomes are important, the actual living standards of sample members and their children depend on total *family* resources. Detailed family rosters and information on the incomes of other family members were collected in the 18-month follow-up survey. Following standard practice, families were defined on the roster as people

[2]These are projected using federal and provincial tax rules as explained in Appendix F. Actual taxes paid may differ. Estimated taxes in this chapter differ slightly from the estimates in chapter 3 because the latter do not include payroll taxes, as explained in that chapter.

living in the same household who are related by blood, marriage, or adoption.[3] Table 5.2 uses the roster information to compare the family composition and living arrangements of the program and control groups. Similar comparisons by province are reported in Appendix E.

Table 5.2: SSP Impacts on Family Composition and Living Arrangements, Month 18

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Family size (average)	2.9	2.9	0.0	(0.0)
Number of children (average)				
Ages 0–5	0.6	0.6	0.0	(0.0)
Ages 6–16	0.9	0.9	0.0	(0.0)
Ages 17 or older	0.2	0.2	0.0	(0.0)
Total	1.7	1.7	0.0	(0.0)
Number of other adults in family (average)	0.2	0.2	0.0	(0.0)
Living arrangements				
Living with members of extended family (%)	11.4	10.1	1.4	(0.9)
Living with members of another family (%)	8.3	10.9	-2.6***	(0.8)
Living with spouse (%)	10.1	9.6	0.4	(0.8)
Sample size (total = 5,288)	**2,645**	**2,643**		

Source: Calculations from 18-month follow-up survey data.

Notes: Family size includes all persons living in the household who are related to the sample member by blood, marriage, or adoption, or through a foster relationship. Number of children includes sons/daughters, grandchildren, sons/daughters-in-law, and foster children of any age, and other persons under age 19 who are related by blood. Other adults in the family include spouses, parents, parents-in-law, siblings, and other persons age 19 or older who are related by blood. "Extended family" refers to anyone in the family other than the sample member, spouse of the sample member, and the sample member's own children. "Another family" refers to persons not related to the sample member by blood, marriage, or adoption, or through a foster relationship.
Sample sizes vary for individual measures because of missing values.
A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.

The family composition data reveal that a typical sample member had one or two children and lived with no other adults, although about 11 percent lived with extended family members, and a comparable fraction shared their living quarters with members of another family.[4] About 10 percent of the sample reported that they were living with their spouse. The program and control groups had similar family compositions, although program group members were less likely to live in shared accommodation with non-family members. Note in particular that members of the program and control groups had almost identical average numbers of children and of other adults in their families. Moreover, program and control group members were equally likely to live with a spouse, 18 months after random assignment.[5]

Returning to Table 5.1, the seventh row of the table considers average monthly *family* income, accounting for labour earnings of other family members.[6] Average earnings of other

[3]This definition corresponds to "economic" families, as defined by Statistics Canada and the U.S. Bureau of the Census. Note that the economic family of a woman who lives with a sister or parent includes these individuals and their spouses or children.

[4]Extended family members are in the same "family" whereas non-relatives who share the same living quarters are not.

[5]Closer examination of the patterns by province (see Appendix E) shows that in New Brunswick, program group members were somewhat more likely to live with a spouse in month 18 than control group members, while in British Columbia, the opposite was true. It is not clear why the impacts appear to differ between the two provinces. Future work will address this question in more depth.

[6]The survey asked about employment income received in the last six months by "any other member of your family, not including yourself." Although the "economic" family definition was used on the family roster, whether sample members used the same definition in interpreting the income questions is unknown.

(continued)

family members were relatively modest ($60–$70 per month) and very similar between the program and control groups, implying that the net impact of SSP on total family income was only slightly less than the net impact on the sum of individual earnings, Income Assistance benefits, and SSP payments.[7] Given the similarity of family composition in the program and control groups, and the similarity of other family members' incomes in the two groups, we conclude that SSP's impact on family incomes was essentially confined to the individual earnings and transfers that program group members received.

The Income-to-Need Measure

Although family income is widely used as a yardstick of economic well-being, comparisons of family income ignore differences in income needs across households attributable to such factors as family size or location. One way to incorporate these differences is to calculate the ratio of family income to a family-specific low-income threshold, using formulas developed by Statistics Canada to measure the income needs of different family sizes in different geographic locations.[8] As shown in row 8 of Table 5.1, the average of this "income-to-need" ratio in the control group was 68 percent. The higher average incomes among program group families raised the ratio to 79 percent, implying an 11 percentage point impact on the income-to-need ratio. Another simple summary statistic that incorporates variation in family income needs is the income "gap": the amount of income that a family would need to raise them above the low-income threshold. (For families above the low-income threshold the income gap is 0.) The average value of this gap was $599 per month among the program group, and $719 per month among the control group. The difference indicates that SSP reduced the income gap by $120 per month, or 17 percent of its average value in the absence of the program.

Even more revealing than these average figures is the *distribution* of income-to-need ratios among the program group and the control group. Shown at the top of Table 5.3 are the fractions of the two groups in five ranges: income less than 50 percent of the low-income threshold, income between 50 and 65 percent of the threshold, income between 65 and 80 percent of the threshold, income between 80 and 100 percent of the threshold, and income over 100 percent of the low-income threshold. Examination of the distribution for the control group shows that almost 90 percent of the SSP target population would be considered "low-income" or "poor" in the absence of the program.[9] By comparison, 78 percent of the program group had family incomes below the appropriate threshold, implying a 12 percentage point impact on the fraction of families in poverty. The rise in the fraction of program group families above the poverty threshold was accompanied by reductions in each of the three lowest income-need intervals, including the very lowest interval. The reduction in the fraction of "very poor" families (those with incomes under 50 percent of the poverty

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Because of missing data, the family income measure omits (1) non-labour income received by other family members and (2) earnings of other family members, if the sample member did not report a dollar value for those earnings. Appendix F provides further details.

[7]The difference between the estimated impact on average family income ($199 per month) and the estimated impact on the sum of earnings, Income Assistance, and SSP ($218) is $18 per month, with a standard error of $12. Thus, the impacts are not significantly different.

[8]The construction of the low-income cut-offs is described in Statistics Canada (1997). The cut-off depends on family size and the size of the area of residence, but does not explicitly vary by province.

[9]Following conventional usage, this report refers to families whose income is below the low-income threshold as "poor" or "living in poverty."

threshold) is a significant accomplishment, and suggests that SSP conveys measurable benefits even for families that would otherwise fall very far down the economic ladder.

Table 5.3: SSP Impacts on Distribution of Income-Need Ratio, Months 12–17

Subgroup and Income-Need Ratio	Program Group	Control Group	Difference (Impact)	Standard Error
Overall sample				
All families, income-need ratio				
Less than 0.50	18.3	21.6	-3.3***	(1.1)
0.50–0.64	26.1	31.0	-4.9***	(1.3)
0.65–0.79	19.2	25.0	-5.8***	(1.1)
0.80–0.99	14.0	12.2	1.8*	(0.9)
1.00 or greater	22.5	10.2	12.2***	(1.0)
Sample size (total = 5,207)[a]	**2,605**	**2,602**		
British Columbia				
Families with 1 child, income-need ratio				
Less than 0.50	14.2	20.8	-6.5***	(2.1)
0.50–0.64	23.0	25.9	-2.9	(2.3)
0.65–0.79	19.6	26.2	-6.6***	(2.3)
0.80–0.99	15.9	12.9	2.9	(1.9)
1.00 or greater	27.3	14.2	13.1***	(2.2)
Sample size (total = 1,362)[a]	**674**	**688**		
Families with 2 or more children, income-need ratio				
Less than 0.50	10.6	12.9	-2.2	(1.8)
0.50–0.64	25.4	29.1	-3.7	(2.4)
0.65–0.79	26.7	31.8	-5.1**	(2.5)
0.80–0.99	16.3	16.4	0.0	(2.0)
1.00 or greater	21.0	9.9	11.1***	(2.0)
Sample size (total = 1,346)[a]	**686**	**660**		
New Brunswick				
Families with 1 child, income-need ratio				
Less than 0.50	24.5	26.5	-2.0	(2.3)
0.50–0.64	26.0	30.9	-4.9**	(2.4)
0.65–0.79	14.7	21.2	-6.4***	(2.0)
0.80–0.99	12.9	11.3	1.7	(1.7)
1.00 or greater	21.8	10.2	11.7***	(1.9)
Sample size (total = 1,447)[a]	**719**	**728**		
Families with 2 or more children, income-need ratio				
Less than 0.50	25.1	26.7	-1.6	(2.7)
0.50–0.64	32.2	40.8	-8.6***	(3.0)
0.65–0.79	14.3	20.6	-6.3***	(2.4)
0.80–0.99	10.0	7.5	2.5	(1.8)
1.00 or greater	18.4	4.5	13.9***	(1.9)
Sample size (total = 1,020)[a]	**510**	**510**		

Sources: Calculations from 18-month follow-up survey data, Income Assistance administrative records, and payment records from SSP's Program Management Information System.

Notes: The reported numbers are the fractions of various samples whose income-need ratio is in the stated range. The income-need ratio is annualized family income (measured for the six months prior to the 18-month survey) divided by the low-income cut-off defined by Statistics Canada for the sample member's location and family size. Number of children (age 0–18) refers to number of children indicated on Income Assistance administrative records in the month of random assignment. Overall sample includes a small number of observations where number of children is zero or missing.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a]Samples exclude a small number of observations for which the low-income cut-off could not be determined.

The wide variation in income-to-need levels among the control group may seem surprising, given that over 80 percent of these families were still on Income Assistance in months 12–17. Part of this variation reflects differences in the relative incomes of different-sized families in British Columbia and New Brunswick arising from differences in Income Assistance benefit formulas. This feature is illustrated in Figure 5.1, which shows the distributions of income-to-need ratios for four subgroups of the control group families, defined by province and number of children at random assignment.[10] Consistent with the lower levels of Income Assistance payments in New Brunswick that were noted in chapter 1, the distribution of income-to-need was more concentrated in lower intervals for families in this province. Larger families in New Brunswick were particularly disadvantaged: 68 percent of these fell into the two lowest income-to-need intervals, versus 57 percent of smaller families in New Brunswick and only 42 percent of larger families in British Columbia. Within British Columbia the comparison between smaller and larger families is mixed. Both groups had about the same fraction of families with incomes above 80 percent of the low-income threshold (27 percent of small families in the control group versus 26 percent of larger families). However, smaller families were more likely to be in either the upper or lower tail of the income-to-need distribution than larger families.

The distributions of income-to-need among program and control group families in each of these four subgroups are compared in Table 5.3.[11] Although the program impacts on the income-to-need distributions varied somewhat from subgroup to subgroup, the net effect of SSP on the fraction of families above the poverty threshold (i.e., on the fraction with income-to-need greater than 1) was remarkably similar across subgroups. For all four subgroups, SSP raised the fraction of families above the low-income threshold by 11–14 percentage points.

ESTIMATED IMPACTS ON EXPENDITURES

The analysis so far suggests that SSP provided income gains for a broad spectrum of former Income Assistance recipients, including those in bigger and smaller families in both provinces. How was this additional income used by program participants? To answer this question, the 18-month follow-up survey included a series of questions on household expenditures and living conditions. Among these items were questions on average weekly expenditures for groceries and eating out, average monthly expenditures for children's clothing, and rent or mortgage payments.[12] Table 5.4 presents average monthly expenditures among the program and control groups, along with estimated impacts on expenditures for food (groceries plus food away from home), children's clothing, and rent/mortgage payments.[13] In addition, since disadvantaged families may supplement their food purchases

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[10]This classification is based on children under age 19 only. Number of children under age 19 was obtained from Income Assistance records in the month of random assignment. A small number of families were excluded from the four subgroups because the recorded number of children under age 19 at random assignment was missing or zero.

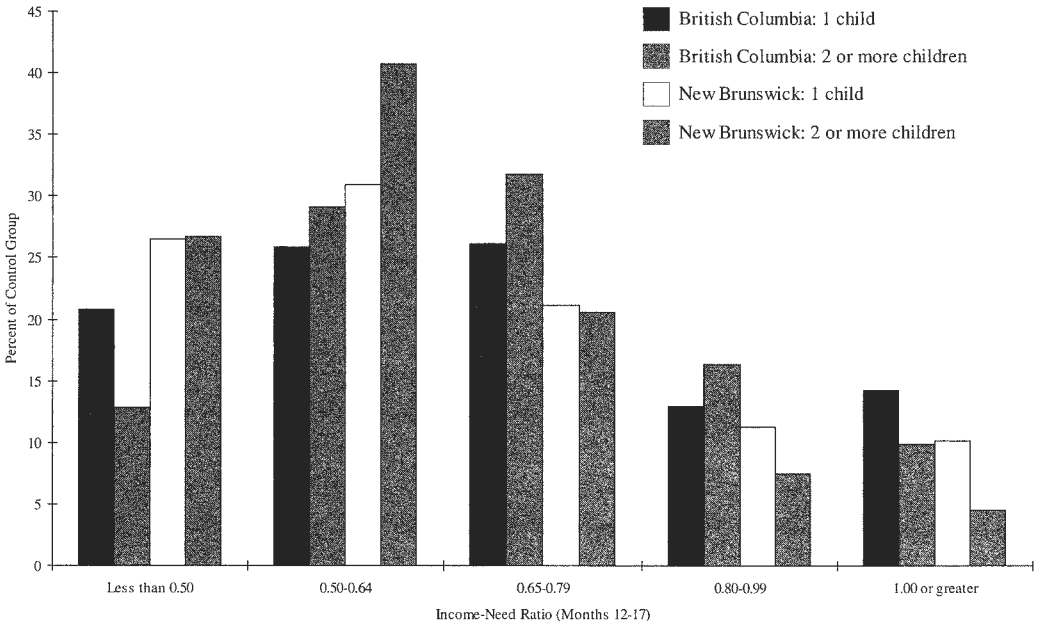
[11]The effects of SSP on average (pre-tax) family incomes for these four subgroups are discussed in more detail below but are fairly similar (ranging from $177 per month to $217 per month).

[12]The precise questions were as follows: for food at home, "Approximately how much do you and your family spend each week on groceries?"; for food away from home, "Approximately how much would you and your family spend in an average week on eating out, including breakfast, lunch, dinner, and snacks?"; for children's clothing, "On average, how much do you and your family spend each month on children's clothing?"; for rent/mortgage, "What do you pay for your monthly rent or mortgage? (Do not include subsidies that are paid directly to you.)"

[13]For ease of comparison, expenditures are reported here on a monthly basis, assuming 4.33 weeks per month.

by using food banks, the table presents fractions of the program and control groups who reported using a food bank in the three months prior to the 18-month survey.[14] For reference, average monthly (pre-tax) family income for the program and control groups is also reported, as well as projected taxes (income and payroll) that the groups owed.[15]

Figure 5.1: Income-Need Ratio at 18-month Interview by Province and Family Size, Control Group Only



Sources: Calculations from 18-month follow-up survey data, Income Assistance administrative records, and payment records from SSP's Program Management Information System.

The data for the overall control group at the top of Table 5.4 reveal that food, housing, children's clothing, and taxes make up a large fraction of the monthly budget of the SSP target population. The average expenditure shares among control group families (defined as the ratios of mean expenditures on each item to mean family income) are reported in the first four columns of Table 5.5, along with the total share of spending on these four items in the fifth column of the table. Average food spending ($389 per month) accounted for 30 percent of mean family income in the absence of SSP, while housing costs ($461 per month) accounted for 36 percent of mean family income. These two items, together with spending on children's clothing, accounted for almost 70 percent of *before-tax* family income among the overall control group. The allocation of such a high fraction of income to necessities like food, housing, and clothing is widely interpreted as evidence of relative poverty.[16] This is

[14]The question was: "In the past three months have you or other members of your family used a food bank to obtain groceries for your household?"

[15]The projected taxes do not include taxes on earnings of other family members.

[16]As noted in Deaton (1997: chapter 4), for example, the share of spending on necessities like food, clothing, and shelter is typically higher for lower-income families and lower for higher-income families. Based on this long-established empirical regularity, economists often use the fraction of spending on necessities as an index of relative poverty. Statistics Canada's low-income cut-offs are based on income limits such that food, clothing, and shelter account for no more than 55 percent of total family income.

confirmed by the fact that 21 percent of control group families reported having used a food bank in the past three months to supplement their food spending. Further evidence of the relative deprivation of the SSP target population is provided by another set of questions that asked sample members whether they had been unable to get food at some time over the past three months, and why.[17] Forty percent of the control group reported that they needed food but were unable to afford it at some time in the three months prior to the 18-month interview.

Table 5.4: SSP Impacts on Expenditures for Food, Clothing, and Rent, Months 12–17

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Overall sample				
All families				
Average family income ($/month)	1,486	1,286	199***	(18)
Average taxes (income and payroll) ($/month)	68	24	45***	(3)
Average food spending ($/month)	413	389	25***	(6)
Used food bank last 3 months (%)	19.1	21.1	-2.0*	(1.1)
Average children's clothing spending ($/month)	48	44	4***	(1)
Monthly rent ($)	470	461	9	(6)
Sample size (total = 5,288)[a]	**2,645**	**2,643**		
British Columbia				
Families with 1 child				
Average family income ($/month)	1,523	1,306	217***	(38)
Average taxes (income and payroll) ($/month)	87	35	53***	(8)
Average food spending ($/month)	373	358	15	(11)
Used food bank last 3 months (%)	16.5	16.0	0.5	(2.0)
Average children's clothing spending ($/month)	39	38	1	(2)
Monthly rent ($)	552	558	-6	(11)
Sample size (total = 1,377)[a]	**682**	**695**		
Families with 2 or more children				
Average family income ($/month)	1,785	1,585	199***	(32)
Average taxes (income and payroll) ($/month)	77	26	50***	(7)
Average food spending ($/month)	512	482	30**	(15)
Used food bank last 3 months (%)	21.3	20.7	0.6	(2.2)
Average children's clothing spending ($/month)	52	48	4*	(3)
Monthly rent ($)	641	620	21*	(12)
Sample size (total = 1,363)[a]	**692**	**671**		
New Brunswick				
Families with 1 child				
Average family income ($/month)	1,237	1,059	177***	(33)
Average taxes (income and payroll) ($/month)	52	18	34***	(4)
Average food spending ($/month)	335	322	13	(9)
Used food bank last 3 months (%)	17.1	18.7	-1.5	(2.0)
Average children's clothing spending ($/month)	43	38	5**	(2)
Monthly rent ($)	338	319	20**	(8)
Sample size (total = 1,474)[a]	**733**	**741**		

[17]Sample members were asked: "Over the past three months was there a time when you needed groceries or food but were unable to get it?" Those who responded yes were then asked why they could not get food, with possible responses including "unable to get out and get it," "couldn't afford it," or other reasons. Following Mayer and Jencks (1989), an indicator of food hardship was constructed to measure whether people were unable to get food because they could not afford it.

Table 5.4: SSP Impacts on Expenditures for Food, Clothing, and Rent, Months 12–17 (Cont'd)

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Families with 2 or more children				
Average family income ($/month)	1,384	1,194	190***	(36)
Average taxes (income and payroll) ($/month)	52	13	39***	(5)
Average food spending ($/month)	441	399	42***	(12)
Used food bank last 3 months (%)	23.0	32.4	-9.5***	(2.8)
Average children's clothing spending ($/month)	61	55	6*	(3)
Monthly rent ($)	319	323	-4	(10)
Sample size (total = 1,042)[a]	**522**	**520**		

Sources: Calculations from 18-month follow-up survey data, Income Assistance administrative records, and payment records from SSP's Program Management Information System.

Notes: Income and tax estimates pertain to the six months prior to the 18-month follow-up survey. Taxes were imputed for sample member's income only; i.e., taxes on earnings of other family members were not calculated. Taxes were imputed using federal and provincial tax rules and include payroll deductions for Unemployment Insurance (now Employment Insurance) and Canada Pension Plan premiums.

Food spending refers to money spent on groceries and on eating out. Sample members were asked at the 18-month interview how much they spent in an average week on each of these items. Food expenditures were converted to monthly estimates by assuming 4.33 weeks per month.

For other items, the precise questions on the 18-month survey were as follows. For use of a food bank: "In the past three months, have you or other members of your family used a food bank to obtain groceries for your household?" For children's clothing: "On average, how much do you and your family spend each month on children's clothing?" For monthly rent: "What do you pay for your monthly rent or mortgage? (Do not include subsidies that are paid directly to you.)"

Number of children (age 0–18) refers to number of children indicated on Income Assistance administrative records in the month of random assignment. Overall sample includes a small number of observations where number of children is zero or missing. Sample sizes vary for individual measures because of missing values.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a]Sample sizes vary for individual measures because of missing values.

Compared with the control group, the program group spent more on food, children's clothing, and housing, had higher projected tax obligations, and reported a lower utilization of food banks. Overall, for example, the program group spent $24.69 per month more on food. Since SSP raised the incomes of the program group by $199, the "marginal expenditure share" was 12.4 percent (=24.69/199 x 100). A full set of marginal expenditure shares for food, children's clothing, housing, and projected taxes is reported in columns 6–10 of Table 5.5. These numbers show that on average, the program group spent 19 percent of the extra income arising from SSP on basic necessities (food, children's clothing, and housing). Another 22.4 percent was absorbed by higher taxes. Thus, taxes and spending on basic necessities accounted for about 41 percent of the income gains enjoyed by the program group.

Expenditure patterns for smaller and larger families (one child and two or more children, respectively) in the two provinces are also reported in Table 5.4. The corresponding ratios of average spending on food, children's clothing, and shelter to total family income are presented in rows 2–5 of Table 5.5. Consistent with the income-to-need ratios and the idea that a higher food share indicates relative deprivation, larger control group families in New Brunswick spent the highest fraction of their income on food (33.4 percent) and were most likely to use food banks (32.4 percent report using a food bank in the past three months). Families in British Columbia spent a much higher fraction of their income on housing than families in New Brunswick, presumably as a result of the much higher housing costs in the Vancouver metropolitan area than in New Brunswick.

Table 5.5: Expenditure Shares Associated With SSP's Impacts on Income

Subgroup	Expenditure Shares Associated (Control Group only)					Marginal Expenditure Shares				
	Food	Children's Clothing	Rent	Total Taxes	All 4 Items	Food	Children's Clothing	Rent	Total Taxes	All 4 Items
Overall sample	30.2	3.4	35.8	1.8	71.3	12.4	2.1	4.5	22.4	41.4
British Columbia										
Families with 1 child	27.4	2.9	42.8	2.7	75.7	7.0	0.6	-3.0	24.3	28.8
Families with 2 or more children	30.4	3.0	39.1	1.7	74.2	15.3	2.1	10.3	25.3	53.1
New Brunswick										
Families with 1 child	30.4	3.6	30.1	1.7	65.8	7.2	2.7	11.0	19.4	40.3
Families with 2 or more children	33.4	4.6	27.1	1.1	66.2	22.0	3.2	-2.0	20.3	43.6

Sources: Calculations from 18-month follow-up survey data, Income Assistance administrative records, and payment records from SSP's Program Management Information System.

Notes: Numbers are derived from estimates shown in Table 5.4. The reported expenditure shares in columns 1–5 are the ratios of average spending on each item (reported by sample members in the control group) to average family income. The marginal expenditure shares in columns 6–10 are the differences in average spending on each item between the program group and the control group divided by the difference in average family income between the program group and the control group.

See Table 5.4 for notes on expenditure items and subgroups.

Rounding may cause slight discrepancies in sums and differences.

Comparisons of SSP's impacts on the spending patterns of different-sized families in the two provinces are informative. The most disadvantaged group — larger families in New Brunswick — spent 22 percent of the gross income gain associated with SSP on food. This rise in the food budget was accompanied by a statistically significant 9.5 percentage point drop in the use of food banks.[18] Larger New Brunswick families also spent more on children's clothing, but no more on housing. In contrast, small families in the two provinces spent relatively little of the extra income generated by SSP on food. Two of the four subgroups (small families in New Brunswick and larger families in British Columbia) spent significantly more on rent, while small families in British Columbia spent relatively little (only 4.6 percent) of the extra income generated by SSP on food, rent, or children's clothing.

Taken together with the income-to-need distributions, the expenditure data in Tables 5.4 and 5.5 point to four important conclusions. First, the SSP target population is relatively disadvantaged. In the absence of the SSP program, about 90 percent of the families have income less than the low-income threshold appropriate for their geographic location and family size. They spend about 30 percent of their gross income on food and 35 percent on housing. One-fifth of the control group reported that they used a food bank in the previous three months to supplement their food budget. Second, there is considerable heterogeneity in the standard of living in the absence of SSP. Some subgroups — specifically, larger families in New Brunswick — are particularly disadvantaged. Third, SSP generated a significant improvement in conventional measures of well-being. The program raised gross family income among the program group by about $200 per month, or 15 percent of family income in the absence of SSP. It reduced the fraction of families below the low-income threshold by about 12 percentage points, and the fraction of families in "extreme poverty" (less than 50 percent of the low-income threshold) by 3 percentage points. Fourth, a sizable fraction of SSP-generated income gains were spent on basic necessities (food, children's clothing, and rent) and taxes, although different types of families allocated the resources differently. Larger families in New Brunswick devoted 22 percent of gross SSP income gains to food alone, and reduced their usage of food banks by about one-third.

ESTIMATED IMPACTS ON RESIDENTIAL MOBILITY AND HOUSING CONDITIONS

An important component of the standard of living is the quantity and quality of housing. Housing issues loom especially large for lower-income families, who often find it difficult to afford quality housing that is close to job opportunities, schools, and family networks. A substantial literature has examined the correlations between the residential location of poorer families and such factors as unemployment, school quality, and children's peer groups.[19] These studies suggest that the limited housing opportunities available to low-income families pose a special problem for the next generation: children who grow up in poor neighborhoods

[18]The fraction of larger families in New Brunswick reporting that they needed food but could not afford it was 37.3 percent in the control group and 32.0 percent in the program group. The implied program effect (–5.3 percentage points) is statistically significant at the 10 percent level.

[19]See, for example, Jencks and Mayer (1990), Case and Katz (1991), and Massey and Denton (1993).

have lower educational attainment, higher criminal activity rates, and a higher likelihood of ending up on public assistance later in life.[20]

In light of the potential importance of housing issues for the SSP target population, the 18-month follow-up survey asked a variety of questions designed to measure the effects of SSP on the quality and quantity of housing. These included questions on homeownership, residential mobility, and specific housing problems. A first issue is the type of housing occupied by long-term Income Assistance recipients. Table 5.6 shows the fractions of families in the program and control groups who lived in unsubsidized rental housing, subsidized rental housing, or their own homes at the time of the 18-month interview. The housing patterns for the control group suggest that most long-term Income Assistance recipients live in rental housing: only about 5 percent of those in British Columbia and 13 percent of those in New Brunswick owned their own homes at the 18-month interview.[21] A relatively higher fraction of New Brunswick renters received a rental subsidy than in British Columbia. Among the program group the housing situations were similar to those of the control group, with little indication of a systematic impact on the type of housing.

Table 5.6: SSP Impacts on Housing Situation, Month 18

Subgroup and Housing Situation	Program Group	Control Group	Difference (Impact)	Standard Error
Overall sample				
Percent who in month 18:				
Rented, no subsidy	72.2	71.1	1.2	(1.2)
Rented, with subsidy	19.2	19.6	-0.4	(1.1)
Owned home	8.1	9.0	-0.9	(0.8)
Sample size (total = 5,288)	**2,645**	**2,643**		
British Columbia				
Percent who in month 18:				
Rented, no subsidy	78.9	79.6	-0.7	(1.5)
Rented, with subsidy	15.8	14.9	0.9	(1.4)
Owned home	4.9	5.1	-0.2	(0.8)
Sample size (total = 2,766)	**1,386**	**1,380**		
New Brunswick				
Percent who in month 18:				
Rented, no subsidy	64.9	61.7	3.2*	(1.9)
Rented, with subsidy	23.0	24.8	-1.7	(1.7)
Owned home	11.6	13.3	-1.7	(1.3)
Sample size (total = 2,522)	**1,259**	**1,263**		

Source: Calculations from 18-month follow-up survey data.

Notes: Samples include a small set of sample members who do not report home ownership and/or whether they received a rent/mortgage subsidy; therefore, percentages do not add to 100 percent.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[20]Katz, Kling, and Liebman (1997) provide a recent overview of this literature.

[21]At random assignment, these fractions were 3.4 percent in British Columbia and 10.7 percent in New Brunswick.

Impacts on Mobility

Even though SSP did not significantly shift the balance between unsubsidized rentals, subsidized rentals, and homeownership, it could still affect residential location and/or housing quality. For example, some SSP participants might be expected to move to better rental housing or locate closer to work as a consequence of the program. On the other hand, some SSP-eligible families might *reduce* their mobility as a result of the program. In particular, families who would have to move to less desirable housing in the absence of the program (for example, families who have to move to a smaller apartment because they can no longer afford a larger unit) might use the extra income generated by SSP to forestall such a move.

Table 5.7 presents an analysis of mobility rates, based on the fractions of program and control group members who changed residences between random assignment and the 18-month interview. The data for the control group in the first row of the table indicate that even in the absence of any SSP-based incentives the SSP target population is highly mobile: 51.5 percent of families moved between random assignment and the 18-month interview. The program group was more mobile than the control group, although the estimated impact (2.2 percentage points) was not quite statistically significant.

Table 5.7: SSP Impacts on the Percentage Moving Between Random Assignment and the 18-Month Follow-Up Interview

Subgroup	Percentage in Tenure Group at Random Assignment	Percentage Who Move			
		Program Group	Control Group	Difference (Impact)	Standard Error
Overall sample					
All tenure groups	100.0	53.7	51.5	2.2	(1.4)
By tenure at random assignment:					
Unsubsidized renters	70.4	61.1	61.1	0.0	(1.6)
Subsidized renters	20.5	38.0	30.5	7.5***	(2.9)
Homeowners	6.1	15.6	17.6	-2.0	(4.2)
Sample size (total = 5,285)[a]		**2,644**	**2,641**		
British Columbia					
All tenure groups	100.0	58.5	57.4	1.1	(1.9)
By tenure at random assignment:					
Unsubsidized renters	78.8	63.6	63.3	0.3	(2.1)
Subsidized renters	17.6	44.0	37.1	6.9	(4.5)
Homeowners	3.2	17.1	27.7	-10.6	(9.0)
Sample size (total = 2,763)[a]		**1,385**	**1,378**		
New Brunswick					
All tenure groups	100.0	48.5	45.1	3.4*	(2.0)
By tenure at random assignment:					
Unsubsidized renters	61.3	57.6	57.9	-0.3	(2.5)
Subsidized renters	23.7	33.0	25.1	7.9**	(3.7)
Homeowners	9.3	15.0	14.1	0.9	(4.7)
Sample size (total = 2,522)[a]		**1,259**	**1,263**		

Sources: Calculations from baseline survey data and 18-month follow-up survey data.

Notes: The "all tenure groups" rows include a small set of sample members who did not report housing tenure at random assignment.
A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.
[a]Samples exclude observations in which it could not be determined whether the sample member moved.

While the overall mobility rate of the control group was high, it varied substantially along several dimensions. Perhaps most important, mobility rates varied by the type of housing occupied at random assignment. As shown by the data for the control group in the second through fourth rows of Table 5.7, the highest mobility rate occurred for families who rented unsubsidized housing at random assignment, while mobility rates for subsidized renters were about one-half as large, and mobility rates for homeowners were less than one-third of the rate for unsubsidized renters. The lower mobility rate among subsidized renters is presumably attributable to the nature of rental subsidies for low-income families. These subsidies are generally tied to specific rental units that are in short supply. Since a family that moves out of a subsidized unit cannot count on finding another subsidized unit, mobility out of subsidized rental housing is reduced.

Within the three subgroups, the estimated impact on mobility rates was insignificantly different from zero for unsubsidized renters and homeowners, but was significantly *positive* for subsidized renters.[22] The relative patterns of mobility by type of housing at random assignment were similar in the two provinces, although overall mobility rates were higher in British Columbia than in New Brunswick. The impacts by subgroup were also comparable in the two provinces: in each case SSP was associated with an increase in the mobility of subsidized renters, but no significant effect on the other two groups.

One explanation for a positive impact of SSP on the mobility rate of subsidized renters is that some program group families who wanted to take advantage of the supplement offer had to give up subsidized housing in order to move closer to job opportunities.[23] To the extent that rent subsidies are tied to specific rental units and subsidized rental units are scarce, this explanation implies that the higher mobility of program group members who received a rental subsidy at random assignment should be associated with a reduction in the fraction who are receiving a subsidy at the 18-month interview. Examination of the housing situations at the 18-month interview for families who were living in subsidized rental housing at random assignment shows some support for this conjecture. In particular, as shown in Table 5.8, program group families who started out in subsidized rental housing were less likely to remain in subsidized rentals than were control group families. For New Brunswick, the impact on the probability of remaining in subsidized rental housing (–6.4 percentage points) was comparable in magnitude to the impact on the probability of moving between random assignment and the 18-month interview (7.9 percentage points); thus, most of the excess mobility among program group members who started out in subsidized housing represented a flow out of subsidized housing. For British Columbia the evidence is less conclusive: the impact on the probability of remaining in subsidized rental housing (–2.0 percentage points) was only 30 percent as large as the impact on the probability of moving between random assignment and the 18-month interview (6.9 percentage points).

Another explanation for the impact of SSP on the mobility rate of families who started out in subsidized rental housing is that families whose incomes were raised by SSP were forced to leave subsidized housing because of the eligibility rules for housing subsidies.[24] It

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[22]The estimated impacts on family incomes for these three subgroups are similar: $191 (standard error $22) for unsubsidized renters; $204 (standard error $33) for subsidized renters; $272 (standard error $98) for homeowners.

[23]By comparison, the mobility rate of families who started off in unsubsidized rental units is high enough that little "excess mobility" is required to allow SSP-eligible families to move to better job opportunities.

[24]Note that this explanation also implies that the excess mobility represents a move out of subsidized housing.

seems likely that this is not the primary explanation for the movement out of subsidized housing in New Brunswick, at least, because an agreement with the provincial government allowed supplement takers to exempt their SSP payments from the subsidized housing formula.[25] A similar agreement was initially reached with British Columbia but was later rescinded; however, early supplement-takers were "grandfathered" under the original rules that exempted SSP income from the housing subsidy calculations.

Table 5.8: SSP Impacts on Housing Situation of Families Who Lived in Subsidized Rental Housing at Random Assignment

		Percentage Living in Subsidized Rental Housing, Month 18			
Sample	Sample Size	Program Group	Control Group	Difference (Impact)	Standard Error
All	1,085	67.6	72.2	-4.5	(2.8)
British Columbia	487	59.6	61.6	-2.0	(4.4)
New Brunswick	598	74.3	80.7	-6.4*	(3.4)

Sources: Calculations from baseline survey data and 18-month follow-up survey data.

Notes: Samples consist only of persons who reported living in subsidized rental housing at random assignment.
A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.

Impacts on Housing Quality

Direct evidence for the impact of SSP on the quality of housing is available from a set of questions that were asked in the 18-month follow-up survey about seven specific housing problems, including the operation of the heating system, the condition of major appliances, the existence of broken windows or leaky roofs, and the presence of mice or vermin.[26] The incidence of individual housing problems was low (typically under 10 percent). To maximize the power of the analysis, an indicator was created for the presence of at least one of these seven potential housing problems. The effects of the SSP program on this direct measure of housing quality are explored in Table 5.9. Overall, the incidence of one or more of the seven housing problems was similar in the program group and the control group, and the estimated impact was close to zero.[27] Housing problems were about equally frequent among renters who received a housing subsidy at random assignment as among unsubsidized renters, and the estimated impacts on the incidence of housing problems for these two subgroups were small. On the other hand, housing problems were more prevalent for people who owned their own home at random assignment, presumably reflecting the effects of deferred maintenance by relatively low-income homeowners. In New Brunswick at least, SSP was associated with a significant reduction in the incidence of housing problems among homeowners. While this

[25] Of course, the higher earnings of supplement takers would increase the rents they had to pay for subsidized housing, perhaps leading some of them to conclude that the advantages of remaining in subsidized housing no longer outweighed the disadvantages.

[26] These questions were developed by Mayer and Jencks (1989) for a survey of Chicago residents in the early 1980s. Appendix E reports the incidence rates of the individual housing problems for the program group and control group, overall and by province.

[27] As reported in Appendix E, there are a few modest differences in the incidence of individual housing problems between the program and control groups, although in some instances the program group has a lower incidence rate and in other cases a higher incidence rate.

effect might be expected as a response to the income gains engendered by the program, the absence of a parallel effect for homeowners in British Columbia makes it difficult to draw strong inferences.[28] The general conclusion is that SSP had little effect on average housing "quality" for most sample members, although for the relatively small subset who were homeowners there may have been a positive effect on housing quality.

Table 5.9: SSP Impacts on the Percentage Reporting One or More Housing Problems at 18-Month Follow-Up Interview

	Percentage Reporting Housing Problems			
Subgroup	Program Group	Control Group	Difference (Impact)	Standard Error
Overall sample				
All tenure groups	30.2	30.8	-0.6	(1.3)
By tenure at random assignment:				
Unsubsidized renters	29.4	29.3	0.1	(1.5)
Subsidized renters	30.2	29.3	0.9	(2.8)
Homeowners	45.4	52.7	-7.4	(5.6)
Sample size (total = 5,288)	**2,645**	**2,643**		
British Columbia				
All tenure groups	29.5	29.5	0.0	(1.7)
By tenure at random assignment:				
Unsubsidized renters	29.3	29.1	0.2	(1.9)
Subsidized renters	27.2	30.4	-3.2	(4.1)
Homeowners	51.2	34.0	17.2	(10.5)
Sample size (total = 2,766)	**1,386**	**1,380**		
New Brunswick				
All tenure groups	30.9	32.1	-1.2	(1.9)
By tenure at random assignment:				
Unsubsidized renters	29.5	29.7	-0.2	(2.3)
Subsidized renters	32.7	28.5	4.2	(3.8)
Homeowners	43.0	59.3	-16.3**	(6.5)
Sample size (total = 2,522)	**1,259**	**1,263**		

Sources: Calculations from baseline survey data and 18-month follow-up survey data.

Notes: The numbers represent the fractions of various samples who reported at least one of seven specific problems with their housing. Sample members were asked whether they were experiencing each of the following problems with their dwellings at the time of the 18-month interview: leaky roof or ceiling; plumbing problem; problems with rats, mice, or insects; broken windows; problems with heating/cooling system; electrical problems such as exposed wires or blowing fuses; stove or refrigerator that does not work properly.

The "all tenure groups" rows include a small set of sample members who did not report home ownership and/or whether they received a rent/mortgage subsidy at random assignment.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[28]It should be noted that sample of homeowners in British Columbia is very small (88 observations).

Qualitative Findings on How SSP Changes Lives

In focus groups, supplement takers were asked about the effects that working and receiving the supplement had had on their lives, including their home lives and relationships with their children and other people. Bancroft and Vernon (1995: 41–46) report that focus group participants commented most frequently on changes in terms of material gain and in parent-child relations, and to a lesser extent on personal fulfillment (including self-confidence and feelings of personal efficacy) and relations with others.

In the area of material gain, participants talked about buying cars and clothes, moving into better neighbourhoods, and paying off debts. They also mentioned being able to afford things for their children—not only food and other necessities, but also some items that were not asked about on the follow-up survey and therefore could not be studied in the quantitative impact analysis. Some examples of these expenditures are given in the following excerpt from Bancroft and Vernon (1995: 42). (Names have been changed to protect the privacy of the focus group participants.)

When the women talked about having more money, at least half of their comments had to do with being able to offer their children things that had been denied when the family had had to rely on Income Assistance. Often these were simple items, things middle- and upper-income parents would consider minor expenses. For instance, one mother expressed relief that she could now take her children to McDonald's. Another mother, no longer working, remembered that she had liked being able to "take the kids out for supper some nights. Or just do something with them, like take them bowling or have an evening that you didn't feel guilty about spending the money because, like, maybe you wouldn't have enough to pay your bills." Similarly, Cindy said working and receiving the supplement had meant she could do "the things that cost money. Like go to the theatre for a movie on Saturday and buy popcorn. . . . Go to Science World, take the skytrain, and stuff like that." And Rennie said she had been able to do more "quality things with them, like take them camping," an activity that had been unaffordable on an Income Assistance income.

Many participants commented on the effects on their children and their relationships with their children. About half such comments mentioned positive changes — for example, indicating that their children were happier because life was more stable, or that their children interacted with them more or had more respect for them. The other half of the comments expressed worries about such things as not being able to spend as much time with their children or having to leave their children in daycare.

The effects of SSP on the children of sample members will be studied in greater depth in a future report, which will use data from a three-year follow-up survey to examine impacts on a wide range of outcomes related to the well-being of children.

ESTIMATED IMPACTS ON ASSET HOLDINGS

The SSP earnings supplement is a time-limited benefit available for only up to three years. In recognition of this feature, program group members were invited to attend money management workshops that included information on budgeting and savings. Even without this help, one might expect some fraction of SSP participants — particularly those with higher incomes relative to their families' food and housing needs — to respond to a temporary earnings supplement by saving some of the income from the supplement. The 18-month follow-up survey contained a series of questions asking about asset holding that allow us to investigate the extent of this behavioural response. In particular the survey asked whether respondents had a savings account, a chequing account, a registered retirement savings plan, or a car that they had bought.[29] Table 5.10 presents the fractions of the program and control groups who reported each of these assets, as well as the estimated impacts. In interpreting these data, it should be noted that many supplement takers in the program group had begun receiving supplement payments less than a year before the 18-month interview; thus, the magnitude of any impact on asset accumulation or savings at 18 months is likely to understate any long-run behavioural effect.

Looking at the overall sample, 50.8 percent of the program group reported owning a savings account at the 18-month interview versus 46.5 percent of the control group. The difference, while relatively modest, is statistically significant. It should be noted that a 4.4 percentage point impact overall suggests a much larger impact among the subset of the program group who actually received SSP supplement payments. For example, only about 35 percent of the program group ever took up the supplement during the first year after random assignment. Assuming that the program impact was zero for people who did not receive SSP payments (an assumption that is reasonable but not necessarily true), the 4.4 percentage point overall impact implies a 13 percentage point impact among supplement takers.

For other assets, the results were mixed. There were no statistically significant impacts on the percentage with a chequing account or the percentage owning a car. On the other hand, there was a small but statistically significant impact on the fraction of sample members holding a registered retirement savings plan (RRSP).

Among the four subgroups examined in the table, larger impacts were observed for families in British Columbia than in New Brunswick. Indeed, almost all of SSP's overall impact on RRSP ownership and 65 percent of its overall impact on savings account ownership are attributable to the behaviour of families in British Columbia. Since one would expect the marginal savings propensity to be higher for families in better economic circumstances, the bigger impacts on asset holdings in British Columbia are potentially explainable by the relatively higher income-to-need levels there than in New Brunswick.

In summary, information on asset holdings shows that 18 months after first being offered the supplement, program group members were significantly more likely to hold savings

[29]The survey also asked about stocks and bonds, which turned out to be held by only a tiny fraction of the sample members. No data were collected on the amounts of money held in different types of assets.

accounts and registered retirement savings plans than were control group members. Since many of the program group families had begun receiving the supplement less than a year earlier, these behavioural responses are notable, and presumably represent a lower bound on SSP's longer-run impacts on asset holding.

Table 5.10: SSP Impacts on Asset Holdings, 18 months After Random Assignment

Subgroup and Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Overall sample				
All families				
Percent with savings account	50.8	46.5	4.4***	(1.4)
Percent with chequing account	62.4	62.1	0.3	(1.3)
Percent with RRSP	2.4	1.2	1.2***	(0.4)
Percent owning an automobile	26.2	24.6	1.6	(1.2)
Sample size (total = 5,288)	**2,645**	**2,643**		
British Columbia				
Families with 1 child				
Percent with savings account	52.4	48.5	3.8	(2.7)
Percent with chequing account	64.8	64.1	0.7	(2.6)
Percent with RRSP	3.5	1.0	2.4***	(0.8)
Percent owning an automobile	26.6	29.3	-2.8	(2.5)
Sample size (total = 1,377)	**682**	**695**		
Families with 2 or more children				
Percent with savings account	51.5	44.1	7.4***	(2.7)
Percent with chequing account	65.3	64.7	0.6	(2.6)
Percent with RRSP	3.6	1.7	1.9**	(0.9)
Percent owning an automobile	32.0	28.5	3.5	(2.5)
Sample size (total = 1,363)	**692**	**671**		
New Brunswick				
Families with 1 child				
Percent with savings account	50.5	48.4	2.2	(2.6)
Percent with chequing account	60.7	61.4	-0.7	(2.6)
Percent with RRSP	1.1	1.1	0.0	(0.5)
Percent owning an automobile	20.9	18.5	2.4	(2.1)
Sample size (total = 1,474)	**733**	**741**		
Families with 2 or more children				
Percent with savings account	49.3	44.5	4.9	(3.1)
Percent with chequing account	57.1	56.7	0.4	(3.1)
Percent with RRSP	1.0	0.8	0.2	(0.6)
Percent owning an automobile	24.4	21.4	3.0	(2.6)
Sample size (total = 1,042)	**522**	**520**		

Sources: Calculations from 18-month follow-up survey data and Income Assistance administrative records.

Notes: The reported numbers represent the fractions of various samples who report having the type of asset at the time of the 18-month follow-up survey. "RRSP" refers to a registered retirement savings plan.
Sample sizes vary for individual measures because of missing values.
Number of children (age 0–18) refers to number of children indicated on Income Assistance administrative records in the month of random assignment. Overall sample includes a small number of observations where number of children is zero or missing.
A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.

CONCLUSIONS

This chapter presents an analysis of the effects of SSP on the family incomes, living standards, expenditure patterns, housing choices, and asset holdings of long-term Income Assistance recipients. The chapter indicates that SSP is well targeted to economically disadvantaged families and had a significant positive effect on conventional measures of well-being. About one-fifth of the gross (pre-tax) family income gains generated by SSP were spent on basic necessities: food, shelter, and children's clothing. Another 22 percent are projected to have been spent on higher taxes. Overall, the effects of SSP on housing choices, residential mobility, and housing quality were small, although there is some indication that SSP led to higher mobility for families who started out in subsidized rental housing, and an improvement in housing conditions for families who owned their own homes at random assignment. Finally, data on asset holdings show significant impacts on the likelihood of holding savings accounts and RRSPs, suggesting that program group families saved some fraction of the extra income generated by SSP.

Appendix A
Interpreting Impact Estimates, Standard Errors, and Statistical Significance

Because of random assignment, the program and control groups should be similar with regard to all factors that affect outcomes, except that the supplement was offered to the program group but not to the control group. Nonetheless, random differences between the two groups may occur. For example, one group may be slightly more skilled or more motivated on average or may have better luck in the job market. Because such differences can affect outcomes, estimated impacts reflect both (1) the actual impact of SSP and (2) random differences between the program group and the control group. Impacts are therefore estimated with some uncertainty, the degree of which diminishes as the sample size increases.

The *standard error* of an impact estimate is a measure of the uncertainty arising from the possible effects of random differences between the two groups. Statistically, the standard error is equivalent to the "margin of error" often published with the results of public opinion polls. One can be about 95 percent confident that the actual impact of SSP lies within the range defined by the estimated impact, plus or minus two standard errors.[1] For example, if the estimated impact on average earnings is $200 with a standard error of $20, then one can be about 95 percent confident that the actual impact is between $160 and $240. One can also be about 68 percent confident that the actual impact is between $180 and $220 (the estimated impact plus or minus one standard error).

Random differences between program and control group outcomes will occur even if the program has no impact. It would be a mistake to attribute every difference in outcomes, no matter how small, to the program. The criterion of *statistical significance* is used to restrict attention to estimated impacts that are larger than would typically result from the "luck of the draw" of random assignment in the absence of a real impact. An impact estimate is statistically significant at the x percent level if, under random assignment and in the absence of a real impact, differences of that size are expected to occur less than x percent of the time. In this report, estimates that are *not* statistically significant at the 10 percent level are not regarded as evidence that the program had an impact. (Estimates that are statistically significant at the 1 percent or 5 percent level are also significant at the 10 percent level.)

The statistical significance of the *difference* between two impact estimates can also be evaluated. For example, the estimated impact on average monthly earnings in quarter 5 was $151 in British Columbia and $115 in New Brunswick. The difference between those two estimates is not statistically significant, as noted in chapter 3. This means that the $36 difference between the estimates is not larger than would typically result from the luck of the draw of random assignment in the absence of a real difference between impacts in the two provinces. Therefore, this difference between the *estimated* impacts is not regarded as evidence of a real difference between impacts in British Columbia and New Brunswick.

[1]This use of the word "confident" follows Freedman et al. (1991), pp. 348–53.

Estimates of average earnings include zero dollar amounts for people who did not work. For example, if 50 percent of program group members worked in month 2, and the average earnings of those who worked that month were $1,000, then average earnings for the program group would be $500. This average for *all* program group members must be compared with the average earnings of *all* control group members, including those who did not work. A comparison of average earnings for just the program and control group members *who worked* would not provide direct evidence on SSP's effects, because the subsamples of working program and control group members are not necessarily comparable to each other. For example, suppose that 25 percent of control group members worked in month 2 and that the average earnings of working control group members were $1,000. Since the average earnings of working program group members and working control group members were the same, one might be tempted to conclude that SSP had zero impact on the earnings of people who would have worked even in the absence of the program. Such a conclusion would be unwarranted, however, because it is possible that SSP actually raised the average earnings of that group to $1,500 but also brought in an additional group of workers with average earnings of $500, leaving the average earnings of working program group members at $1,000.

For similar reasons, estimates of average Income Assistance payments and SSP supplement payments include zero dollar amounts for people who did not receive payments.

Appendix B
Assessing the Effect of Survey Nonresponse on Estimated Impacts

As explained in chapter 1, the *baseline research sample* of SSP's main study consists of the 5,686 single parents who completed the baseline survey, were randomly assigned to either the program group or the control group, and were not among either (1) the 21 program group members and 19 control group members who did not meet the criteria for inclusion in the study or (2) the three control group members who withdrew from the study. The *report sample* consists of the 5,288 members of the baseline research sample who did respond to the 18-month survey. The remaining 398 either could not be contacted or refused to be interviewed.

Because the 398 nonrespondents may not be representative of the baseline research sample, their omission from the report sample could lead to biases in the estimated impacts. In this appendix, data from the baseline survey and administrative records — which are available for both respondents and nonrespondents to the 18-month survey — are used to assess the likely magnitude of such biases.

RESPONSE RATES

Table B.1 shows the percentages of program and control group members in the baseline research sample who responded to the 18-month survey. In the first cohort (sample members randomly assigned between November 1992 and October 1993), there was a statistically significant difference of 3 percentage points between the response rates of the program group (88.3 percent) and the control group (91.3 percent). This difference may have resulted from the methods of locating sample members. For control group members, address updates were obtained from the Income Assistance offices. For program group members in the first cohort, address updates were obtained from the SSP offices but not from the Income Assistance offices.[1]

In order to reduce the difference between the program and control group response rates, address updates from both the SSP offices and the Income Assistance offices were used to locate program group members in the second cohort (randomly assigned between January 1994 and March 1995). Efforts were made to locate higher percentages of both the program and the control groups. Response rates in the second cohort were very high and virtually the same for the two groups: 95.0 percent for the program group and 94.8 percent for the control group. In the full sample, 92.5 percent of the program group and 93.5 percent of the control group responded. These response rates are high but do not eliminate the possibility that the omission of nonrespondents leads to biased impact estimates.

[1] An earlier report (Card and Robins, 1996) analyzed response rates in the first cohort and used a weighting procedure to assess the likely effects of nonresponse on impact estimates. It was conjectured that a "harassment effect" depressed the program group's response rate: because program group members were contacted periodically by SSP staff, those who remained on Income Assistance "may have become tired of defending their choice." However, data on reasons for nonresponse provide more support for the address-update explanation than for the harassment effect. In the first cohort, a larger percentage of program group members than of control group members could not be located for the 18-month survey (a statistically significant difference of 3.6 percentage points), but there was virtually no difference in the percentage who refused to answer the survey.

Table B.1: 18-Month Survey Response Rates

Province and Cohort	Program Group	Control Group	Difference
Both provinces	92.5	93.5	-1.0
First cohort[a]	88.3	91.3	-3.0**
Second cohort	95.0	94.8	0.2
British Columbia	90.6	92.3	-1.7
First cohort[a]	87.2	90.4	-3.2*
Second cohort	93.6	94.0	-0.4
New Brunswick	94.7	94.8	-0.2
First cohort[a]	90.6	93.2	-2.6
Second cohort	96.1	95.4	0.7
Sample size (total = 5,686)	**2,859**	**2,827**	

Source: Calculations from 18-month follow-up survey data.

Notes: A two-tailed t-test was applied to differences between the response rates of the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a]The first cohort consists of sample members randomly assigned between November 1992 and October 1993. The second cohort consists of sample members randomly assigned between January 1994 and March 1995.

EFFECTS OF NONRESPONSE ON MEASURES OF BASELINE CHARACTERISTICS

How Well Do Respondents Represent the Full Sample?

Table B.2 reports on selected characteristics of baseline research sample members at random assignment, showing separate data for program and control group members. Table B.3 shows the same measures for the report sample. Judging from these measures, the respondents represent the full sample well. For example, in the baseline research sample, 6.0 percent of program group members and 7.1 percent of control group members were working full-time at random assignment; in the report sample, the corresponding figures are 6.2 percent and 7.0 percent, respectively.

Does Nonresponse Leave the Program and Control Groups Well Matched?

In addition to comparing Table B.2 with Table B.3, it is important to compare the program and control group columns within each table, because nonresponse could lead to differences between the characteristics of program group members in the report sample and those of control group members.

Table B.2 shows the compositions of the program and control groups produced by random assignment.[2] Program and control group members had similar characteristics, as expected. There are a few modest but statistically significant differences: program group members were less likely to have had post-secondary education, more likely to have received Income Assistance for 36 consecutive months, less likely to be working full-time at random assignment, and less likely to have children under age 3. Program-control comparisons were

[2]Strictly speaking, the program and control groups produced by random assignment contained 43 people who are not included in the sample for Table B.2. The omission of the 40 people who did not meet the criteria for inclusion in the study should not lead to program-control differences in characteristics, because this omission was based on characteristics before random assignment. The omission of the three control group members who withdrew from the study could have only a very small effect on the numbers in Table B.2.

also performed for various characteristics that are not shown in Table B.2 (specifically, all the other characteristics shown for the two groups combined in Table 1.2 in chapter 1). Among these characteristics, the only statistically significant differences are in the percentage reporting an activity-limiting emotional or mental health condition (8.5 percent of the program group and 7.3 percent of the control group) and in the percentage who gave any reason why they could not take a job in the prior four weeks (55.4 percent of the program group and 52.5 percent of the control group).[3]

Table B.2: Characteristics of Baseline Research Sample Members — Program and Control Groups

Characteristic	Program Group	Control Group	Difference
Gender (%)			
Female	94.8	95.3	-0.5
Age (%)			
19-24	20.9	21.7	-0.7
25-29	21.4	20.9	0.5
30-39	39.7	38.9	0.7
40-49	15.3	15.9	-0.5
50 or older	2.7	2.7	0.0
Completed education (%)			
Less than high school education	54.2	55.1	-0.9
Completed high school, no post-secondary education	35.4	32.9	2.5*
Some post-secondary education	10.4	12.0	-1.6*
Recent welfare history			
Number of months on IA in prior 3 years (%)			
10-23	22.8	24.9	-2.1*
24-35	33.8	34.0	-0.2
All 36	43.4	41.1	2.3*
Average IA payment in prior month ($)	868	860	8
Work history and labour force status			
Ever had a paid job (%)	95.0	94.3	0.7
Labour force status at random assignment (%)			
Employed 30 hours/week or more	6.0	7.1	-1.2*
Employed less than 30 hours/week	12.4	12.2	0.2
Looking for work, not employed	22.7	23.6	-0.9
Neither employed nor looking for work	58.9	57.1	1.9
Children			
Number of children under age 19 (%)			
1	53.6	54.8	-1.3
2	32.9	31.2	1.7
3 or more	13.6	14.0	-0.4
Age of youngest child in years (%)			
0-2	29.2	31.4	-2.2*
3-5	24.0	23.4	0.6
6-11	26.5	26.0	0.5
12 or older	20.3	19.2	1.1
Sample size (total = 5,686)	**2,859**	**2,827**	

Sources: Calculations based on baseline survey data and Income Assistance administrative records.

Notes: Sample sizes vary for individual measures because of missing values. A two-tailed t-test was applied to differences between the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

[3]The former difference is significant at the 10 percent level; the latter is significant at the 5 percent level. In interpreting the significance levels of these comparisons, one should remember that when a large number of comparisons is performed, it becomes more likely that some statistically significant differences will appear.

Table B.3 shows the same measures for the report sample. Omitting the nonrespondents does not affect the program-control differences in a systematic way. The difference in the percentage who ever had a paid job is now statistically significant; the difference in full-time employment is no longer significant. Among the characteristics that were shown in Table 1.2 but are not shown in Table B.3, there are no statistically significant differences. Thus, nonresponse does not appear to have weakened the similarity between the program and control groups.

Table B.3: Characteristics of Report Sample Members — Program and Control Groups

Characteristic	Program Group	Control Group	Difference
Gender (%)			
Female	94.9	95.6	-0.7
Age (%)			
19-24	21.4	21.8	-0.4
25-29	20.6	20.8	-0.2
30-39	39.9	39.3	0.5
40-49	15.6	15.6	0.0
50 or older	2.6	2.5	0.1
Completed education (%)			
Less than high school education	53.4	55.0	-1.6
Completed high school, no post-secondary education	36.2	33.1	3.1**
Some post-secondary education	10.4	11.9	-1.5*
Recent welfare history			
Number of months on IA in prior 3 years (%)			
10-23	22.7	24.9	-2.2*
24-35	34.0	33.6	0.4
All 36	43.4	41.5	1.9
Average IA payment in prior month ($)	861	855	6
Work history and labour force status			
Ever had a paid job (%)	95.3	94.2	1.2*
Labour force status at random assignment (%)			
Employed 30 hours/week or more	6.2	7.0	-0.8
Employed less than 30 hours/week	12.9	12.7	0.2
Looking for work, not employed	22.3	23.7	-1.3
Neither employed nor looking for work	58.6	56.7	1.9
Children			
Number of children under age 19 (%)			
1	53.8	54.7	-0.8
2	32.7	31.3	1.4
3 or more	13.5	14.0	-0.5
Age of youngest child (%)			
0-2	29.1	31.2	-2.1*
3-5	23.6	23.5	0.1
6-11	27.0	26.3	0.7
12 or older	20.3	19.0	1.3
Sample size (total = 5,288)	**2,645**	**2,643**	

Sources: Calculations based on baseline survey data and Income Assistance administrative records.

Notes: Sample sizes vary for individual measures because of missing values. A two-tailed t-test was applied to differences between the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

EFFECTS OF NONRESPONSE ON IMPACT ESTIMATES FROM ADMINISTRATIVE RECORDS

Administrative records supply data on Income Assistance and SSP supplement receipt for both respondents and nonrespondents to the 18-month survey.[4] For these outcomes, it is possible to examine how estimated impacts are affected when the nonrespondents are omitted: impact estimates from the report sample can be compared with those from the full baseline research sample. This comparison may provide some indication of whether nonresponse is likely to introduce much bias into estimated impacts on outcomes measured from the survey (such as employment), although it should be kept in mind that the effects of nonresponse may vary from one outcome to another.

Table B.4, which is identical to Table 3.6 in chapter 3, shows estimated impacts on Income Assistance and supplement receipt from the report sample.

Table B.4: SSP Impacts on Income Assistance and Supplement Receipt and Payments — Report Sample

Outcome (monthly average)	Program Group	Control Group	Difference (Impact)	Standard Error
Receiving IA (%)				
Quarter 1	97.4	97.9	-0.4	(0.3)
Quarter 2	88.7	93.6	-4.9***	(0.7)
Quarter 3	81.0	89.4	-8.3***	(0.9)
Quarter 4	75.4	85.8	-10.4***	(1.0)
Quarter 5	70.2	83.2	-13.0***	(1.1)
Quarter 6	66.5	80.4	-13.9***	(1.2)
Receiving either IA or SSP (%)				
Quarter 1	98.0	97.9	0.1	(0.3)
Quarter 2	95.1	93.6	1.5***	(0.6)
Quarter 3	92.7	89.4	3.3***	(0.7)
Quarter 4	90.8	85.8	4.9***	(0.8)
Quarter 5	89.6	83.2	6.4***	(0.9)
Quarter 6	87.8	80.4	7.4***	(0.9)
Average IA payments ($/month)				
Quarter 1	852	845	8	(8)
Quarter 2	786	813	-27***	(10)
Quarter 3	721	779	-59***	(11)
Quarter 4	679	755	-76***	(11)
Quarter 5	630	731	-102***	(12)
Quarter 6	597	710	-113***	(12)
Average SSP earnings supplements ($/month)				
Quarter 1	14	0	14***	(1)
Quarter 2	82	0	82***	(5)
Quarter 3	122	0	122***	(6)
Quarter 4	155	0	155***	(6)
Quarter 5	199	0	199***	(7)
Quarter 6	201	0	201***	(7)
Sample size (total = 5,288)	**2,645**	**2,643**		

Sources: Calculations from Income Assistance administrative records and payment records from SSP's Program Management Information System.

Notes: Table is identical to Table 3.6. The estimates for each quarter are calculated by averaging the monthly estimates for the three months within the quarter.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[4]However, Income Assistance records are not available for sample members who moved to another province. In the analysis, it is assumed that those who moved to another province were not receiving Income Assistance.

Table B.5 shows estimates from the baseline research sample. The report sample tends to give slightly larger estimates of reductions in Income Assistance receipt that resulted from SSP and of average supplement payments to the program group, but the differences are too small to change the nature of the findings. For example, it is estimated in Table B.4 that SSP reduced the percentage receiving Income Assistance in quarter 5 by 13.0 percentage points; in Table B.5, the corresponding estimate is 12.0 percentage points.

Table B.5: SSP Impacts on Income Assistance and Supplement Receipt and Payments — Baseline Research Sample

Outcome (monthly average)	Program Group	Control Group	Difference (Impact)	Standard Error
Receiving IA (%)				
Quarter 1	97.4	97.8	-0.4	(0.3)
Quarter 2	88.7	93.3	-4.6***	(0.7)
Quarter 3	81.0	88.7	-7.7***	(0.9)
Quarter 4	75.4	85.0	-9.6***	(1.0)
Quarter 5	70.1	82.1	-12.0***	(1.1)
Quarter 6	66.4	79.1	-12.7***	(1.1)
Receiving either IA or SSP (%)				
Quarter 1	97.9	97.7	0.1	(0.3)
Quarter 2	94.8	93.3	1.5***	(0.6)
Quarter 3	92.2	88.7	3.5***	(0.7)
Quarter 4	90.0	85.0	5.0***	(0.8)
Quarter 5	88.5	82.1	6.4***	(0.9)
Quarter 6	86.6	79.1	7.5***	(0.9)
Average IA payments ($/month)				
Quarter 1	859	847	12	(8)
Quarter 2	793	812	-19**	(9)
Quarter 3	727	777	-50***	(11)
Quarter 4	683	749	-67***	(11)
Quarter 5	633	724	-90***	(12)
Quarter 6	599	700	-100***	(12)
Average SSP earnings supplements ($/month)				
Quarter 1	13	0	13***	(1)
Quarter 2	79	0	79***	(4)
Quarter 3	117	0	117***	(5)
Quarter 4	148	0	148***	(6)
Quarter 5	190	0	190***	(7)
Quarter 6	192	0	192***	(7)
Sample size (total = 5,686)	**2,859**	**2,827**		

Sources: Calculations from Income Assistance administrative records and payment records from SSP's Program Management Information System.

Notes: The estimates for each quarter are calculated by averaging the monthly estimates for the three months within the quarter.
A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.

CONCLUSION

One can never rule out the possibility that survey nonresponse leads to biased impact estimates, since the information that would confirm or disprove the hypothesis is by definition missing. Certain outcomes, such as the percentage who move, may have an especially strong relationship with nonresponse. Nevertheless, it is reassuring that in the measures of baseline characteristics and the estimated impacts from administrative records there is no evidence that the nonresponse to the 18-month survey introduced important biases into the impact estimates in this report.

Appendix C
Comparison of Unadjusted and Regression-Adjusted Impact Estimates

For this report, the impact of SSP was estimated simply by calculating the difference between the mean outcome levels of the program group and of the control group. An alternative method is to estimate a regression in which the outcome is modelled as a linear function of membership in the program group and certain characteristics measured before random assignment. The regression "adjusts" the impact estimate for differences between the characteristics of program and control group members.

In a random assignment study, both methods yield valid estimates of impact, but there are two potential advantages of the regression-adjusted estimate over the "unadjusted" estimate (the difference in mean outcomes):[1]

- If random assignment happens to yield program and control groups with noticeably different characteristics, the regression-adjusted estimate takes these differences into account (under the assumptions of the linear model) and may therefore be more accurate than the unadjusted estimate.
- Even if there are no program-control differences in measured characteristics, regression adjustment can improve statistical precision. Standard errors and statistical significance levels will tend to show less uncertainty associated with the regression-adjusted estimate than with the unadjusted estimate, if the adjustment is based on characteristics that are correlated with the outcome and if the number of variables in the regression is small relative to the sample size.

On the other hand, there are reasons to prefer unadjusted estimates:

- Unadjusted estimates are more widely understood.
- In some situations, regression adjustment produces anomalies. For example, it is conventional to report "regression-adjusted means" for the program and control groups along with the adjusted impact estimate. The adjusted means are usually close to the average outcome levels for the two groups but are set so that their difference equals the adjusted impact estimate. If adjusted means are calculated for the outcomes shown in Tables 3.6 and 3.8 in chapter 3, an anomaly will arise: the adjusted control group mean for "Receiving IA" will not equal that for "Receiving either IA or SSP," even though no control group members received SSP payments.
- For many socioeconomic outcomes, the improvement in statistical precision achieved by regression adjustment is typically small. For example, in a review of four evaluations of Unemployment Insurance reforms in the United States, Meyer (1995) compares adjusted and unadjusted estimates of impacts on weeks of unemployment benefits and on reemployment earnings. He writes: "Several of the evaluation reports overstate the case for using regression controls. . . . As long as the randomization is

[1]Cochran (1957) discussed the uses of regression adjustment in both randomized and nonrandomized studies.

done properly, comparisons of means are unbiased and probably more convincing to policy makers. The improved precision of the estimates with regression controls appears small in all cases. . . ."

In Tables C.1–C.3, unadjusted and regression-adjusted impact estimates are shown side by side. The unadjusted estimates are the same as those shown in Tables 3.1 and 3.6 in chapter 3 and Table 4 in the Executive Summary, respectively. The adjusted estimates were obtained by regressing the outcomes on the following variables:

- Program group (dummy)
- Earnings, month -1
- Income Assistance payment, month -1
- Number of months on Income Assistance in months -36 to -1
- On Income Assistance all of months -36 to -1 (dummy)
- Province and period of intake (three dummies)
- Age (five dummies)
- Youngest child under age 5 (dummy)
- Marital status (two dummies)
- No high school diploma or equivalent (dummy)
- Highest grade completed is 10 or 11 (dummy)
- Agreed with "When I have an emergency and need cash, friends and family will loan it to me" (dummy)
- "Could not shake off the blues, even with the help of family and friends" for three or more days in week before baseline interview (dummy)
- Activity-limiting physical condition (dummy)
- Activity-limiting emotional or mental health condition (dummy)

The differences between the adjusted and unadjusted impact estimates are small. The adjusted estimates have slightly smaller standard errors. (Because of rounding, some of the differences in standard errors are not visible in the table.) For a few outcomes, mostly in quarter 1, the adjusted impact estimate is statistically significant at the 10 percent level, but the unadjusted estimate is not: the overall employment rate in quarter 1, average earnings in quarter 1, the percentage receiving Income Assistance in quarter 1, and average monthly rent. None of these differences would alter the conclusions of this report in a substantive way.

Table C.1: SSP Impacts on Employment and Earnings — Unadjusted and Adjusted Estimates

Outcome (monthly average)	Unadjusted		Regression-Adjusted	
	Impact	Standard Error	Impact	Standard Error
Full-time employment rate (%)[a]				
Quarter 1	2.6***	(0.8)	3.5***	(0.7)
Quarter 2	6.3***	(0.9)	7.0***	(0.9)
Quarter 3	9.0***	(1.0)	9.5***	(0.9)
Quarter 4	12.4***	(1.0)	12.9***	(1.0)
Quarter 5	15.2***	(1.1)	15.7***	(1.0)
Quarter 6	13.7***	(1.1)	14.2***	(1.1)
Part-time employment rate (%)[b]				
Quarter 1	-1.9**	(0.9)	-1.8**	(0.8)
Quarter 2	-3.5***	(0.8)	-3.4***	(0.8)
Quarter 3	-3.2***	(0.9)	-3.1***	(0.8)
Quarter 4	-2.7***	(0.9)	-2.7***	(0.8)
Quarter 5	-2.2**	(0.9)	-2.2**	(0.9)
Quarter 6	-3.2***	(0.9)	-3.2***	(0.9)
Overall employment rate (%)				
Quarter 1	0.7	(1.1)	1.7*	(0.9)
Quarter 2	2.9**	(1.2)	3.6***	(1.0)
Quarter 3	5.8***	(1.2)	6.4***	(1.1)
Quarter 4	9.7***	(1.2)	10.2***	(1.1)
Quarter 5	13.0***	(1.2)	13.5***	(1.2)
Quarter 6	10.6***	(1.3)	11.0***	(1.2)
Average earnings ($/month)				
Quarter 1	8	(12)	20**	(10)
Quarter 2	40***	(13)	50***	(11)
Quarter 3	69***	(13)	78***	(12)
Quarter 4	110***	(14)	118***	(13)
Quarter 5	134***	(14)	141***	(13)
Quarter 6	120***	(15)	127***	(14)
Sample size (total = 5,288)[c]				

Source: Calculations from 18-month follow-up survey data.

Notes: The estimates for quarters 1–5 are calculated by averaging the monthly estimates for the three months within a quarter. The estimates for quarter 6 are calculated by averaging the estimates for months 16 and 17.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a]"Full-time employment" is defined as working 30 or more hours per week in at least one week during the month.

[b]"Part-time employment" is defined as having some employment but no full-time employment during the month.

[c]The sample size for quarter 6 is 5,048.

Table C.2: SSP Impacts on Income Assistance and Supplement Receipt and Payments — Unadjusted and Adjusted Estimates

Outcome (monthly average)	Unadjusted		Regression-Adjusted	
	Impact	Standard Error	Impact	Standard Error
Receiving IA (%)				
Quarter 1	-0.4	(0.3)	-0.6**	(0.3)
Quarter 2	-4.9***	(0.7)	-5.3***	(0.7)
Quarter 3	-8.3***	(0.9)	-8.9***	(0.9)
Quarter 4	-10.4***	(1.0)	-11.1***	(1.0)
Quarter 5	-13.0***	(1.1)	-13.6***	(1.0)
Quarter 6	-13.9***	(1.2)	-14.5***	(1.1)
Receiving either IA or SSP (%)				
Quarter 1	0.1	(0.3)	0.0	(0.3)
Quarter 2	1.5***	(0.6)	1.2**	(0.5)
Quarter 3	3.3***	(0.7)	3.0***	(0.7)
Quarter 4	4.9***	(0.8)	4.6***	(0.8)
Quarter 5	6.4***	(0.9)	5.9***	(0.8)
Quarter 6	7.4***	(0.9)	7.0***	(0.9)
Average IA payments ($/month)				
Quarter 1	8	(8)	1	(4)
Quarter 2	-27***	(10)	-35***	(7)
Quarter 3	-59***	(11)	-66***	(8)
Quarter 4	-76***	(11)	-84***	(9)
Quarter 5	-102***	(12)	-109***	(10)
Quarter 6	-113***	(12)	-120***	(10)
Average SSP supplement payments ($/month)				
Quarter 1	14***	(1)	14***	(1)
Quarter 2	82***	(5)	84***	(5)
Quarter 3	122***	(6)	125***	(6)
Quarter 4	155***	(6)	157***	(6)
Quarter 5	199***	(7)	201***	(7)
Quarter 6	201***	(7)	203***	(7)
Sample size (total = 5,288)				

Sources: Calculations from Income Assistance administrative records and payment records from SSP's Program Management Information System.

Notes: The estimates for each quarter are calculated by averaging the monthly estimates for the three months within the quarter.
A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.

Table C.3: SSP Impacts on Monthly Income, Poverty, and Expenditures and on Assets at 18-Month Follow-Up Interview — Unadjusted and Adjusted Estimates

	Unadjusted		Regression-Adjusted	
Outcome	Impact	Standard Error	Impact	Standard Error
Family income ($/month)[a]	199***	(18)	205***	(17)
Percent with low incomes:[b]				
Below low-income cut-off	-12.2***	(1.0)	-12.5***	(1.0)
Below 50% of low-income cut-off	-3.3***	(1.1)	-3.4***	(1.1)
Food spending ($/month)	25***	(6)	26***	(6)
Children's clothing spending ($/month)	4***	(1)	4***	(1)
Rent ($/month)	9	(6)	9*	(5)
Used food bank last 3 months (%)	-2.0*	(1.1)	-2.1*	(1.1)
Asset holdings (%)				
Saving account	4.4***	(1.4)	4.5***	(1.4)
Chequing account	0.3	(1.3)	0.4	(1.3)
Registered Retirement Savings Plan	1.2***	(0.4)	1.3***	(0.4)
Car	1.6	(1.2)	1.9	(1.2)
Sample size (total = 5,288)				

Sources: Calculations from 18-month follow-up survey data, Income Assistance administrative records, and payment records from SSP's Program Management Information System.

Notes: Sample sizes vary for individual measures because of missing values.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[a]Family income includes earnings, Income Assistance and SSP payments, as well as all other sources of individual cash income (tax credits, other transfers, etc.) and earnings of other family members.

[b]Calculated by comparing annualized family income with the low-income cut-off defined by Statistics Canada for the sample member's location and family size.

Appendix D
Expected Effects on Hours Worked per Week

Among program group members who would not work or who would work less than 30 hours per week in the absence of the program, SSP is expected to lead some people to increase their work hours to 30 or more per week, as discussed in chapter 3. Among those who *would* work at least 30 hours per week even in the absence of the program, the effects of SSP on work hours are more difficult to predict.

If the program group member would work full-time and would be off Income Assistance even in the absence of SSP, then SSP may lead her to reduce her work hours (but not below 30 hours per week), for two reasons. First, because of the supplement, the income she can receive for 30 hours of work per week is greater than it would be otherwise. Therefore, she may now be able to afford to reduce her work hours (e.g., from 40 hours per week to 30 or 35) and to spend more time in family, educational, or leisure activities. Second, because the supplement is reduced by $.50 for each additional $1 of earnings, the *extra* income that she can earn by working more than 30 hours per week is less than it would be in the absence of SSP.

If the program group member would work full-time but would also receive Income Assistance in the absence of SSP, the program has no clear predicted effect on her work hours. On the one hand, the supplement may enable her to afford to reduce her hours (but not below 30 hours per week), as explained in the previous paragraph. On the other hand, the extra income that she can earn by *increasing* her hours is now more than it would be in the absence of SSP, since additional earnings do not reduce the supplement by as much as they would have reduced the Income Assistance payment.

It should be noted that it is not realistic to assume that people are completely free to choose the number of hours per week that they work. The jobs available to sample members may offer fewer hours or require more hours than they would like, although they may have some ability to choose between jobs with more or fewer hours or to increase or reduce their overtime hours. Therefore, the effects described here are not necessarily expected to occur for more than a small percentage of program group members.

The data cannot confirm or disprove the occurrence of the effects described here. In Tables 3.3–3.5 in chapter 3, the estimated impacts on the distribution of hours worked per week are the net results of SSP's effects on people who would not have worked, people who would have worked part-time, and people who would have worked full-time in the absence of the program. It is not possible to tell whether SSP increased, reduced, or had no effect on work hours among those who would have worked full-time anyway.

Appendix E
Impacts on Incomes, Family Composition, and Living Conditions: Additional Findings

ESTIMATED IMPACTS ON COMPONENTS OF INCOME

Chapter 5 examined the impacts of SSP on aggregate measures of individual and family income. Estimated impacts on specific components of income are shown in Table E.1. The components of individual income are earnings, the SSP supplement, Income Assistance, the Child Tax Benefit, the Goods and Services Tax Credit, Unemployment Insurance (UI), alimony and child support, and other income.[1] Together, individual income and earnings of other family members make up what is referred to in chapter 5 as "family income." Average income amounts received from sources other than individual earnings, SSP, and Income Assistance were similar for program and control group members. The only statistically significant difference in these other income amounts was in Unemployment Insurance. SSP reduced average UI payments by an estimated $5 per month.[2]

Table E.1: SSP Impacts on Components of Individual and Family Income, Months 12–17

Outcome ($/month)	Program Group	Control Group	Difference (Impact)	Standard Error
Individual income				
Earnings	347	222	124***	(14)
SSP supplement	196	0	196***	(6)
Income Assistance	621	723	-103***	(12)
Child Tax Benefit	137	139	-2	(2)
GST Credit	40	40	0	(0)
Unemployment Insurance	20	25	-5*	(3)
Alimony and child support	37	37	0	(3)
Other income[a]	27	29	-2	(3)
Total	1,423	1,215	208***	(16)
Earnings of other family members	62	71	-9	(10)
Family income[b]	1,486	1,286	199***	(18)
Sample size (total = 5,288)	**2,645**	**2,643**		

Sources: Calculations from 18-month follow-up survey data, Income Assistance administrative records, and payment records from SSP's Program Management Information System.

Notes: All estimates are monthly averages pertaining to the six months prior to the 18-month follow-up survey.
A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.
[a]"Other income" includes income from roomers and boarders, disability benefits, old age assistance, workers compensation, the British Columbia sales tax credit, interest and dividends, and other reported income. Daycare subsidies are not included.
[b]Family income is measured by the sum of the individual's income plus the labour earnings of any other members in the individual's family.

[1]In July 1996, the Unemployment Insurance program became Employment Insurance (EI). "Other income" includes income from roomers and boarders, disability benefits, old age assistance, workers compensation, the British Columbia sales tax credit, interest and dividends, and other reported income.

[2]In this report, the data on UI payments come from sample members' responses to the 18-month follow-up survey. Future reports will use UI/EI data from administrative records, which are expected to be more accurate.

ESTIMATED IMPACTS ON FAMILY COMPOSITION AND LIVING ARRANGEMENTS BY PROVINCE

As noted in chapter 5, family composition at the 18-month follow-up interview was very similar between the program and control groups. A typical sample member had one or two children and lived with no other adults. Table E.2 shows that family composition was similar between provinces, but there was a difference in living arrangements. Sample members in New Brunswick were more likely to live with extended family, whereas those in British Columbia were more likely to live with non-family members.[3] Only in British Columbia were there statistically significant differences between the program and control groups in the percentage living with extended family or the percentage living with members of another family. Compared to control group members, program group members in British Columbia were more likely to be living with extended family and less likely to be living with members of another family.[4] One hypothesis is that, with more income, there may be more of an ability to take in other family members, and less of a need to share living quarters with other families. (On the other hand, living with extended family can save money, and friends may be more easily accommodated when incomes are higher.) It is unclear why impacts were statistically significant in British Columbia but not in New Brunswick.

Table 5.2 in chapter 5 showed that SSP had no statistically significant impact on the percentage of program group members living with a spouse at the 18-month interview. Analysis by province, however, shows a positive estimated impact of 2.9 percentage points in New Brunswick and a negative estimated impact of -1.8 percentage points in British Columbia. The two estimates and the difference between them are all statistically significant. It is not clear why the direction of the estimated impact differs between the two provinces. Future work, with a longer follow-up period, will address this question in more depth.

ESTIMATED IMPACTS ON LIVING CONDITIONS AND MATERIAL HARDSHIP

Tables E.3–E.5 present the estimated impacts of SSP on various indicators of living conditions and material hardship. These results were summarized in chapter 5. The indicators were derived from sample members' responses to the 18-month survey. Most of the questions asked at the 18-month interview regarding living conditions and material hardship were drawn from Mayer and Jencks (1989).[5]

As shown in Table 5.4 of chapter 5, SSP increased program group members' average monthly expenditures on food. Table E.3 shows that the higher food expenditures were the result of higher expenditures on both groceries and eating out. SSP reduced the percentage who had needed food but had been unable to afford it at some time in the three months prior to the 18-month interview. Still, the percentage of program group members reporting this hardship was relatively high at 36.6 percent. Even among program group members who had received the SSP supplement in all of the three months before the interview, 19 percent (not

[3]Both of these provincial differences were statistically significant at the 1 percent level.

[4]The increase in percentage living with extended family was partly the result of statistically significant increases in percentages living with parents and parents-in-law. There was also an increase in the percentage living with siblings, but the difference was not statistically significant. See the note in Table E.2 for a definition of extended family.

[5]Related research on poverty and living conditions includes Edin and Lein (1997) and Mayer (1995, 1997).

shown in table) said that there had been a time when they had needed food but could not afford it during those same months.[6] This finding is consistent with the research by Mayer and Jencks (1989). As Mayer (1997, pp. 100–101) writes, "The most commonly reported food problem is not an inadequate weekly food budget, but occasionally running out of food. . . . [L]acking needed food is not the result of low income alone." Higher income may not prevent food shortages if people do not budget their expenditures carefully and have no one to borrow money from.

Table E.2: SSP Impacts on Family Composition and Living Arrangements by Province, Month 18

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
British Columbia				
Family size	3.0	2.9	0.0	(0.0)
Average number of children				
Ages 0–5	0.6	0.6	0.0	(0.0)
Ages 6–16	1.0	0.9	0.1*	(0.0)
Ages 17 or older	0.2	0.2	0.0	(0.0)
Total	1.8	1.8	0.0	(0.0)
Average number of other adults in family	0.2	0.2	0.0	(0.0)
Living arrangements				
Living with members of extended family (%)	10.5	7.9	2.6**	(1.1)
Living with members of another family (%)	10.1	13.8	-3.7***	(1.2)
Living with a spouse (%)	6.1	7.9	-1.8*	(1.0)
Sample size (total = 2,766)	**1,386**	**1,380**		
New Brunswick				
Family size	2.9	2.9	0.0	(0.0)
Average number of children				
Ages 0–5	0.6	0.6	0.0	(0.0)
Ages 6–16	0.8	0.9	0.0	(0.0)
Ages 17 or older	0.2	0.2	0.0	(0.0)
Total	1.6	1.6	0.0	(0.0)
Average number of other adults in family	0.3	0.3	0.0	(0.0)
Living arrangements				
Living with members of extended family (%)	12.5	12.4	0.0	(1.3)
Living with members of another family (%)	6.3	7.6	-1.3	(1.0)
Living with a spouse (%)	14.5	11.6	2.9**	(1.3)
Sample size (total = 2,522)	**1,259**	**1,263**		

Source: Calculations from 18-month follow-up survey data.

Notes: Family size includes all persons living in the household who are related to the sample member by blood, marriage, adoption or through a foster relationship. Number of children includes sons/daughters, grandchildren, sons/daughters-in-law and foster children of any age, and other persons under age 19 who are related by blood. Other adults in the family include spouses, parents, parents-in-law, siblings, and other persons age 19 or older who are related by blood. Extended family refers to anyone in the family (as defined under family size) other than the sample member, spouse of the sample member, and the sample member's own children. Other families refer to persons not related to the sample member by blood, marriage, adoption, or through a foster relationship.

Sample sizes vary for individual measures because of missing values.

A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

Rounding may cause slight discrepancies in sums and differences.

[6]Among those who received the supplement in all three months, average family income during those months was $2,300 per month. (Those in this group who said they had been unable to afford needed food had a similar average income.) By comparison, the program group as a whole had average family income of $1,500 per month during the same period.

Table E.3: SSP Impacts on Selected Living Conditions, Month 18

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Food items				
Average amount spent on:				
Groceries ($/month)	368	350	18***	(6)
Eating out ($/month)	45	40	5***	(2)
Needed food but was unable to get it at any time in last 3 months (%)	38.6	42.1	-3.6***	(1.4)
Unable to get out and get food (%)	1.7	1.8	-0.1	(0.4)
Unable to afford food (%)	36.6	39.9	-3.3**	(1.3)
Other reason unable to get food (%)	0.3	0.5	-0.2	(0.2)
Housing items				
Could not afford rent or mortgage at any time in last 3 months (%)	10.6	11.1	-0.4	(0.9)
Average number of rooms in dwelling, not including bathrooms	4.9	4.9	0.0	(0.0)
Less than 1 room per household member (%)	5.7	6.1	-0.4	(0.7)
Have problem with (%):				
Leaky roof or ceiling	8.1	8.5	-0.5	(0.8)
Plumbing	9.9	10.2	-0.3	(0.8)
Rats, mice, or insects	8.2	9.9	-1.7**	(0.8)
Broken windows	7.3	7.2	0.1	(0.7)
Heating/cooling system	5.0	5.1	-0.2	(0.6)
Exposed wires, blowing fuses, etc.	5.3	4.9	0.5	(0.6)
Stove or refrigerator	7.9	9.3	-1.4*	(0.8)
Other items				
In the past 6 months, respondent or family member needed but could not afford (%):				
To go to the doctor	2.3	3.5	-1.2**	(0.5)
To go to the dentist	22.8	22.4	0.4	(1.2)
Medication	10.6	10.8	-0.2	(0.9)
Hydro or gas turned off at any time in last 3 months because unable to pay the bill (%)	3.3	3.6	-0.3	(0.5)
As a place to raise a family, respondent says neighbourhood is (%):				
Excellent	23.1	22.4	0.7	(1.2)
Very good	23.0	22.6	0.4	(1.2)
Good	29.3	29.5	-0.2	(1.3)
Fair	16.5	16.8	-0.2	(1.0)
Poor	8.2	8.6	-0.4	(0.8)
Don't know	0.0	0.2	-0.2*	(0.1)
Sample size (total = 5,288)	**2,645**	**2,643**		

Source: Calculations from 18-month follow-up survey data.

Notes: Sample sizes vary for individual measures because of missing values.
A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.

Program and control group members responded similarly to the housing items asked at the 18-month interview. Tables E.3–E.5 show the incidence of the seven housing problems.[7] SSP had only a few statistically significant impacts on the incidence of specific housing problems. Looking by province: in New Brunswick, problems with a stove or refrigerator

[7]These are the items used to derive the indicator for one or more housing problems reported at the 18-month interview, shown in Table 5.9.

were less prevalent among program group members than among control group members; in British Columbia, program group members were less likely than control group members to report problems with vermin, but more likely to report problems with broken windows. In general, the incidence of specific housing problems was low among both program and control group members.

Table E.4: SSP Impacts on Selected Living Conditions, Month 18 — British Columbia

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Food items				
Average amount spent on:				
Groceries ($/month)	398	380	18**	(8)
Eating out ($/month)	47	41	5*	(3)
Needed food but was unable to get it at any time in last 3 months (%)	47.6	48.0	-0.5	(1.9)
Unable to get out and get food (%)	2.3	1.8	0.6	(0.5)
Unable to afford food (%)	44.8	45.6	-0.7	(1.9)
Other reason unable to get food (%)	0.4	0.7	-0.3	(0.3)
Housing items				
Could not afford rent or mortgage at any time in last 3 months (%)	11.8	9.6	2.2*	(1.2)
Average number of rooms in dwelling, not including bathrooms	4.8	4.8	0.0	(0.1)
Less than 1 room per household member (%)	8.3	9.6	-1.3	(1.1)
Have problem with (%):				
Leaky roof or ceiling	7.0	7.3	-0.3	(1.0)
Plumbing	10.3	11.0	-0.7	(1.2)
Rats, mice, or insects	9.7	11.9	-2.2*	(1.2)
Broken windows	6.6	5.1	1.5*	(0.9)
Heating/cooling system	4.5	4.8	-0.3	(0.8)
Exposed wires, blowing fuses, etc.	5.4	5.1	0.3	(0.8)
Stove or refrigerator	7.7	7.4	0.3	(1.0)
Other items				
In the past 6 months, respondent or family member needed but could not afford (%):				
To go to the doctor	1.6	2.0	-0.4	(0.5)
To go to the dentist	13.2	13.0	0.2	(1.3)
Medication	8.3	8.2	0.2	(1.0)
Hydro or gas turned off at any time in last 3 months because unable to pay the bill (%)	3.2	2.7	0.5	(0.6)
As a place to raise a family, respondent says neighbourhood is (%):				
Excellent	20.8	20.5	0.4	(1.5)
Very good	22.9	23.2	-0.3	(1.6)
Good	31.6	31.6	-0.1	(1.8)
Fair	16.6	16.3	0.3	(1.4)
Poor	8.0	8.1	-0.1	(1.0)
Don't know	0.1	0.4	-0.3	(0.2)
Sample size (total = 2,766)	**1,386**	**1,380**		

Source: Calculations from 18-month follow-up survey data.

Notes: Sample sizes vary for individual measures because of missing values.
A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.

SSP had opposite effects on the ability to afford the rent or mortgage in the two provinces. One hypothesis is that SSP's impacts on the ability to pay the rent are related to its

impacts on household composition. In New Brunswick, program group members were more likely than control group members to be living with spouses and were less likely to report having been unable to afford the rent or mortgage at any time in the three months prior to the 18-month interview. In British Columbia, program group members were less likely than control group members to be living with spouses and were more likely to report having been unable to afford the rent or mortgage. It remains unclear, however, why the impacts on household composition would be different in the two provinces.

Table E.5: SSP Impacts on Selected Living Conditions, Month 18 — New Brunswick

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Food items				
Average amount spent on:				
Groceries ($/month)	335	317	18***	(7)
Eating out ($/month)	43	38	5**	(2)
Needed food but was unable to get it at any time in last 3 months (%)	28.6	35.7	-7.1***	(1.9)
Unable to get out and get food (%)	1.0	1.8	-0.9*	(0.5)
Unable to afford food (%)	27.4	33.7	-6.2***	(1.8)
Other reason unable to get food (%)	0.2	0.2	0.0	(0.2)
Housing items				
Could not afford rent or mortgage at any time in last 3 months (%)	9.4	12.8	-3.4***	(1.3)
Average number of rooms in dwelling, not including bathrooms	5.0	5.0	0.0	(0.1)
Less than 1 room per household member (%)	2.8	2.3	0.6	(0.6)
Have problem with (%):				
Leaky roof or ceiling	9.2	9.9	-0.7	(1.2)
Plumbing	9.4	9.3	0.1	(1.2)
Rats, mice, or insects	6.6	7.7	-1.1	(1.0)
Broken windows	8.1	9.6	-1.5	(1.1)
Heating/cooling system	5.5	5.6	-0.1	(0.9)
Exposed wires, blowing fuses, etc.	5.3	4.6	0.7	(0.9)
Stove or refrigerator	8.2	11.5	-3.3***	(1.2)
Other items				
In the past 6 months, respondent or family member needed but could not afford (%):				
To go to the doctor	3.1	5.2	-2.0***	(0.8)
To go to the dentist	33.3	32.6	0.8	(1.9)
Medication	13.2	13.7	-0.6	(1.4)
Hydro or gas turned off at any time in last 3 months because unable to pay the bill (%)	3.5	4.6	-1.1	(0.8)
As a place to raise a family, respondent says neighbourhood is (%):				
Excellent	25.6	24.5	1.1	(1.7)
Very good	23.1	22.0	1.1	(1.7)
Good	26.7	27.1	-0.4	(1.8)
Fair	16.4	17.2	-0.9	(1.5)
Poor	8.3	9.1	-0.8	(1.1)
Don't know	0.0	0.1	-0.1	(0.1)
Sample size (total = 2,522)	**1,259**	**1,263**		

Source: Calculations from 18-month follow-up survey data.

Notes: Sample sizes vary for individual measures because of missing values.
A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.

SSP had no effect on the percentages who could not afford a visit to the dentist that they or a family member needed, who could not afford medication that they or a family member needed, or whose utilities were turned off because of non-payment. SSP did reduce the percentage who could not afford a visit to the doctor that they or a family member needed, but this problem was relatively rare even in the absence of SSP.

Program and control group members felt similarly about the neighbourhoods where they lived. Most said their neighbourhoods were at least "good" places to raise families.

Appendix F
Additional Details on Outcome Measures

This appendix discusses the report's measures of employment, earnings, Income Assistance, supplement payments, individual and family income, the income-to-need ratio, and projected taxes.

EMPLOYMENT, EARNINGS, INCOME ASSISTANCE, AND SUPPLEMENT PAYMENTS

Information collected on the 18-month follow-up survey was used to construct measures of employment and earnings by month or quarter relative to random assignment. Month 1 is the month of random assignment, month 2 is the following month, and so on. For example, for a sample member randomly assigned on May 18, 1994, month 1 is May 1994, and month 2 is June 1994.[1] Quarter 1 consists of months 1–3; quarters 2–5 consist of months 4–15, grouped into three-month quarters; and quarter 6 consists of either months 16–17 (in analyses of employment and earnings) or months 16–18 (in analyses of Income Assistance and supplement payments).

For 95.5 percent of the report sample, the "18-month" survey interview took place in month 18 or later, collecting employment data through the end of month 17 or later.[2] However, for 4.5 percent of the sample, the interview took place a month or two earlier, so data were collected up to month 15 or 16 only. Thus, in the analyses of employment data, the sample size is 5,288 for quarters 1–5 (months 1–15), but for quarter 6 (months 16–17) a slightly smaller sample of 5,048 people is analyzed.[3] Employment data for months 18 and later are not analyzed in this report because of insufficient sample sizes. Data for month 18 are available for only 2,071 sample members.

The following monthly employment and earnings measures were constructed:

- Employed full-time (working 30 hours or more in any week during the month) versus not
- Employed part-time (having some employment but no full-time employment during the month) versus not

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[1]The reason for making the relative months coincide with actual calendar months (instead of making month 1 start on the day of random assignment) is that this allows the employment and earnings data to line up with the Income Assistance data.

[2]The month of the interview was not fully covered. For example, if the interview occurred on December 12, then information about employment during December 13-31 was not collected.

[3]In quarter 5, this sample of 5,048 yields estimates very close to those obtained from the full sample of 5,288. The program and control groups' average monthly full-time employment rates were 29.2 and 14.0 percent in the sample of 5,048, compared with 29.3 and 14.0 percent in the full sample; average monthly earnings were $352 and $217 in the sample of 5,048, compared with $352 and $218 in the full sample. Therefore, the differences between quarter 5 and quarter 6 estimates in Table 3.1 are not believed to result from the slight change in sample.

- Ever employed (full-time or part-time) during the month versus not
- Monthly earnings
- Monthly hours worked
- Average hourly wage rate (monthly earnings divided by monthly hours worked)
- Maximum hours worked per week

Monthly Income Assistance records from December 1989 through October 1996 were obtained from the Ministry of Human Resources in British Columbia and Human Resources Development New Brunswick. For this report, sample members were considered to be receiving Income Assistance if they received support or shelter payments from British Columbia or basic grant payments from New Brunswick.[4] Data on Income Assistance through month 18 are available for all sample members.

SSP supplement payments were measured with data from the SSP Program Management Information System (PMIS). PMIS data through month 18 are available for all supplement takers. In the analysis, the supplement payment data were organized according to the month in which each supplement cheque was issued, which was typically later than the employment for which the supplement was paid. As explained in chapter 2, the reason for the delay is that each supplement payment is issued after the supplement taker mails in all pay stubs for the relevant four-week or monthly accounting period.

GROSS INCOME AND THE INCOME-TO-NEED RATIO

Individual and family income measures were constructed for the six-month period preceding the month of the 18-month survey interview. The survey's questions about unearned income pertained to that period. The timing of those six months relative to random assignment varies somewhat because the "18-month" interview could occur as early as month 16 or as late as month 22. For 93.4 percent of sample members, the interview occurred in month 18, 19, or 20, so the six-month period consisted of months 12–17, 13–18, or 14–19.[5] For ease of exposition, the period is referred to as "months 12–17" in chapters 3 and 5 and as "quarters 5 and 6" in Table 3 of the Executive Summary.

The individual income shown in Table 5.1 (row 5) includes income from earnings, the SSP supplement, Income Assistance, the Child Tax Benefit, the Goods and Services Tax Credit, Unemployment Insurance, alimony and child support, roomers and boarders, disability benefits, old age assistance, workers compensation, the British Columbia sales tax credit, interest and dividends, and other reported income. Data on these components of income were obtained from a combination of administrative records and survey data. SSP supplement payments and Income Assistance payments were measured from administrative records. All other components were based on information collected on the 18-month survey. Earnings for the six-month period are calculated by averaging the monthly estimates for the

[4]Single parents in British Columbia who left Income Assistance for employment could apply to receive transitional benefits that covered work-related transportation and child care costs for up to 12 months. For this report, people who received only these types of benefits or only emergency "crisis grants" were not counted as receiving Income Assistance.

[5]Specifically, the period consisted of months 12–17 for 56.3 percent of sample members, months 13–18 for 26.6 percent, and months 14–19 for 10.5 percent.

six months in the period (see above for explanation of monthly earnings). Other amounts come directly from responses to questions asked at the 18-month interview, e.g., "Approximately how much in Child Tax Benefits did you receive over (the previous) six months?"[6]

The family income measure shown in Table 5.1 (row 7) is individual income plus earnings received by other family members during the six-month period. Roughly 20 percent of sample members said that other family members had earnings. Of those, less than half (8 percent of all sample members) reported the dollar value of the earnings. Missing values were set to zero. The family income measure does not include *non-labour* income received by other family members. As shown in Table F.1, the percentage of sample members who reported receipt of specific types of non-labour income by other family members was relatively low, and dollar values of the income were often not given.

Each year Statistics Canada calculates low-income cut-offs (LICOs), which vary by family size and size of area of residence.[7] The income-to-need ratio analyzed in chapter 5 was defined as annualized family income divided by the low-income cut-off for the sample member's location and family size. For each sample member, the LICO for the year of the 18-month follow-up interview was used. Family size was determined by the number of family members reported on the household roster of the 18-month survey. Size of area of residence was determined by Statistics Canada from the sample member's address. Table F.2 shows the LICOs for 1995.

PROJECTED TAXES

Income taxes and payroll taxes were estimated for the six-month period preceding the 18-month interview. Specifically, estimates of federal and provincial income tax obligations, Unemployment Insurance premiums deducted at payroll, and Canada Pension Plan premiums deducted at payroll were calculated. It is important to note that these estimates are indirect measures. Federal and provincial tax rules and data on income and household composition were used to project the taxes that sample members would ultimately pay on the income they received during the period.

The tax rules used to impute each sample member's taxes were those in effect three months before the 18-month interview. For example, if the interview took place in February 1996, the tax rules for 1995 would be used. For simplicity, taxes were imputed based only on the individual incomes of the sample members and were computed as though all sample members were single. Where rates depend on number of dependants, the number of children in the family reported on the household roster at the 18-month interview was used.

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[6]The survey also asked sample members how much they had received in daycare subsidies over the previous six months. Reported daycare subsidies are not counted as income in chapter 5 because they offset a portion of total daycare costs for the six-month period, which were not measured.

[7]For more details on the construction of LICOs, see Statistics Canada (1997).

Unemployment Insurance (UI) premiums were deducted from paycheques of people working at least 15 hours per week. Earnings beyond a maximum amount are not insurable. The employee premium rates and maximum annual insurable earnings in 1994–1996 were:

	1994	1995	1996
Premium rate	3.07%	3.00%	2.95%
Maximum insurable earnings	$40,560	$42,380	$39,000

UI premiums were imputed for each of the six months preceding the 18-month interview, based on earnings and hours worked in those months. (SSP supplement payments are not subject to UI or Canada Pension Plan premiums.)

The Canada Pension Plan (CPP) premium equals a percentage of gross earnings between an exempt level and a maximum amount covered. The employee premium rates and annual earnings cut-offs for 1994–1996 were:

	1994	1995	1996
Premium rate	2.60%	2.70%	2.80%
Exempt earnings	$3,400	$3,400	$3,500
Maximum earnings covered	$34,400	$34,900	$35,400

CPP premiums were imputed based on total earnings in the six months preceding the 18-month interview.[8]

The federal income tax consists of a basic tax and a surtax. During 1994–1996 the basic tax was:

17 percent of the first $29,590 of taxable income

+ 26 percent of the next $29,590 of taxable income (up to $59,180)

+ 29 percent of any additional taxable income (greater than $59,180)

Less the following non-refundable tax credit: 17 percent of

Basic personal deduction ($6,456)

+ Equivalent-to-married deduction ($5,380, deducted only if there is at least one child under age 18)

+ Unemployment Insurance premium deducted at payroll

+ Canada Pension Plan premium deducted at payroll

If the above amount was negative then the basic tax was zero.

[8]While the report was in press, it was discovered that, because of a programming error, the UI premium imputations for 1994 and 1995 assumed that maximum insurable earnings were $36,920 per year (the correct amount for 1992), and the CPP premium imputations for 1994 and 1995 were based on the 1994 premium rate and earnings cut-offs. These errors should have very minor effects on the estimates. Very few sample members had earnings exceeding $3,077 ($36,920 ÷ 12) in any month, and the differences between the 1994 and 1995 CPP premium rates and cut-offs are small.

If the basic tax was positive, the following surtax was added:

3 percent of the first $12,500 of basic tax

+ 5 percent of any additional basic tax (greater than $12,500)

All amounts above are annual. To estimate the federal tax owed on income received in the six months preceding the 18-month interview, the dollar amounts given above were halved. The federal tax was then estimated using taxable income reported for the six-month period. Taxable income was defined as:

Gross earnings

+ SSP supplement

+ Alimony and child support

+ Disability payments

+ Rent received

+ Interest and dividends

+ UI benefits

+ Other taxable income

– Child care expense deduction

To impute the child care expense deduction, estimates of monthly child care costs were derived from responses to questions asked at the 18-month interview. The calculation of all other items has been described above in the discussion of gross income.

In British Columbia, the provincial income tax in 1994 and 1995 was 52.5 percent of the basic federal tax, and it was 52 percent in 1996. In New Brunswick, the provincial income tax during those years was 64 percent of the basic federal tax. Estimates of provincial income taxes were derived from the projected basic federal tax.

In addition, the British Columbia sales tax credit was taken into account in the projection of the provincial income tax. If the estimated sales tax credit was greater than the provincial tax, then the estimated provincial tax was set to zero.[9] Otherwise the estimated provincial tax was reduced by the estimated amount of the sales tax credit.

In 1994 and 1995, the credit was:

$50

+ $50 × number of children under age 19

– 0.02 × (income – threshold income) if income exceeded the threshold income

The threshold income was $15,000 plus $3,000 per child under age 19 in 1994 and 1995. In 1996, the credit was changed to $50 less 2 percent of income in excess of $15,000. All amounts above are annual. Both Income Assistance and SSP supplement payments are included in the income used to determine the 2 percent reduction to the base sales tax credit.

[9]The British Columbia sales tax credit is refundable. If the credit was greater than the provincial tax owed, then the taxpayer would receive the difference in the form of a refund. The income measures in this report do not include projections of refunds that would eventually be received, but they do include refunds of sales tax credits that were reported at the 18-monthinterview. (The reported tax credits were based on the previous year's income.)

Table F.1: Percentage of Sample Members Reporting Non-Labour Income Received by Other Family Members

Type of Income	Percentage Reporting Any Receipt			Percentage Reporting a Dollar Value		
	Program Group	Control Group	Difference (Impact)	Program Group	Control Group	Difference (Impact)
Social Assistance/Provincial income supplement	4.0	3.1	0.8	2.4	2.2	0.2
Unemployment Insurance	2.6	2.3	0.3	1.4	1.2	0.2
Child Tax Benefit	1.2	0.8	0.5*	0.8	0.5	0.3
Alimony and child support	0.4	0.2	0.2	0.3	0.1	0.2
Workers compensation	0.3	0.4	-0.1	0.2	0.2	0.0
Disability benefits	0.6	0.5	0.2	0.4	0.4	0.0
Income from roomers or boarders	0.3	0.7	-0.4**	0.2	0.6	-0.4**
Interest and dividend income	0.2	0.1	0.1	0.0	0.0	0.0
GST Credit	7.8	6.4	1.5**	5.7	4.3	1.5**
Old age assistance	1.0	1.0	0.0	0.5	0.4	0.2
Provincial tax credits	0.0	0.0	0.0	0.0	0.0	0.0
Other income (not including earnings)	1.0	1.4	-0.4	0.6	0.8	-0.2
Sample size (total = 5,288)	**2,645**	**2,643**		**2,645**	**2,643**	

Source: Calculations from 18-month follow-up survey data.

Notes: A two-tailed t-test was applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.
Rounding may cause slight discrepancies in sums and differences.

Table F.2: 1995 Low-Income Cut-Offs ($)

	Size of Area of Residence				
	Urban Areas				
Size of Family Unit	500,000 and Over	100,000 to 499,999	30,000 to 99,999	Less than 30,000[a]	Rural Areas
1	16,874	14,473	14,372	13,373	11,661
2	21,092	18,091	17,965	16,716	14,576
3	26,232	22,500	22,343	20,790	18,129
4	31,753	27,235	27,046	25,167	21,944
5	35,494	30,445	30,233	28,132	24,530
6	39,236	33,654	33,420	31,096	27,116
7 or more persons	42,978	36,864	36,607	34,061	29,702

Source: Statistics Canada, "Low Income Cut-offs (LICOs)," Catalogue No. 13-551-XPB (Ottawa: Statistics Canada, 1997), 16.
Note: [a]Includes cities with a population between 15,000 and 30,000 and small urban areas (under 15,000).

Appendix G
Calculation of Generosity Measures

This appendix explains how chapter 4's measures of SSP generosity were calculated. The generosity measures compare (1) the income each sample member would receive if she were to work 30 hours per week and collect the SSP supplement for an entire year with (2) the income she would receive if she were to work 30 hours per week and collect Income Assistance (or whatever benefits she could receive in the absence of SSP) for an entire year. The measures are *hypothetical* in that they do not compare the *actual* income received by sample members; rather, they compare the incomes sample members would receive under each program *if* they worked 30 hours per week and *if* the assumptions detailed below were satisfied.

Two measures of generosity were analyzed in chapter 4. The "unadjusted" measure (ignoring taxes and other transfers) is based on this calculation of hypothetical income:

Hypothetical income 1 =

Gross earnings + alimony and child support + (SSP supplement *or* Income Assistance)

The "adjusted" measure (accounting for taxes and other transfers) is based on this calculation:

Hypothetical income 2 =

Gross earnings + alimony and child support + (SSP supplement *or* Income Assistance) + bridging benefits (British Columbia only) + refundable tax credits + daycare subsidy – federal income taxes – provincial income taxes – Unemployment Insurance premium – Canada Pension Plan premium

The adjusted measure assumes that the sample member would collect all available transfer payments and would pay taxes in strict accordance with the tax laws.

In calculating hypothetical incomes, where amounts depended on the date (e.g., the provincial income tax rate in New Brunswick changed in 1994), the date of random assignment was used. Where amounts depended on the number or ages of children (e.g., Income Assistance benefits), the number and ages of children at random assignment were used. It was assumed that there were no other adults in the household.

Averages of the components of hypothetical income, under SSP and under IA, are shown in Table G.1.[1] The top panel shows income ignoring taxes and other transfers. The difference between total income under SSP and under IA is the unadjusted generosity measure. This measure is simply the difference between the SSP supplement and the IA benefit, given 30 hours of work per week for an entire year. At 30 hours of work per week, the SSP supplement payment is considerably greater than the IA payment that the average program group member would be eligible to receive.

[1] The total incomes shown in Table 4.4 are derived from these components.

Table G.1: Components of Hypothetical Income — Averages Under SSP and Under IA

	British Columbia			New Brunswick		
Income Component ($/year)	**Under SSP**	**Under IA**	**Difference**	**Under SSP**	**Under IA**	**Difference**
Ignoring taxes and other transfers						
Gross earnings	9,727	9,727	0	8,597	8,597	0
Alimony and child support	525	525	0	221	221	0
Income Assistance payment	0	5,556	-5,556	0	2,542	-2,542
SSP supplement	13,765	0	13,765	10,942	0	10,942
Total income	24,018	15,808	8,209	19,760	11,360	8,400
Accounting for taxes and other transfers						
Gross earnings	9,727	9,727	0	8,597	8,597	0
Alimony and child support	525	525	0	221	221	0
Income Assistance payment	0	6,028	-6,028	0	2,926	-2,926
SSP supplement	13,765	0	13,765	10,942	0	10,942
Bridging benefit (British Columbia only)	1,522	16	1,506	0	0	0
Refundable tax credits						
Goods and Services Tax Credit	571	571	0	514	514	0
Child Tax Benefit	1,989	1,989	0	1,805	1,805	0
Daycare subsidy	4,228	4,580	-352	0	329	-329
Taxes and payroll deductions (subtracted)						
Total federal income tax	2,012	50	1,963	1,281	15	1,266
Total provincial income tax	970	-112	1,082	790	9	781
Unemployment Insurance premium	296	296	0	262	262	0
Canada Pension Plan premium	163	163	0	135	135	0
Total income	28,886	23,039	5,847	19,612	13,971	5,641
Sample size (total = 2,645)		**1,386**			**1,259**	

Sources: Calculations from baseline survey data and Income Assistance administrative records.

Note: Averages are based on program group subsamples only. All income amounts are hypothetical. Amounts were imputed based on program rules and characteristics of sample members from the various data sources. See text for details of the calculations.

The lower panel of Table G.1 shows income accounting for taxes and other transfers.[2] Higher income tax obligations under SSP reduce the apparent generosity of the program considerably.[3] Also, the income from the supplement reduces the daycare subsidy a sample member can receive.

The generosity measures analyzed in this report represent the financial incentives offered by SSP at random assignment. Over time, the relative generosity of SSP will change, as illustrated by these examples:

- Although the table shows no difference in income from refundable tax credits, this would change over time. The amounts of the Goods and Services Tax Credit and the Child Tax Benefit depend on income in *previous* years. Therefore, in the first calendar year of supplement receipt, income from SSP would not reduce the tax credits. In subsequent years, however, SSP supplement payments would count against the amount of the credits a person could receive. This would reduce the relative generosity of SSP.
- During the period covered by this report, single parents in British Columbia who received at least three months of Income Assistance, and who then left Income Assistance for employment, could apply to receive bridging benefits that covered work-related transportation and child care costs for up to 12 months. Therefore, hypothetical income under SSP includes 12 months of bridging benefits.[4] The expiration of these benefits after 12 months would reduce the generosity of SSP in British Columbia in subsequent years.
- British Columbia introduced a "Family Bonus" in August 1996. This benefit gives low-income families up to $103 per child each month. Although families on Income Assistance receive the bonus, it is deducted dollar for dollar from their IA cheques. On the other hand, under SSP, the bonus increases the incomes of most families. The bonus therefore increases the generosity of SSP in British Columbia.

The remainder of this appendix details the assumptions used to impute each of the components of hypothetical income. Note that only program eligibility rules, benefit formulas, and tax rates during the random assignment period were used. Random assignment in British Columbia took place in January 1993–October 1993 and January 1994–February 1995. Random assignment in New Brunswick took place in November 1992–June 1993 and January 1994–March 1995.

Table G.2 shows an example for each province of the calculation of components of income under SSP and under IA.

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[2]The Income Assistance payment shown in the lower panel differs from the payment in the upper panel because in the lower panel, earnings net of taxes withheld were used to calculate the IA payment, whereas in the upper panel, gross earnings were used.

[3]The table also shows payroll taxes for UI and CPP premiums. Because these premiums are taken only from earnings and not from SSP supplement payments, they are the same under SSP and IA.

[4]Given the low wages sample members are predicted to receive, the vast majority would still be eligible to receive some Income Assistance even if they worked 30 hours per week. If they remained on IA, they would be ineligible to receive the bridging benefits. Hence the average bridging benefit under IA is very low ($16).

Table G.2: Examples of Hypothetical Income Calculation

Characteristic or Income	British Columbia		New Brunswick	
	Under SSP	Under IA	Under SSP	Under IA
Personal characteristic				
Random assignment date	June 1993	June 1993	June 1993	June 1993
Number of children	2	2	2	2
Predicted wage ($/hour)	6.24	6.24	5.53	5.53
Gross earnings in the previous year ($/year)	1,248	1,248	1,071	1,071
Gross income in the previous year ($/year)	14,325	14,325	9,543	9,543
Child care expense deduction taken on previous year's tax return ($/year)	34	34	0	0
Income ignoring taxes and other transfers ($/year)				
Gross earnings	9,734	9,734	8,627	8,627
Alimony and child support	675	675	342	342
Income Assistance payment	0	5,999	0	2,395
Basic benefit	0	13,824	0	8,964
Ancillary benefit	0	184	0	0
Income subtracted (after disregard)	0	8,009	0	6,569
SSP supplement	13,633	0	10,687	0
Total income	24,042	16,408	19,655	11,364
Income accounting for taxes and other transfers ($/year)				
Gross earnings	9,734	9,734	8,627	8,627
Alimony and child support	675	675	342	342
Income Assistance payment	0	6,451	0	2,787
Basic benefit	0	13,824	0	8,964
Ancillary benefit	0	184	0	0
Income subtracted (after disregard)	0	7,557	0	6,177
SSP supplement	13,633	0	10,687	0
Bridging benefit (British Columbia only)	1,200	0	0	0
Refundable tax credits				
Goods and Services Tax Credit	608	608	565	565
Base credit	503	503	503	503
Income supplement	105	105	62	62
Child Tax Benefit	2,245	2,245	2,253	2,253
Base benefit	2,245	2,245	2,253	2,253
Working income supplement	0	0	0	0
Daycare subsidy	3,667	3,667	0	665
Taxable income	24,042	10,409	19,655	8,969
Child care expense deduction	0	0	665	0
Taxes (subtracted)				
Total federal income tax	2,058	0	1,184	0
Basic federal tax	1,998	0	1,150	0
Surtax	60	0	34	0
Total provincial income tax	984	-150	713	0
Basic provincial tax	1,049	0	713	0
Sales tax credit (British Columbia only)	65	150	0	0
Unemployment Insurance premium	292	292	259	259
Canada Pension Plan premium	161	161	133	133
Total income	28,267	23,078	20,184	14,847

Notes: Amounts were imputed based on program rules and the personal characteristics assumed in the examples. The examples assume a person with two children, ages 5 and 14. Predicted wage and income estimates for the previous year are the averages among sample members in the province with two children. See text for details of the calculations.

GROSS EARNINGS

Gross annual earnings were imputed as: 30 hours per week × 52 weeks × predicted hourly wage. Predicted hourly wages were determined by estimated wage equations that describe the relationship between wages and various demographic and socioeconomic characteristics. A wage equation was estimated for each province using the Heckman (1979) two-step estimation procedure, which attempts to account for the sample selection bias that arises because wages are not observed for all sample members.

The unit of analysis for estimation of the wage equation was person-month. For each person in the sample there were 10 person-month observations, one for each of the 10 months prior to random assignment. From responses to the baseline survey, hourly wages in these months were calculated.[5] If the person did not work in the month or if not enough information was given to calculate the hourly wage, the wage that she could have earned in that month was considered unobserved.

The first step of the estimation procedure was to estimate the parameters of the probability of observing a wage in a person-month; the second step was to estimate the parameters of the wage equation. Estimated coefficients of the wage equation are shown in Table G.3. Using the estimated coefficients and data on individual characteristics from the baseline survey and Income Assistance records, a predicted wage was assigned to each member of the report sample.[6] If the predicted wage was below the provincial minimum wage, it was reset to the minimum. Based on this procedure, the mean predicted hourly wage was $6.25 in British Columbia and $5.53 in New Brunswick. Sixty-five percent of sample members in British Columbia and 43 percent in New Brunswick were assigned the minimum wage.

ALIMONY AND CHILD SUPPORT

The amount of alimony and child support reported at the baseline interview for the previous month, multiplied by 12, was used to impute the annual alimony and child support received.

SSP SUPPLEMENT

The SSP supplement amount equals half the difference between a benchmark level and gross earnings. Benchmark levels by province and date are:

	Before Feb. 1994	Feb. 1994–Jan. 1995	Since Feb. 1995
British Columbia	$37,000	$37,500	$37,625
New Brunswick	$30,000	$30,600	$31,225

[5] Sample members in the earlier intake period (November 1992-October 1993) were asked about jobs since January 1992. Sample members in the later intake period (January 1994-March 1995) were asked about jobs since January 1993. Employment information for the 10 months prior to random assignment is therefore available for all sample members.

[6] The prediction was based on all explanatory variables in the wage regression except the Mills' ratio term.

For hypothetical income under SSP, calculation of the supplement amount was based on imputed gross earnings and the benchmark level at the time of random assignment.

Table G.3: Estimated Coefficients of the Wage Equation

Variable (omitted category in parentheses)	Estimated Coefficient	
	British Columbia	New Brunswick
Constant	1.424	2.293
Inverse of Mills' ratio[a]	0.194	-0.022
Month relative to random assignment[b]	0.0045	-0.0002
Age at random assignment	0.016	-0.032
Age at random assignment, squared	-0.00026	0.00028
Male	-0.028	0.023
Lived in urban area at random assignment	-0.089	-0.008
Marital status at random assignment (never married or married)		
Separated	0.058	0.025
Divorced	-0.029	0.051
Mother graduated from high school	-0.008	-0.023
Father graduated from high school	-0.049	-0.076
Both parents present in home while growing up	-0.020	-0.064
Family received Income Assistance while growing up	-0.093	-0.094
Number of years employed at random assignment	0.020	0.026
Number of years employed at random assignment, squared	-0.00012	-0.00046
Educational attainment at random assignment (less than grade 7)		
Grade 7–9	0.240	-0.044
Grade 10–11	0.240	-0.077
High school graduate	0.218	0.059
Some college	0.301	-0.078
Completed college	0.469	0.349
Subsidized rent or mortgage at random assignment	0.002	0.038
Activity-limiting physical condition at random assignment	-0.218	-0.050
Activity-limiting emotional condition at random assignment	0.102	0.196
Ancestry[c]		
European or Canadian	-0.069	-0.204
First Nations	-0.160	0.080
Asian	-0.151	-0.264
Born in Canada	0.028	0.172
Received IA in any of months -24 to -13	0.066	-0.097
Received IA in any of months -36 to -25	0.002	0.018
Month of random assignment[d]		
November 1992	N/A	0.223
December 1992	N/A	0.094
January 1993	-0.138	0.157
February 1993	-0.141	0.211
March 1993	-0.094	-0.065
April 1993	-0.172	0.031
May 1993	-0.097	0.261
June 1993	-0.175	0.331
July 1993	-0.192	N/A
August 1993	-0.279	N/A
September 1993	-0.346	N/A
January 1994	-0.129	0.085
February 1994	-0.091	0.294
March 1994	-0.328	0.156
April 1994	-0.208	0.061
May 1994	-0.193	0.186
June 1994	-0.039	-0.048
July 1994	-0.157	0.114

Table G.3: Estimated Coefficients of the Wage Equation (Cont'd)

Variable (omitted category in parentheses)	Estimated Coefficient	
	British Columbia	New Brunswick
August 1994	0.039	0.048
September 1994	-0.208	0.282
October 1994	-0.296	0.189
November 1994	-0.240	0.255
December 1994	-0.071	-0.023
January 1995	0.141	-0.096
February 1995	N/A	0.178
Sample size (total = 12,607)[e]	**5,958**	**6,649**
Mean natural log of the wage	**2.009**	**1.664**

Sources: Baseline survey data and Income Assistance administrative record data.

Notes: Dependent variable is natural log of the wage. Coefficients of the wage equation were estimated using a two-step procedure which attempts to correct for sample selection bias (Heckman, 1979).

N/A = not applicable.

[a]Calculated using parameters estimated from a probit analysis of the probability of observing a wage for the person-month. There are 10 observations per person in the probit analysis, one for each of the 10 months prior to random assignment. Regressors included in the probit regression are: age of youngest child at random assignment, enrolled in school at random assignment, child care required at random assignment, plus all the regressors (except for the inverse of Mills' ratio) included in the wage equation.

[b]Equals –1 if wage is from the month prior to random assignment, –2 if wage is from the month prior to that, etc., up to –10. Wages at random assignment were imputed for sample members by setting month relative to random assignment equal to zero.

[c]Multiple responses were allowed. Therefore, ancestry categories are not mutually exclusive.

[d]In British Columbia random assignment occurred during January 1993–October 1993 and January 1994–February 1995. The omitted category in the wage equation for British Columbia is February 1995. No indicator for October 1993 was included in the equation because only one sample member was randomly assigned in October 1993 and that person did not have observed wages. In New Brunswick random assignment occurred during November 1992–June 1993 and January 1994–March 1995. The omitted category in the wage equation for New Brunswick is March 1995.

[e]Unit of analysis in the wage equation is person-month. For each sample member there is one observation per average hourly wage observed. The maximum possible observations per person is 10, one for each of the 10 months prior to random assignment. If no wages were observed for the sample member in any of the 10 months prior to random assignment, then the sample member is not included in the wage equation.

INCOME ASSISTANCE

The Annual Income Assistance benefit was imputed as:

Basic benefit
+ Ancillary benefits
– (Earnings + alimony and child support – income disregards)

Basic benefits, ancillary benefits and income disregards are described below.

Basic Benefit

The imputed amount was 12 times the basic monthly Income Assistance rate for a single parent with the reported number of children under age 19 at random assignment. Income Assistance rates for each province are shown in Table G.4.

Basic benefits in British Columbia consist of a support allowance (for food, clothing, household and personal needs) and a shelter allowance (for housing and utilities). It was assumed that sample members received the maximum shelter allowance.

In New Brunswick, basic monthly benefits depend on the household's program classification. During the random assignment period, there were three possible classifications: Long-term Established Needs (LTEN, primarily for older or disabled people in need of long-term assistance); Interim Assistance (for people with short-term assistance

needs, such as those awaiting Unemployment Insurance benefits); and Upgrading, Training and Placement (UT&P, for people who were determined to have upgrading, training or placement potential and did not fall under the other two classifications). Benefit amounts were imputed according to sample members' classifications from Income Assistance records in the month of random assignment. Sample members fell under the LTEN and UT&P classifications only, with the vast majority in the UT&P program.

Table G.4: Basic Monthly Income Assistance Benefits for Single-Parent Families

	British Columbia		
	1992	1993	1994 and 1995
Number of children			
0	$525	$535	$546
1	$946	$963	$982
2	$1,131	$1,152	$1,175
3	$1,266	$1,291	$1,318
4	$1,411	$1,440	$1,471
5	$1,536	$1,569	$1,604
6	$1,661	$1,698	$1,737
7	$1,776	$1,817	$1,860
8	$1,891	$1,936	$1,983

	New Brunswick: Long-term Established Needs (LTEN) Program		
	Oct. 1992–Aug. 1993	Sep. 1993–Aug. 1994	Sep. 1994–Aug. 1995
Number of children			
0	$516	$521	$532
1	$775	$783	$799
2	$822	$830	$847
3	$869	$877	$895
4	$916	$924	$943
5	$963	$971	$991
6	$1,010	$1,018	$1,030
7	$1,057	$1,065	$1,087
8	$1,104	$1,112	$1,136

	New Brunswick: Upgrading, Training and Placement (UT&P) Program		
	Oct. 1992–Aug. 1993	Sep. 1993–Aug. 1994	Sep. 1994–Aug. 1995
Number of children			
0	$458	$463	$463
1	$704	$712	$712
2	$747	$755	$771
3	$790	$798	$815
4	$833	$841	$859
5	$876	$884	$903
6	$919	$927	$947
7	$962	$970	$991
8	$1,005	$1,013	$1,035

Sources: British Columbia's Ministry of Human Resources and Human Resources Development-New Brunswick.

Ancillary Benefits

For sample members in British Columbia, two ancillary benefits were added to the basic Income Assistance benefit: (1) a Christmas bonus equal to $70 plus $7 for each child under age 19; and (2) a school start-up allowance equal to $42 per child between the ages of 5 and

11 and $58 per child between the ages of 12 and 17. These are both once-a-year benefits. No ancillary benefits were assumed for sample members in New Brunswick.

Income Disregards

Income Assistance recipients are allowed to receive some earnings and, in British Columbia, some alimony and child support, without having their Income Assistance benefits reduced.

In British Columbia, both a flat income disregard and an enhanced earnings disregard were available during the random assignment period. The enhanced earnings disregard (25 percent of earnings in excess of the flat disregard) was available for up to 12 out of every 36 months. For simplicity, only the flat disregard was considered. For recipients with dependants, up to $200 per month of income from alimony, child support, and earnings could be disregarded, of which a maximum of $100 per month could be from alimony and child support.

In New Brunswick, only a flat earnings disregard was available during the random assignment period. For recipients with dependants, up to $200 per month of earnings could be disregarded. There was no disregard of alimony or child support.

In both provinces, an annual disregard of $2,400 was imputed, since any sample member working 30 hours per week for at least the minimum wage would earn more than $200 per month.

BRIDGING BENEFITS: BRITISH COLUMBIA ONLY

During the random assignment period, bridging benefits were available to single parents in British Columbia who left Income Assistance for full-time work. Benefits were available for up to 12 consecutive months. All sample members in British Columbia were assigned 12 months of bridging benefits in the calculation of hypothetical income under SSP. In the calculation of hypothetical income under Income Assistance, 12 months of bridging benefits were assigned to sample members whose imputed incomes from earnings, alimony, and child support were high enough to make them ineligible for Income Assistance.

There were two components to the bridging benefit: a transportation allowance of up to $100 per month and a child care surcharge of up to $150 per month. People who were eligible for the low-income daycare subsidy, but whose subsidies did not cover the full amount of their child care expenses, were eligible to receive the child care surcharge. The full amount of the transportation allowance was assumed for sample members who were assigned bridging benefits. In addition, a child care surcharge of up to $150 per month was imputed, based on estimated daycare subsidies and child care costs. The section on daycare subsidies explains how daycare subsidies and child care costs were imputed.

REFUNDABLE TAX CREDITS

Two refundable tax credits were imputed: the Goods and Services Tax (GST) Credit and the Child Tax Benefit. The credits depend on income reported on the previous year's tax

return.[7] Alimony and child support reported at the baseline interview, earnings and Income Assistance received in months –12 through –1, and tax rules for the year before random assignment were used to estimate previous year's income.[8] Because the credits are based on income in the previous year, the credits imputed under SSP and under Income Assistance were equal.

Goods and Services Tax Credit

The GST Credit is paid in four installments during the year. The size of the credit depends on gross income less the child care deduction, as reported on tax returns filed for the previous two years.[9] Credits paid in January and April are based on tax returns filed for two years earlier. Credits paid in July and October are based on tax returns filed for the previous year. There are two components to the credit:

Base credit equal to

$199 per year

+ $199 per year for the first child under age 19

+ $105 per year for each additional child under age 19

Income supplement (applicable only if previous year's gross income less the child care deduction was greater than $6,456) equal to the smaller of:

2 percent of (previous year's gross income less the child care deduction – $6,456); or

$105 per year

If gross income less the child care deduction in the previous year is over $25,921, then the credit is reduced by 5 percent of the amount in excess of $25,921.

Child Tax Benefit

Parents with children under age 18 are eligible for this benefit. The benefit is paid monthly and is based on income amounts reported on tax returns filed for the previous two years. From January through June the monthly benefit payments are based on tax returns filed for two years earlier. Each July, the benefit payments are updated based on tax returns filed for the previous year. There are two components to the benefit:

Base benefit equal to:

$1,020 per year for each child under age 18

+ ($213 per year for each child under age 7, -25 percent of the child care expense deduction claimed in the previous year)

+ $75 per year for the third and each additional child under age 18

Working income supplement (applicable if previous year's gross earnings exceeded $3,750) equal to:

the smaller of $500 or 8 percent of previous year's gross earnings in excess of $3,750, if previous year's gross earnings were less than $20,921; or

$500 -10 percent of (previous year's gross earnings –$20,921), if previous year's gross earnings were greater than $20,921

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[7] The credits actually depend on income from the previous two years. For the imputation, only income in the previous year (months –12 through –1) was considered.

[8] For annual earnings in the previous year, earnings in months –10 through –1 were annualized by multiplying the sum of earnings in those months by 1.2.

[9] The credit is also affected by certain other deductions (e.g., deductions for registered pension plan contributions, union or professional dues, moving expenses). These were assumed to be zero.

If previous year's gross income less child care expense deduction was over $25,921, then the benefit is reduced by: 2.5 percent of the amount over $25,921 if there was one child under age 18 in the household; or 5 percent of the amount over $25,921 if there was more than one child under age 18 in the household.

DAYCARE SUBSIDY

Maximum daycare subsidies are determined for each child of age 12 or younger and differ by province, age of child, and whether the child is in formal or informal care, as shown in Table G.5. The allowable subsidy will be less than the maximum if net income exceeds a threshold amount. The threshold income is the maximum basic Income Assistance benefit for the family's size (plus $600/month in British Columbia).[10] Every $1 of net income above the threshold reduces the allowable subsidy by $.50. The daycare subsidy received is either the allowable subsidy or the cost of child care, whichever is smaller.

Table G.5: Maximum Daycare Subsidy per Child ($/year)

	British Columbia			New Brunswick		
Date and Age of Child	Formal Care	Informal Care	Weighted Average	Formal Care	Informal Care	Weighted Average
November 1992–September 1994						
Age of child						
0–2	6,888	5,256	5,436	0	0	0
3–5	4,200	3,480	3,667	3,696	0	665
6–12	2,040	2,040	2,040	3,168	0	317
October 1994–March 1995						
Age of child						
0–2	7,020	5,256	5,450	0	0	0
3–5	4,416	4,248	4,292	3,696	0	665
6–12	2,076	2,076	2,076	3,168	0	317

Source: Calculations based on information obtained from British Columbia's Ministry of Human Resources Development-New Brunswick.

Note: The "weighted average" column is a weighted average of the subsidy for formal and informal care for the age range. Weights used are the proportion of sample members' children in the given age range living in households where formal or informal daycare use was reported. Reports of formal and informal care are from the baseline interview.

To estimate the daycare subsidy for each sample member, the following imputations were made:

- ***Net income*** was imputed as alimony, child support, and earnings net of taxes withheld (federal and provincial income taxes and Unemployment Insurance and Canada Pension Plan premiums). Income taxes withheld were imputed according to the tax rates shown in Appendix F, using gross earnings (and the SSP supplement, in the imputation of hypothetical income under SSP) as a proxy for taxable income. UI and CPP premiums were imputed as explained at the end of this appendix.

[10] Although threshold incomes are based on Income Assistance rates, receipt of IA is not a condition for receiving the daycare subsidy.

- ***Allowable subsidy*** for each child of age 12 or younger was imputed as the "weighted average" maximum subsidy shown in Table G.5, minus half of any net income in excess of the threshold.
- ***Child care costs*** for each child of age 12 or younger were assumed to equal the "weighted average" maximum subsidy in estimating the daycare subsidy and, if applicable, the child care surcharge component of the British Columbia bridging benefit.

FEDERAL INCOME TAX

For federal tax rates used in the imputation, see Appendix F. Federal tax rates did not change during the period studied in this report.

Taxable income used to impute the federal tax included:

Gross earnings
+ SSP supplement (in the calculation of income under SSP)
+ Alimony and child support
– Child care expense deduction

The basic federal tax was first imputed without allowing for a child care expense deduction. If the basic federal tax, calculated without the child care expense deduction, was positive, then the child care expense deduction was calculated as the smallest of the following amounts:

- child care costs, excluding government subsidies;
- two-thirds of gross earnings (including the SSP supplement, when calculating income under SSP); or
- $5,000 per child age 6 or younger plus $3,000 per child age 7–14

The section on daycare subsidies explains how child care costs were imputed.

PROVINCIAL INCOME TAX

For provincial income tax rates in 1994 and 1995, see Appendix F. In 1993, the basic provincial tax in British Columbia equalled 52.5 percent of the basic federal tax. In 1992 and 1993, the basic provincial tax in New Brunswick equalled 62 percent of the basic federal tax.

The imputed basic federal income tax was used to estimate the basic provincial tax. It was assumed that no sample members would have to pay a provincial surtax. In British Columbia, a provincial surtax is owed only if the basic provincial tax is greater than $5,300. In New Brunswick, a provincial surtax is owed only if the basic provincial tax is greater than $13,500.

In addition, a refundable sales tax credit was imputed for sample members in British Columbia. See Appendix F for a description of the credit. The credit in 1993 was decided in the same way as in 1994 and 1995. The total provincial income tax for sample members in British Columbia was imputed as the basic provincial income tax minus the sales tax credit.

If the imputed sales tax credit was greater than the imputed provincial income tax, then the difference was added to hypothetical income. Otherwise it was subtracted.

UNEMPLOYMENT INSURANCE PREMIUM

UI premiums were calculated based on imputed gross earnings. The premium was 3 percent of insurable earnings in 1992 and 1993; maximum insurable earnings were $36,920 in 1992 and $38,740 in 1993. The premium rates and maximum insurable earnings for 1994 and 1995 are shown in Appendix F.

CANADA PENSION PLAN PREMIUM

CPP premiums were calculated based on imputed gross earnings. In 1992, the premium was 2.4 percent of covered earnings in excess of $3,200, with maximum covered earnings of $32,200. In 1993, the premium rate was 2.5 percent; $3,300 of earnings were exempt; and maximum covered earnings were $33,400. CPP premium rates and earnings cut-offs for 1994 and 1995 are shown in Appendix F.

Appendix H
Generosity and Impacts: Estimates from an Alternative Regression Model

Chapter 4 examined how the impacts of SSP varied with its generosity relative to Income Assistance. Estimated impacts for "higher-generosity" and "lower-generosity" subgroups were compared (see Table 4.6). This appendix presents results from an alternative model of the relationship between generosity and impacts. The model assumes that the impact of SSP is a linear function of its generosity — in other words, for every additional $1,000/year of generosity, the impact of SSP rises (or falls) by a fixed amount.

Formally, the model estimated was $Y = a + bG + cP + dP{\times}G + fZ + u$, where Y is the outcome in month 15, G is the generosity measure (in thousands of dollars per year), P is the program group dummy variable, Z is the outcome in the month before random assignment, u is a random error term, and a, b, c, d, and f are estimated coefficients. This model implies that the impact of SSP is $c + dG$. The key coefficient of interest is d (the change in impact per $1,000/year increase in generosity). The model was estimated for the same outcomes as shown in Table 4.6.

Table H.1 shows the results, which are generally consistent with those in chapter 4. Again, impacts in New Brunswick appeared to vary systematically with the unadjusted generosity measure. It was estimated that for every $1,000/year increase in generosity, the impact on average hours worked per month increased by 6 hours/month, the impact on full-time employment increased by 3.9 percentage points, and the impact on receipt of either Income Assistance or SSP supplement payments increased by 6.0 percentage points. When the adjusted generosity measure was used, only the impact on receipt of either IA or SSP payments had a statistically significant association with generosity.

In British Columbia, it was estimated that for every $1,000/year increase in generosity, the impact on receipt of either Income Assistance or SSP supplement payments increased by about 1 percentage point. Estimated impacts on other outcomes did not show a systematic relationship with generosity.

Table H.1: Change in SSP Impacts per $1,000 Increase in Annual Generosity

Measure and Outcome	Change in Impacts per $1,000 Increase in Annual Generosity	
	British Columbia	New Brunswick
Unadjusted for taxes and other transfers		
Average hours worked	0	6**
Average earnings ($/month)	-2	26
Overall employment rate (%)	-0.3	3.1
Full-time employment rate (%)[a]	0.0	3.9**
Receiving IA (%)	-0.3	-1.0
Receiving either IA or SSP (%)	1.2**	6.0***
Adjusted for taxes and other transfers		
Average hours worked	0	4
Average earnings ($/month)	-4	18
Overall employment rate (%)	-0.3	1.9
Full-time employment rate (%)[a]	0.1	2.4
Receiving IA (%)	-0.4	-0.3
Receiving either IA or SSP (%)	1.0	5.0***
Sample size (total = 5,288)	**2,766**	**2,522**

Sources: Calculations from baseline survey data, 18-month follow-up survey data, Income Assistance administrative records, and payment records from SSP's Program Management Information System.

Notes: A two-tailed t-test was applied to estimates of the change in impact per $1,000 increase in annual generosity. Statistical significance levels are indicated as: * = 10 percent; ** = 5 percent; *** = 1 percent.

[a]"Full-time employment" is defined as working 30 or more hours per week in at least one week during the month.

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