

Can Work Incentives Pay for Themselves?

Final Report on the Self-Sufficiency Project for Welfare Applicants

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Other SRDC reports on the Self-Sufficiency Project (SSP):

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. 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. December 1995.

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Preface

A little more than a decade ago a number of senior federal government officials in the then Department of Employment and Immigration had an idea. Arthur Kroeger, Deputy Minister; Barry Carin, Assistant Deputy Minister, Strategic Policy; and Louise Bourgault, Director General, Innovations Branch, wanted to develop a demonstration project that would show the effects that a “make work pay” strategy would have on the ability of long-term welfare recipients to make the transition to full-time employment. This initial concept was developed in partnership with two innovative leaders within provincial governments — Don Boudreau, Assistant Deputy Minister in the New Brunswick Department of Income Assistance; and Bob Cronin, Assistant Deputy Minister in the British Columbia Ministry of Social Services. Through this collaboration, this innovative idea became the Self-Sufficiency Project (SSP).

When SSP was launched in 1992, it was an ambitious undertaking in many respects. SSP would last 10 years and involve more than 9,000 single parent families in two provinces. It would use a complex design to enrol participants in three linked research samples, and employ a random assignment evaluation design — widely viewed as the most reliable way to measure program impacts, but a method that has been rarely used in social policy research in Canada. Most important, SSP undertook the challenging task of trying simultaneously to reduce poverty, encourage steady work, and reduce welfare dependency. In general, programs that transfer income to poor people in order to fight poverty reduce the incentive for recipients to seek and accept employment, particularly if their potential earnings are low. Many of those who leave welfare for work end up in jobs that pay too little to allow their families to escape poverty. The program that the Self-Sufficiency Project set out to test aimed to encourage work and independence among welfare recipients, while ensuring that they had adequate incomes to support themselves and their families.

Since the first paper on the Self-Sufficiency Project was published in October 1994, the substantial investment in SSP has been paying dividends in the form of a rich body of research evidence. Now, with the publication of the final report on SSP’s study of long-term welfare recipients, it is clear that a well-structured financial incentive program can be a quadruple winner — encouraging work, increasing earnings, reducing poverty, and benefiting society. Moreover, there is some evidence that raising the incomes of poor families can provide benefits to elementary-school-age children. And all this can be achieved at little net cost to government.

The Self-Sufficiency Project has identified an intervention that offers considerable promise as a way of dealing with an important social policy challenge; and in its design, implementation, and evaluation, SSP has set a new standard for the conduct of social policy research in Canada.

John Greenwood
Executive Director

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SSP was made an operational reality in British Columbia by Betty Tully, Elizabeth Dunn, and their staff at Bernard C. Vinge and Associates Ltd.

The report was strengthened by comments from many reviewers. At SRDC, John Greenwood and Susanna Gurr provided invaluable guidance at all stages of the analysis and writing. Gordon Berlin, Charles Michalopoulos, and Cindy Redcross of MDRC; David Green at the University of British Columbia; and David Card of the University of California-Berkeley reviewed early drafts and helped us sharpen the analysis and presentation.

The report could not have been produced without the support of many people at SRDC and MDRC. At SRDC, Sheila Currie, Susanna Gurr, and Dan Doyle played key roles in overseeing the day-to-day operations of the project. Applicant focus groups were undertaken by Wendy Bancroft, assisted by Musu Taylor-Lewis. Jeannine Fraser coordinated the checking and creation of data files. Judith Hutchison assisted with checking the accuracy of the exhibits and text. Barbara Greenwood Dufour performed the final round of editing and formatting, and coordinated the translation and production of the document. At MDRC, Judy Gueron and her staff have been instrumental in the design of the study, including Martey Doodoo who directed the initial collection of data for the benefit-cost analysis. We learned a great deal from earlier analysts of the Applicant data: Charles Michalopoulos, Tracey Hoy, Philip K. Robins, David Card, Gordon Berlin, and Winston Lin.

Finally, we would like to thank SSP's participants, none of whom was compelled to be part of the study. Their willingness to allow us to explore many aspects of their lives through surveys, administrative records, focus groups, and ethnographic interviews made the study possible and forever enriched our knowledge about effective welfare and work programs.

The Authors

Executive Summary

This is the final report of the Self-Sufficiency Project (SSP) study of welfare applicants. SSP was a research and demonstration project designed to test a policy innovation intended to make work pay better than welfare. Conceived and funded by Human Resources Development Canada (HRDC), managed by the Social Research and Demonstration Corporation (SRDC), and evaluated by the Manpower Demonstration Research Corporation (MDRC) and SRDC, SSP offered a temporary financial incentive to single parent, long-term income assistance (IA) recipients who left income assistance for full-time work.

The SSP Applicant study recruited single parents who were newly receiving income assistance (referred to in this report as “Applicants”). These Applicants were told that if they stayed on income assistance for a full year they would become eligible for an earnings supplement. They would start to receive the SSP supplement if they then left income assistance for full-time work within the subsequent 12 months (i.e. their second year on income assistance). SSP offered a supplement paid on top of earnings from employment for up to three years, provided recipients worked 30 or more hours each week and remained off income assistance. The supplement was designed to provide an immediate payoff to those who found full-time employment because it could effectively double pre-tax income received from a minimum wage job. The accompanying text box describes the key features of the supplement offer.

To measure the effects of implementing a new policy, the SSP Applicant study used a rigorous random assignment research design. A sample of 3,315 single parents in British Columbia who had just begun to receive income assistance was drawn at random from provincial IA records. Half of the sample was randomly assigned to a program group who could potentially receive the supplement. The other half of the sample formed a control group that could not receive the supplement but who remained eligible to receive income assistance and any related services and incentives. To determine the effects of the supplement offer, the analysis compares outcomes for members of the program and control groups. Assignment to groups at random ensures that differences between the groups reflect only the effects of the supplement offer, and not participants’ preferences or personal characteristics.

This report describes the impacts of the supplement offer through six years after random assignment. The key questions of this report are whether the SSP program reduced IA receipt overall, whether it increased full-time employment earnings and income, how much it cost, and how these results compare to the SSP study of long-term welfare recipients (Michalopoulos et al., 2002), which offered the SSP supplement to a sample of Recipient families when they had been on income assistance for considerably longer than Applicants.

Key Features of the Earnings Supplement for Applicants

- **Full-time work requirement.** Supplement payments were made only to eligible single parents who worked 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 were not receiving income assistance.
- **Substantial financial incentive.** The supplement was calculated as half the difference between a participant's earnings from employment and an "earnings benchmark" set by SSP at a level designed to make full-time work pay better than income assistance for most IA recipients. During 1994 the benchmark was \$37,500 in British Columbia. The benchmark was adjusted over time to reflect changes in the cost of living and generosity of income assistance, and was \$37,625 in 1996. The supplement was reduced by 50¢ for every dollar of increased earnings. Unearned income (such as child support), earnings of other family members, and number of children did not affect the amount of the supplement.
- **Targeted at long-term recipients.** Eligibility for the supplement was limited to single parent, long-term IA recipients (with at least one year of IA receipt). As a result, Applicants were told that they had to stay on income assistance for the first year after entering the study to establish eligibility for the supplement.
- **One year to take advantage of the offer.** If an Applicant became eligible to receive the supplement at the end of the first year, she* could sign up for the supplement if she found full-time work within the next 12 months (in other words, in the second year). If she did not sign up within 12 months, she could never receive the supplement.
- **Three-year time limit on supplement receipt.** A person could collect the supplement for up to three calendar years from the time she began receiving it, as long as she was working full time and not receiving income assistance.
- **Voluntary alternative to welfare.** People could not receive IA payments while receiving the supplement. No one was required to participate in the supplement program, however. After beginning supplement receipt, people could decide at any time to return to income assistance, as long as they gave up supplement receipt and met the eligibility requirements for income assistance. They could also renew their supplement receipt by going back to work full time at any point during the three-year period in which they were eligible to receive the supplement.

*Feminine pronouns are sometimes used in this report because more than 90 per cent of single parents who have received income assistance for at least a year — the target group for SSP — are women.

THE FINDINGS IN BRIEF

Because the evaluation of SSP assigned people to the program and control groups at random, the *impact* or effect of the supplement offer is measured as the difference in employment, earnings, income, and other outcomes between the two groups. These comparisons indicate that SSP increased full-time employment, earnings, and income and reduced poverty through at least three years following each person's date of random assignment.

- **Fifty-eight per cent of program group members became eligible for the supplement by remaining on income assistance for a year or more.** Twenty-seven per cent of the program group — nearly half of those who became eligible — took up the supplement. Diverse subgroups of program group members were about equally likely to find full-time work in time to receive supplement payments. On average, supplement “takers” received nearly \$20,000 in supplement payments. Half the takers received benefits in 29 or more months during their three years of eligibility.
- **SSP increased full-time employment and reduced IA receipt for five years.** During the first year after random assignment, when program group members had to remain on income assistance to qualify, SSP increased IA receipt by 3.9 percentage points but had no net effect on full-time employment or IA amounts. From the second year onwards, SSP significantly reduced IA receipt and IA payments through to the sixth year of follow-up, while simultaneously increasing full-time employment in each of those years. The impacts were largest in Year 3, when SSP reduced IA receipt by 10.3 percentage points and increased full-time employment by 11.7 percentage points. However, the effects of SSP were not limited to the period that the supplement was available. Impacts on IA receipt and full-time employment persisted for five years. During the last of these years, no program group members received the supplement. For the most part, SSP’s impacts on IA payments in Year 3 and Year 6 were evenly distributed across different subgroups defined using participants’ characteristics at random assignment.
- **SSP substantially increased earnings through to the sixth year of the follow-up period.** SSP’s impacts on full-time employment translated into substantial gains in earnings for program group members. In the first 71 months after random assignment, on average, program group members each earned \$7,859 more than control group members. In Year 3 average earnings for program group members had increased by \$2,405 per year. These increases were concentrated among participants who were not working at random assignment.
- **SSP increased income and reduced poverty throughout much of the follow-up period.** Increased earnings led to significantly higher average incomes for program group members. As a result, SSP substantially reduced the incidence of poverty among families in the program group throughout the follow-up period. Some impacts on poverty were observed at the 72-month interview, well beyond the period of supplement eligibility. The rise in income led to an increase in total expenditures on basic necessities for food, clothing, and housing throughout much of the follow-up and a decrease in the proportion of program group members who reported using a food bank.
- **SSP required a very low increase in net cost to government budgets.** SSP resulted in substantial financial gains for Applicant program group members and their families throughout the six-year follow-up. These averaged \$7,504 per program group member — net of increased taxes on earnings and reduced welfare benefits. The total cost of SSP, including supplement payments and operating costs, was nearly offset by increased tax revenue and decreased welfare benefits.

After accounting for all costs and benefits, there was a small net cost to the government budget of \$660 — or \$110 per year — per program group member over the full six-year follow-up period.

- **SSP produced larger financial gains for welfare applicants than for long-term recipients, and was much more cost effective in doing so.** The net financial benefit to Applicant program group members (\$7,504) was about 50 per cent higher than that observed for SSP Recipients in British Columbia (\$5,007).¹ The net cost to government was about 10¢ per \$1 in financial gains to program group members in the Applicant study. This was much lower than in the Recipient study, where the net cost to government was approximately 67¢ for \$1 in financial gains. In turn, the net costs of the Recipient study are modest compared with other transfer programs.
- **If SSP were implemented as a policy, it would be effective initially in reducing the current IA caseload and would be even more effective in the long run.** The Recipient study simulated the effect of *initiating* a program like SSP and showed its effectiveness in the difficult task of reducing welfare receipt among a cross-section of long-term welfare recipients. The Applicant study simulated an *ongoing* program among clients who were just starting a welfare spell. The Applicant study showed that SSP was even more effective for this population. SSP increased earnings more for Applicants than Recipients while impacts on other economic outcomes like employment, hours of work, and poverty were similar between the studies. However, Applicants achieved these impacts while receiving less overall in supplement payments. As a consequence, the two studies suggest that the effectiveness of SSP would increase over time if it was operated as a program.

OVERVIEW OF SSP

SSP studies were designed to inform policy-makers interested in the likely economic consequences — in terms of employment, earnings, income, and receipt of income assistance — of offering a financial work incentive to long-term IA recipients. The studies were concerned with both the immediate and long-term consequences of implementing new policy. To achieve this, two separate large-scale SSP studies focused on different segments of the IA population — welfare applicants and long-term recipients — while a third, smaller study — called SSP Plus — assessed what would happen if the earnings supplement was augmented by employment services. All three studies used random assignment to assign IA recipients to program and control groups. Because only program group members were offered the SSP program, valid estimates of the impact of SSP over time can be obtained by analyzing the difference between outcomes for program group members and those for the control group.

To receive SSP's earnings supplement, a program group member had to meet two eligibility requirements. First, she had to remain on income assistance for at least 12 out of

¹To ensure comparability between the Applicant and Recipient studies, a small adjustment was made to the figure reported for the BC Recipient sample in Michalopoulos et al. (2002).

13 consecutive months (the “qualifying year”). This requirement was intended to target SSP benefits on a disadvantaged population who normally experience difficulty in the labour market. At the same time, the requirement to remain on income assistance for a year substantially reduced the incentive for people to enter the IA system to receive the supplement. For IA recipients who stayed on income assistance for at least a year, the second requirement to receive the earnings supplement was then to leave income assistance for full-time employment. The restriction of the supplement to full-time work helped both to ensure that earnings made a substantial contribution to total family income and to reduce the possibility that income from the supplement would be used to cut back on work effort.

IA recipients who met both eligibility requirements could claim the earnings supplement and so became supplement “takers.” They received supplement payments for up to three years starting from the month they first began receiving the supplement, in every month that they worked 30 or more hours per week and remained off income assistance. The program allowed supplement takers to return to income assistance at any time if they met the normal eligibility requirements for income assistance. Takers who later left income assistance for full-time work could return to receiving the supplement at any time within their three-year window, but they could not receive income assistance and the supplement simultaneously.

RESEARCH DESIGN OF THE SSP APPLICANT STUDY

Recruitment into the Applicant study began in February 1994 and was completed in March 1995. Each month Statistics Canada used IA administrative records to identify all adult single parents in selected geographic areas of Lower Mainland British Columbia who were also Applicants. That is, they had to be single parents, 19 years of age or older, who had not received an IA payment in the last six months before the processed IA payment in the current month. Statistics Canada and the BC Ministry of Human Resources then sent letters to a randomly selected sample to invite them to be part of the SSP study. Members of the sample were informed that they had been selected to participate in a study of “options for people on income assistance.” They were told that 50 per cent of those who agreed to join the study would be randomly assigned into a program group that could become eligible to receive a cash supplement in addition to their earnings in 12 months’ time if they found full-time employment. The remainder would form a control group who would not become eligible for the supplement. Around 80 per cent agreed to take part and were interviewed for the *baseline survey* that recorded their personal characteristics.

Applicants who agreed to participate in the study and who completed a baseline interview were randomly divided into a program group (1,648 members) and a control group (1,667 members). Following random assignment, the program group received a letter and brochure from SRDC informing them that if they remained on income assistance for one year they would become eligible for the SSP supplement. A second letter, sent six to seven months after random assignment, reminded program group members of the supplement offer. Statistics Canada administered a 12-month follow-up survey to all Applicants. Following this survey, Applicant program group members who satisfied the SSP eligibility requirement were informed of their SSP program status by mail in the 12th or 13th month after receiving

their first IA cheque.² Over 90 per cent of those deemed eligible subsequently attended an information session describing the program’s benefits and requirements. These “eligible Applicants” were given one year in which to find a full-time job, leave income assistance, and thus initiate SSP payments.

Follow-up interview surveys were undertaken approximately 12, 30, 48, and 72 months after random assignment. During the last interview, as in the Recipient study, parents were asked to complete questionnaires to assess the progress of their children. Due to sample attrition, not all of the original sample members completed the subsequent surveys. In this report, the analysis is usually limited to the 2,371 participants who responded to the 72-month survey: 1,185 control group members and 1,186 program group members. These represented 72 per cent of the original study participants. Administrative records were used to estimate the impacts on IA and supplement receipt. In addition, two focus group interviews were conducted with Applicants who left income assistance within a year of recruitment, before they could take advantage of the SSP offer. A further two group interviews were undertaken with those who remained on income assistance long enough to qualify for the supplement. This report provides results from the surveys, questionnaires, administrative records, and focus groups.

Baseline Characteristics of the Applicant Study Sample

Applicants were primarily female and nearly one third were immigrants. Almost two thirds of the sample had completed high school, of which just over one third had *some* additional post-secondary education. There were on average two children under 19 years of age per household. Data from administrative records suggest that participants spent an average of three months in receipt of income assistance in the two years prior to random assignment. Monthly payments of income assistance for participants in the month of recruitment averaged over \$900.

The Policy and Economic Context for the Applicant Study

Applicants’ ability to respond to the supplement offer could have been affected by changes over time in the economic and policy environment affecting single parents on income assistance. For this study the relevant period was the mid to late 1990s. During this time, British Columbia independently made a variety of changes to its IA program — to the earnings disregard, benefit payments, sanctions, and application process. Economic conditions also changed: unemployment generally fell, employment of 25- to 44-year-old women in BC remained very stable, employment of younger women fell and then increased from 1998 to 2000, and the minimum wage increased in stages from \$5.50 per hour in January 1993 to \$7.60 in November 2000. The net effect of these changes is unclear. IA policy changes, reduced unemployment, and the rise in the minimum wage may have increased the attractiveness of work. On the other hand, conventional economic models suggest that raises in the minimum wage would lower demand for lower-skilled workers. One advantage of random assignment is that it limits the extent to which outside influences, such as changes in the policy and economic context, can bias the estimates of the impact of

² Applicants in the program group became eligible for SSP if they received income assistance for 11 of the 12 months following the initial month of IA receipt. This required them to have spent at least 12 out of a total of 13 months on income assistance.

SSP. Because both program and control group members experienced changes in the economic and policy environment at the same time, the presence or absence of the SSP offer remains the key systematic difference between the research groups.

SUPPLEMENT TAKE-UP

- **Fifty-eight per cent of program group members became eligible for the supplement by remaining on income assistance for a year or more. Twenty-seven per cent of the program group received at least one supplement payment.**

The central feature of the Self-Sufficiency Project was the earnings supplement payment to program group members. In order to receive the supplement, Applicant program group members had to meet two conditions. They had to spend a year on income assistance to become eligible for the supplement and had to leave income assistance for full-time work within the following year.

More than 40 per cent of program group members left income assistance before becoming eligible for supplement payments. Those with low education levels and barriers to employment were more likely to become eligible than those who had completed high school or who reported no barriers to employment.

About half of the remaining *eligible* program group members found full-time work in time to receive supplement payments. Most of remaining eligible program group members said that they were interested in SSP but could not find enough work to take up the supplement.

Twenty-seven per cent of the program group took up the supplement. Diverse subgroups of program group members were about equally likely to receive at least one supplement payment.

- **Supplement takers usually received generous, virtually uninterrupted benefits over several years.**

On average, takers received nearly \$20,000 in supplement payments. Half of supplement takers received benefits in 29 months or more during the three-year period for supplement payments. Most often, they received the monthly payments in a single consecutive spell or in two spells with a single break. Only 16 per cent of takers had more than one temporary interruption of supplement payments. Thus, most takers received years of generous, virtually uninterrupted supplement benefits.

SSP gave the most generous benefits to takers who worked the most months full time and to takers who earned the least while they worked. Therefore, SSP was successful in directing most of its benefits to those who left welfare for steady, full-time work. It was also successful in helping to “make work pay” by directing most of its benefits to those with low labour market earnings.

There was considerable concern at the outset of SSP that when supplement payments came to an end after three years, participants might leave full-time employment and return to income assistance, potentially increasing poverty for themselves and their families.

However, there was no noticeable change in the full-time employment rates or the IA receipt rates of supplement takers after their three-year window came to an end.

IMPACTS ON INCOME ASSISTANCE, EMPLOYMENT, AND EARNINGS

- **SSP reduced IA receipt and increased full-time employment for five years.**

Welfare applicants often require income support for relatively brief periods before they can make successful transitions from income assistance back to self-sufficiency. Although IA applicants would thus be expected to leave income assistance over time, SSP might have helped to accelerate this transition if Applicants left income assistance and took up full-time work sooner than they might have in the absence of the program.

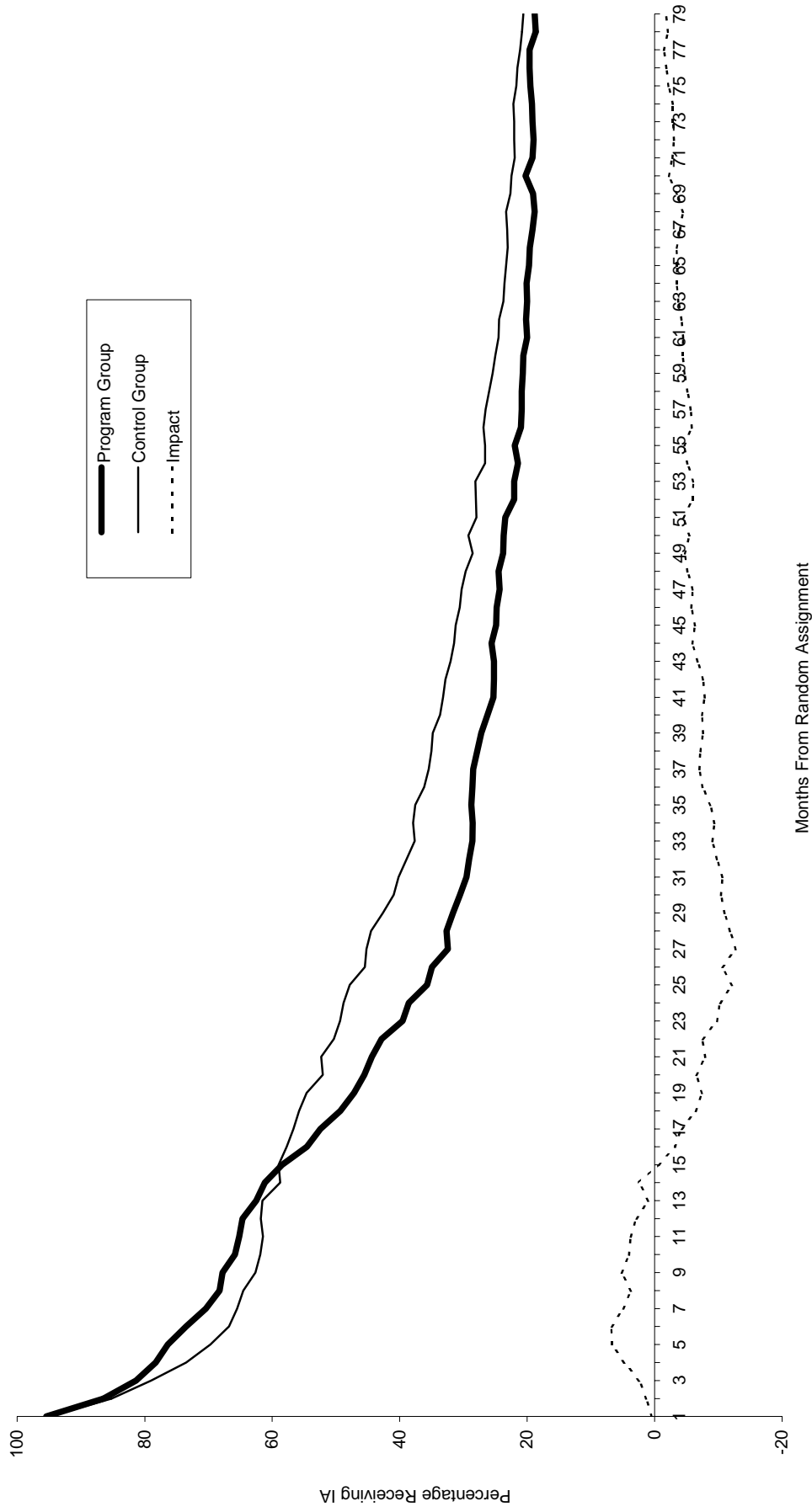
Figure ES.1 shows the proportion of program and control group members in receipt of income assistance over six and a half years following random assignment. The dotted line indicates the difference between these proportions, or the *impact*, of the supplement offer. Both groups left income assistance quite rapidly initially, and continued to leave income assistance throughout the study period. However, during the first year after random assignment, the incentive to remain on income assistance in order to become eligible for the SSP supplement led to slightly higher IA receipt among program group members compared with control group members. From the second year onwards, SSP significantly reduced IA receipt and IA payments through to the sixth year of follow-up.

SSP's impacts were largest in Year 3, when SSP reduced IA receipt by 10.3 percentage points and increased full-time employment by 11.7 percentage points. Importantly, SSP's impacts on IA payments in Year 3 and Year 6 were evenly distributed among members of subgroups defined by participants' characteristics at random assignment. This implies that SSP was equally effective in helping to reduce the reliance on income assistance of different groups of welfare applicants.

The first panel of Table ES.1 presents average monthly full-time employment rates for the same groups. These show that SSP had no significant impact on full-time employment over the first year, but increased full-time employment in every subsequent year. It was possible that SSP could have discouraged full-time employment among program group members because members of the program group had to remain on income assistance for at least a year in order to qualify for the supplement. The table suggests that this undesired effect did not occur. Program group members were as likely to work full time as control group members in the first year of the follow-up.

In the following five years SSP had the intended effect on full-time employment — program group members were far more likely to be working full time than their control group counterparts. Year 2 was the first year that program group members could receive the supplement if they left income assistance and took up full-time work. In this year SSP increased full-time employment by 7.7 percentage points. The impact rose in the third year to 11.7 percentage points. In years 4 through 6, the impact on full-time employment fell but remained statistically significant. During the last of these years, no program group members received the supplement.

Figure ES.1: Percentage Receiving Income Assistance, by Months From Random Assignment, in the SSP Applicant Study



Source: Calculations from IA administrative records.

Table ES.1: SSP Impacts on Employment and Earnings

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Monthly full-time employment rate^a (%)				
Year 1	20.7	19.3	1.4	(1.4)
Year 2	32.6	24.9	7.7***	(1.6)
Year 3	42.8	31.1	11.7***	(1.8)
Year 4	45.3	35.7	9.6***	(1.8)
Year 5	45.1	39.4	5.8***	(1.9)
Year 6	47.4	42.5	4.9***	(1.9)
Monthly part-time employment rate (%)				
Year 1	13.7	13.7	-0.1	(1.2)
Year 2	14.4	13.9	0.5	(1.2)
Year 3	12.4	13.9	-1.5	(1.2)
Year 4	11.5	14.7	-3.2***	(1.2)
Year 5	12.3	14.6	-2.3*	(1.3)
Year 6	13.6	15.8	-2.2*	(1.3)
Monthly employment rate (%)				
Year 1	34.4	33.0	1.4	(1.6)
Year 2	47.1	38.9	8.2***	(1.8)
Year 3	55.1	44.9	10.2***	(1.8)
Year 4	56.8	50.4	6.4***	(1.8)
Year 5	57.4	54.0	3.5*	(1.9)
Year 6	60.9	58.3	2.6	(1.8)
Average earnings (\$)				
Year 1	4,805	4,884	-79	(375)
Year 2	7,894	6,489	1,405***	(448)
Year 3	10,571	8,166	2,405***	(498)
Year 4	11,602	9,776	1,825***	(550)
Year 5	12,591	11,241	1,350**	(610)
Year 6	14,033	12,727	1,305**	(647)
Sample size (total = 2,371)	1,186	1,185		

Sources: Calculations from 12-month, 30-month, 48-month, and 72-month follow-up survey data.

Notes: The estimates for each year are calculated by averaging the four quarterly estimates.

Sample sizes vary for individual measures because of missing values.

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

^a“Full-time employment” is defined as working 30 or more hours in at least one week during the month.

The second panel of Table ES.1 suggests that little of the impact on full-time employment was caused by a shift from part-time to full-time employment. In the third through sixth year of follow-up, SSP reduced part-time work in the range of one to three percentage points. These small impacts on part-time employment imply that the increase in full-time employment results primarily from people newly working full time because of the supplement who would not have worked at all in its absence.

- **SSP caused program group members to earn more through the fifth year of the follow-up period.**

SSP's impacts on full-time employment translated into substantial gains in earnings for program group members. In Year 3 average earnings for program group members had increased by \$2,405 per year (see Table ES.1). However, impacts on earnings differed for participants who were working at random assignment. In Year 3, SSP increased earnings only among those participants who were not working at random assignment. After the supplement was no longer available in Year 6, program group members who were working full time at random assignment earned less on average than their counterparts in the control group. SSP was most effective in raising earnings for those who were not combining full-time employment and IA receipt at random assignment.

- **SSP encouraged stable, full-time employment of relatively long durations in jobs with wage growth.**

SSP significantly increased the proportion of participants who had full-time employment spells that lasted at least three years, but had little impact on less stable employment. Similarly, SSP increased the employment of program group members who had a single full-time employment spell, but had a much smaller impact on the proportion of workers with two or more spells of paid employment. SSP increased the proportion of program group members who worked full time at the end of the second and sixth year after random assignment and experienced wage growth of 20 per cent or more.

- **Over the entire follow-up, SSP significantly and substantially increased earnings while reducing IA payments.**

SSP's large and sustained impacts on full-time employment and IA receipt led to considerable impacts on earnings and reductions in IA payments. In the first 71 months after random assignment program group members each earned \$7,859 more on average than control group members. Their average IA payments were also \$3,362 lower during the same period.

IMPACTS ON INCOME, EXPENDITURES, POVERTY, AND HARDSHIP

- **SSP significantly increased the income and reduced transfer receipt among Applicant program group members and their families throughout much of the follow-up period.**

Although increasing employment and reducing welfare dependence were primary goals of SSP, equally important were reducing poverty and improving the overall economic circumstances of IA recipients. The first panel of Table ES.2 provides estimates of individual income by source for the six-month period preceding each key survey interview. SSP encouraged higher earnings through the provision of generous earnings supplements. Thus, even though IA payments were reduced and income taxes increased, the final panel reveals that SSP led to significantly higher average incomes for program group members. SSP increased individual and family income in the six-month periods preceding the 30-month interview and the 48-month interview, during the time that supplement payments were being received. SSP also led to a prolonged though smaller impact on earnings in the six months prior to the 72-

month interview, even though supplement eligibility had ended. This impact was statistically significant but only at the 10 per cent level.

Table ES.2: SSP Impacts on Monthly Income and Net Transfer Payments in the Six Months Prior to the 30-Month, 48-Month, and 72-Month Follow-Up Interviews

Outcome	30-Month Interview		48-Month Interview		72-Month Interview	
	Control Group	Difference ^a (Impact)	Control Group	Difference ^a (Impact)	Control Group	Difference ^a (Impact)
Sources of individual income (\$/month)						
Earnings	645	205***	889	129**	1,116	106*
SSP supplement payments	0	167***	0	136***	0	0
IA payments	434	-111***	270	-67***	180	-27**
Other transfer payments ^b	266	-7	328	-16	328	-2
Other unearned income ^c	151	-13	166	-18	184	4
Projected taxes and net transfers (\$/month)						
Projected income taxes ^d	126	72***	191	49***	247	36**
Net transfer payments ^e	597	-28	427	3	277	-65**
Total monthly individual and family income						
Individual income (\$)	1,515	229***	1,677	162***	1,832	89
Individual income net of taxes (\$)	1,389	157***	1,486	112***	1,585	52
Family income (\$) ^f	1,753	271***	2,068	243***	2,349	191**
Income below LICO (%) ^g	78.4	-14.4***	66.7	-6.3**	63.1	-1.8
Below 50% of LICO	20.6	-0.6	21.4	-0.4	25.3	0.9
50 to less than 75% of LICO	40.1	-11.7***	29.8	-5.0**	25.7	-5.5**
75 to less than 100% of LICO	17.3	-2.0	15.5	-0.9	12.1	2.8
Income above LICO (%) ^g	22.0	14.4***	33.3	6.3**	36.9	1.8
100 to less than 150 % of LICO	15.7	8.7***	19.6	4.1*	19.5	-0.8
150 to less than 175% of LICO	2.9	3.4***	5.7	-0.4	6.5	-0.8
175 to less than 200% of LICO	1.2	0.8	2.8	1.1	3.2	1.0
200% of LICO or more	2.2	1.5*	5.2	1.4	7.7	2.3
Sample size	1,185	2,371	1,185	2,371	1,185	2,371

Sources: Calculations from the 30-month, 48-month, and 72-month survey data, IA administrative records, and payment records from SSP's Program Management Information System.

Notes: Sample sizes vary for individual measures because of missing values. This may cause slight discrepancies in sums and differences. All analyses were only for those who responded to the 72-month survey.

Two-tailed t-tests were applied to differences in outcomes between the program and control groups. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

^aThe sample size in this column is the sum of the program and control group sizes.

^bIncludes the Child Tax Benefit, the Goods and Services Tax Credit, EI, provincial tax credits, and, for the 48- and 72-month sample only, the BC Family Bonus.

^cIncludes alimony, child support, income from roomers and boarders, and other reported income.

^dIncludes projected EI premiums and CPP premiums deducted at payroll and projected income taxes. Payroll deductions and 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.

^eIncludes public expenditures on SSP, IA payments, and other transfers, net of income tax revenue.

^fFamily income is measured as the sum of the sample member's income and the labour earnings of any other members in that person's family.

^gCalculated by comparing annualized family income with the low income cut-off (LICO) defined by Statistics Canada for the sample member's location and family size.

The middle panel of Table ES.2 presents the impacts of SSP on taxes and net transfer payments. Projected taxes include both federal and provincial income taxes as well as

Employment Insurance (EI) and Canada Pension Plan premiums (CPP). Transfer payments include the SSP supplement, IA payments, and other federal and provincial transfers (e.g. EI benefits, GST credit, Child Tax Benefit and associated supplements, and other provincial tax credits). “Net transfer payments” thus refers to the difference between the total amount spent by both levels of government on transfers, including the SSP supplement, and revenues received through increased income and payroll taxes.

In the six months prior to both the 30- and 48-month interviews, during which supplement eligibility and payments continued, the SSP supplement paid for itself through reductions in IA payments and increased tax revenues. Net transfer payments did not differ significantly from zero. At the 72-month interview, eligibility for the supplement had ended for all participants and no longer represented a cost for government. Furthermore, the sustained earnings gains for program group members at 72 months resulted in positive impacts on income taxes, which although lower than earlier in the follow-up, were still statistically significant. SSP also led to a prolonged reduction in IA receipt, which along with impacts on income taxes, resulted in a decrease in net transfers that was statistically significant at the 72-month interview.

- **SSP significantly reduced poverty among Applicant program group members throughout the follow-up period. SSP also increased expenditures and reduced the use of food banks.**

Increases in net family income meant that SSP substantially reduced the incidence of poverty among families in the program group throughout the follow-up period. The last panel of Table ES.2 presents the proportion of sample members with income below Statistics Canada’s low income cut-offs (LICOs)³ in the six months before each interview. SSP led to significant reductions in proportions with income below LICOs throughout much of the follow-up period. In the six months prior to the 30-month interview, when supplement receipt was at its highest, SSP reduced the proportion of families with incomes below the LICOs by 14.4 percentage points. At 48 months SSP reduced the proportion with incomes below the LICOs by 6.3 percentage points. In the six months prior to the 72-month interview, up to six years after random assignment, SSP did not reduce the proportion with incomes below 100 per cent of LICOs. However, the “severity” of poverty was reduced as the proportion with incomes at 50 to 75 per cent of LICOs decreased while the proportion at 75 to 100 per cent of LICOs increased.

The rise in income also led to an increase in total expenditures on basic necessities for food, clothing, and housing throughout much of the follow-up. When considered in aggregate, total expenditures on rent, groceries, dining out, clothing, and child care were higher for program than control group members at all three follow-up interviews. At the 30- and 48-month interviews there was an impact of approximately \$65 on these monthly expenditures. Even at the 72-month interview, long after supplement payments had ended, there was an ongoing impact of \$52 per month.

³This was calculated by comparing annualized family income with the low income cut-offs (LICOs) for each family as defined by Statistics Canada. The LICOs are *relative* measures of disadvantage or inequality, and should not be interpreted as a strict measure of poverty.

At the 30-month interview, SSP reduced the proportion of program group members who reported using a food bank by three percentage points relative to the control group. SSP appears to have had little effect on housing mobility, neighbourhood quality, or housing arrangements, including the extent of home ownership, renting, the use of group shelters, or other housing arrangements.

SSP led to increased income and reduced poverty for many Applicants with a wide range of characteristics in the program group. However, sample members' baseline characteristics, such as job readiness, employment status, and family background, accounted for some differences in subgroup impacts. Impacts on income were smaller at various points in the follow-up for those without a high school diploma and those who were already employed at baseline, while potentially disadvantaged subgroups, such as immigrants, experienced little income gain or poverty reduction from SSP.

BENEFITS AND COSTS OF SSP

SSP increased employment and earnings of Applicant program group members while reducing their reliance on income assistance. SSP also led to significant improvements in overall economic well-being and reductions in poverty throughout much of the follow-up period. Table ES.2 suggests that these impacts were achieved with no net increase in public transfer payments. This suggests that the supplement offer to Applicants may have paid for itself through higher taxes on earnings and reductions in IA payments that were generated by the program. However, analyses of taxes and net transfers in Table ES.2 were limited to six-month periods in advance of each follow-up interview, and considered only the costs associated with the transfer payments themselves. The benefit-cost analysis expanded considerably on these analyses by comparing a more complete set of benefits and costs of the SSP supplement and program delivery to Applicants over the full six-years of follow-up.

Nonetheless, not all additional benefits and costs can be accounted for in this analysis. While this analysis takes into account the costs of various components of SSP, including the supplement payments and operating expenses for the delivery of program services to applicants, the operating costs reflect those incurred in the SSP demonstration. Such expenditures could differ if SSP were operated as an ongoing earnings supplement program.

Moreover, the analysis did not attempt to place a value on any non-financial benefit from improved outcomes for children or the cost of lost personal and family time as a result of increased employment. Results must be considered only an approximation of SSP's full effects. And the precision of the estimates must be treated with caution, especially when attempting to generalize to "real world" implementation for different populations, locations, or time periods.

Since costs from one perspective may be benefits from another, the analysis presents benefits and costs from three different perspectives. It considers the net financial benefits or costs from the perspective of individual program group members, from a government budget standpoint (including federal and provincial government shares), and from the perspective of society as a whole.

- **SSP resulted in substantial financial gains for Applicant program group members and their families throughout the six-year follow-up.**

SSP successfully increased the income and financial well being of families — including increases in income from earnings, fringe benefits, and SSP payments — while decreasing their reliance on income assistance. Over the full six-year follow-up, SSP produced an average financial gain — net of increased taxes on earnings and reduced welfare benefits — of \$7,504 for each program group member. Table ES.3 shows that the largest share of the gain came from increases in earnings. The net financial value of transfers (mainly IA and SSP supplement payments) contributed much less to the net effect.

Table ES.3: Six-Year Estimated Net Gains and Losses per SSP Program Group Member, by Accounting Perspective

Component of Analysis	Accounting Perspective		
	Program Group	Government Budget	Society
Financial effects (\$)			
Transfer payments	2,130	-2,130	0
Transfer payment administration ^a	0	-98	-98
Operating cost of SSP ^b	0	-1,060	-1,060
Program management information systems	0	-48	-48
Supports for work ^b	0	-484	-484
Earnings and fringe benefits	8,534	0	8,534
Taxes and premiums ^c	-2,775	2,775	0
Tax credits	-384	384	0
Net gain or loss (net present value) (\$)	7,504	-660	6,844

Sources: Calculations from IA administrative records; payment records from SSP's Program Management Information System (PMIS); EI administrative records; SRDC expenditure reports for Systemhouse, Bernard C. Vinge and Associates, and Saint John Family Services; annual reports for the province of British Columbia (1995–1996); 12-month, 30-month, 48-month, and 72-month follow-up survey data; and federal and provincial tax regulations as provided in the Canada Customs and Revenue Agency (CCRA) 1999 Tax Guide and Forms, and government publications.

Notes: The costs shown are in 2000 dollars.

All costs are discounted and adjusted for inflation except operating and PMIS costs, which are not discounted.

Rounding may cause slight discrepancies in sums and differences.

^aIA operating costs are part of payment administration. For income assistance this cost does not include any outreach or orientation.

^bIncludes imputed child-care subsidies for both provinces and Transportation/Transition to Work benefits in British Columbia.

^cThe employee portion of Canada Pension Plan premiums is counted as a cost to the program group for simplicity. However, these costs would likely be more than offset by future pension payments.

- **SSP resulted in gains to society for a very low increase in cost to government budgets.**

The total cost of SSP, including supplement payments and operating costs, was nearly offset by increased tax revenue and decreased welfare benefits. Table ES.3 shows that after accounting for all costs and benefits, there was a small net cost to the government budget of only \$660 per program group member over the full six-year follow-up period. From the perspective of society as a whole, benefits from SSP substantially outweighed the costs of SSP. The impacts on program group member income of \$7,504, less government budget costs of \$660, represents a gain to society as a whole. Thus, SSP provided a benefit to society of \$6,844 for each program group member.

This suggests that SSP represents an efficient way to transfer income to welfare applicants when compared with other transfer programs. Some estimates suggest that transfer programs may require \$1.50 in government expenditure for each \$1 in financial gains to families.⁴ In comparison, the financial gains to SSP Applicants and their families were achieved with virtually no net increase in costs to the government budget. For each \$1 in financial gains to families the cost to the government budget was about 10¢.

Government costs and benefits are shared between federal and provincial governments. The financial implications of operating SSP can be estimated for each government's budget separately. The perspective of the federal government does not include any costs or benefits associated with SSP supplement payments, IA benefits, or the operating costs of the program. Although the federal government funded the SSP demonstration, it is assumed that the provincial government would pay for the operation of SSP in a province as part of its social assistance program. The federal government perspective does not account for transfers to the provincial governments such as the Canadian Health and Social Transfer (CHST). Similarly, the perspective of the provincial government does not include any financial gains from federal government transfers to the provinces. When costs and benefits were divided in this way, the federal government budget experienced a net financial gain of \$2,265 per program group member over the six-year follow-up period. This gain was primarily from increased income taxes and decreased tax credits for program group members. The provincial government experienced increased costs as a result of SSP of \$2,925 per program group member. This loss was due mainly to higher transfer payments for the program group (\$2,031) and the operating costs of the program (\$1,060), although increases in provincial taxes (\$757) offset these costs to some degree.

- **SSP led to significantly larger financial gains for welfare applicants than for recipients and was much more cost-effective in doing so.**

The net financial benefit to Applicant program group members (\$7,504) was nearly 50 per cent higher than that observed for SSP Recipients in British Columbia (\$5,007).⁵ For every \$1 in financial gains to program group members in the Recipient study, the net cost to government was approximately 67¢. While modest compared with other transfer programs, this was still much higher than in the Applicant study.

COMPARING SSP FOR APPLICANTS AND FOR RECIPIENTS

- **The results from the Applicant and Recipient studies together enable policy-makers to determine what might change over time as a new program is introduced.**

SSP studies were designed to find out what would happen following the introduction of a program offering earnings supplements to single parent, long-term welfare recipients. Initially, the existing stock of long-term welfare recipients would be eligible. The Recipient study offered the supplement to a sample drawn from long-term welfare recipients, who

⁴See Burtless, 1987, 1994, for a discussion of the efficiency of transfer programs.

⁵To ensure comparability between the two studies, a small adjustment was made to the figure reported in Michalopoulos et al. (2002).

would not necessarily know in advance that such a program would be introduced. However, as the program matured, all existing long-term recipients would have received the supplement offer, leaving eligible for the supplement only those *entering* long-term welfare receipt. Furthermore, these entrants into long-term receipt would know — in advance — that SSP would be an option for them if they stayed on income assistance. The Applicant study sampled from the population newly receiving welfare: people who had the potential to become long-term recipients. They were told that the supplement would be available to them only if they became long-term welfare recipients — by remaining on income assistance for a year. The Recipient study thus tested what would happen as an SSP-type program was introduced, and the Applicant study tested what would happen as the program reached an operational steady state.

- **SSP increased earnings more for Applicants than Recipients, using fewer supplement dollars.**

Table ES.4 presents selected economic impacts of SSP for both studies, observed during four and a half years following determination of eligibility for the supplement. This was the 54-month period immediately following random assignment for Recipients, but corresponded to months 13 through 66 following random assignment for Applicants. SSP produced a substantial earnings gain for Applicants over the period, \$4,300 more than the earnings gain for Recipients. Impacts on economic outcomes like employment, hours of work, and poverty were similar between the studies, although Applicants achieved these impacts while receiving less overall in supplement payments.

Following completion of the qualifying year, the behavioural impact of the supplement offer on Applicants was likely concentrated among those still eligible to take it up. Thus *impacts per eligible program group member* provide an alternative and perhaps intuitively more logical basis for comparing how people who have just become long-term IA recipients respond to the availability of a supplement differently from the population of all long-term recipients.

In columns 4 through 6 of Table ES.4, impacts per eligible program group member in the two studies are compared. For the Recipients, the impacts per eligible program member are the same as impacts for the entire Recipient sample because 100 per cent of program group members in the Recipient study were eligible for the supplement at random assignment. In the Applicant study, only 58.3 per cent of Applicant program group members were eligible for the SSP supplement and, therefore, estimates of impacts per eligible program group member are obtained by dividing full sample impacts by 0.583.

Impacts on employment, hours, and earnings per *eligible* Applicant program group member were significantly higher than for Recipients, and IA receipt and amounts were generally lower. Average supplement payments per eligible Applicant exceeded those for Recipients. Thus it would seem that single parents who had spent just one year on welfare were much better able to take advantage of the supplement offer than longer-term welfare recipients.

Table ES.4: Comparisons of Program Impacts on Employment, Transfer Payments, and Income Between Applicant and Recipient Studies

Outcome	Applicants vs. Recipients			Eligible Applicants vs. Recipients		
	Impact per Applicant (1)	Impact per Recipient (2)	Difference (3)	Impact per Eligible Applicant ^a (4)	Impact per Recipient (5)	Difference (6)
Total over 54 months following supplement eligibility						
Months of employment ^b	3.6***	2.6***	1.0	6.2***	2.6***	3.6***
Months of full-time employment	4.5***	3.4***	1.1	7.7***	3.4***	4.3***
Months of IA receipt	-3.5***	-2.9***	-0.6	-6.0***	-2.9***	-3.1**
Cumulative total over 54 months following supplement eligibility						
Hours worked	656***	499***	157	1,126***	499***	626***
Earnings (\$)	7,370***	3,070***	4,299**	12,650***	3,070***	9,579***
IA payments (\$)	-3,454***	-2,835***	-619	-5,929***	-2,835***	-3,094**
SSP payments (\$)	5,362***	6,083***	-721*	9,203***	6,083***	3,121***
IA and SSP payments (\$)	1,908**	3,248***	-1,340	3,274**	3,248***	27
Income and net transfers in six months prior to the 36-month interview (Recipients) or 48-month interview (Applicants)						
Monthly income tax (\$) ^c	43***	29***	14	74***	29***	45***
Monthly net transfers (\$) ^d	3	45*	-42	5	45*	-40
Monthly net individual income (\$) ^e	112***	83***	29	192***	83***	109**
Income below the low income cut-off (%) ^f	-6.3**	-6.2***	0.1	-10.8**	-6.2***	-4.6
Sample size	2,371	2,538		2,371	2,538	

Source: Calculations from Applicant 12-month, 30-month, 48-month, 72-month, and Recipient 18-month, 36-month and 54-month follow-up survey data, IA administrative records and payment records from SSP's Program Management Information System.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

A Q-statistic was used to test for differences in impacts estimates.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent. Rounding may cause slight discrepancies in sums and differences.

"Recipients" are British Columbia sample members from the Recipient study who responded to the 54-month survey.

^a"Impact per eligible Applicant" is the impact for Applicants divided by the SSP eligibility rate among program group members (0.583).

^bFull-time employment is defined as working 30 hours or more in at least one week during the month.

^cIncludes projected EI premiums and CPP premiums deducted at payroll and projected income taxes. Payroll deductions and 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.

^dAverage monthly public expenditures on SSP, IA payments, and other transfers (Child Tax Benefit, Goods and Services Tax Credit, EI benefit, and provincial tax credits), net of projected tax revenue. ^eNet individual income includes earnings, income assistance, and SSP payments, as well as all other sources of individual cash income (alimony and child support, Child Tax Benefit, the Goods and Services Tax Credit, EI, provincial tax credits, the BC Family Bonus, income from roomers and boarders, and other reported income).

^fCalculated by comparing annualized family income (individual pre-tax income plus earnings of other family members) with the low income cut-off defined by Statistics Canada for the sample member's location and family size.

- **Differences in the characteristics of Applicants and Recipients likely accounted for SSP being more effective for Applicants, although differences in the timing of the studies and in the design of the program may have played a part.**

Applicants may have been better able to take advantage of the SSP offer because they had characteristics associated with a stronger position in the labour market than recipients. They were better educated, more had recent work experience, and fewer reported physical and mental health problems. Eligible Applicants resembled Recipients more closely than the ineligible Applicants who had left income assistance before the end of their 12-month qualifying period, but they were still more likely to report characteristics associated with greater employability than Recipients.

Applicants may also have been better able to respond to the supplement offer because the program notified them a year in advance of their potential eligibility for the supplement, a full two years before their last chance to take it up. Although this advance notice had no impact on the full-time employment of Applicants during the first year, significantly more program group members preserved their future eligibility for the supplement by remaining on income assistance while working full time. By remaining eligible while already having a full-time job, such program group members would have been better able to qualify for the SSP supplement following eligibility determination. Among program group members who were still eligible, 15 per cent were employed full time in Month 12, compared with 9 per cent in the control group. Such anticipatory behaviour could partly account for the fast rate of supplement take-up among eligible Applicants. Following eligibility determination, for example, 47 per cent of eligible Applicants took up the supplement compared with 34 per cent of Recipients. The bulk of this difference arose over the first six months because eligible Applicants took up the supplement very quickly following eligibility determination. Four in every five Applicant program group members (80 per cent) who were employed full time and still eligible for the supplement in Month 12 became takers. They comprised 26 per cent of all takers.

SSP's recruitment of Recipients began before recruitment of Applicants. It is thus possible that intervening economic and policy changes in BC may have altered the decisions Applicants made about taking up the supplement, compared with Recipients. There was little evidence that inflation or minimum wage changes accounted for major differences between the studies. The experience of the control groups helped to reduce the likelihood of any bias on impacts due to time-varying factors within each study.

- **If SSP were implemented as a policy, it would be effective initially in reducing the current IA caseload, and would be even more effective in the long run.**

The financial impacts of the SSP program on individuals, government budgets, and society differed between the Recipient study — which simulated the effect of *initiating* the program — and the Applicant study — which simulated an *ongoing* program. The Recipient study showed that SSP was highly successful in promoting employment, reducing welfare use, and reducing poverty among long-term welfare recipients, including those who faced considerable employment barriers and who had remained on income assistance for long periods. The Applicant study showed that SSP was even more effective for clients just starting a welfare spell. As a consequence, the two studies suggest that the effectiveness of SSP will increase over time when it is operated as a program.

POLICY IMPLICATIONS

- **SSP's rigorous research design has generated reliable evidence about changing policy.**

IA recipients leave welfare all the time. By using a rigorous random assignment evaluation, SSP has determined the difference that an earnings supplement program can make over and above what would have happened to IA clients in the absence of the program. The study has produced reliable estimates of a range of benefits and costs resulting from offering the earnings supplement. It has also permitted comparison of the consequences of making the offer at different stages of welfare receipt. The answers to SSP's research questions can be presented as definitive lessons learned, thanks to the way the SSP study was implemented.

Nonetheless, caution is necessary in applying these findings. A margin for error is common in research that estimates effects based on a random sample. This is reflected in the standard errors and significance levels used in the tables for this report. Moreover, the data were collected from a program run outside the existing system during a particular period in one geographic area. Care must be taken in extrapolating the findings to current and future provincial policy. Broader "equilibrium" effects cannot be tested directly by an experiment, such as the effect on provincial labour markets, wages, and employment opportunities, when an intervention piloted among a small group becomes widespread.

Within these caveats, the SSP studies have afforded policy-makers a very high level of confidence in answers about what the program can achieve. New policy can be developed with many more certainties than was possible before the SSP studies began.

- **The Recipient study showed that SSP was an effective policy for Recipients. The Applicant study results suggest that SSP was even more effective for Applicants.**

The Recipient study concluded that SSP *accelerated* by two to three years welfare recipients' transition to full-time employment. In doing so, it produced some of the largest employment impacts seen in random assignment program evaluation. Findings from the Applicant study do not alter this basic conclusion. Applicants as a population appear better prepared for the labour market, but SSP still made a dramatic difference to their employment behaviour, earnings, and use of income assistance. Two and a half years into the study, Applicant program group members were reporting a full-time employment rate that control group members did not achieve until three years later. Program group earnings averaged \$10,571 in Year 3, a level not reached by control group earnings until two years later.

The Applicant study has shed more light on the effectiveness of incentives. While both the Recipient and Applicant studies show that an incentive to leave welfare conditioned on full-time work can produce dramatic effects, the Applicant study shows that an incentive that requires people to stay on welfare is less effective. When Applicants were offered an incentive to stay on welfare for a year, relatively few (just 3.1 per cent) were tempted to stay on welfare in order to qualify. The findings from focus groups suggest that incentives may not be taken up if they do not resonate closely with the immediate goals and identities of participants.

Like SSP for Recipients, SSP for Applicants has helped a significant proportion of families on welfare, for a year or more, to rely more on employment and less on welfare, without detectably harming family well-being, in a way that also reduced poverty. Compared with Recipients, these impacts lasted up to a year longer and were achieved at less cost to government. SSP acts as a bridge or shortcut to the higher levels of employment, earnings, and total income and the lower levels of welfare receipt that families could not normally have expected to reach within two or three years in the absence of such an offer.

Chapter 1: The Self-Sufficiency Project

This is the final report of the Self-Sufficiency Project (SSP) study of welfare applicants. SSP was a three-study research and demonstration project designed to test a policy innovation intended to make work pay better than welfare. Conceived and funded by Human Resources Development Canada (HRDC), managed by the Social Research and Demonstration Corporation (SRDC), and evaluated by the Manpower Demonstration Research Corporation (MDRC) and SRDC, SSP offered a temporary earnings supplement to single parent, long-term income assistance (IA) recipients who left income assistance for full-time work.

The design of the incentive under test is described in detail later in this chapter. In brief, it was a supplement paid on top of earnings from employment for up to three years, provided recipients worked 30 or more hours each week and remained off income assistance. To qualify as long-term, IA recipients had to have spent at least 12 of the previous 13 months on income assistance. The supplement was designed to provide an immediate payoff to those who found full-time employment by effectively doubling pre-tax income received from a minimum-wage job.

SSP studies were designed to inform policy-makers interested in the likely economic consequences — in terms of employment, earnings, income, and receipt of income assistance — of offering such a financial work incentive to long-term IA recipients. To measure the effects of implementing a new policy, SSP used a rigorous, random assignment research design. Samples of IA recipients were drawn at random from provincial IA records. A portion (typically one half) of each sample was randomly assigned to a program group who could receive the SSP supplement if they met the qualifying criteria. The remaining sample members formed a control group who could not receive the supplement, but who remained eligible to receive income assistance and any related services and incentives. To determine the effects of the supplement offer, the three SSP studies compared outcomes for members of the program and control groups. Assignment to groups at random ensured that differences between the groups reflected only the effects of SSP's policies and not participants' preferences or personal characteristics.

These studies were intended to determine the immediate and long-term consequences of implementing new policy. To achieve this, two separate large-scale SSP studies focused on different segments of the IA population, while a third, smaller study — called SSP Plus — assessed what would happen if an earnings supplement were augmented by employment services.

- The SSP “Recipient study,” the subject of a separate report (Michalopoulos et al., 2002) involved approximately 6,000 single parents in British Columbia and New Brunswick who had been on income assistance for at least a year, selected at random from the IA administrative records. Those in the program group were informed that if they left income assistance for full-time work within 12 months, they would start to receive the SSP earnings supplement. This sample (referred to in this report as

“Recipients”) represented the cross-section of current long-term welfare recipients who would be immediately subject to a new policy.

- The SSP Plus study, also reported in Michalopoulos et al. (2002), tested the impact of employment services in addition to the supplement by randomly assigning long-term IA recipients into three similarly sized groups — supplement with services,¹ supplement without services, and a control group. About 900 New Brunswick Recipient study respondents were assigned in this way. Outcomes for this SSP Plus program group were compared with regular Recipient program group members offered the earnings supplement alone, and with members of the control group.
- The SSP “Applicant study,” the subject of this report, involved 3,315 single parents in British Columbia who had just begun to receive income assistance (referred to in this report as “Applicants”). Those assigned to the program group were informed that if they stayed on income assistance for a full year, they would then become eligible for the SSP earnings supplement. Those who did stay on income assistance for a year could, like Recipients, start to receive the supplement if they then left income assistance for full-time work within 12 months. This sample thus represented single parents new to income assistance who would become eligible for the SSP financial work incentive only *if they became long-term recipients by remaining on income assistance for at least a year.*

This final report on the Applicant study will describe the impacts of the earnings supplement offer for new IA applicants through six years after random assignment.

RESULTS TO DATE AND THE ROLE OF THIS REPORT

The three linked SSP studies have generated exciting findings about how financial incentives can help families make the transition from welfare to work sooner and at what cost to governments.

The final report on SSP for Recipients found that financial incentives had a strong influence on the employment decisions of single parent, long-term IA recipients (Michalopoulos et al., 2002). The report found that within 18 months the offer of SSP earnings supplements doubled the full-time employment rate among Recipients and thus accelerated by two to three years Recipients’ transition to full-time employment. SSP helped families rely more on employment and less on income assistance, and reduced poverty, without detectably harming family well-being, for a period of three or four years at a relatively low cost to government. A benefit-cost analysis suggested that for each additional dollar spent by government on SSP, the program generated two additional dollars in income for participants. Additional analyses of the effects of SSP on children suggested that some positive impacts of SSP on the academic achievement of elementary-school-age children persisted beyond the availability of supplement payments.

¹The SSP “supplement only” program provided information and referrals to existing services in areas such as job search and education/training, but did not provide these services. Providing services would have made 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.

Final results from the SSP Plus study (Michalopoulos et al., 2002) suggest that the addition of employment services reduced the rate of short-term job loss among those receiving the supplement. The impacts of SSP Plus on full-time employment and on receipt of income assistance appeared to last up to two years longer (into the fifth and sixth years following random assignment, respectively) than for SSP without employment services.

The SSP Applicant study began as a study of “entry effects” concerned with whether knowledge of the SSP offer would inadvertently increase IA receipt by encouraging people to enter or stay longer on income assistance in order to qualify for supplements. The final report on entry effects (Berlin, Bancroft, Card, Lin, & Robins, 1998) found that the encouragement of delayed exits from income assistance was modest — around 3.1 percentage points — and concluded that the SSP design successfully limited the size of entry effects.

Later Applicant study reports estimated interim impacts of the supplement offer on the economic well-being of Applicants and their families (Michalopoulos, Robins, & Card, 1999; Michalopoulos & Hoy, 2001). They found SSP’s positive impact on earnings was notably higher for Applicants than for Recipients. Moreover, significant impacts on Applicants’ employment, earnings, and income were achieved without additional cost to governments in terms of cash transfers. In other words, it appeared that the earnings supplements to Applicants were paid for by reductions in IA payments and by the higher payroll and income taxes that resulted from the earnings generated by the program’s work incentive.

Given the indications in earlier reports that SSP assisted Applicants to leave income assistance at no net cost to government, the analytical focus in this final report is on the economic consequences of SSP for Applicants over the full six-year follow-up period. Early chapters build the context for considering the benefits and costs of SSP. Chapter 2 examines the response to the supplement offer and quantifies the experience of supplement receipt. Chapters 3 and 4 document the impacts of SSP on IA receipt and amounts, employment, earnings, family income, and poverty. The benefit-cost analysis in Chapter 5 assesses whether the net balance of costs for government does indeed remain neutral, once the “delayed exits” from income assistance and costs of operating the program have been taken into account. Chapter 6 compares the results for Applicants with those for Recipients, and discusses possible reasons for the differences and any lessons for program implementation. Finally, Chapter 7 considers the policy conclusions that result.

This chapter performs several roles. Two key aspects of the design of SSP are documented. First, the policy intervention under test — the earnings supplement offer — is considered. This is followed by a description of the research study designed to test its effects on Applicants. The latter includes a review of the characteristics of the Applicant study sample program and control groups, and the effect of random assignment. A brief description of the political and economic context for the study follows. The chapter ends by setting out the research questions to be answered in the remainder of the report.

THE SSP EARNINGS SUPPLEMENT OFFER

The features of the financial incentive program under test are summarized in the accompanying text box. To receive SSP's earnings supplement, an IA recipient had to meet two eligibility requirements. First, she² had to remain on income assistance for at least 12 out of 13 consecutive months (the "qualifying year"). This requirement targeted SSP benefits to a disadvantaged population that normally experiences difficulty in the labour market. At the same time, the requirement to remain on income assistance for a year substantially reduced the incentive for people to enter the IA system to receive the supplement. The second requirement for receiving the earnings supplement, for IA recipients who stayed on income assistance for at least a year, was then to leave income assistance for full-time employment that averaged at least 30 hours per week. The restriction of the supplement to full-time work helped both to ensure that earnings made a substantial contribution to total family income and to reduce the possibility that income from the supplement would be used to cut back on work effort.

IA recipients who met both eligibility requirements could claim the earnings supplement and so became supplement "takers." They received supplement payments for up to three years starting from the month they first began receiving the supplement, in every month that they worked 30 or more hours per week and remained off income assistance. The program allowed supplement takers to return to income assistance at any time if they met the normal eligibility requirements for income assistance. Takers who later left income assistance for full-time work could return to receiving the supplement at any time within their three-year window, but they could not receive income assistance and the supplement simultaneously. Operational details of the supplement program are described in more detail in Mijanovich & Long (1995) and Lin, Robins, Card, Harknett, & Lui-Gurr (1998).

RESEARCH DESIGN OF THE SSP APPLICANT STUDY

The goals of the study were to understand the *difference* that the supplement offer made to Applicant families' employment, earnings, income, and IA receipt, above and beyond the incentives and services available to families who were not offered SSP; and to understand how much it would cost the government to run such a program, again, above and beyond the cost of the IA system that the government would normally operate. The Applicant study sample comprised single parents who had recently started receiving income assistance in the Lower Mainland of British Columbia after having been away from the IA program for at least six months, selected at random from administrative records.

²Feminine pronouns are sometimes used in this report because more than 90 per cent of single parents who have received income assistance for at least a year — the target group for SSP — are women.

Key Features of the Earnings Supplement for Applicants

- **Full-time work requirement.** Supplement payments were made only to eligible single parents who worked 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 were not receiving income assistance.
- **Substantial financial incentive.** The supplement was calculated as half the difference between a participant's earnings from employment and an "earnings benchmark" set by SSP at a level designed to make full-time work pay better than income assistance for most IA recipients. During 1994 the benchmark was \$37,500 in British Columbia. The benchmark was adjusted over time to reflect changes in the cost of living and generosity of income assistance, and was \$37,625 in 1996.* The supplement was reduced by 50¢ for every dollar of increased earnings. Unearned income (such as child support), earnings of other family members, and number of children did not affect the amount of the supplement.
- **Targeted at long-term recipients.** Eligibility for the supplement was limited to single parent, long-term IA recipients (with at least one year of IA receipt). As a result, Applicants were told that they had to stay on income assistance for the first year after entering the study to establish eligibility for the supplement.
- **One year to take advantage of the offer.** If an Applicant became eligible to receive the supplement at the end of the first year, she could sign up for the supplement if she found full-time work within the next 12 months (in other words, in the second year). If she did not sign up within 12 months, she could never receive the supplement.
- **Three-year time limit on supplement receipt.** A person could collect the supplement for up to three calendar years from the time she began receiving it, as long as she was working full time and not receiving income assistance.
- **Voluntary alternative to welfare.** People could not receive IA payments while receiving the supplement. No one was required to participate in the supplement program, however. After beginning supplement receipt, people could decide at any time to return to income assistance, as long as they gave up supplement receipt and met the eligibility requirements for income assistance. They could also renew their supplement receipt by going back to work full time at any point during the three-year period in which they were eligible to receive the supplement.

*The resulting supplement payment was quite generous. In 1996 a participant in British Columbia who worked 35 hours per week at \$7 per hour would earn \$12,740 per year and collect an earnings supplement of \$12,442 per year $((\$37,625 - \$12,740)/2)$, for a total gross income of \$25,182. By comparison, in BC during 1996, a non-working single parent and her child would have had a basic IA entitlement of less than \$12,000 per year. When tax obligations and tax credits are taken into account, most families had incomes \$3,000 to \$7,000 per year higher with the earnings supplement program than if they had worked the same number of hours without the supplement.

To conduct this investigation, study participants were recruited and randomly assigned over a one-year period and followed for a period of six years, as shown in Figure 1.1. Before being randomly assigned, every one of the 3,315 study participants was interviewed for the *baseline survey* that recorded their personal characteristics. Follow-up surveys were undertaken approximately 12, 30, 48, and 72 months after random assignment. During the last interview, as in the Recipient study, parents were asked to complete questionnaires to assess the progress of their children.³ Administrative records were used to estimate the impacts on IA and supplement receipt. In addition, two focus group interviews were conducted with Applicants who left assistance within a year of recruitment, before they could take advantage of the SSP offer. A further two group interviews were undertaken with those who remained on income assistance long enough to qualify for the supplement. This report provides results from the surveys, questionnaires, administrative records, and focus groups.

Recruitment into the Applicant study began in February 1994 and was completed in March 1995. Each month Statistics Canada used IA administrative records to identify all adult single parents in selected geographic areas of the Lower Mainland of British Columbia who were also Applicants. That is, they had to be single parents, 19 years of age or older, who had not received an IA payment in the last six months before the processed IA payment in the current month. No other restrictions (for example, on health status) were imposed. Statistics Canada and the BC Ministry of Human Resources then sent letters to a randomly selected field sample to invite them to be part of the SSP study.

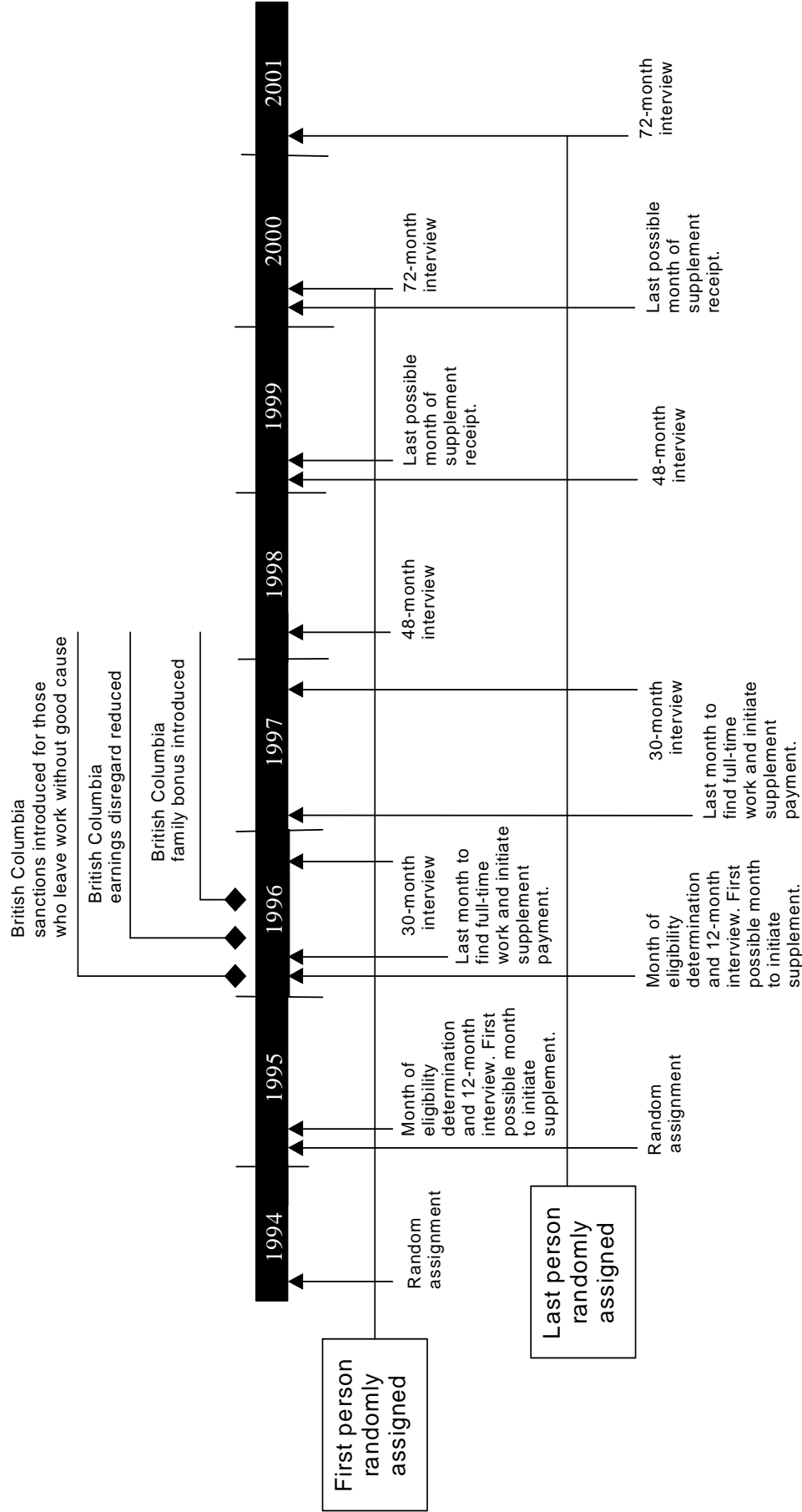
Members of the field sample were informed that they had been selected to participate in a study of “options for people on income assistance” and were visited at home by Statistics Canada interviewers. During the visit the interviewer administered a “baseline” survey lasting an average of 30 minutes, 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 to allow Statistics Canada to collect her records for up to eight years from various government agencies such as the BC Ministry of Human Resources, Canada Customs and Revenue Agency, and HRDC.⁴ 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 her eligibility for any services, and that she could refuse to answer any survey questions.⁵ She was told that 50 per cent of those who agreed to join the study would be randomly selected into one of two groups: a program group that could become eligible to receive a cash supplement in addition to their earnings in 12 months’ time if they found a full-time job; and a control group who would not become eligible for the supplement.

³Outcomes for the children of Applicant study members are reported in Appendix B.

⁴At the start of the study, these organizations were known as the BC Ministry of Social Services, Revenue Canada, and Employment and Immigration Canada respectively. Their current names are used here to avoid confusion.

⁵Approximately 80 per cent of individuals selected into the initial Applicant project sample completed the in-home baseline interview and signed the consent form. About five per cent refused to take part. A further 16 per cent did not respond for various reasons. According to Statistics Canada, a main reason for non-response was that individuals either planned to leave income assistance very quickly, or had already left income assistance by the time they were contacted for their baseline interview. Recruitment is explained in more detail in Berlin et al. (1998).

Figure 1.1: Periods Covered by the Data Used in This Report, and Important Policy Changes in British Columbia



Following random assignment, the program group received a letter and brochure from SRDC informing them that if they remained on income assistance for one year they would become eligible for the SSP supplement.⁶ A second letter sent six to seven months after random assignment reminded program group members of the supplement offer. Both program group letters explained that “SSP can provide extra money (an ‘earnings supplement’) to certain people who are on income assistance. To get the extra money, you must get a full-time job and leave income assistance.” The letter defined eligibility and included a telephone number for more information.⁷ The multi-page brochure explained eligibility requirements and the earnings supplement formula: “Depending on the amount you earn, the supplement could mean an increase of hundreds of dollars to a participant’s monthly earnings. For example: someone working 35 hours per week at \$8.00 per hour could receive supplement payments of about \$950 per month — in addition to your earnings” (Berlin et al., 1998, p. 8).

Statistics Canada administered a 12-month follow-up survey to all Applicants. Following this survey, Applicants who satisfied the SSP eligibility requirement were informed of their SSP program status by mail in the 12th or 13th month after receiving their first IA cheque.⁸ Over 90 per cent of those deemed eligible subsequently attended an information session describing the program’s benefits and requirements. As in the Recipient study, these “eligible Applicants” were given one year in which to find a full-time job, leave income assistance, and thus initiate SSP payments.

Baseline Characteristics of the Applicant Study Sample

Applicants who agreed to participate in the study and who completed a baseline interview were randomly divided into a program group (1,648 members) and a control group (1,667 members). Table 1.1 presents information on the baseline (that is, pre-random assignment) characteristics of these participants, by study group. Due to sample attrition, not all of the original sample members completed the subsequent surveys. In this report, the analysis is usually limited to the 2,371 participants who responded to the 72-month survey: 1,185 control group members and 1,186 program group members (hereafter referred to as the “report sample”). These represented 72 per cent of the original study participants.

Applicants were primarily female and nearly one third were immigrants. Almost two thirds of the sample had completed high school of which just over one third had *some* additional post-secondary education. There were on average two children under 19 years of age per household. Data from administrative records suggest that participants spent an average of three months in receipt of income assistance in the two years prior to random assignment. Monthly payments of income assistance for participants in the month of recruitment averaged over \$900.

⁶The program and control assignment letters were mailed from SSP offices. If the letter was returned undeliverable it was forwarded to the relevant IA caseworker and re-sent to the last known address in the BC Ministry of Human Resources (MHR) IA information system. Only four letters were subsequently returned to the MHR as undeliverable by the post office.

⁷About 10 per cent of the program group contacted the SRDC office for clarification of the rules (Berlin et al., 1998, p .8).

⁸Applicants in the program group became eligible for SSP if they received income assistance for 11 of the 12 months following the initial month of IA receipt. This required them to have spent at least 12 out of a total of 13 months on income assistance.

Table 1.1: Characteristics of Report Sample Members — Program and Control Groups in the SSP Applicant Study

Baseline Characteristic	Program Group	Control Group	Difference (Impact)	Standard Error
IA history				
Average number of months of IA in last two years	3.1	3.1	0.0	(0.2)
Average monthly IA payment at random assignment (\$)	916	928	-12	(16)
Work history				
Ever worked for pay (%)	97.9	96.9	1.0	(0.7)
Worked in month before random assignment (%)	24.0	23.1	0.9	(1.7)
Personal characteristics				
Female (%)	91.7	93.2	-1.5	(1.1)
Under age 25 (%)	15.5	14.3	1.3	(1.5)
Less than high school education (%)	34.3	37.2	-2.9	(2.0)
High school graduate, no post-secondary education (%)	40.9	37.6	3.3*	(2.0)
Some post-secondary education (%)	22.4	23.4	-1.0	(1.8)
First Nations ancestry (%)	7.2	8.7	-1.5	(1.1)
Immigrant (%)	29.4	29.1	0.3	(1.9)
Physical limitation (%)	19.9	19.0	0.9	(1.6)
Emotional limitation (%)	5.8	8.0	-2.2**	(1.0)
Family structure				
Average number of children (under 19 years)	1.5	1.6	0.0	(0.0)
Never married (%)	21.6	25.1	-3.5**	(1.7)
Sample size (total = 2,371)	1,186	1,185		

Sources: Calculations from baseline survey data and IA administrative records.

Notes: Two-tailed t-tests were applied to differences in characteristics between the program and control groups.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

The Effect of Random Assignment

Random assignment of participants to the program and control groups was a crucial aspect of the research design, because the program’s effects could not be determined by simply examining outcomes (activities and experiences, such as employment) for the long-term IA recipients who were offered the supplement. Inevitably some long-term IA recipients will leave income assistance regardless of whether they have access to a program like SSP. Some find jobs on their own, others find jobs as a result of welfare-to-work programs operated by the IA system, and still others leave income assistance 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 made. Given a sufficiently large sample, random assignment ensures that the program and control group have close-to-identical backgrounds and characteristics. Beyond the baseline differences seen in Table 1.1, they should differ systematically in one respect only: 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.

As a result of random assignment in SSP, the program group and control group presented very similar characteristics. Differences between the program and control groups in Table 1.1

reflect the effect of random assignment and subsequent survey non-response. Appendix A uses baseline and administrative record data available for the full Applicant sample to investigate the potential biases created by non-response, given that 28 per cent of the original study participants did not respond to the 72-month survey. Table 1.1 shows that there were slightly more program group members with a high school diploma but without further post-secondary education: a statistically significant difference of 3.3 percentage points between the two groups. Furthermore, fewer program group members reported emotional limitations on their activity, and fewer were never married, than their control group counterparts. Although the magnitude of these differences was small, differences in such characteristics are typically associated with income assistance, employment, and earnings outcomes, which have the potential to introduce a bias on impact estimates. Appendix A concludes that although impacts based on the survey sample may overestimate SSP's reductions in IA receipt and IA payments to some degree, this is not likely to be large enough to change the major findings from the Applicant study.⁹

THE POLICY AND ECONOMIC CONTEXT FOR THE APPLICANT STUDY

Applicants' ability to respond to the supplement offer could have been affected by changes over time in the economic and policy environment affecting single parents on income assistance. For this study the relevant period was the mid to late 1990s. Since Applicants were recruited between February 1994 and March 1995, the supplement take-up window extended roughly from December 1994¹⁰ until March 1997. Figure 1.1 provides an indication of the timing of key events in the SSP Applicant study and in BC welfare policy. The period studied in this report comprises the 72 months after random assignment (including the month of random assignment) for each sample member. For example, for the earliest sample members randomly assigned, the period studied is February 1994 through January 2000; for those who were randomly assigned last, the period studied is roughly March 1995 through February 2001.

During this time, British Columbia independently made a variety of changes to its IA program. The changes are detailed in the accompanying text box. Figure 1.1 indicates that these policy changes occurred after all Applicants were randomly assigned. These policy changes may have influenced participants' decisions, to a certain degree, about how to respond to the supplement offer.

⁹Program and control group characteristics could differ due to chance — when random assignment is unbalanced — or due to differential survey non-response — when individuals with certain characteristics in the program group are more or less likely to respond than similar individuals in the control group. When program and control group characteristics differ in a way that might plausibly affect response to an employment-related intervention, impact estimates can be adjusted statistically to compensate for the differences. A regression adjustment of this type, based on 16 baseline characteristics (for example, having less than a high school education), was undertaken for all impacts included in this report to ensure that findings were robust to any baseline differences between program and control groups. These checks did not suggest that unadjusted impact estimates would misrepresent genuine program impacts, and so *unadjusted* impacts are presented throughout this report.

¹⁰Data issues meant the take-up window for some early recruits began in December 1994, rather than February 1995. Because the IA system issues cheques in advance of the month of need but sample selection is based on verified payment files, some sample members were issued cheques off-line for up to two months before they were sampled. For these sample members, early cheques contributed to their qualifying period such that eligibility determination took place before a full 11 months had elapsed following random assignment.

Key Changes in the BC Income Assistance Program

- **The earnings disregard.** One of the major changes to the British Columbia IA system involved the “earnings disregard” — the amount that recipients were able to earn without reducing their IA benefit. Until April 1996 single parents who had received income assistance for more than three months were eligible for a “flat rate” disregard of \$200 per month and, for up to 12 out of every 36 months, an “enhanced” disregard of 25 per cent of earnings in excess of the \$200 disregard. Effective April 1996 the flat rate disregard was eliminated, and the 25 per cent disregard could be used for only 12 months in a lifetime. This change increased the attractiveness of SSP over income assistance for family heads who chose to work while receiving income assistance.
- **Benefit payments in and out of work.** In August 1996 British Columbia introduced a monthly “Family Bonus” of up to \$103 (raised to \$105 in 1999) per child per month for all low-income families. It simultaneously reduced IA benefits by the same amount. This change increased income for working poor families while leaving income for IA recipients unchanged. As a result, Family Bonus payments reduced the relative generosity of income assistance, lowering the incentive for both program and control group members to remain on income assistance. IA benefit levels were also made less generous in British Columbia in 1997, when the monthly benefit for a single parent with one child was reduced from \$982 to \$879.
- **Sanctions and changed application process.** Two other changes in the British Columbia IA system are potentially important. In January 1996 sanctions were introduced that prohibited anyone who quit a job without just cause from receiving income assistance for six months. Thus, program group members who found full-time jobs and initiated supplement payments might not be allowed to return to income assistance if they voluntarily left those jobs (contrary to the original design of SSP). Later in 1996 the process of applying for income assistance was made considerably harder. For example, applicants were required to make advance appointments and to bring various documents to their appointments, and the issuance of on-the-spot cheques was eliminated. These changes would be expected to reinforce the effects of sanctions, potentially decreasing receipt of income assistance by supplement takers who quit (or lost) full-time jobs.

The policy environment was not the only factor that could have affected the impact of SSP. Economic conditions might also have been important. Although the Vancouver area labour market did not undergo huge changes in the mid to late 1990s, the economy gradually improved, with unemployment falling from 9.3 per cent in 1993 to 5.9 per cent in 2000. From 1994 through 2000 the employment rate of 25- to 44-year-old women remained very stable in British Columbia. The employment rate of younger women fell between 1994 and 1998, before increasing again from 1998 to 2000. During this same period the general minimum wage increased from \$5.50 per hour in January 1993 to \$6.00 in April 1993, \$6.50 in March 1995, \$7.00 in October 1995, \$7.15 in April 1998, and \$7.60 in November 2000. The net effect of these changes is unclear. On the one hand, the rise in the minimum wage would probably raise wages for lower-skilled workers, increasing the attractiveness of work. On the other hand, conventional economic models suggest that raises in the minimum wage would lower demand for lower-skilled workers.

Some of these changes (for example, in the minimum wage) are taken into account in later report analyses. One advantage of random assignment is that it limits the extent to which outside influences, such as changes in the policy and economic context, can bias the estimates of the impact of SSP. Because both program and control group members experience changes in the economic and policy environment at the same time, the presence or absence of the SSP offer remains the key systematic difference between the research groups. However, economic and policy changes are revisited in Chapter 6 where their potential effect on differences between SSP's impacts for Applicants and Recipients is discussed.

RESEARCH QUESTIONS

The key questions of this report include the following:

- Who took up the supplement? What reasons did people have for not taking up the supplement? How did those who took it up differ from those who became ineligible because they left income assistance within 12 months and those who were eligible for the supplement but did not take it up? How often did supplement takers receive the supplement and how much did they receive in supplement payments? What happened when supplement payments ended? Chapter 2 addresses these questions.
- Did the SSP program reduce Applicants' overall reliance on income assistance and increase their participation in employment and their earnings? Did the effects extend beyond the period when parents could receive the earnings supplement? Did these impacts apply across all Applicants, or were some groups better able to take advantage of the SSP offer than others? Chapter 3 addresses these questions.
- Did the program result in increases in parents' income and reductions in family poverty? What effect did the program have on hardship and expenditure? Do some subgroups among Applicants benefit more than others? Chapter 4 addresses these questions.
- Once administrative and operational costs have been taken into account, how much did SSP for Applicants cost? The program offered a generous financial incentive in compensation for lost assistance payments that could create net costs for government. How far were these costs offset by increased payroll taxes and IA savings? Chapter 5 presents a benefit-cost analysis of SSP for Applicants and compares the balance of government costs to family benefits with a similar analysis of the SSP Recipient study.
- How did the results for Applicants differ from those for Recipients at the study's outset, during supplement receipt, and after supplements had been withdrawn? What reasons could account for these differences? Chapter 6 considers what can be learned from a comparison of results from the two main SSP studies.
- What lessons for policy emerge from the Applicant study? SSP appears to increase full-time employment, reduce IA receipt, increase income, and reduce poverty at low cost to government. Chapter 7 assesses what policy-makers, practitioners, and researchers can learn from the SSP Applicant study findings.

Chapter 2: Supplement Receipt

The central feature of the Self-Sufficiency Project (SSP) was the earnings supplement payment to program group members. This chapter describes which program group members became eligible for the supplement, which program group members received the supplement, when they received it, and how much they received. It also looks at the reasons why some program group members did not receive supplement payments. This analysis furthers understanding of the nature of the program's principal treatment: who took it up and how.

To examine supplement receipt, this chapter looks only at program group members because only they were able to receive a supplement payment. This chapter does not examine the control group and, therefore, does not examine the effectiveness or impact of the program. For example, even though this chapter discusses the earnings of program group members, it does not report the impact of SSP on earnings. Analysis of impacts requires the earnings of the program group to be compared with the earnings of the control group. Discussion of SSP's impacts begins with Chapter 3.

SUMMARY OF FINDINGS

- **Fifty-eight per cent of program group members became eligible for the supplement by remaining on income assistance (IA) for a year or more.**
- **Twenty-seven per cent of the program group received at least one supplement payment.** Diverse subgroups of program group members were about equally likely to receive at least one supplement payment.
- **Lack of work was the main reason that eligible program group members did not receive a supplement payment.**
- **Supplement receipt rose rapidly in the second year after random assignment.** It peaked in Month 27 when 36 per cent of eligible program group members received a supplement payment. Subsequently, receipt declined slowly until Month 48 and then dropped sharply as the three-year window for supplement payments ended.
- **Supplement takers usually received generous, virtually uninterrupted benefits over several years.** On average, takers received nearly \$20,000 in supplement payments. Half of supplement takers received benefits in 29 months or more during the three-year period for supplement payments.
- **SSP gave the most generous benefits to takers who worked the most months full time and to takers who earned the least while they worked.**

RESPONSES TO THE SUPPLEMENT OFFER

There were three possible responses to the supplement offer:

- Program group members could avoid becoming eligible for the supplement by leaving income assistance within one year of random assignment (as did 42 per cent of program group members). High school graduates and those without employment barriers were more likely to become ineligible.
- Program group members could become eligible and take up the supplement by leaving income assistance in the second year for full-time employment (27 per cent of program group members). Those who completed high school were about equally likely to take up the supplement as those who did not complete high school. Those with employment barriers were about as likely to take up the supplement as those without employment barriers.
- Program group members could become eligible and not take up the supplement (31 per cent of program group members). The least educated and those with employment barriers were more likely to become eligible but not receive supplement payments.

The remainder of this chapter explores these responses and the reasons for them.

Reasons for Not Becoming Eligible for the Supplement

More than 4 out of every 10 program group members left income assistance before becoming eligible for the SSP supplement. This group is important because it forms a large proportion of the program group and, consequently, has a substantial influence on the overall impacts of SSP. As this section notes, almost half never went back to income assistance during the study period, while a sizable minority returned to income assistance within a year.

During focus groups, ineligible program group members gave reasons for leaving income assistance that ranged from getting more money to placing a high value on self-reliance and the work ethic. Some felt being an IA recipient conflicted with their own sense of self-identity. “You know, I am an adult; I can take care of myself,” said one ineligible focus group participant.

Some ineligible program group members in the focus groups said they had little problem finding work, while others experienced considerable difficulty. Some had to overcome barriers of health, depression, or child care in order to leave income assistance. However, all working focus group members expressed enthusiasm for their jobs. “I love my job,” said one participant. Virtually all said that working was substantially better than remaining on income assistance.¹

Ineligible focus group members did not spontaneously mention SSP as a factor in their decision to leave income assistance, but most recalled the program when reminded of it.

¹The 12-month survey recorded additional reasons for leaving income assistance. Eleven per cent of ineligible program group members had left income assistance by the time of the 12-month survey because they had received support from their spouse or partner. Another six per cent left income assistance because they got married.

Berlin et al. (1998) conclude that most ineligible focus group members paid little attention to SSP because the supplement offer held little importance to them. Most planned to go back to work soon and did not want to stay on income assistance for a year in order to receive the supplement. Only three ineligible program group members in the focus groups said they were tempted to remain on income assistance in order to receive the supplement. The rest were anxious to leave income assistance and get on with their lives. “I had no intention of sitting on welfare for a year just to qualify,” said one focus group member. “I just wanted to get back to work,” said another.

A large group of ineligible program group members were successful in leaving income assistance and working full time. Once they had become ineligible, 46 per cent of ineligible program group members did not return to income assistance during the study period. They worked extensively, for an average of 37 months of full-time employment between the time they became ineligible and the end of the study period.

In contrast, 37 per cent of ineligible program group members had returned to income assistance — at least briefly — within a year after becoming ineligible. Unsurprisingly, this group spent more time on income assistance and less time working full time than other ineligible program group members. After becoming ineligible for the supplement, they received, on average, about two more years of income assistance payments and worked full time for an average of another two years during the study period. It is possible that some of these ineligible people who nonetheless returned to income assistance might have worked more if they had been eligible for the supplement.

Reasons for Becoming Eligible for the Supplement

Fifty-eight per cent of program group members remained on income assistance long enough to become eligible to receive the supplement. Those with less education and barriers to employment were more likely to become eligible than those with high school diplomas and no barriers to employment.

In focus groups, eligible participants said that they did not leave income assistance because of their inability to find work, the lack of transportation for job search, and the shortage of jobs with reasonable wages. Others were more likely to mention their concerns over child care and their desire to remain on income assistance until their children were old enough to start school. Other personal factors may also have affected participants’ ability to leave income assistance. Eligible focus group members were sometimes suffering from low self-esteem or recovering from a marital breakdown.

Berlin et al. (1998) find that a small percentage of the entire program group (3.1 per cent) delayed leaving income assistance in order to take advantage of the SSP supplement. This experimental result was confirmed in focus groups where only one participant mentioned staying on income assistance longer in order to receive the supplement. Most eligible focus group members said they remained on welfare because of circumstances in their lives rather than the opportunity to receive the supplement.

The second column of Table 2.1 shows the percentage of different subgroups who became eligible for the supplement. Less-educated participants were more likely to become eligible than high school graduates. Those who had more children were more likely to become eligible than those with fewer children. In contrast, those who were working or

looking for work at baseline were less likely to become eligible than other participants. Similarly, those who said that full-time employment was their greatest single need were less likely to become eligible than those who expressed different needs. In short, those who were most able and willing to work were most likely to leave income assistance within a year and avoid becoming eligible for supplement payments.

Table 2.1: SSP Supplement Eligibility and Take-Up, by Subgroups

Group	Sample Size	Percentage of Program Group, Eligible	Received Supplement, as a Percentage of	
			Eligible	Program Group
Program group	1,186	58.3	47.2	27.5
Job readiness at random assignment				
Graduated from high school				
Yes	736	54.8	53.6	29.4
No	385	63.9	37.8	24.2
Employment status				
Employed full time	108	39.8	67.4	26.9
Employed part time	221	45.7	55.5	25.3
Not employed, looking for work	315	57.5	49.2	28.3
Neither employed nor looking for work	515	68.2	40.5	27.6
Family structure and background				
Age of sample member at random assignment				
19–29	426	58.0	50.6	29.3
30–39	525	61.5	47.7	29.3
40 and older	234	51.3	39.2	20.1
Number of children at random assignment				
One	592	57.1	47.0	26.9
Two	369	62.6	50.7	31.7
Three or more	176	68.2	40.8	27.8
Family background				
Immigrant status				
Born in Canada	836	55.9	51.2	28.6
Not born in Canada	348	64.1	38.6	24.7
Barriers to employment				
Reported physical or emotional condition that limited activity				
Yes	270	58.2	33.1	19.3
No	907	58.1	51.2	29.8
Depression				
At risk of depression	629	59.8	44.7	26.7
Not at risk	551	56.3	50.7	28.5
Self-expressed greatest need				
Full-time employment	349	46.7	59.5	27.8
Something else / Don't know	786	64.1	44.3	28.4

Sources: Baseline survey data, IA administrative records, and SSP's Program Management Information System.

Notes: Subgroups are defined according to characteristics at random assignment.

Rounding may cause slight discrepancies in sums and differences.

SUPPLEMENT TAKE-UP AMONG DIFFERENT SUBGROUPS

Once eligible, program group members had 12 months to find full-time employment, leave income assistance, and begin to receive the supplement. Twenty-seven per cent of all program group members received at least one supplement payment. Despite representing only a quarter of the program group, this group was critical to the effectiveness of SSP. The incentives to leave income assistance and work full time fell almost entirely upon this small group because they were the ones who actually received supplement payments. In addition, this group could, and often did, receive payments for up to three years if they continued to stay off income assistance and work full time. As a consequence, this small group of supplement takers accounted for most of the impacts of SSP that are reported in subsequent chapters of this report.²

The percentage of takers among *eligible* program group members is higher at 47 per cent as shown in the third column of Table 2.1.³ That column also shows that the subgroups *least* likely to become eligible for the supplement were those that, once eligible, were *most* likely to take up the supplement. This is not surprising because the ability and willingness to find work were key factors not only in leaving income assistance within the first 12-month period (thus becoming ineligible for the supplement), but also in leaving income assistance for full-time employment in the second 12-month period (and qualifying for the supplement).

For example, 68 per cent of eligible program group members who were working full time at baseline took up the supplement. But among those eligible program group members who were neither employed nor looking for work at baseline, only 40 per cent took up the supplement. Among those eligible, high school graduates were more likely to be takers than those who did not complete high school. Eligible program group members who stated that their greatest single need was full-time employment were more likely to take up the supplement than those who had other priorities. In contrast, take-up was lower among those who were over 40 years of age at baseline, who had three or more children, or who stated that they had a physical or emotional condition that limited their activity.

The right-hand column of Table 2.1 shows the proportion of *all* program group members — those who became eligible and ineligible combined — who took up the supplement. Aside from physical or emotional disabilities, there were few large differences in this take-up rate among different subgroups. Those at the study outset who were younger, employed, or better educated were approximately as likely to take up the supplement as those who were older, unemployed, or less well educated. Therefore, the supplement was equally popular across a broad range of characteristics and circumstances.

This similarity across different groups arises because certain characteristics could be associated both with increasing the probability of receiving the supplement at one stage of the program and with decreasing the probability at another stage. For example, high school

²SSP could have had a small influence on both ineligible program group members and eligible non-takers. For example, the supplement might have caused either group to look for full-time work. However, they may have received a job offer either too soon or too late to receive the supplement. It is reasonable to assume that these effects are relatively minor compared with the effect of SSP on those who actually received supplement payments.

³In other words, ineligible program group members are excluded in the calculation of the percentages in third column of Table 2.1. The fourth column of Table 2.1 presents the number of supplement takers as a percentage of all program group members (including eligibles and ineligibles).

graduates were less likely to become eligible for the supplement but were more likely to receive the supplement after they became eligible. The reverse was true for program group members who had not graduated from high school. Consequently, across the entire program group, the percentage of takers among high school graduates was similar to the percentage of takers among those who did not graduate from high school.

However, supplement take-up was lower among program group members reporting a physical or emotional condition that limited activity.

In conclusion, diverse groups responded differently to the incentives at different stages of the program. However, these responses approximately offset each other so that these diverse groups were about equally likely to take up the supplement. Different take-up rates might emerge among different groups if the incentives of SSP were changed at different stages of the program. For example, if program group members had to remain on income assistance for two years to become eligible for SSP, then the most highly educated might have had substantially lower take-up rates than the less educated.

Why Did Eligible Program Group Members Not Take Up the Supplement?

A third of the program group became eligible for the supplement but did not receive a supplement payment. For the most part, this was due to their inability to find enough work rather than a lack of interest in SSP.

Nearly 80 per cent of eligible non-takers surveyed at 30 months after random assignment said they were interested in SSP. Usually these “eligible and interested” non-takers tried to find full-time work but did not succeed in time to receive the supplement. Seventy-one per cent of eligible and interested non-takers said they had looked for work between random assignment and the 30-month survey. Nearly 60 per cent of eligible and interested non-takers said that they did not take up the supplement because they could not get a job or enough hours of work or did not think they would be able to find a job, as shown in Table 2.2. It is possible that a substantial portion of these eligible and interested non-takers might have taken up the supplement if they had been given more time for finding work or more assistance in their job search.

However, it might have been more difficult to make the supplement more appealing to the 22 per cent of eligible non-takers who said they were not interested in SSP. Table 2.2 shows these eligible non-takers were more likely to say that they did not take up the supplement because of personal and family responsibilities, a lack of understanding of SSP, or a desire to return to school. Table 2.2 shows that only 22 per cent cited poor employment prospects. Most (58 per cent) had not looked for work between the baseline survey and the 30-month survey. It is possible that more information about SSP might have made the supplement more appealing to those who lacked understanding of SSP.

Table 2.2: Eligible Non-Takers' Main Reasons for Not Taking Up the Supplement

Main Reason for Not Taking Up the Supplement	Eligible Non-Takers		
	All (%)	Proportion of Those	
		Interested in SSP (%)	Not Interested in SSP (%)
Labour market reasons			
Unable to find a job	29.5	35.5	8.8
Unable to get enough hours	14.6	16.9	7.4
Did not think I could find a job	6.5	6.9	5.9
Any labour market reason	50.6	59.3	22.1
Personal and family			
Personal, family responsibilities	16.8	13.7	27.9
Did not want to use child care	2.5	1.6	5.9
Could not find adequate child care	1.9	2.0	1.5
Health problems	8.4	9.7	4.4
Other reasons			
Did not understand offer	5.0	2.4	11.8
Wanted to complete education/training	3.7	2.0	10.3
Not enough experience/skills/education	1.6	1.6	1.5
Wasn't worth it	1.9	0.4	7.4
Other	7.8	7.3	7.4
Sample size	322	248	68

Sources: 30-month survey and SSP's Program Management Information System.

Notes: The responses of six participants are included only in the first column because there is missing information about their interest in SSP.

Therefore, SSP had strong appeal to a large portion of program group members who were prevented from taking up the supplement because they could not find sufficient work. A sizable minority had little interest in SSP. These people were more likely to cite non-market reasons — their family or personal situation — for not taking up the supplement. This group would be less likely to respond to the financial incentives of SSP.

PATTERNS OF SUPPLEMENT PAYMENTS

This section describes, for takers who received the supplement, how much they received and how often they received supplements. In doing so, it shows how SSP program rules successfully directed a generous subsidy to long-term welfare recipients who left income assistance to work full time for low pay. This pattern of supplement receipt informs understanding of the effects of SSP on the labour market participation (see Chapter 3) and incomes (see Chapter 4) of IA recipients. The magnitude and timing of the supplement payments will also help in understanding the cost-benefit analysis of SSP (see Chapter 5).

SSP eligibility rules meant that no supplement payments were paid before Month 12 after random assignment. Once eligible, program group members had a year to find full-time work and, subsequently, up to three years to receive the supplement. As a consequence, supplement receipt had all but ended by Month 60 after random assignment. The exact timing of supplement payments can be seen in Figure 2.1. The upper line in Figure 2.1 shows the percentage of all *eligible* program group members receiving a supplement payment in each month after Month 12.⁴ Supplement receipt increased rapidly during the 12-month period that eligible program group members had to take up full-time work and qualify for the supplement. By Month 27 supplement receipt among eligible program group members peaked at 36 per cent.⁵ Over the following two years the full-time employment rate among takers fell. Thus supplement receipt among those eligible fell slowly to 29 per cent by Month 48. After Month 48 monthly supplement receipt fell rapidly as takers reached the end of the three-year period for receiving supplement payments.⁶

Some takers made an early start on finding full-time work. More than a quarter of takers were working full time in the months before they became eligible for the supplement.⁷ Nearly two thirds of these full-time takers took up the supplement within 90 days of their eligibility date. Other takers either delayed their job search or needed more time to find full-time employment. Consequently, they took up the supplement later. Of those takers who were not working full time when interviewed for the 12-month survey, nearly half took more than 200 days to take up the supplement after they became eligible.⁸

Some evidence of delayed take-up can be also be inferred from the number of eligible program group members who took up the supplement in each successive month as a proportion of those who were eligible but had yet to take it up.⁹ This proportion nearly tripled from under three per cent in the 9th month of being eligible to eight per cent in the 12th month. It is possible that some program group members were not able to take up the supplement because they did not start their job search soon enough. They may have been able to take up the supplement if they had had more time to look for full-time employment or had received more assistance in their search.

⁴Figure 2.1 records the month after random assignment that the supplement cheque was issued rather than the actual (earlier) month when the program group member earned the supplement. The difference between the two dates was caused by the time needed to submit, verify, and process applications for the supplement.

⁵Depending on their hours of work, supplement takers could receive a supplement payment in some months but not in others. As a result, the percentage of eligible program group members receiving the supplement in any *one* month is lower than the 47 per cent of eligible program group members who ever received a supplement payment in *any* month. For example, one quarter of all takers — people who had ever received a supplement payment — did not receive a supplement payment in the month with the highest supplement receipt: Month 27.

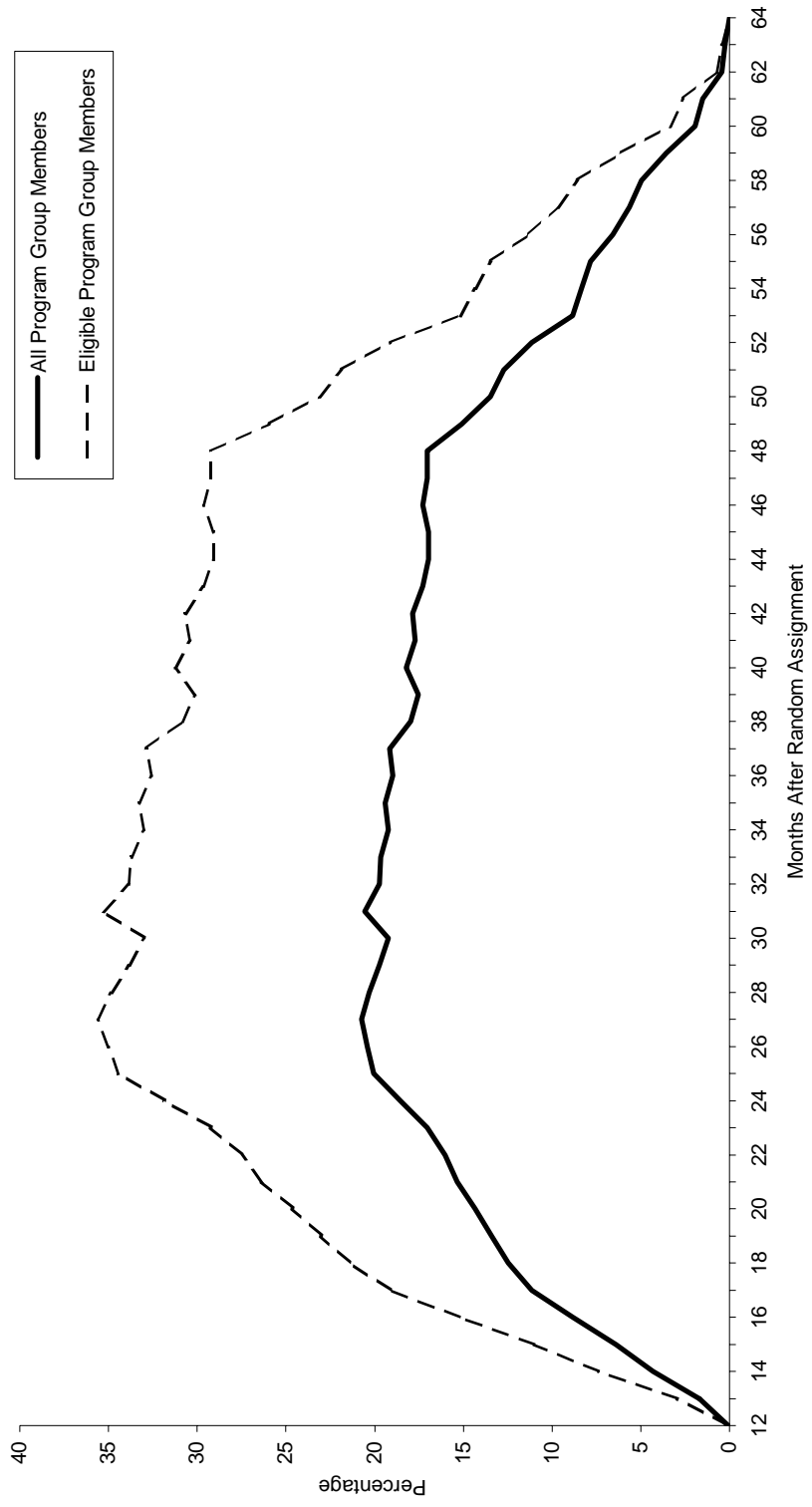
⁶A very similar pattern is seen in the percentage of all program group members receiving the supplement in a given month, albeit the proportions are lower when expressed as a fraction of both ineligible and eligible program group members.

⁷Nearly two thirds of takers were either employed at the time of the 12-month survey or had looked for work in the previous four weeks, compared with one third of non-takers. Persons could work full time and receive income assistance because IA payments did not automatically stop for single parents in BC who worked full time during the period of this study. Additional earnings did not immediately result in a dollar-for-dollar reduction in IA benefits.

⁸Eighty-five per cent of eligible respondents answered the 12-month survey between 30 and 60 days prior to becoming eligible for the supplement.

⁹This type of percentage is frequently used to understand labour markets. It is called a “hazard rate.” For example, suppose there were 99 participants. If 33 of the 99 were to take up the supplement in each of the first three months of eligibility, the hazard rate would be 33.3 per cent in Month 1 ($100 \times 33/99$), 50 per cent in Month 2 ($100 \times 33/66$), and 100 per cent in Month 3 ($100 \times 33/33$).

Figure 2.1: Percentage of Program Group Members Receiving Supplement Payments



Source: SSP's Program Management Information System.

Supplement Takers During and After Supplement Receipt

This section briefly looks at what happened to supplement takers during the time they were receiving the supplement and after the supplement ended. Figure 2.2 shows the percentage of takers receiving the supplement during months since *the first supplement cheque was issued*. Everyone (100 per cent) received their first cheque in Month 1, but only slightly over half of all takers received a supplement in Month 35. Most of the fall in supplement receipt during this period occurred early on, presumably due to job loss. Subsequently, supplement receipt dropped dramatically as the supplement was withdrawn after Month 36. This withdrawal of the supplement was dubbed “the cliff.”

There was considerable concern at the outset of SSP that the end of generous supplement payments could cause participants to leave full-time employment and return to income assistance, potentially increasing poverty for themselves and their families. However, Figure 2.2 shows that the cliff was not associated with any noticeable change in the full-time employment rates or the IA receipt rates of takers.¹⁰ This suggests that the end of the supplement was not associated with substantially increased hardship for takers as a whole.

Amount and Duration of Supplement Payments

As intended by the program design, SSP provided a generous benefit for program group members who quickly found full-time work after becoming eligible for the supplement. The benefits of SSP were particularly generous to those who worked full time for many months at low pay.

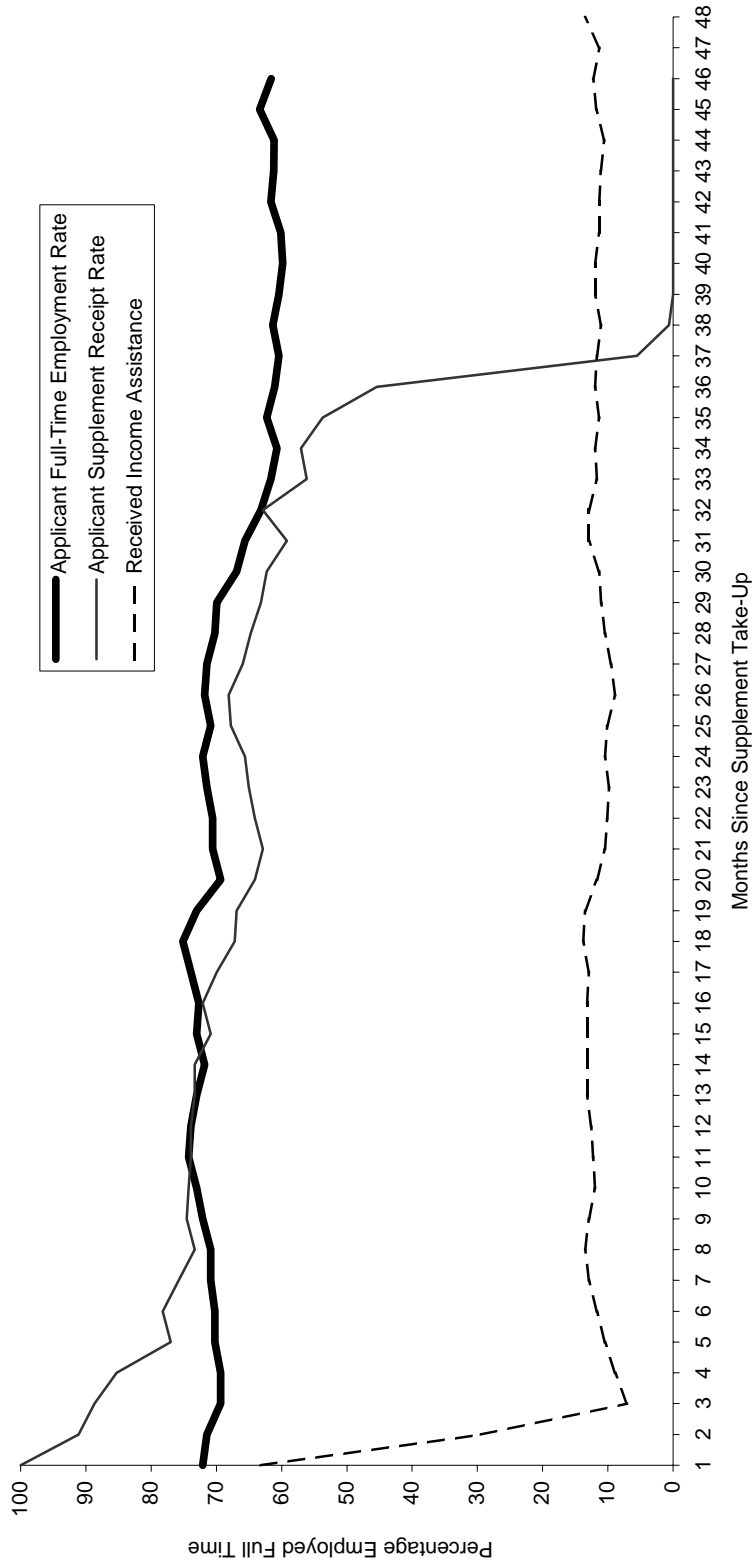
The overall generosity of SSP can be seen in Table 2.3. SSP provided takers with an average of \$19,507 in supplement payments. Takers received an average of \$776 per month during months of supplement payment.¹¹ In addition, SSP gave most takers a dependable source of support for a substantial period of time. Half of supplement takers received payments in at least 29 months over a three-year period. Most often, they received these monthly payments in a single consecutive spell or in two spells with a single break.¹² Frequent interruptions in supplement payments would have been a sign that takers had a continuing struggle to maintain full-time employment or had an uncertain commitment to full-time employment.

¹⁰The effect of the cliff was noticeable among a small group of takers that might be most affected by the cliff — those who received a supplement payment in at least five of the six months prior to the end of supplement payments. The total income of this “cliff sample” dropped about 18 per cent between the 48-month survey (before the cliff) and the 72-month survey (after the cliff). The complete loss of the supplement was partially offset by a rise in other transfers. Earnings remained essentially unchanged. IA payments slightly increased but were a small portion of income before and after the cliff.

¹¹By design, takers had to give up IA benefits to receive supplement payments. For takers, IA benefits averaged \$952 a month in the first 12 months after random assignment. For government, the reductions in IA benefits substantially offset the cost of the supplement.

¹²Only 16 per cent of takers had more than one temporary interruption of supplement payments. A series of monthly supplement payments counted as a consecutive spell of payments if there was no *two-month* period without a payment.

Figure 2.2: Full-Time Employment, Supplement Receipt, and IA Receipt Among SSP Supplement Takers



Source: Applicant 12-month, 30-month, 48-month, and 72-month follow-up surveys and SSP's Program Management Information System.

Table 2.3: Supplement Receipt Among Supplement Takers

Measure	25 Per Cent Received Less Than or Equal to	Average	50 Per Cent Received Less Than or Equal to	75 Per Cent Received Less Than or Equal to
Total supplement payments (\$)	12,543	19,507	19,603	27,072
Supplement payments per month of receipt (\$)	636	776	811	959
Months of supplement receipt	18	25	29	34
Average number of spells	1.0	1.7	1.0	2.0
Length of longest spell	13	22	22	34
Sample size (total = 326)	82	326	163	245

Source: SSP's Program Management Information System.

To encourage full-time employment, SSP paid supplements to takers only for months in which they worked full time.¹³ Given this rule, it is unsurprising that takers who worked full time in more months also received supplement payments in more months.¹⁴ These differences in full-time employment resulted in considerable variation in the months of supplement receipt. Table 2.3 shows that 25 per cent of takers received 18 or fewer months of supplement payments, while another 25 per cent of takers received 34 months of payments or more. Also unsurprisingly, takers who had more months with supplement payments also received more supplement dollars in total than takers who had fewer months with supplement payments, as shown in Table 2.4.

In order to “make work pay,” SSP was designed to pay more to workers with the lowest full-time earnings and less to those earning more. As a result of these rules, workers with below-average monthly earnings received higher supplement payments than those workers with above average monthly earnings.¹⁵ Partly as a result, there is substantial variation in the monthly supplement payments received by takers. Table 2.3 shows that 25 per cent of recipients received an average monthly supplement payment of \$636 or less, while another 25 per cent received average payments of \$959 or more.

SSP directed the most supplement dollars to takers who had the most full-time work and to takers who earned the least while working full time. As a result, some takers received substantially more than others. Table 2.5 shows that total supplement payments averaged almost \$32,400 for the 25 per cent of takers who received the most money from SSP. That is

¹³The program allowed some episodes of low work hours without cutting off supplement payments. To reduce the need to return to income assistance whenever problems arose, full-time employment was defined as 30 hours per week (although most full-time job schedules are for 35 to 40 hours), and hours were averaged over a four-week or monthly accounting period. Thus, supplement takers usually were not penalized for brief absences — to take care of a sick child, for example. In addition, if average hours worked fell below 30 hours per week for a four-week or monthly period, the supplement was pro-rated the first and second time this happened during a 12-month period. For the third and subsequent periods in which the 30-hour requirement was not met during a year, no supplement payment was made, ensuring that less-than-full-time employment did not continue to be rewarded. However, the system allowed supplement takers another two reduced-payment periods in each of the two subsequent 12-month periods.

¹⁴During the three-year period for supplement payments, those who worked full time in more than 30 months received an average of 32 months of supplement payments, while those who worked full time in 15 months or less had an average of only 12 months with supplement payments.

¹⁵Average monthly earnings for a participant is the sum of monthly earnings between the month of the first supplement payment and the month of last supplement payment divided by the number of months in this period. If takers had below average earnings during the months between take-up and their last supplement payment, then they received an average of \$658 a month in supplement payments in those same months. If they had above average monthly earnings, they received an average of \$552 a month.

about five times more than the average total supplement payment received by the bottom 25 per cent. More than 4 out of 10 supplement dollars went to the 25 per cent of supplement takers who received the most in supplement payments, while less than 1 in 10 supplement dollars went to the bottom 25 per cent of takers. As expected, the top 25 per cent of supplement takers had more months of full-time employment and lower average monthly earnings than the bottom 25 per cent of supplement takers.

Table 2.4: Supplement Payments Among Supplement Takers, by Months of Receipt

	Number of Supplement Takers	Percentage of All Supplement Takers	Average Total Supplement Payments (\$)
Months of supplement receipt			
1 to 11 months	47	14.4	3,865
12 to 23 months	72	22.1	15,143
24 to 35 months	170	52.1	23,790
36 months or more	37	11.3	28,193
All supplement takers	326	100.0	19,507

Source: SSP's Program Management Information System.

Table 2.5: Amount of Supplement Payments, Among Supplement Takers Ranked by Quartile

	Number of Supplement Takers	Average Supplement Payment (\$)	Percentage of All Supplement Payments	Cumulative Percentage of All Payments
Supplement takers whose payments were among the				
Highest 25 per cent	81	32,394	41.3	41.3
Second-highest 25 per cent	82	23,381	30.1	71.4
Third-highest 25 per cent	81	16,226	20.7	92.1
Lowest 25 per cent	82	6,145	7.9	100.0
All takers	326	19,507	100.0	100.0

Source: SSP's Program Management Information System.

CONCLUSION

This chapter has shown that more than 40 per cent of program group members left income assistance before becoming eligible for supplement payments. About half of the remaining *eligible* program group members found full-time work in time to receive supplement payments. Most of the remaining eligible program group members said that they were interested in SSP but could not find enough work to take up the supplement.

Twenty-seven per cent of the program group took up the supplement. Most takers received years of generous, virtually uninterrupted supplement benefits. The most generous SSP payments went to those who steadily worked full time and to those who received low earnings. Therefore, SSP was successful in directing most of its benefits to those who left welfare for steady, full-time work. It was successful in helping to “make work pay” by directing most of its benefits to those with low labour market earnings. What this chapter cannot say is whether these benefits caused program group members to work full time sooner and longer with SSP than without SSP. In order to do that, the labour-market behaviour of the program group must be compared with the labour-market behaviour of the control group,

who did not receive the supplement offer. The difference between these two groups — the impact of the program — is the subject of the next chapter. Whether these benefits increased the incomes of the program group relative to the control group is the subject of Chapter 4. Whether the generous benefits of SSP are a cost-effective use of public funds is the subject of Chapter 5.

Chapter 3: Impact of SSP on Income Assistance and on Employment

This chapter considers how the offer of a generous earnings supplement affected income assistance (IA) use and employment. Specifically, the chapter estimates the impact of the Self-Sufficiency Project (SSP) on IA receipt and average IA payments, and on full-time, part-time, and total employment. The effects on earnings, hours, and wages are also presented, followed by a discussion of whether SSP improved employment stability and duration and wage growth. Finally, cumulative impacts over the entire study follow-up period are reported.

SUMMARY OF FINDINGS

- **The incentive to remain on income assistance for a year in order to receive the SSP supplement only modestly increased IA receipt and had no effect on full-time employment.** During the first year after random assignment, SSP had increased IA receipt by 3.9 percentage points. The one-year IA receipt requirement had no net effect on full-time employment in the first year.
- **SSP increased full-time employment and reduced IA receipt for five years.** From the second year onwards, SSP significantly reduced IA receipt and IA payments through to the sixth year of follow-up, while simultaneously increasing full-time employment in each of those years. The impacts were largest in Year 3, when SSP reduced IA receipt by 10.3 percentage points and increased full-time employment by 11.7 percentage points.
- **The supplement reduced IA payments for a broad range of program group members.** For the most part, SSP's impacts on IA payments in Year 3 and Year 6 were evenly distributed among members of subgroups defined by participants' characteristics at random assignment.
- **Program group members earned more because of SSP through the sixth year of the follow-up period.** SSP's impacts on full-time employment translated into substantial gains in earnings for program group members. In Year 3 average earnings for program group members had increased by \$2,405 per year.
- **Impacts on earnings differed for participants who were working at random assignment.** In Year 3 SSP increased earnings among only those participants who were not working full time at random assignment. After the supplement was no longer available, in Year 6, program group members who were working full time at random assignment earned substantially less on average than their counterparts in the control group.

- **SSP encouraged stable full-time employment of relatively long durations.** SSP significantly increased the proportion of participants who had employment spells that lasted at least three years. Of the program group members who would not have worked in the absence of SSP, most worked in a single full-time employment spell, rather than two or more spells of employment interrupted by unpaid work.
- **Program group members who worked full time because of SSP experienced wage growth of 20 per cent.** SSP increased the proportion of program group members who worked full time at the end of the second and sixth year after random assignment and experienced 20 per cent wage growth.
- **Over the entire follow-up, SSP significantly and substantially increased earnings while reducing IA payments.** The large and sustained impacts on full-time employment and IA receipt led to considerable impacts on earnings and reductions in IA payments. In the first 71 months after random assignment, program group members each earned \$7,859 more on average than control group members. Their average IA payments were also \$3,362 lower during the same period.

IMPACTS ON INCOME ASSISTANCE

In order to receive the earnings supplement, program group members needed to leave income assistance. In the Applicant study, program members also needed to establish eligibility for the supplement by first remaining on income assistance for 12 of the 13 months following their first month of IA receipt. This section considers whether SSP affected participants' use of income assistance over the course of seven years following random assignment.

IA Receipt

At the outset of the SSP experiment, members of both the control and program groups had all received income assistance for at least one month, as Figure 3.1 demonstrates.¹ This figure shows the proportion of program group and control group members who had received income assistance in each of the 84 months after random assignment. The behaviour of control group members, because they were not offered any incentives, represents what might be expected of typical IA applicants. The impact — or the difference between the program and control groups — is illustrated by the dashed line.

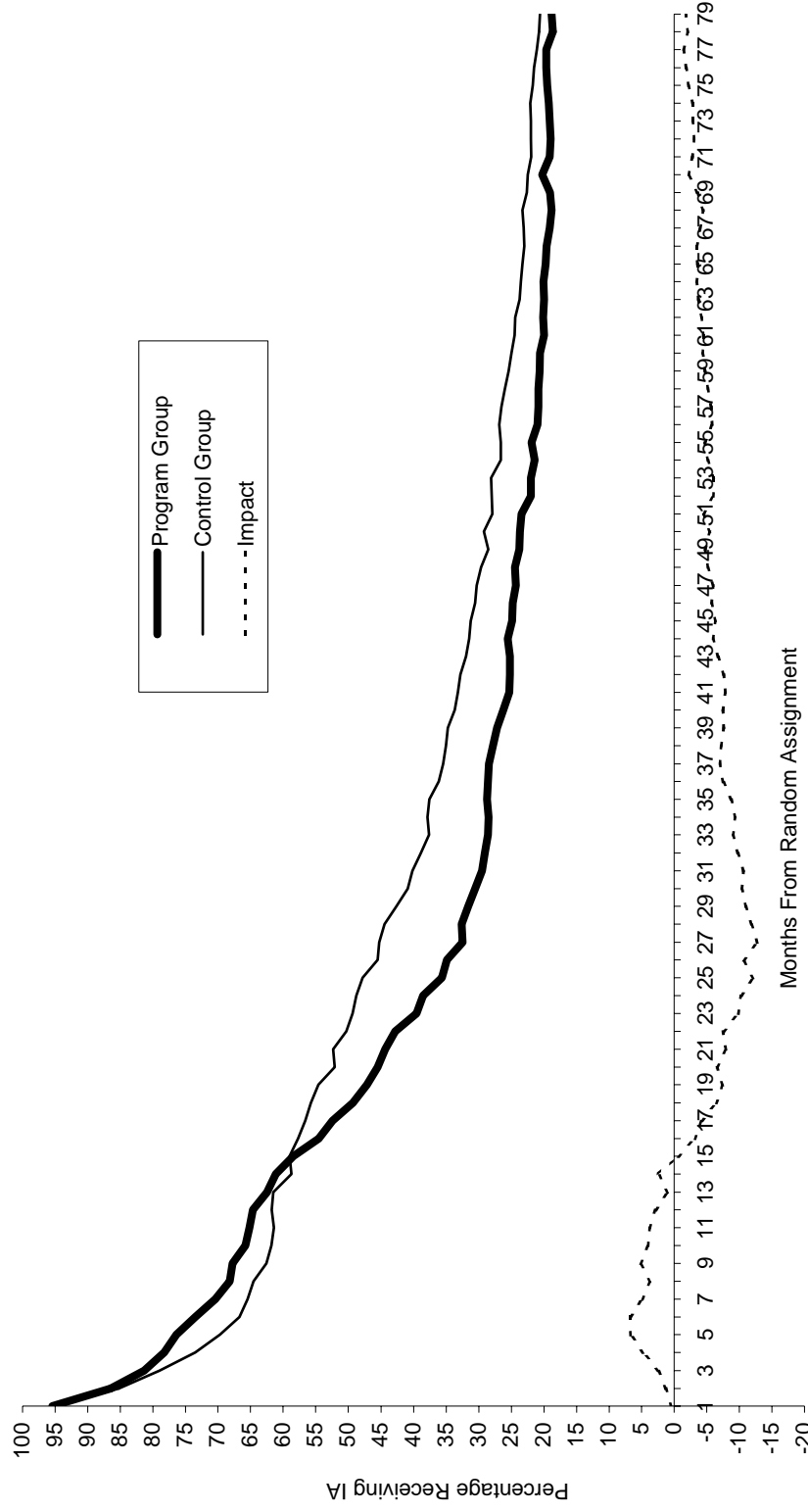
Figure 3.1 confirms that many applicants required only temporary assistance. Among control group members, IA receipt fell at a fairly constant rate throughout the follow-up period. Seven years after they had first applied for welfare, only 19 per cent of the control group received income assistance.

Although the offer of a generous supplement, conditional on one year of IA receipt, did encourage some program members to delay their exit from income assistance, Figure 3.1 suggests that the size of the “delayed-exit” effect was modest. SSP significantly increased IA receipt in months 4 through 11. In these months the impact ranged from four to seven percentage points.²

¹IA receipt is not exactly 100 per cent at random assignment because the first month of IA receipt was prior to random assignment for a small number of sample members.

²See Berlin et al. (1998) for an analysis of the entry and delayed exit effects.

Figure 3.1: Percentage Receiving Income Assistance, by Months From Random Assignment, in the SSP Applicant Study



Source: Calculations from IA administrative records.

At the start of the second year eligible program group members could initiate the supplement by taking up full-time work and leaving income assistance. At this time 26 per cent of the program group members were working full time. Figure 3.1 provides evidence that the incentive provided by the supplement successfully accelerated program group members' exit from welfare. At the end of the first year roughly the same proportions received income assistance in both groups — about 62 per cent. Over the course of the second year of follow-up, IA receipt fell more rapidly among program group members than among control group members, leading to large and statistically significant impacts.

For nearly five years, from months 17 through 74, SSP significantly reduced IA receipt. The impact was largest in the months of the three-year period that supplement takers were eligible to receive the supplement. At its peak, in Month 27, the impact was nearly 13 percentage points.

Importantly, program group members were still less likely to receive income assistance, even after the three-year supplement receipt period had elapsed. However, because IA receipt remained relatively constant among program group members during the last year of the follow-up, eventually the difference compared with control group members became statistically insignificant.

The proportions of program and control group members who received income assistance in each of the seven years after random assignment, shown in Table 3.1, confirm the findings from Figure 3.1. The first panel indicates that SSP had a significant impact on IA receipt in the first six years of the follow-up. That SSP increased IA receipt in the first year provides further evidence of a delayed exit effect. The impact was relatively small, just under four percentage points.³

In years 2 through 6, SSP significantly reduced IA receipt. The largest reduction, of 10.3 percentage points, occurred in Year 3. In Year 5 supplement takers had begun to lose eligibility for the supplement, and by Year 6 no participants were eligible for the supplement. Although the supplement offer no longer created an incentive to remain off income assistance in years 5 and 6, SSP continued significantly to reduce IA receipt. By the seventh year, the impact had declined such that it was no longer statistically significant.

IA Payments

The previous sections show that SSP reduced IA receipt in years 2 through 6. It is not surprising, therefore, that the second panel of Table 3.1 shows that IA payments were also reduced in these years. In the third year of the follow-up, program group members received an average of \$1,117 less in IA payments than control group members. This was the largest annual reduction. In the last year of the study, the reduction had fallen to \$209 and was no longer statistically significant.

Although SSP significantly increased IA receipt in the first year of the program, SSP did not significantly increase average IA payments. Although SSP did encourage a small group of program group members to remain on income assistance in order to become eligible for the supplement, some might have been combining IA receipt with earnings, thereby lowering their monthly IA payments.

³Berlin et al. (1998) report a “delayed exit” effect of 3.1 percentage points, representing the impact on the proportion who stayed on income assistance for 12 out of the initial 13 months (and thus who “qualified” for the supplement offer). This is different from the impact on *monthly average* IA receipt of 3.9 percentage points reported here.

Table 3.1: SSP Impacts on Income Assistance

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Monthly rate of IA receipt (%)				
Year 1	74.5	70.6	3.9***	(1.4)
Year 2	49.7	54.7	-5.0***	(1.8)
Year 3	30.9	41.2	-10.3***	(1.8)
Year 4	25.8	32.5	-6.7***	(1.7)
Year 5	21.9	27.1	-5.2***	(1.6)
Year 6	19.6	23.2	-3.6**	(1.6)
Year 7	18.9	20.7	-1.8	(1.5)
Average IA payments (\$/year)				
Year 1	8,580	8,312	268	(204)
Year 2	5,720	6,390	-670***	(231)
Year 3	3,120	4,237	-1,117***	(194)
Year 4	2,475	3,259	-784***	(178)
Year 5	2,081	2,712	-631***	(168)
Year 6	1,825	2,280	-455***	(159)
Year 7	1,825	2,035	-209	(158)
Sample size (total = 2,371)	1,186	1,185		

Source: Calculations from IA administrative records.

Notes: The estimates for each year, with the exception of payment estimates, are calculated by averaging the four quarterly estimates. Sample sizes vary for individual measures because of missing values.

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

IMPACTS ON IA PAYMENTS BY SUBGROUP

While there is no doubt that the supplement offer encouraged many welfare applicants to leave income assistance, it is possible that SSP helped some applicants more than others. If SSP were more effective for single parents with particular characteristics, for example those with better educational attainment or with fewer employment barriers, this would improve the understanding of how incentives work. Furthermore, such results might suggest ways in which policy-makers could design programs that target different subgroups of IA applicants.

This section examines whether SSP's impacts on IA payments differed across several subgroups defined by participants' characteristics at random assignment, including educational attainment, employment status, family structure and background, and barriers to employment. Because participants' characteristics at random assignment determined subgroup membership, any difference, within each subgroup, between program and control group members' post-random assignment outcomes can be attributed to SSP.

SSP's impact on IA payments in years 3 and 6 are reported in Table 3.2 for a number of different subgroups. Year 3 was selected because the largest overall impact on IA payments occurred in this year. The longer-term effect of SSP within different subgroups is demonstrated by the impacts in Year 6.

Table 3.2: SSP Impacts on IA Payments, by Subgroups

Subgroup	Sample Size	Average IA Payments (\$)					
		Year 3		Year 6			
	Control Group	Difference (Impact)	Standard Error	Control Group	Difference (Impact)	Standard Error	
Educational attainment							
Graduated from high school							
Yes	1,445	3,698.48	-1,067.18***	(234.01)	1,707.48	-192.53	n.s.
No	805	4,942.14	-985.39***	(355.33)	3,106.82	-714.57**	(178.32)
Employment status							
Employed full time	235	2,003.56	-269.10	(466.26)	390.81	527.28 **	(263.83)
Employed part time	423	2,314.74	-689.73**	(345.76)	966.44	-228.14	(246.60)
Not employed, looking for work	626	3,981.47	-926.87**	(362.27)	2,221.81	-367.53	(298.87)
Neither employed nor looking for work	1,033	5,686.35	-1,535.37***	(319.26)	3,322.10	-863.14***	(276.39)
Family structure and background							
Number of children at random assignment							
One	1,164	3,992.91	-985.58***	(262.02)	2,286.21	-570.54***	n.s.
Two	732	4,406.63	-1,312.50***	(349.69)	2,171.64	-393.79	(219.75)
Three or more	365	5,536.61	-1,617.53***	(574.65)	2,968.72	-512.46	(281.25)
Immigrant status							
Born in Canada	1,676	3,848.05	-1,091.73***	(219.31)	1,988.52	-364.66**	(176.04)
Not born in Canada	692	5,198.49	-1,188.54***	(391.67)	2,998.49	-678.56**	(476.15)
Barriers to employment							
Reported emotional or physical condition that limited activity ^a							
Yes	544	4,706.76	814.62*	(430.45)	2,779.37	-386.29	n.s.
No	1,808	4,099.84	-1,211.32***	(217.34)	2,139.10	-487.20***	(363.42)

Sources: Calculations from baseline survey data and 12-month, 30-month, 48-month, and 72-month follow-up survey data.

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.

^a“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. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent. A Q-statistic was used to test differences among subgroups in estimated impacts. The abbreviation “n.s.” indicates that the variation in impacts among the subgroups is not statistically significant.

Rounding may cause slight discrepancies in sums and differences.

^bThe “yes” subgroup includes sample members who indicated having a long-term emotional or 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.

While impacts between subgroups may appear different, it is possible that such variation occurred by chance and does not represent an actual difference that would occur in the Applicant population. A statistical test is used to determine whether the variation in impacts should be considered evidence of an actual difference. The results of these tests are reported in the table column beside the standard errors.⁴

Table 3.2 shows that SSP benefited a wide range of welfare applicants. It would appear that the supplement was equally effective at reducing IA payments for group members regardless of their characteristics at random assignment. The impacts were not significantly different for virtually all of the subgroups shown in the table. However, in Year 6 SSP was more effective among those with low labour market participation at random assignment.

IMPACTS ON EMPLOYMENT

While reducing IA receipt was an important goal of the SSP experiment, the program also aimed to encourage self-sufficiency through full-time employment. A reduction in income assistance does not necessarily translate into impacts on full-time employment. Welfare recipients may leave welfare for a number of other reasons, including marriage or receipt of other government transfers. This section describes the effect that SSP had on participants' employment behaviour.

Full-Time Employment

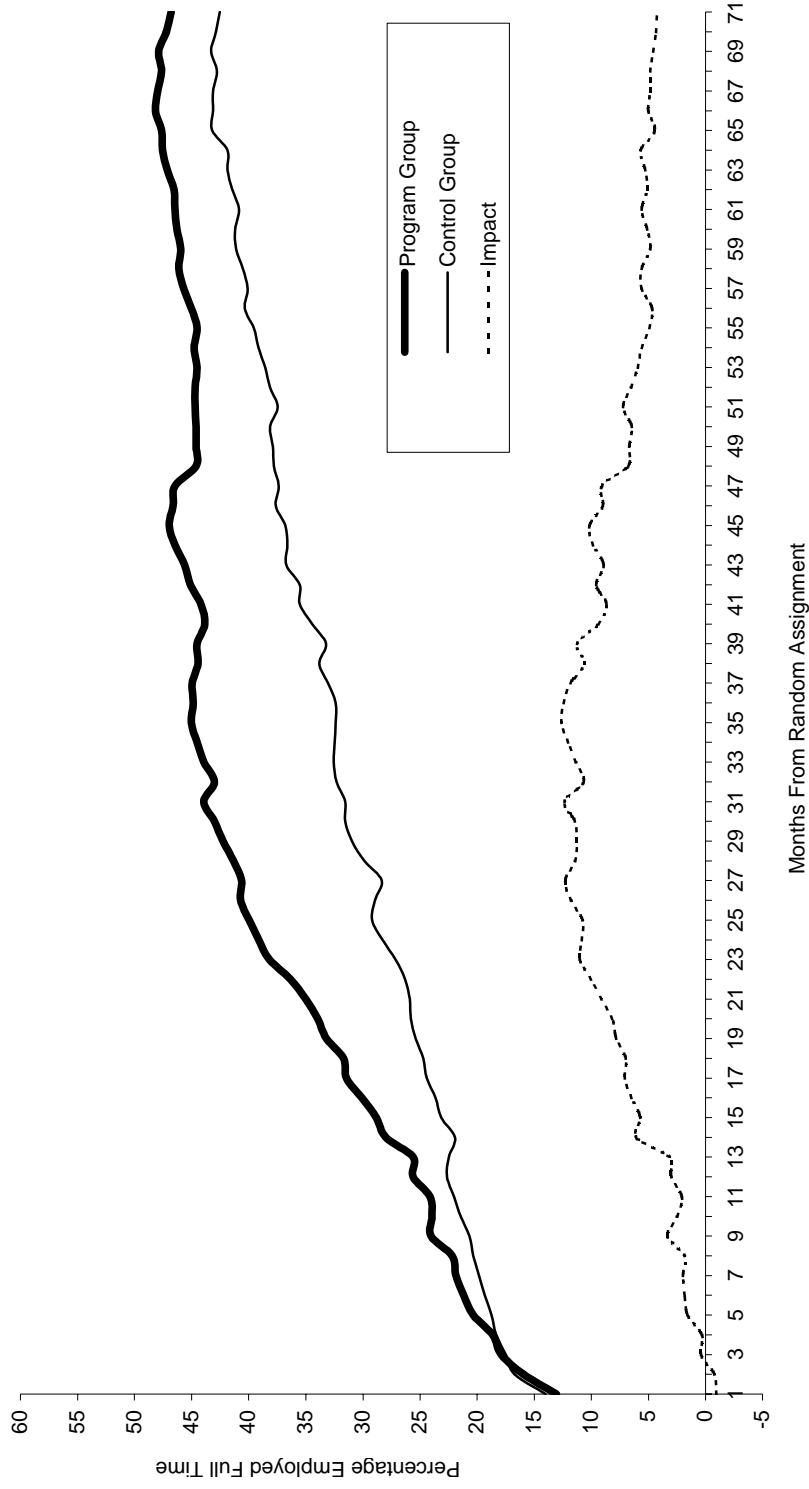
Just under 14 per cent of both the program and control group members were working full time when they began participating in the SSP experiment. Figure 3.2 indicates that full-time employment increased steadily as time passed since the initial welfare application. Over the course of the first year, when it was necessary for program group members to remain on income assistance in order to qualify for the SSP supplement, full-time employment within the program and control groups was similar.

After the first year full-time employment among program group members rose quickly until around Month 45 when just under half of the program group worked full time. Full-time employment within the program group remained fairly constant throughout the remainder of the follow-up period.

The combination of the initial rapid increase followed by a sustained steady rate of full-time employment in the program group meant that SSP increased full-time employment for over four and a half years. As the year-long supplement qualification period came to an end, SSP began to increase full-time employment significantly. The impact grew over the course of the second year of the program. By Month 27 the impact had reached more than 12 percentage points. For the next year SSP continued to increase full-time employment by a large amount — over 10 percentage points.

⁴The abbreviation “n.s.” (not significant) indicates that the variation in impacts is not statistically significant, meaning there is a high probability that they occurred by chance. The ability to detect a difference, or the “power” of the statistical test is affected by the sample size. With subgroups that have relatively few members, differences must be large before they can be detected by the statistical tests.

Figure 3.2: Percentage Employed Full Time, by Months From Random Assignment, in the SSP Applicant Study



Sources: Baseline survey and 12-month, 30-month, 48-month, and 72-month follow-up survey data.

Over time the impacts began to fall because full-time employment in the program group remained fairly constant in the later years of the study and control group members steadily increased their full-time employment. By Month 71 the impact was only four percentage points and still statistically significant. While the impact was falling for most of the months of the last year of follow-up, SSP still significantly increased full-time employment.

Another way of illustrating the effect of SSP on full-time employment is shown in the first panel of Table 3.3, which reports the average monthly full-time employment rates in each of the first six years of the follow-up. It is possible that SSP could have discouraged full-time employment among program group members because members of the program group had to remain on income assistance for at least a year in order to qualify for the supplement. Table 3.3 suggests that this undesired effect did not occur. Program group members were just as likely to work full time as control group members in the first year of the follow-up.

Table 3.3: SSP Impacts on Employment

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Monthly full-time employment rate^a (%)				
Year 1	20.7	19.3	1.4	(1.4)
Year 2	32.6	24.9	7.7***	(1.6)
Year 3	42.8	31.1	11.7***	(1.8)
Year 4	45.3	35.7	9.6***	(1.8)
Year 5	45.1	39.4	5.8***	(1.9)
Year 6	47.4	42.5	4.9***	(1.9)
Monthly part-time employment rate (%)				
Year 1	13.7	13.7	-0.1	(1.2)
Year 2	14.4	13.9	0.5	(1.2)
Year 3	12.4	13.9	-1.5	(1.2)
Year 4	11.5	14.7	-3.2***	(1.2)
Year 5	12.3	14.6	-2.3*	(1.3)
Year 6	13.6	15.8	-2.2*	(1.3)
Monthly employment rate (%)				
Year 1	34.4	33.0	1.4	(1.6)
Year 2	47.1	38.9	8.2***	(1.8)
Year 3	55.1	44.9	10.2***	(1.8)
Year 4	56.8	50.4	6.4***	(1.8)
Year 5	57.4	54.0	3.5*	(1.9)
Year 6	60.9	58.3	2.6	(1.8)
Sample size (total = 2,371)	1,186	1,185		

Sources: Calculations from 12-month, 30-month, 48-month, and 72-month follow-up survey data.

Notes: The estimates for each year are calculated by averaging the four quarterly estimates.

Sample sizes vary for individual measures because of missing values.

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

^a“Full-time employment” is defined as working 30 or more hours in at least one week during the month.

In the following five years SSP had the desired effect on full-time employment — program group members were far more likely to be working full time than their control group counterparts. Year 2 was the first year that program group members could receive the supplement if they left income assistance and took up full-time work. In this year SSP increased full-time employment by 7.7 percentage points. The impact rose in the third year to 11.7 percentage points. In years 4 through 6, the impact on full-time employment fell but remained statistically significant.

Total Employment and Part-Time Employment

The large impacts on full-time employment could have resulted from two different types of employment behaviour. First, SSP might have encouraged program group members who would not have worked at all to take-up full-time employment. Second, because the supplement rewarded only full-time employment, SSP might have induced participants who would have worked part time in the absence of the program to work full time. The first kind of change in behaviour would be demonstrated by a negative impact on no employment and a positive impact on full-time employment. A negative impact on part-time employment, coupled with a positive impact on full-time employment, would constitute evidence of the second type of change in employment behaviour.

The second panel of Table 3.3 suggests that SSP encouraged only a small proportion of single parents who would have been working part time to increase their work effort. In the third through sixth year of follow-up, SSP reduced part-time work in the range of one to three percentage points. The reduction was statistically significant in years 4, 5, and 6. The small impacts on part-time employment imply that the increase in full-time employment resulted primarily from people who worked full time because of the supplement and would not have worked at all in its absence.

Because the impacts on full-time employment were quite large and the reductions in part-time employment were fairly small, SSP significantly increased *total* employment in years 2 through 5.

IMPACTS ON EARNINGS, HOURS, AND WAGES

The following section describes the effect of SSP on earnings, hours, and wages. Because SSP increased employment and full-time employment in particular, it is likely that SSP also increased earnings among program group members. Earnings might have increased because individuals worked more hours or because they earned higher wages. The analysis also considers whether an impact on hours or higher wages might have contributed to the impact on earnings.

Earnings

The average earnings in years 1 through 6 are reported in Table 3.4. In the first year of the program average earnings in both groups were similar and relatively low, about \$4,800. The rapid increase in full-time employment among program group members is reflected in their average earnings in years 2 and 3. In the third year of the study program group members' average earnings were \$10,571, more than double the earnings in the first year. In comparison, control group members earned only \$8,166, on average. This means that SSP improved program group members' average earnings by over \$2,400.

Table 3.4: SSP Impacts on Earnings

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Average earnings (\$)				
Year 1	4,805	4,884	-79	(375)
Year 2	7,894	6,489	1,405***	(448)
Year 3	10,571	8,166	2,405***	(498)
Year 4	11,602	9,776	1,825***	(550)
Year 5	12,591	11,241	1,350**	(610)
Year 6	14,033	12,727	1,305**	(647)
Sample size (total = 2,371)	1,186	1,185		

Sources: Calculations from 12-month, 30-month, 48-month, and 72-month follow-up survey data.

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

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

In years 4 to 6 the impact fell somewhat from its peak in Year 3. However, SSP continued to have a significant and large impact on earnings until Year 6. In the last year of the program, when program group members' three-year period of supplement receipt had elapsed and there was no longer an incentive to work full time, program group members' average earnings were still \$1,305 higher than those of the control group and still statistically significant.

Hours and Wages

The first panel of Table 3.5 shows the distributions of weekly hours worked in months 26, 44, and 71. In Month 26, SSP increased the proportion of program group members who were working by 12.7 percentage points. The increase in employment was fairly evenly distributed among the full-time work hours. SSP did not increase employment with fewer than 30 weekly hours. This is not surprising since only full-time work was eligible for the supplement.

SSP's impact on wages is shown in the second panel of Table 3.5. The majority of program and control group members who worked in Month 26 earned wages \$3.00 or more above the minimum wage. SSP increased employment significantly in this group. However, the people who went to work because of SSP worked primarily in low wage employment. SSP had the largest significant impact on employment with wages less than \$0.99 above the minimum wage.

SSP generated less additional employment in Month 44 than in Month 26. The proportion who did not work was reduced by only 5.6 percentage points. SSP also encouraged more full-time work in Month 44 by reducing the proportion who worked fewer than 30 hours. The extra full-time work was concentrated in employment offering 35 to 40 hours per week.

In Month 44 a third of the program group was earning at least \$3 more than the minimum wage, slightly higher than the control group where only 30 per cent had this level of earnings. SSP was also responsible for increases in employment offering wages within \$1 of minimum wage. SSP significantly increased employment with these wages by two percentage points.

Table 3.5: SSP Impacts on the Distributions of Wages and Hours, Months 26, 44, and 71

Outcome	Month 26		Month 44		Month 71	
	Control Group	Difference (Impact)	Control Group	Difference (Impact)	Control Group	Difference (Impact)
Hours worked per week						
Not working	55.2	-12.7***	46.5	-5.6***	40.7	-1.0
Hours per week unreported ^a	1.4	-0.7*	1.3	-0.6	0.9	-0.4
Fewer than 30	13.4	0.9	14.6	-4.1***	15.9	-2.9**
30	3.4	2.4***	3.3	1.9**	4.1	0.0
31–34	1.1	1.9***	2.1	0.3	1.6	1.5**
35	4.1	3.3***	4.5	3.0***	4.2	1.3
36–39	4.3	1.5	4.9	2.9***	6.0	0.8
40	12.0	2.2	14.6	3.4**	17.5	0.1
More than 40	5.1	1.2	8.3	-1.1	9.2	0.6
Hourly wage rate						
Not working	55.2	-12.7***	46.5	-5.6***	40.7	-1.0
Wage unreported ^a	5.0	-1.2	6.9	-1.0	6.9	-1.5
Less than minimum wage ^b	3.2	1.6*	3.5	-0.6	4.0	0.0
Minimum to \$0.99 above minimum	5.0	6.0***	5.8	1.9*	5.7	-0.3
\$1.00 to \$1.99 above minimum	4.6	1.1	4.3	1.0	3.6	1.2
\$2.00 to \$2.99 above minimum	3.1	1.4*	3.5	1.0	6.0	-2.3***
\$3.00 or more above minimum	23.8	3.8**	29.6	3.3*	33.1	3.9**
Sample size	1,185	2,371	1,185	2,371	1,185	2,371

Sources: Calculations from 12-month, 30-month, 48-month, and 72-month survey data.

Notes: Sample sizes vary for individual measures because of missing values. This may cause slight discrepancies in sums and differences. All analyses were only for those who responded to the 72-month survey.

Two-tailed t-tests were applied to differences in outcomes between the program and control groups. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

^aSample 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.

^bIn 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. The minimum wage increased to \$6.50 in March 1995 and to \$7.00 in October 1995. In April 1998 it was increased again, to \$7.15.

By Month 71, SSP had very little impact on employment. The distribution of weekly hours within the program group was quite similar to that in the control group. There was a small reduction in the proportion working less than 30 hours per week that is offset by a small increase in the proportion working 31 to 34 hours per week.

Although no more people were working because of SSP in Month 71, Table 3.5 provides some limited evidence that SSP might have affected the distribution of wages in this month. SSP reduced employment that paid between \$2 and \$2.99 above minimum wage by 2.3 percentage points. It also increased employment that paid \$3 or more above minimum wage by 3.9 percentage points. Both impacts were statistically significant.

IMPACTS ON EARNINGS BY SUBGROUP

Because the impacts on earnings were quite substantial, it is instructive to consider whether all program group members' earnings were equally affected by the program. This section examines whether SSP's impacts on earnings differed across the same subgroups discussed earlier in this chapter.

The results presented in Table 3.6 show that, for most of the subgroups, SSP's impacts on earnings did not significantly differ across groups. Daggers indicate that the variation in the impacts is statistically significant which, in turn, implies a real difference in the impacts. However, some important differences in the impacts appear in the second panel of Table 3.6, which presents the impacts for participants grouped by their employment status at random assignment. In both years 3 and 6 the earnings gains were concentrated among welfare applicants who were not employed at random assignment.

In Year 3, SSP increased earnings by over \$3,000 for those who, at random assignment, were not employed but looking for work and neither employed nor looking for work. In contrast, the difference in average earnings between program and control group members who were working part time or working full time was not statistically significant. It is possible that SSP was less effective among program group members who were working at random assignment because members of this group did not require an incentive to change their employment behaviour. Because they were already working at random assignment, they might have been willing to remain in low-paying work in order to qualify for the supplement.

The pattern of impacts in Year 6 suggests that SSP may not have been advantageous for those who were employed full time at random assignment. Table 3.6 shows the members of the program group who were working full time at random assignment earned nearly \$6,500 less than their counterparts in the control group.

Because participants in this study were all welfare applicants, relatively few sample members were working full time at random assignment. It is not typical to qualify for welfare while working full time; and to combine work and welfare, earnings must be relatively low. It appears that the availability of an earnings supplement reduced the chances that people in this untypical category had to improve their earnings over time, relative to earnings gains among those not offered the supplement.

The large negative impact among participants who were working full time at random assignment is countered by a positive and significant impact on earnings in Year 6 for those who were neither employed nor looking for work at random assignment.

Table 3.6: SSP Impacts on Earnings, by Subgroups

Subgroup	Average Earnings (\$)						
	Year 3			Year 6			
	Sample Size	Control Group	Difference (Impact)	Standard Error	Control Group	Difference (Impact)	Standard Error
Educational attainment							
Graduated from high school							
Yes	1,383	9,364.63	2,940.81***	(672.46) †	14,504.67	1,078.81	(867.15) n.s.
No	782	6,916.15	981.69	(766.11)	10,526.11	1,156.53	(1,023.69)
Employment status							
Employed full time	222	16,050.48	-1,536.73	(1,733.61) ††	23,981.30	-6,487.68***	(2,245.10)
Employed part time	394	13,192.58	977.86	(1,246.22)	17,672.66	424.97	(1,618.67)
Not employed, looking for work	605	8,557.22	3,371.59***	(1,030.51)	12,823.82	2,145.92*	(1,291.70)
Neither employed nor looking for work	1,013	3,994.26	3,154.86***	(587.28)	8,193.23	2,585.57***	(827.69)
Family structure and background							
Number of children at random assignment							
One	1,114	8,322.40	2,039.99***	(710.75) n.s.	12,918.95	1,223.26	(942.35)
Two	714	8,041.67	2,612.67***	(880.72)	12,037.33	1,503.63	(1,115.36)
Three or more	352	6,420.61	2,809.25**	(1,190.16)	10,935.44	1,347.57	(1,517.40)
Immigrant status							
Born in Canada	1,611	8,889.67	2,471.12***	(604.37) n.s.	13,303.96	1,546.89**	(775.20)
Not born in Canada	668	6,390.89	2,163.00**	(854.75)	11,375.48	573.57	(1,159.66)
Barriers to employment							
Reported emotional or physical condition that limited activity ^a							
Yes	527	6,884.12	1,262.12	(973.92) n.s.	10,822.59	-151.31	(1,249.28)
No	1,736	8,551.20	2,692.07***	(577.90)	13,270.54	1,722.81**	(753.88)

Sources: Calculations from baseline survey data and 12-month, 30-month, 48-month, and 72-month follow-up survey data.

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.

“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. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent. A Q-statistic was used to test differences among subgroups in estimated impacts. Statistical significance levels are indicated as † = 10 per cent; †† = 5 per cent; ††† = 1 per cent. The abbreviation “n.s.” indicates that the variation in impacts among the subgroups is not statistically significant. Rounding may cause slight discrepancies in sums and differences.

The “yes” subgroup includes sample members who indicated having a long-term physical or emotional 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.

IMPACTS ON EMPLOYMENT STABILITY AND DURATION AND WAGE GROWTH

The designers of SSP hoped that when welfare applicants went to work because of SSP they would find work that could be sustained for long durations. When work is sustained over longer durations, workers have greater potential to experience wage growth. Both employment duration and wage growth may be important contributors to longer-term self-sufficiency.

Employment Stability and Duration

Employment stability, which implies continuous work uninterrupted by unpaid breaks, can be viewed as a desirable outcome for single parents for a number of reasons. Instability may be disruptive for children and families, could lead to financial hardship, and may mean less employment over all. Moreover, during periods out of work, experience and skills can become out of date.

The full-time employment that SSP encouraged was predominantly stable, as Table 3.7 demonstrates. SSP increased the proportion of people who had worked in one full-time employment spell by 6.3 percentage points, whereas there was no impact on full-time employment in more than one spell. In this table an employment spell is defined as a continuous spell of consecutive months of full-time employment uninterrupted by two or more consecutive months without full-time employment.

Table 3.7: SSP Impacts on Employment Stability and Duration in the 71 Months After Random Assignment

Employment Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Stability of full-time employment (%)				
Did not work full time in months 1 to 71	21.2	29.5	-8.2***	(1.8)
One full-time employment spell in months 1 to 71	40.6	34.3	6.3***	(2.0)
Two or more full-time employment spells in months 1 to 71	38.2	36.3	1.9	(2.0)
Duration of longest full-time employment spell in months 1 to 71				
Average months of longest full-time employment spell	30.1	27.2	2.9***	(1.0)
Did not work full time in months 1 to 71 (%)	21.2	29.5	-8.2***	(1.8)
Less than 1 year (%)	17.3	18.6	-1.3	(1.6)
Between 1 and 2 years (%)	17.9	17.7	0.2	(1.6)
Between 2 and 3 years (%)	14.7	14.1	0.6	(1.4)
Between 3 and 4 years (%)	10.6	7.6	3.0**	(1.2)
4 years or longer (%)	18.3	12.6	5.7***	(1.5)
Sample size (total = 2,371)	1,186	1,185		

Sources: Calculations from baseline survey data and 12-month, 30-month, 48 month, and 72-month follow-up survey data.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Rounding may cause slight discrepancies in sums and differences.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

A full-time employment spell is a continuous spell of consecutive months of full-time employment uninterrupted by two or more consecutive months without full-time employment.

Employment stability is only one part of the story. A person might have stable employment, but that employment might not continue for very long. For this reason, two measures of employment duration — the average length of the longest full-time employment spell and the distribution of the durations of longest spells — are also reported in Table 3.7.

The average length of the longest full-time employment spell experienced by each member of the control group in the follow-up period was about 27 months. For the program group members, the average length was almost three months longer.⁵ Although this suggests that SSP did not have a large effect on full-time employment duration, it appears that virtually all of the program group members who would not have worked full time in the absence of SSP, worked continuously for more than three years. The largest proportion of program group members experienced employment spell durations of at least four years, which is over half of the length of the follow-up period. In contrast, SSP did not significantly encourage any full-time employment with longest-spell durations of less than three years.

Wage Growth

Sustaining full-time employment over long durations is considered important because of the possibility of a link between employment duration and wage growth. When workers remain employed they can develop their skills and productivity, which can lead to promotion and advancement. SSP's effects on wage growth are presented in Table 3.8, which considers the wage growth for those who worked full time at the end of Year 2 and Year 6.

Table 3.8: SSP Impacts on the Distribution of Wage Growth Between End of Year 2 and End of Year 6, for Sample Members Working at Both Points in Time

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Wage growth for full-time workers (% in each wage growth category)				
Did not work full time at both points in time	75.4	81.7	-6.3***	(1.7)
Worked full time but wage unreported ^a	3.0	2.9	0.1	(0.7)
Wage decreased	3.7	2.7	1.0	(0.7)
Wage increased less than 5 per cent	1.4	1.1	0.3	(0.5)
Wage increased 5 to 10 per cent	1.7	1.7	0.0	(0.5)
Wage increased 10 to 20 per cent	3.0	1.8	1.2*	(0.6)
Wage increased more than 20 per cent	11.9	8.2	3.7***	(1.2)
Sample size (total = 2,371)	1,186	1,185		

Sources: Calculations from 30-month and 72-month follow-up survey data.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

^aSample 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.

⁵The impact on the average duration of the longest spell may not indicate an actual increase in spell duration and might instead reflect the effect of censoring and the acceleration of full-time employment in the program group. The data are “censored” at the end of the follow-up because participants’ behaviour cannot be observed after the last interview. Program group members’ employment spells might appear longer because they found their jobs earlier in the follow-up. If observations had continued indefinitely, it is possible that control group members’ full-time employment spells might have persisted as long as those in the program group.

The first row of Table 3.8 shows that relatively few people in both the program and control groups worked full time both at the end of Year 2 and at the end of Year 6. While just one fifth of the control group members were working full time at both points in time, SSP increased this proportion among program group members by 6.3 percentage points. The remaining rows show the wage growth for those employed at both points in time.

Most of the people who worked full time at the end of the second and sixth year experienced high levels of wage growth of more than 20 per cent. Over the same period the minimum wage grew by less than nine per cent, implying that much of the wage growth resulted from advancement or progression.⁶ Most of the 6.3 percentage points of extra employment generated by SSP also provided wage growth of at least 20 per cent.

Because wage growth can be fully explored among only the participants who worked for a relatively long period, these results are generated by only about one quarter of the participants — the sample members who worked full time at the end of Year 2 and Year 6. As a result, it might not be reasonable to expect that the broader population of welfare applicants would also experience 20 per cent wage growth.

CUMULATIVE IMPACTS

Over the course of the follow-up period, SSP had considerable impacts on IA use, employment, and earnings. However, the size and direction of those impacts varied over time. In the first year of the study, when program group members could qualify for the supplement by remaining on income assistance, SSP increased IA receipt and had no effect on full-time employment. Following the first year the impacts grew — IA use declined and full-time employment rose. Later, the impacts diminished. Considering cumulative impacts is one way to gauge the net or total effect of the program over the follow-up period.

Table 3.9 presents measures of cumulative IA use, full-time employment, and earnings. The first panel shows that in the 71 months after random assignment, SSP increased program group members' average number of months of full-time work by four months. The impact on the total number of months of IA receipt is a reduction of three months.

Although the impact on cumulative full-time employment and IA receipt when received over this long period appears relatively modest in size, it should be remembered that the bulk of this impact occurred in just years 2 through 4. In addition, SSP did change the behaviour of a considerable number of people. About 80 per cent of the program group worked in at least one of the 71 months after random assignment. Among those in the control group, the proportion was eight percentage points lower.

Because the impacts on IA receipt and full-time employment were large and persisted for several years, the cumulative impacts on earnings and IA payments were substantial. Over the six years of the follow-up period, program group members earned \$7,859 more than control group members. SSP also reduced average IA payments by \$3,362.

⁶The minimum wage was \$7.00 per hour in Year 2 after random assignment. In April 1998 it was increased to \$7.15. In November 2000 the minimum wage was increased again to \$7.60. The end of Year 6 occurred between February 2000 and February 2001. As a result, a person employed at the end of Year 2 and at the end of Year 6 at the minimum wage would have had an increase of 2.1 per cent or 8.6 per cent, depending on when they were randomly assigned.

Table 3.9: Cumulative SSP Impacts on Full-Time Employment, IA Receipt, Earnings, and IA Payments

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Months 1 to 71				
Total number of months employed full time	37	33	4***	(1)
Did not work full time (%)	21.3	29.5	-8.2***	(1.8)
Total number of months of IA receipt	26	30	-3***	(1)
Total earnings (\$)	58,029	50,170	7,859***	(2,387)
Total IA payments (\$)	23,651	27,012	-3,362***	(904)
Months 1 to 84				
Total number of months of IA receipt	29	32	-3***	(1)
Total IA payments (\$)	25,625	29,224	-3,599***	(1,022)
Received IA in all months (%)	3.1	4.6	-1.4*	(0.8)
Received IA in 24 or more months (%)	45.9	52.6	-6.7***	(2.1)
Received IA in 60 or more months (%)	15.6	20.2	-4.6***	(1.6)
Sample size (total = 2,371)	1,186	1,185		

Sources: Calculations from 12-month, 30-month, 48-month, and 72-month follow-up survey data, IA administrative records, and SSP's Program Management Information System.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent. Rounding may cause slight discrepancies in sums and differences.

Because SSP was evaluated using a random assignment experiment, the estimates of program effects provide reliable and unbiased estimates of the average impact. The average impact is calculated by simply subtracting the average outcomes among control group members from the average outcomes among program group members. However, most of the members of the program group never received the supplement because they either did not remain on income assistance for one year after random assignment or they did not work full time within one year of becoming eligible for the supplement. Thus, the experimental impacts tend to underestimate the effect of the program among those participants who actually received the supplement. A rough estimate of the effect *per supplement taker* can be obtained by dividing the experimental impact by the proportion of program group members who received the supplement. Since 27.4 per cent of the program group took up the supplement, the per-supplement-taker effects would be about four times as large as the impacts reported in Table 3.9.⁷

The data used to estimate impacts on IA use comes from administrative records. As a consequence, the follow-up period extends to 84 months, or seven years, after random assignment. Cumulative impacts over this longer follow-up period are reported in the second panel of Table 3.9. The impacts on total months of IA receipt and cumulative IA payments over 84 months are fairly close to the impacts over 71 months, implying that the impacts were concentrated in the earlier years of the study. This finding is consistent with the results presented earlier in the chapter.

Measures of the intensity of IA use are shown in the last three rows of Table 3.9. Very small proportions of each group remained on income assistance for the entire seven-year

⁷This approach assumes that only those who actually received the supplement were affected by it. It is possible that some program group members' behaviour was affected by the offer even though they were not supplement takers.

follow-up period. SSP further reduced the proportion receiving income assistance in all 84 months after random assignment. SSP had a much larger impact on the proportions of people who received income assistance for more than 24 months or more than 60 months. While 52.6 per cent of the control group received income assistance for at least 24 of the 84 months, only 45.9 per cent of the program group had similarly intense IA use.

CONCLUSIONS

The results presented in this chapter reveal how an earnings supplement that “makes work pay” can reduce IA receipt and increase full-time employment leading to higher earnings. Although the program requirement of one year of IA receipt in order to qualify for the supplement led to a modest increase in IA receipt, on the whole SSP facilitated program group members’ transition into the labour market. The qualifying period had no net impact on full-time employment among program group members who, once eligible, responded strongly to the supplement’s incentive by taking up full-time employment.

The effects of SSP were not limited to the period that the supplement was available to program group members who had established their eligibility. Impacts on IA receipt and full-time employment persisted for five years. During the last of these years, no program group members received the supplement. The persistence of the effects over this long period may be in part due to the fact that people who worked full time because of SSP worked primarily in employment that lasted over four years and experienced wage growth of over 20 per cent. SSP also had sizeable impacts on earnings — impacts that remained large six years after random assignment.

Chapter 4: Impact of SSP on Economic Well-Being

The previous chapters consider impacts on employment and earnings as well as income assistance (IA) and supplement receipt. Although increasing employment and reducing welfare dependence were primary goals of the Self-Sufficiency Project (SSP), equally important were reducing poverty and improving the overall economic circumstances of participants. This chapter considers the impact of SSP on the full range of income sources of participants, their total family income, and the extent of poverty. Related effects on basic expenditures, assets, and material hardship are discussed as well as housing quality and mobility. Differences in subgroup impacts on income and poverty are also explored.

SUMMARY OF FINDINGS

- **SSP significantly increased income and reduced poverty of Applicant program group members and their families throughout much of the follow-up period.** By encouraging full-time work and higher earnings through the provision of generous earnings supplements, SSP led to significantly higher average incomes for program group members. As a result, SSP substantially reduced the incidence of poverty among families in the program group throughout the follow-up period.
- **The rise in income led to an increase in total expenditures on basic necessities for food, clothing, and housing throughout much of the follow-up.** When considered in aggregate, total expenditures on rent, groceries, dining out, clothing, and child care were higher for program than control group members at all three follow-up interviews. At the 30- and 48-month interviews, there was an impact of approximately \$65 on these monthly expenditures. Even at the 72-month interview, long after supplement payments had ended, there was a prolonged impact of \$52 per month.
- **When income gains and expenditure impacts were largest, material hardship was reduced for some program group members.** At the 30-month interview SSP reduced the proportion of program group members who reported using a food bank by three percentage points relative to the control group. SSP appears to have had little effect on housing mobility, neighbourhood quality, or housing arrangements, including the extent of home ownership, renting, the use of group shelters, or other housing arrangements.
- **SSP led to increased income and reduced poverty among Applicants with a wide range of characteristics in the program group.** Although some subgroups appear to have had consistently higher income gains throughout the follow-up, few of these differences reached the level of statistical significance. For example, program group members with a *high school diploma or equivalent* at the time of random assignment had higher income gains throughout the follow-up than those without a diploma. Also, income and poverty impacts appear concentrated among those who were *born in Canada*.

INCOME AND POVERTY

SSP's generous earnings supplement was designed to encourage work and provide a significant boost to the incomes of low income families, which could lead to important positive effects such as a reduction in poverty for parents and their children. Table 4.1 presents data on income and poverty for the six months preceding each of the key follow-up interviews at 30, 48, and 72 months after random assignment. The first column under each period presents outcomes for the control group, while the second column shows the impact of SSP — the difference between the outcomes for the program and control group.

Earnings, Supplement Receipt, and Income Assistance

The top panel of Table 4.1 presents sources of individual income. As the last chapter illustrates, SSP increased earnings and decreased receipt of income assistance throughout much of the follow-up period. The largest impacts on earnings, supplement receipt, and income assistance were observed in the six months prior to the 30-month interview and, to a lesser extent, the 48-month interview, when many supplement takers were still in receipt of supplement payments. However, SSP also led to a prolonged though smaller impact on earnings in the six months prior to the 72-month interview, even though supplement eligibility had ended. This impact was statistically significant but only at the 10 per cent level. SSP also decreased IA payments by \$27 per month during the six months prior to the 72-month interview.

Other Transfer Payments and Income Sources

The last two rows of the first panel show impacts on other transfer payments and income sources. Although other transfer payments such as Employment Insurance (EI) were not a direct focus of SSP, they may have been influenced indirectly as the program affected employment status and earnings. For example, as SSP increased full-time employment and earnings, a larger number of program group members could likely qualify for EI benefits, possibly increasing entitlements and benefit rates. If they subsequently lost their jobs and began receiving EI, SSP might have increased EI payments. The fourth row of Table 4.1 indicates that this did not occur, as there is no significant difference between the amount of other transfer payments received by the program and control groups.

Other income sources were also not targeted by SSP but could have been affected indirectly. For example, the extra income from increased earnings and supplement payments may have allowed program group members to stop renting rooms to boarders, or to cease pursuing child support or alimony payments. The last row of the first panel of Table 4.1 shows that there were no significant changes in these other sources.

Projected Taxes and Net Transfer Payments

The middle panel of Table 4.1 presents the impacts of SSP on taxes and net transfer payments. Projected taxes include both federal and provincial income taxes as well as EI and Canada Pension Plan (CPP) premiums. Transfer payments include the SSP supplement, IA payments, and other federal and provincial transfers (e.g. EI benefits, GST credit, Child Tax Benefit and associated supplements, and other provincial tax credits). Hence, net transfer payments refer to the difference between the total amount spent by both levels of government on transfers, including the SSP supplement, and revenues received through increased income and payroll taxes.

Table 4.1: SSP Impacts on Monthly Income and Net Transfer Payments in the Six Months Prior to the 30-Month, 48-Month, and 72-Month Follow-Up Interviews

Outcome	30-Month Interview		48-Month Interview		72-Month Interview	
	Control Group	Difference ^a (Impact)	Control Group	Difference ^a (Impact)	Control Group	Difference ^a (Impact)
Sources of individual income (\$/month)						
Earnings	645	205***	889	129**	1,116	106*
SSP supplement payments	0	167***	0	136***	0	0
IA payments	434	-111***	270	-67***	180	-27**
Other transfer payments ^b	266	-7	328	-16	328	-2
Other unearned income ^c	151	-13	166	-18	184	4
Projected taxes and net transfers (\$/month)						
Projected income taxes ^d	126	72***	191	49***	247	36**
Net transfer payments ^e	597	-28	427	3	277	-65**
Total monthly individual and family income						
Individual income (\$)	1,515	229***	1,677	162***	1,832	89
Individual income net of taxes (\$)	1,389	157***	1,486	112***	1,585	52
Family income (\$) ^f	1,753	271***	2,068	243***	2,349	191**
Income below LICO (%) ^g	78.0	-14.4***	66.7	-6.3**	63.1	-1.8
Below 50% of LICO	20.6	-0.6	21.4	-0.4	25.3	0.9
50 to less than 75% of LICO	40.1	-11.7***	29.8	-5.0**	25.7	-5.5**
75 to less than 100% of LICO	17.3	-2.0	15.5	-0.9	12.1	2.8
Income above LICO (%) ^g	22.0	14.4***	33.3	6.3**	36.9	1.8
100 to less than 150 % of LICO	15.7	8.7***	19.6	4.1*	19.5	-0.8
150 to less than 175% of LICO	2.9	3.4***	5.7	-0.4	6.5	-0.8
175 to less than 200% of LICO	1.2	0.8	2.8	1.1	3.2	1.0
200% of LICO or more	2.2	1.5*	5.2	1.4	7.7	2.3
Sample size	1,185	2,371	1,185	2,371	1,185	2,371

Sources: Calculations from the 30-month, 48-month, and 72-month survey data, IA administrative records, and payment records from SSP's Program Management Information System.

Notes: Sample sizes vary for individual measures because of missing values. This may cause slight discrepancies in sums and differences.

All analyses were only for those who responded to the 72-month survey.

Two-tailed t-tests were applied to differences in outcomes between the program and control groups. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

^aSample size in this column is the sum of the program and control group sizes.

^bIncludes the Child Tax Benefit, the Goods and Services Tax Credit, EI, provincial tax credits, and, for the 48- and 72-month sample only, the BC Family Bonus.

^cIncludes alimony, child support, income from roomers and boarders, and other reported income.

^dIncludes projected EI premiums and CPP premiums deducted at payroll and projected income taxes. Payroll deductions and 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.

^eIncludes public expenditures on SSP, IA payments, and other transfers, net of income tax revenue.

^fFamily income is measured as the sum of the sample member's income and the labour earnings of any other members in that person's family.

^gCalculated by comparing annualized family income with the low income cut-off (LICO) defined by Statistics Canada for the sample member's location and family size.

The middle panel of Table 4.1 shows that the SSP supplement paid for itself through reductions in IA payments and increased tax revenues. In the six months prior to both the 30- and 48-month interviews, during which supplement eligibility and payments continued, SSP resulted in statistically significant decreases in IA receipt and increased taxes. This was enough to offset the cost of the supplement payments, as indicated by the fact that net

transfer payments did not differ significantly from zero.¹ At the 72-month interview eligibility for the supplement had ended for all participants and no longer represented a cost for government. Furthermore, the sustained earnings gains for the program group at 72 months resulted in positive impacts on income taxes, which although lower than earlier in the follow-up, were still statistically significant. SSP also led to a prolonged reduction in IA receipt, which along with impacts on income taxes resulted in a decrease in net transfers that was statistically significant at the 72-month interview.

Individual and Family Income

The first three rows of the last panel of Table 4.1 present the impacts of SSP on total individual income, income net of taxes, and total family income. Once again, the largest impacts were observed in the six months prior to the 30-month interview, when supplement receipt was at its highest level. Individual income of the program group was \$229 per month more than the control group while the impact, after-tax, was a statistically significant increase of \$157. The impact on family income was also the largest in the six months prior to the 30-month interview. The program group received \$271 more than the control group.² Impacts were similar in the six-month period prior to the 48-month interview, though somewhat smaller, as a growing number of control group members became employed and some supplement takers lost their jobs. For the six months prior to the 72-month interview, although the program group still reported higher individual and family incomes than the control group, only the impact on family income is statistically significant.

Poverty

Significant increases in income can be expected to reduce poverty for some. The last panel of Table 4.1 presents the proportion of sample members with income below Statistics Canada's low income cut-offs (LICOs)³ in the six months before each interview.⁴ Table 4.1 illustrates that SSP led to significant reductions in poverty throughout much of the follow-up period. In the six months prior to the 30-month interview, when supplement receipt was at its highest, SSP reduced the proportion of families with incomes below the LICOs by 14.4 percentage points. The impact was largely for families with incomes in the 50 to 75 per cent of LICOs range, where a significant 11.7 percentage point reduction was observed. At

¹Chapter 5 presents a more complete analysis of the net cost or benefit of SSP to participants, government, and society as a whole, which considers the full range of costs and benefits, beyond transfers and taxes, and for the full six-year follow-up rather than six-month periods prior to each interview.

²Experimental impacts are, by necessity, calculated as the difference between the *average* program group and control group outcomes. Although these are the most reliable estimates of the true impact of the treatment, they do underestimate the actual effect of SSP on families who took up the supplement. As explained in Chapter 3, a rough estimate of SSP's effect *per supplement taker* can be calculated by dividing the impact by the fraction of the program group who took up the supplement. Since just over one in four (27.5 per cent) program group members received at least one supplement payment at any point in the follow-up, the increase in income then, per supplement taker, at the 30-month interview was quite substantial, estimated at \$985 per month (the observed impact of \$271 divided by 0.275).

³These numbers are calculated by comparing annualized family income with the LICOs for each family as defined by Statistics Canada. The LICOs are a *relative* measure of disadvantage or inequality and should not be interpreted as a strict measure of poverty.

⁴These measures rely on measures of family income that must be interpreted with caution for two reasons. First, a relatively high proportion of sample members could not provide amounts when asked about earnings of other family members. As a result, over 25 per cent of respondents have missing values for family income. Second, family income combines the respondents' individual income only with other family member earnings. This measure potentially excludes other sources of income received by family members. As a result, absolute measures of poverty using the LICOs may be overestimated. Several categories above and below LICOs are therefore presented.

48 months SSP reduced the proportion with incomes below the LICOs by 6.3 percentage points. Again, most of the reduction in poverty was in the 50 to 75 per cent of LICOs range, well below the cut-off.

In the six months prior to the 72-month interview, up to six years after random assignment, SSP reduced the proportion of those whose income was 50 to 75 per cent of LICOs by over five percentage points. There was no statistically significant decrease in the proportion with incomes below 100 per cent of LICOs. Rather, the “severity” of poverty was reduced as the proportion in the lower category, 50 to 75 per cent of LICOs, decreased while the proportion at 75 to 100 per cent of LICOs increased.

Table 4.1 also provides a breakdown of the impacts for above LICOs categories. It is interesting to note that the increase in the proportion of families with income above LICOs is not limited to categories close to the cut-offs (at 100 to 150 per cent of LICOs). For example, in the six months prior to the 30-month interview, of the 14.4 percentage point impact on those above LICOs, just over half were in the 100 to 150 per cent of LICOs range. The remaining 5.7 percentage points of the impacts are derived from families in the 150 to 175 per cent of LICOs range (3.4 percentage points) and above (2.3 percentage points). A similar pattern for the impact is observed at 48 months. SSP thus increased income considerably above the LICOs.

Interestingly, at 72 months, even though there was no statistically significant impact on the proportion with incomes above LICOs, there was movement “up” the range of categories. First, as mentioned earlier, the proportion with income in the 50 to 75 per cent of LICOs range decreased while the proportion in the 75 to 100 per cent of LICOs range increased. Second, for the above LICOs categories, when considered together, there was an increase of 3.3 percentage points in the proportion of families with incomes of 175 per cent of LICOs and above. SSP did not simply reduce poverty by moving families close to the low income cut-offs “across” and above the cut-offs. SSP reduced poverty for many who were well below the cut-offs, and continued to move families up the “income ladder” for most of the follow-up period.

EXPENDITURES, ASSETS, AND MATERIAL HARDSHIP

A significant increase in monthly income could have helped some families increase spending on necessities such as food, clothing, and housing. This may also have reduced hardships such as the need to use food banks and poor housing. Some may also have been able to increase savings or reduce debt levels, thereby reducing the likelihood of future hardship. Table 4.2 presents impacts on expenditures, hardship, and assets at the 30-, 48-, and 72-month interviews.

Expenditures

Increased income appears to have led program group members to increase their total expenditures throughout much of the follow-up period. When considered in aggregate, total expenditures on rent, groceries, dining out, clothing, and child care were higher for program group members than control group members at the 30-, 48-, and 72-month interviews. However, the pattern of expenditure impacts was different at each interview. At 30 months SSP increased the expenditures of program group members by \$65 per month. More than three quarters of this increased expenditure was on food (both groceries and eating out), child care, and clothing for the respondents and their children. There was no statistically significant increase in expenditure on rent at 30 months.

Table 4.2: SSP Impacts on Expenditures, Hardship, and Assets

Outcome	30-Month Interview		48-Month Interview		72-Month Interview	
	Control Group	Difference ^a (Impact)	Control Group	Difference ^a (Impact)	Control Group	Difference ^a (Impact)
Expenditures (\$/month)^b						
Spending on groceries	424	17*	443	15	497	13
Spending on eating out	55	7**	64	3	90	10**
Spending on children’s clothing	46	4*	35	1	26	1
Spending on own clothing	16	4***	19	2**	21	1
Spending on child care	40	16***	51	9	36	-1
Rent	593	15	628	25*	670	17
Total expenditures on above items	1,171	65***	1,241	63**	1,336	52**
Hardship (%)						
Used food bank in last three months	11.8	-3.0**	9.6	-1.1	10.7	-1.2
Couldn’t get groceries	31.6	-1.7	28.9	-2.3	24.4	1.1
Gas or hydro turned off	2.1	-0.7	2.1	-0.2	1.7	1.0*
Any hardship reported	34.7	-2.3	31.9	-2.7	28.0	0.0
Money in bank						
Amount of money in bank (\$)	431	-39	603	138	n/a	n/a
Money in bank unreported (%)	9.0	-1.8	10.9	-0.5	n/a	n/a
No money in bank (%)	27.3	-6.2***	22.8	-0.6	n/a	n/a
\$1–\$499 in bank (%)	49.0	3.3	47.8	-2.3	n/a	n/a
\$500 and above in bank (%)	14.7	4.7***	18.5	3.4**	n/a	n/a
Debt						
Amount of debt (\$)	3,466	-426	4,800	299	n/a	n/a
Debt unreported (%)	0.2	-0.2	0.0	0.3*	n/a	n/a
No debt (%)	47.4	-2.0	38.1	-2.7	n/a	n/a
Debt of \$1–\$2,499 (%)	21.5	3.5*	23.7	1.0	n/a	n/a
Debt of \$2,500 and above (%)	31.0	-1.3	38.2	1.5	n/a	n/a
Sample size	1,185	2,371	1,185	2,371	1,185	2,371

Sources: Calculations from 30-month, 48-month, and 72-month follow-up survey data.

Notes: All analyses were only for those who responded to the 72-month survey.

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

Sample sizes vary for individual measures because of missing values.

^aSample size in this column is the sum of the program and control group sizes.

^bSample members were asked at each 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 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 and your family pay for your monthly rent or mortgage? (Do not include subsidies that are paid directly to you.)”

At 48 months the impact on total expenditures was \$63 per month. In contrast to the 30-month expenditure impacts, there was a statistically significant increase in expenditures on rent (\$25 per month), and this was the largest expenditure impact. Other than a small increase in clothing expenditures for the respondents, expenditure impacts in the other categories were lower than those observed at the 30-month interview and failed to reach statistical significance. At the 72-month interview, given the smaller impact on income, there was a smaller impact on total expenditures of \$52 per month. Differences in spending on groceries,

clothing, child care, and rent were not statistically significant. There was a small but statistically significant increase in spending on eating out.

Hardship

At each survey wave, respondents were asked several questions that attempted to gauge the extent of hardship they experienced. Specifically, they were asked whether, in the three months prior to each interview, they needed to use a food bank, had difficulty getting groceries, or had their gas or hydro turned off because they were unable to pay the bill. The second panel of Table 4.2 presents data on these hardship measures for the 30-, 48-, and 72-month interviews.

At the 30-month interview SSP reduced the percentage of program group members who reported using a food bank by three percentage points relative to the control group. At the 48-month interview, although the program group reported experiencing less hardship, none of these differences was statistically significant. There was also little difference in reported hardship at the 72-month interview, though the program group was slightly more likely to report that gas or hydro was turned off, but the impact was small (one percentage point).

Savings and Debt

The third panel of Table 4.2 presents data on savings and debt for the 30- and 48-month interviews. The 72-month survey did not include a module on savings and debt. In the earlier period, program group members appear to have used their additional income from SSP to increase their savings. At the 30-month interview, although there was no statistically significant difference in the average amount of savings, SSP reduced the proportion of program group members with zero savings by more than six percentage points. There was also a statistically significant increase of more than four percentage points in the proportion of program group members with more than \$500 in the bank. This impact persisted at 48 months, when an increase of over three percentage points was observed.

There was little impact on debt at either the 30- or 48-month interviews. Although the average amount of debt appears to have decreased at 30 months, the impact did not achieve statistical significance. However, there was a small increase in the proportion of the program group with debt between \$1 and \$2,499. The increase appears to be comprised of program group members who either incurred new debt (who were previously debt-free) and others who reduced earlier outstanding debt of \$2,500 or above. There were no significant impacts on debt levels at the 48-month interview (except for a trivial impact of 0.3 per cent for those with debt unreported).

HOUSING ARRANGEMENTS, MOBILITY, AND QUALITY

Housing arrangements could be expected to improve with increased income as a result of SSP. Increased employment that in turn generated increased income may have helped Applicants to move into higher-quality housing in better neighbourhoods or even to buy their own homes. However, the opposite could also be possible, if Applicants became ineligible for government-subsidized housing because of increased income, necessitating a move to different — possibly poorer quality — housing. Data from the 30-, 48-, and 72-month

surveys, presented in Table 4.3, suggest that SSP had little impact overall on housing arrangements, mobility, and quality.

The first panel of Table 4.3 presents impacts on housing arrangements, including the extent of home ownership, renting, shared rent or accommodations, the use of group shelters, and other housing arrangements. SSP appears to have had little impact on housing arrangements at any point in the follow-up.

The second panel presents impacts on housing mobility. At the 48-month interview SSP appears to have reduced the extent of housing mobility among program group members: 48 per cent of the program group moved since the last interview compared with 52 per cent of the control group. Furthermore, SSP reduced by almost four percentage points the proportion of multiple house moves in the run up to the 48-month interview. This statistically significant reduction in housing mobility coincided with increases in expenditures on rent at 48 months, discussed above. One interpretation is that increased income of program group members allowed them to afford rent increases or other transitory housing expenses that might have otherwise necessitated a move.

The final panel of Table 4.3 suggests that SSP had little effect on housing and neighbourhood quality. There was a small positive impact of almost four percentage points on self-assessed neighbourhood quality at the 48-month interview, where 56 per cent of the program group reported high neighbourhood quality compared with 52 per cent of the control group.

IMPACTS ON INCOME AND POVERTY — BY SUBGROUPS

The impacts described above illustrate that SSP was successful in increasing income and reducing poverty among Applicant program group members. However, the above analysis does not indicate whether the benefits of SSP were shared evenly among members of the program group. It is possible that impacts were concentrated among particular subgroups, while others were largely unaffected by SSP. For policies to be designed and targeted effectively, it is important for policy-makers to understand which groups are most likely to benefit from SSP.

This section looks at SSP impacts on income and poverty by subgroup. These subgroups are based on characteristics of the research sample observed at baseline, such as job-readiness, employment status, family structure, family background, and barriers to employment. Within each of these subgroups, the program and control group members would have been similar to each other with regard to all factors that affect income and poverty, except that program group members were offered the supplement and control group members were not. Therefore, differences between outcomes for program and control group members, *within subgroups*, can be tested for statistical significance and will still represent the best estimate of the true impact of the program on this subgroup.

Table 4.3: SSP Impacts on Housing Arrangements, Mobility, and Quality at the 30-Month, 48-Month, and 72-Month Follow-Up Interviews

Outcome	30-Month Interview			48-Month Interview			72-Month Interview		
	Control Group	Difference ^a (Impact)	Standard Error	Control Group	Difference ^a (Impact)	Standard Error	Control Group	Difference ^a (Impact)	Standard Error
Housing arrangements (%)									
Owens home	17.0	0.1	(1.6)	20.3	0.3	(1.7)	23.9	1.6	(1.8)
Rents home	80.1	0.0	(1.7)	76.6	0.7	(1.8)	71.4	-1.1	(1.9)
Lives with friends or family and does not pay rent	2.3	0.4	(0.7)	2.3	-0.8	(0.6)	2.3	-0.2	(0.6)
Lives in a group shelter or other housing arrangement	0.6	-0.5*	(0.2)	0.8	-0.1	(0.4)	2.3	-0.4	(0.6)
Housing mobility (%)									
Ever moved since last interview	48.2	-1.4	(2.2)	51.9	-4.2*	(2.1)	45.5	0.4	(2.1)
Moved two or more times in last 18 months	—	—	—	20.4	-3.5**	(1.7)	15.8	1.3	(1.5)
Housing and neighbourhood quality									
Number of rooms per person	1.7	0.0	(0.0)	1.9	0.0	(0.0)	1.9	0.1**	(0.0)
Neighbourhood quality ^b	2.5	-0.1	(0.1)	2.5	-0.1**	(0.1)	2.5	0.0	(0.0)
High neighbourhood quality (%)	48.4	1.7	(2.2)	52.0	3.7*	(2.1)	52.6	-0.9	(2.1)
Sample size	1,185	2,371		1,185	2,371		1,185	2,371	

Sources: Calculations from the 30-month, 48-month, and 72-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 per cent; ** = 5 per cent; *** = 1 per cent.

Roundings may cause slight discrepancies in sums and differences.

Sample sizes may vary for individual items because of missing values.

^aSample size in this column is the sum of the program and control group sample sizes.

^bNeighbourhood quality is rated on a scale from 1 to 5 with low scores indicating higher-quality neighbourhoods.

In trying to determine whether impacts were larger for certain subgroups than for others, it is important to remember that estimated impacts could vary simply by chance. A statistical test is also required for assessing the significance of differences in impacts *between subgroups*. Thus an additional test was used to determine whether differences between subgroup impacts were due to chance. Tables 4.4 and 4.5 present results on income and poverty for selected subgroups. For each outcome, the results of the “between groups” test are shown in the columns next to the impacts. Daggers indicate that the variation is statistically significant, making it reasonable to conclude that there was a real difference between subgroups in the impact of SSP.⁵

Impacts on Individual Income by Subgroup

Table 4.4 presents impacts on individual income by subgroup for the 30-, 48-, and 72-month interviews. At 30 months statistically significant differences in subgroup impacts were observed with respect to job-readiness at random assignment, *employment status*, and *family background* at baseline. The first panel of Table 4.4 shows that program group members who had a high school diploma or equivalent at baseline experienced significant income gains due to SSP, while those without a diploma experienced no increase in income. With respect to employment status at baseline, those who were already working at baseline were less likely to experience income gains than were those who were unemployed at baseline. For example, there was a \$321 impact on individual income at the 30-month interview for those who were unemployed yet looking for work at baseline but no statistical difference for those who were working at baseline. One reason income gains due to SSP occurred predominantly among those who were not employed at baseline is that this group had more to gain from moving into employment.

The second panel of Table 4.4 shows that differences in impacts were also associated with the respondent’s *family background*. Specifically, income impacts were concentrated among program group members who were born in Canada. For example, there was a \$270 impact on individual income at the 30-month interview for those *born in Canada* but a much lower impact of \$126 for immigrants, which was significant only at the 10 per cent level. Furthermore, the impact on incomes of those *born in Canada* persisted at the 72-month interview, while there was no statistically significant difference for immigrants.

Impacts on Poverty by Subgroup

Table 4.5 presents impacts on the proportion of families with income below the LICOs, by subgroup, for the 30-, 48-, and 72-month interviews. The first panel reveals a similar pattern of subgroup impacts on poverty to those observed for individual income for subgroups based on *employment status* at baseline. Reductions in poverty were higher for families where the respondent was not working at baseline. For example, at the 30-month interview the percentage of families in the program group with income below LICOs was reduced by 20.6 percentage points relative to the control group, for those respondents who were not employed but looking for work at baseline. However, there was no impact on poverty among those families where the respondent was employed full time at baseline.

⁵The abbreviation “n.s.” (not significant) indicates that the variation in estimated impacts is not statistically significant, meaning that the observed subgroup differences could easily be due to chance and should not be regarded as evidence that impacts actually differed between the subgroups.

Table 4.4: SSP Impacts on Average Monthly Individual Income in the Six Months Prior to Interview, by Other Subgroups

Subgroup	30-Month Interview			48-Month Interview			72-Month Interview			
	Sample Size	Control Group	Difference (Impact)	Standard Error	Control Group	Difference (Impact)	Standard Error	Control Group	Difference (Impact)	Standard Error
Job readiness at random assignment										
Had high school diploma or equivalent										
Yes	1,236	1,559	299***	(55.1)	1,777	159**	(63.4)	1,968	107	(74.3)
No	666	1,484	87	(64.5)	1,574	96	(82.6)	1,669	16	(86.9)
Employment status										
Employed full time	192	1,860	88	146.1	2,188	-60	(137.7)	2,680	-418**	(198.6)
Employed part time	349	1,823	23	100.6	1,958	215	(137.8)	2,100	83	(142.0)
Not employed, looking for work	528	1,467	321***	(85.2)	1,637	159*	(95.1)	1,768	150	(108.8)
Neither employed nor looking for work	892	1,335	282***	(55.3)	1,459	181***	(66.0)	1,569	152**	(73.5)
Family structure										
Age of sample member at random assignment										
19–29	737	1,382	274***	(65.9)	1,510	207***	(78.2)	1,775	22	(81.7)
30–39	916	1,583	261***	(61.1)	1,789	206***	(70.0)	1,909	214**	(86.6)
40 and older	348	1,620	61	102.2	1,735	-33	(128.7)	1,740	-46	(137.7)
Number of children at random assignment										
One	990	1,392	197***	(57.3)	1,565	135*	(69.1)	1,766	15	(78.5)
Two	604	1,585	230***	(74.1)	1,677	252***	(84.1)	1,809	147	(99.5)
Three or more	318	1,676	319***	(99.8)	1,911	85	(132.5)	1,912	168	(133.4)
Family background										
Immigrant status (British Columbia only)										
Born in Canada	1,405	1,527	270***	(50.8)	1,707	186***	(59.9)	1,846	149**	(67.2)
Not born in Canada	594	1,489	126*	(68.8)	1,604	100	(82.8)	1,797	-63	(96.5)

(continued)

Table 4.4: SSP Impacts on Average Monthly Individual Income in the Six Months Prior to Interview, by Other Subgroups (Cont'd)

Subgroup	30-Month Interview			48-Month Interview			72-Month Interview			
	Sample Size	Control Group	Difference (Impact)	Standard Error	Control Group	Difference (Impact)	Standard Error	Control Group	Difference (Impact)	Standard Error
Barriers to employment										
Reported physical or emotional condition that limited activity ^a										
Yes	457	1,421	132*	(80.2)	n.s.	117	(96.8)	1,613	-47	(104.3)
No	1,528	1,545	249***	(47.8)		171***	(56.2)	1,900	121*	(64.7)
Depression^b										
At risk of depression	1,048	1,478	183***	(54.3)	n.s.	194***	(65.8)	1,718	92	(70.4)
Not at risk	948	1,556	286***	(62.7)		136*	(72.8)	1,966	89	(87.0)

Sources: Calculations from baseline survey data and 30-month, 48-month, and 72-month follow-up survey data, IA administrative records, and 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.

^a"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. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent. A Q-statistic was used to test differences among subgroups in estimated impacts. Statistical significance levels are indicated as: † = 10 per cent; †† = 5 per cent; ††† = 1 per cent. The abbreviation "n.s." indicates that the variation in impacts among the subgroups is not statistically significant.

Rounding may cause slight discrepancies in sums and differences.

^bThe "yes" subgroup includes sample members who indicated having a long-term physical or emotional 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.

^cSample members were considered to be at risk of depression if they scored 3 or more (out of a possible total score of 12) on an abridged version of the CES-D (Center for Epidemiology Scale-Depression).

Table 4.5: SSP Impacts on the Percentage of Families With Income Below LICO in the Six Months Prior to Interview, by Other Subgroups

Subgroup	30-Month Interview			48-Month Interview			72-Month Interview			
	Sample Size	Control Group	Difference (Impact)	Standard Error	Control Group	Difference (Impact)	Standard Error	Control Group	Difference (Impact)	Standard Error
Job readiness at random assignment										
Had high school diploma or equivalent										
Yes	909	74.5	-15.8***	(3.1)	62.9	-6.0*	(3.3)	57.7	-3.1	(3.3)
No	500	82.2	-10.7***	(3.7)	71.3	-3.2	(4.3)	69.5	1.5	(4.1)
Employment status										
Employed full time	145	57.3	7.8	(8.2)	42.1	18.6**	(8.5)	30.0	24.3***	(8.1)
Employed part time	244	63.2	-15.5**	(6.3)	49.1	-3.6	(6.5)	41.4	-1.3	(6.5)
Not employed, looking for work	396	80.6	-20.6***	(4.5)	68.5	-8.3*	(4.9)	65.6	0.4	(4.8)
Neither employed nor looking for work	663	86.9	-14.7***	(3.1)	77.6	-10.3***	(3.5)	75.8	-6.6*	(3.4)
Family structure										
Age of sample member at random assignment										
19–29	542	81.0	-15.4***	(3.8)	69.4	-5.4	(4.1)	65.3	-3.6	(4.1)
30–39	683	77.8	-17.5***	(3.5)	65.6	-9.4**	(3.8)	62.1	-2.1	(3.8)
40 and older	253	72.1	-4.2	(5.8)	63.7	0.3	(6.2)	60.6	3.0	(6.2)
Number of children at random assignment										
One	754	78.4	-15.8***	(3.3)	67.3	-11.1***	(3.6)	61.5	-2.6	(3.6)
Two	439	76.2	-14.6***	(4.4)	65.3	-3.0	(4.6)	64.6	-1.8	(4.6)
Three or more	229	85.8	-12.4**	(5.3)	76.0	-2.4	(6.0)	70.1	5.9	(6.1)
Family background										
Immigrant status (British Columbia only)										
Born in Canada	987	74.7	-17.2***	(3.0)	63.3	-8.7***	(3.1)	59.8	-4.0	(3.1)
Not born in Canada	491	84.7	-8.8**	(3.6)	74.3	-2.4	(4.1)	70.2	2.1	(4.2)

(continued)

Table 4.5: Impacts on the Percentage of Families With Income Below LICO in the Six Months Prior to Interview, by Other Subgroups (Cont'd)

Subgroup	30-Month Interview			48-Month Interview			72-Month Interview				
	Sample Size	Control Group	Difference (Impact)	Standard Error	Control Group	Difference (Impact)	Standard Error	Control Group	Difference (Impact)	Standard Error	
Barriers to employment											
Reported physical or emotional condition that limited activity ^a											
Yes	309	82.7	-12.1 **	(4.8)	n.s.	75.8	-3.6	(4.9)	68.5	2.1	n.s.
No	1,156	76.8	-14.8 ***	(2.7)		63.9	-6.6 **	(2.9)	61.3	-2.7	(5.0)
Depression ^b											
At risk of depression	788	80.7	-12.8 ***	(3.1)	n.s.	71.2	-7.8 **	(3.4)	65.9	2.2	(3.3)
Not at risk	687	75.0	-16.4 ***	(3.5)		61.8	-5.4	(3.8)	59.6	-6.9 *	(3.9)

Sources: Calculations from the baseline, 30-month, 48-month, and 72-month follow-up survey data, IA administrative records, and 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.

"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. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent. A Q-statistic was used to test differences among subgroups in estimated impacts. Statistical significance levels are indicated as † = 10 per cent; †† = 5 per cent; ††† = 1 per cent. The abbreviation "n.s." indicates that the variation in impacts among the subgroups is not statistically significant.

Rounding may cause slight discrepancies in sums and differences.

"The "yes" subgroup includes sample members who indicated having a long-term physical or emotional 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.

^bSample members were considered to be at risk of depression if they scored 3 or more (out of a possible total score of 12) on an abridged version of the CES-D (Center for Epidemiology Scale-Depression).

In fact, at the 72-month interview the families of respondents who were already working full-time at baseline experienced a negative impact, with an increase in poverty relative to the control group, while families of respondents who were neither working nor looking for work at baseline continued to experience significant poverty reduction at 72 months. Although, a similar subgroup difference was not found to be statistically significant on individual income at 72 months, the pattern of impacts is consistent with this result on poverty. One interpretation of this finding is that SSP encouraged these program group members to stay in low-paying jobs — which they combined with income assistance at baseline — in order to qualify for and continue to receive supplement payments, while the control group had time to find better paying jobs throughout the follow-up period. However, this subgroup result should be interpreted with caution. First, the estimate for this subgroup may be unreliable given the small size of the sample of respondents who were employed full time at baseline (145). Second, a very high proportion of this subgroup — about 40 per cent — has missing values for the underlying poverty measure, which may bias the results.

CONCLUSIONS

By encouraging full-time work and higher earnings by providing a generous earnings supplement, SSP significantly increased income and reduced poverty among Applicant program group members throughout much of the follow-up period. Impacts on income were largest at the 30- and 48-month interviews. However, some impacts on family income and poverty were also observed at the 72-month interview, well beyond the period of supplement eligibility.

Increased income permitted program group members to increase their total expenditures on basic necessities such as food, clothing, and housing throughout the follow-up period. When considered in aggregate, total expenditures on rent, groceries, dining out, clothing, and child care were higher for the program group than the control group at the 30-, 48-, and 72-month follow-up interviews. These added expenditures appear to have helped reduce material hardship for some program group members, in particular when the gains were largest around the time of the 30-month interview.

SSP led to increased income and reduced poverty for many Applicants with a wide range of characteristics in the program group. However, sample members' baseline characteristics, such as job-readiness, employment status, and family background, accounted for some differences in subgroup impacts. Impacts on income were smaller at various points in the follow-up for those without a high school diploma and those who were already employed at baseline, while potentially disadvantaged subgroups, such as immigrants, experienced little income gain or poverty reduction from SSP.

Chapter 5: Can Work Incentives Pay for Themselves? A Benefit-Cost Analysis

INTRODUCTION

The preceding chapters illustrate how the Self-Sufficiency Project (SSP) increased employment and earnings of Applicant program group members while reducing their reliance on income assistance (IA). SSP also led to significant improvements in overall economic well-being and reductions in poverty throughout much of the follow-up period. Importantly, Chapter 4 illustrates that these impacts were achieved with no net increase in public transfer payments. This suggests that the supplement offer to Applicants may have paid for itself through higher taxes on earnings and reductions in IA payments that were generated by the program. However, the earlier analyses of taxes and net transfers were limited to six-month periods in advance of each follow-up interview and considered only the costs associated with the transfer payments themselves. This chapter expands on these analyses by comparing a more complete set of benefits and costs of the SSP supplement and program delivery to Applicants. It considers these benefits and costs for the full six years of follow-up.

The benefit-cost analysis presented in this chapter will answer the following questions:

- What were the costs of the various components of SSP including the supplement payments and operating expenses for the delivery of program services to Applicants?
- From the perspective of Applicants in the program, did SSP result in net financial benefits or costs?
- From a government budget standpoint, was SSP cost-effective? How were the costs and benefits shared between federal and provincial governments?
- From the perspective of society as a whole, did SSP result in net financial gains or losses?
- How did the costs and benefits of SSP for Applicants compare to those in the SSP Recipient study of long-term welfare recipients? How efficient was SSP for Applicants compared with other welfare-to-work initiatives?

The main results from the benefit-cost analysis begins on page 80. They are preceded by an important discussion of how they were derived, including a description of analytical perspectives and limitations and an account of the sources for estimates of the different costs and benefits of SSP. Those who wish to move straight to the results may wish to skip these preceding sections.

SUMMARY OF FINDINGS

- **SSP resulted in substantial financial gains for Applicant program group members and their families throughout the six-year follow-up. SSP led to significant improvements in families' financial well-being including increased income from earnings, fringe benefits, and SSP payments.** Over the full six-year follow-up, SSP produced an average financial gain — net of increased taxes on earnings and reduced welfare benefits — of \$7,504 for the program group.
- **SSP resulted in a very low increase in cost to government budgets.** The total cost of SSP, including supplement payments and operating costs, was nearly offset by increased tax revenue and decreased welfare benefits. After accounting for all costs and benefits, there was a small net cost to the government budget of only \$660 per program group member over the full six-year follow-up period.
- **SSP was a remarkably efficient way to transfer income to welfare applicants when compared with other transfer programs.** Some estimates suggest that transfer programs may require \$1.50 in government expenditure for each \$1 in financial gains to families.¹ In comparison, SSP for Applicants required a remarkably low net increase in costs to the government budget: about 10¢ in government expenditures for each \$1 in financial gain to families.
- **From the perspective of society as a whole, benefits from SSP substantially outweighed its costs.** Costs from one perspective may be benefits from another. This analysis presents benefits and costs from three different perspectives: SSP program group members, the government, and society as a whole. The impact on program group member income² of \$7,504, less government budget costs of \$660, represents a gain to society as a whole. Thus, SSP provided a benefit to society of \$6,844 for each program group member.
- **SSP led to significantly larger financial gains for Applicants than for Recipients and was much more cost-effective in doing so.** The net financial benefit to Applicant program group members (\$7,504) was about 50 per cent higher than that observed for Recipients in British Columbia (\$5,007).³ For every \$1 in financial gains to program group members in the Recipient study the net cost to government was approximately 67¢.⁴ While modest compared with other transfer programs, this was still much higher than the Applicant study, where the cost to government was about 10¢ per \$1 in financial gains to program group members.

¹See Burtless, 1987, 1994, for a discussion of the efficiency of transfer programs (noted in Michalopoulos et al., 2002).

²Total income in the benefit-cost analysis includes earnings and fringe benefits as well as cash transfer payments from SSP and income assistance. Average earnings and cash transfer payments in the benefit-cost analysis do not match numbers shown earlier in the impact analysis because results in the benefit-cost analysis were adjusted for inflation and discounted to account for the fact that income gains early in the program could be invested and therefore were more valuable than income gains later in the period.

^{3 4}To ensure comparability between the two studies, a small adjustment was made to the figure reported in the SRDC report *Making Work Pay: Final Report on the Self-Sufficiency Project for Long-Term Welfare Recipients*, July 2002.

BACKGROUND

The objectives of SSP for welfare applicants differed from many previous welfare-to-work studies and initiatives in ways that are important to a benefit-cost analysis. First, SSP was offered to Applicants in part to determine whether new applicants for welfare would stay on income assistance longer in order to qualify for the earnings supplement being offered by SSP. Although these “entry-effects” were minimal (see Berlin et al., 1998), these potential costs to government, in the form of increased IA payments, need to be accounted for in a benefit-cost analysis. Second, the broader purpose of the SSP Applicant study was to determine whether an earnings supplement would increase employment and self-sufficiency and reduce poverty among new welfare applicants. These dual goals of reducing poverty and welfare dependence were fundamental to both the SSP Applicant and Recipient studies, and different from many previous initiatives where the primary goal was to move people from welfare to work and produce cost savings to government.

This chapter presents the net benefits and costs of SSP per program group member, over and above the costs and benefits that would have been incurred in the absence of SSP. Net costs and benefits are presented for the full six years of follow-up, as this is the maximum duration of data available for all sample members.⁵ As is the case in preceding chapters that describe program impacts, all program and control group members, not just those who took up the SSP supplement, were included in calculating the gross and net costs of the program. Moreover, the analysis presented in this chapter includes estimates only for the SSP Applicant study. It does not include costs incurred by individuals in the SSP Recipient study or costs for the SSP Plus group members who received a range of employment services in addition to the financial incentives of regular SSP.⁶ The costs presented in this chapter do not include start-up costs or costs related to the research or evaluation of SSP.^{7 8} The text box on the following page reviews in more detail the analytical approach and the key data sources used for this analysis.

Analytical Perspectives

An important issue in benefit-cost analysis of government programs is determining who bears any costs or benefits from the program. A program’s effects can sometimes be gains from one perspective and losses from another. The analysis presented here will show the net benefits and costs of SSP from the perspective of the following groups: SSP program group members, the government budget, and society as a whole. Table 5.1 illustrates these three perspectives and the expected financial effects for each of them. The main financial effects of SSP are shown as a gain (+), loss (-), or neither a gain nor a loss (0), according to expectations regarding their value.

⁵Similar to each of the preceding chapters in this report, impacts are presented for the 72-month survey sample. However, the calculation of unit costs uses the entire SSP baseline Applicant sample.

⁶A benefit-cost analysis of SSP for long-term recipients was presented in the SRDC report *Making Work Pay: Final Report on the Self-Sufficiency Project for Long-Term Welfare Recipients*, July 2002.

⁷The federal government funded the demonstration and evaluation of SSP.

⁸Any costs associated solely with the research and evaluation of SSP were deducted from expenditures.

Analytical Approach, Accounting Methods, and Data Sources

Analytical Approach

The analytical approach used for the SSP Applicant study benefit-cost analysis is similar to the methods employed for the SSP Recipient study. Many of the techniques were originally developed for the benefit-cost analysis conducted as part of MDRC's Demonstration of State Work/Welfare Initiatives.^{a b} Minor distinctions were introduced in this analysis to accommodate the data and unique features of SSP. The general approach is to place dollar values on SSP's effects and its use of resources, wherever possible, either by directly measuring them or by estimating them. This benefit-cost analysis incorporates positive and negative financial estimates even when they do not reach the level of statistical significance, because they nonetheless represent the best estimates available.

Accounting Methods

The benefit-cost estimates presented in this chapter cover a six-year observation period starting with the month of random assignment. The observation period is defined as the period of time for which program effects can be directly measured using available data. For the SSP Applicant study, earnings data are available through the month of the final follow-up interview, 72 months after random assignment. This six-year observation period includes the one-year qualifying period for Applicants and five years of follow-up after the onset of supplement eligibility.

All benefit-cost amounts in this chapter are expressed in "constant" Year 2000 dollars, eliminating the effects of inflation on the values.^c The benefit-cost estimates are also expressed in terms of net present values per program group member. "Net" means that the estimated amounts represent differences between estimates for program and control group members. The estimates are in "present value" terms because the accounting method of "discounting" is used to express the dollar value today of program effects that occur at different points in time. Although many of SSP's costs were incurred early in the program, particularly in the first three years when SSP receipt was heaviest, some costs and benefits continued to be realized in later years. Therefore, simply comparing the nominal dollar value of program costs with benefits over multiple years would be problematic because a dollar's value is greater in the present than in the future, as it can be invested to earn income.

In order to make a fair comparison between benefits and costs over multiple years, it is essential to determine their value at a common point in time — for example, the present. This was accomplished by discounting, a method for reducing the value of benefits and costs accrued in later years relative to benefits and costs accrued in early years. In the SSP analysis, the end of each sample member's first year following random assignment was used as the comparison point for the investment period. Gains that were accrued after that point were discounted to reflect their value at the end of Year 1. In calculating these discounted values, it was assumed that a dollar invested at the end of Year 1 would earn a real rate return of five per cent annually.

(continued)

Analytical Approach, Accounting Methods, and Data Sources (Cont'd)

Data Sources

SSP's effects on earnings, income assistance, and SSP payments were measured using the same sources as chapters 3 and 4. This chapter uses additional data on receipt of fringe benefits from employment, income and sales taxes, child-care subsidies, transportation and transition-to-work allowances, and program operating costs. Effects on earnings were measured using data collected from SSP follow-up surveys. Impacts on IA receipt were measured using data collected from administrative records maintained by the province of British Columbia. Impacts on Employment Insurance (EI) benefits were estimated from administrative records obtained from Human Resources Development Canada. SSP payments were measured using data collected from the program's payroll office. SSP's effects on fringe benefits, federal and provincial taxes, tax credits and child-care subsidies could not be measured directly, but were imputed based on survey and administrative records. Data on the costs of operating the SSP transfer program were estimated using expenditure reports from Social Research and Demonstration Corporation (SRDC) and SSP program offices for the fiscal years 1993–94 through 1998–99. The costs of operating the IA program could not be measured directly, but were imputed using annual reports and other sources from the provincial government.^d

^aFor additional information, see Long & Knox, 1985.

^bThe description of the analytical approach and methods used in this report was adapted from previous MDRC reports (Riccio, Friedlander, & Freedman 1994; Kemple, Friedlander, & Fellerath, 1995; Miller et al., 2000; and Bloom et al., 2000).

^cEstimates are expressed in constant dollars by using GDP implicit price deflators from Statistics Canada.

^dAnnual reports of the Ministry of Social Services for the 1995–96 fiscal year were used for British Columbia (currently the Ministry of Human Resources).

Table 5.1: Examples of Costs and Benefits of SSP for Applicants, by Accounting Perspective

Component of Analysis	Accounting Perspective		
	Program Group	Government Budget	Society
Employment			
Increased earnings and fringe benefits	+	0	+
Increased tax payments	–	+	0
Transfer payments			
Increased SSP payments	+	–	0
Increased IA payments in Year 1 — from delayed IA exits	+	–	0
Decreased IA payments in years 2 through 6	–	+	0
Increased EI	+	–	0
Program operating and administrative costs			
SSP operating costs	0	–	–
Increased administrative cost of SSP payments	0	–	–
Decreased administrative cost of IA payments	0	+	+
Use of other supports for work			
Increased child-care subsidies	0	–	–
Increased transportation/transition-to-work allowances	0	–	–

The program group's perspective identifies net gains or losses for members of the program group, indicating how they fared as a result of the program. As shown in Table 5.1, the program group should experience financial gains from increased earnings, SSP payments, and possibly increased EI payments.⁹ Given the possible "entry-effects" associated with the Applicant study, program group members may have received slightly more income assistance during the one-year qualifying period than did control group members. On the other hand, there may be financial losses for this group in terms of higher income taxes and decreased income assistance in the five years following the onset of supplement eligibility. If the benefits from earnings and other supports exceed the value of higher taxes and decreased income assistance, the program may be considered a net financial gain from the standpoint of the program group.

The government budget perspective identifies gains and losses incurred by a combination of the federal and provincial governments that fund assistance and employment programs. For example, the federal government funded the SSP evaluation, but it is likely that in reality such a program would be funded and run as a provincial government program. Although this analysis does not attempt to account for transfers from the federal government to the provincial government of British Columbia (such as the Canada Health and Social Transfer), it will consider benefits and costs for the federal and provincial governments separately. Gains to the government budget occur through reduced income assistance, increased income and sales taxes, and through decreases in tax credits paid to low-income families. Losses occur through supplement payments, the cost of operating the program and administering the supplement, and any increase in associated supports for work.

The perspective of society as a whole combines the perspectives of two groups: the program group and those outside the program (the taxpayers who fund the federal and provincial government budgets). For a given component, a net gain to society occurs only when a gain to one of these groups is not at the expense of another group. For example, Table 5.1 shows that a gain from earnings and fringe benefits would benefit the program group, but is neither a benefit nor a cost for the government budgets; thus the net result is a gain for society. A net loss to society occurs when a loss from one perspective is not a gain from another. For example, the operating cost of SSP represents a cost to government budgets, but this cost produces no direct financial effect on the program group. So SSP's operating cost is considered a cost to society. Program effects that constitute a net gain from one perspective but a net loss from another are considered transfers that have no financial consequences from the societal perspective. For example, the payments from SSP and income assistance represent a gain for the program group members who receive them, but a cost to the government budget.

When adopting the societal perspective, it is assumed that the value placed on a dollar gained or lost is equivalent for each of the groups. This assumption may not be valid. Typically, participants in programs such as SSP have much lower incomes than the average taxpayer. Thus, it is likely that a dollar is worth more to a member of the program group than

⁹Child-care subsidies and transition-to-work allowances are not counted as benefits for the program group, as government provides these supports to working families to offset added costs of employment. This approach differs from that used in the SSP Recipient study analysis, where supports for work were treated as benefits to the program group. When comparisons are made with the Applicant study results, appropriate adjustments are made to the Recipient study benefit-cost outcomes.

it is to the average taxpayer who funds the government budgets. Nonetheless, this analysis treats each dollar the same, no matter to whom in society it accrues.

Limitations of the Analysis

This analysis accounts for the major financial effects of SSP, but there are some limitations inherent in the approach. First, although the benefit-cost estimates reflect the best estimates available, they should be considered only approximations. SSP was designed and run as an independent research demonstration, completely separate from any government-run programs. This meant that program staff and tailor-made operating procedures and management information systems were serving only SSP participants. If SSP were run as part of — or in place of — another government program such as income assistance, the operating costs would likely be lower due to economies of scale.¹⁰

Second, not all of the effects of SSP are measurable in dollars. There are other less tangible outcomes affected by SSP such as family and child well-being, which are difficult to monetize. This analysis does not account for these types of non-financial effects. However, readers should take them into account when assessing the overall value of the program. Moreover, there may be effects of SSP that were not included in the accounting framework, and hence not measured. These include, for example, the possible displacement of other workers resulting from the increased employment of program group members. Such displaced workers may become unemployed or may accept lower-paying jobs. Similarly, there may be indirect, long-term benefits for program group members brought on by increased work experience and financial stability.

Third, similar to findings presented earlier in this report, the benefit-cost results discussed in this chapter were derived using data from the single-site SSP Applicant study, which was conducted in British Columbia from 1994 to 2000. As is the case when interpreting any experimental results, differences or changes in the policy environment and population should be considered before attempting to generalize the findings to other populations, locations, or time periods.

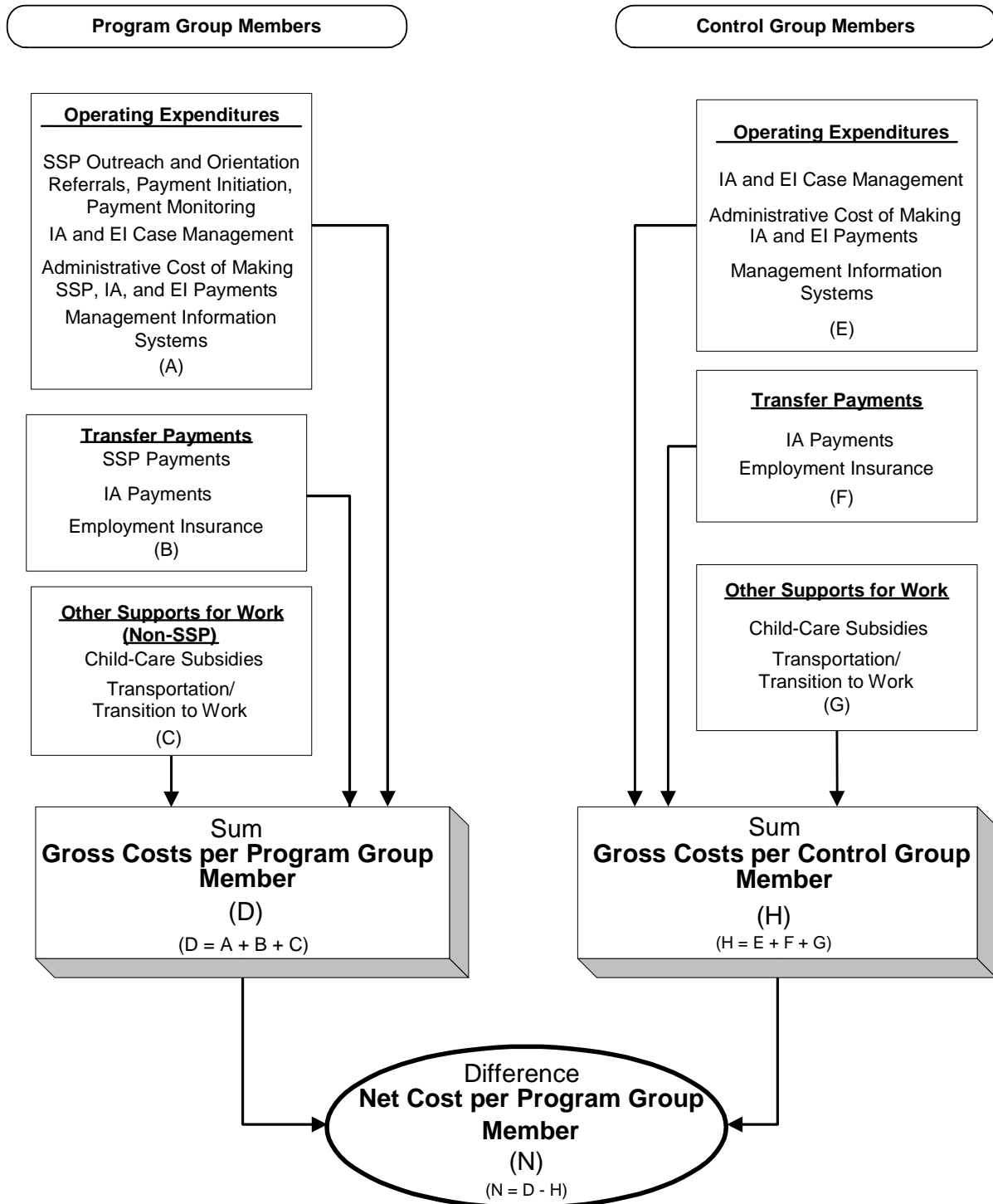
The next section of the chapter describes the major components of the analysis, followed by a discussion of the costs of operating SSP and administering the supplement payments. The chapter then describes the financial benefits of SSP for Applicants, and finishes with a discussion of the net benefits and costs of the program from each of the perspectives described above.

MAJOR COMPONENTS OF THE COST ANALYSIS

Figure 5.1 illustrates the main components of the SSP cost analysis. It shows that the gross cost of SSP for each program group member (box D) is made up of three main components: expenditures on SSP, IA, and EI program operating costs and management information systems (box A), expenditures on SSP, IA, and EI transfer payments (box B), and expenditures by outside agencies for supports for work (box C).

¹⁰Additional caveats regarding costing estimates are discussed in the section entitled “SSP Operation Expenditures.”

Figure 5.1: Simplified Diagram of the Major Components of Gross and Net SSP Costs



The costs that would have accrued to SSP sample members in the absence of SSP are represented by the control group. These costs are shown in the second column. Similarly, the gross costs for each control group member (box H) are made up of three main components: expenditures on IA and EI operating costs (box E), expenditures on IA and EI transfer payments (box F), and expenditures on support services (box G).

The net cost of SSP, that is the cost per program group member, is shown in box N. The net cost is obtained by subtracting the gross cost per control group member (box H) from the gross cost per program group member (box D).¹¹

COSTS OF SSP FOR THE OBSERVATION PERIOD

This section presents estimates of the costs of SSP per Applicant program group member during the six-year observation period. It shows the variation in the costs of SSP across program components and support services. This information may be useful to administrators and planners who want a comprehensive understanding of the nature of the government's investment in SSP. For example, by examining the costs presented in this section it is possible to determine which elements of the program account for most of SSP's costs.

SSP Operating Expenditures

SSP operating expenditures cover costs for all program group members and are allocated across four main program activities: outreach, orientation, pre-supplement activities, and supplement initiation and payment-related activities. The average cost per program group member was calculated first by estimating a unit cost — the cost per participant or per month of participation. The unit cost includes staff time spent operating the activity and any associated overhead costs, including office expenses and management.¹² The unit cost was then multiplied by the participation rate (for one time activities) or the average number of months of participation (for longer term activities).¹³

Table 5.2 presents the estimated unit and gross costs of operating SSP per Applicant program group member. The total operating cost averaged \$1,060 per Applicant program group member, slightly less than the average cost observed for Recipients, given differences in participation rates between Applicants and Recipients for the various program activities.

¹¹Figure 5.1 is a simplified illustration of the cost analysis, which highlights only the primary components. There are other potential costs implicit in the analysis that are not included in the figure, for example increases in other transfers or tax credits.

¹²Office expenses and management were allocated to the various activities based on the percentage of staff time spent on each of the activities.

¹³The average months participating in a given activity includes zeros for program group members who never participated in the activity.

Table 5.2: Estimated Unit and Gross Operating Costs for SSP Program Services to Applicants

Expenditures by SSP Offices	Costs per Participant (\$)	Average Monthly Cost (\$)	Percentage Participating	Average Months Participating	Average Cost per Program Group Member (\$)
Outreach	29	n/a	100	one time	29
Group or individual orientation	192	n/a	56	one time	107
Pre-supplement contact ^a	n/a	11	100	5.2	59
Supplement initiation and payment-related activities ^b	n/a	125		6.9	865
Total operating costs^c					1,060

Sources: Calculations from SRDC expenditure reports, timesheets prepared by Bernard C. Vinge and Associates and Saint John Family Services caseworkers, and SSP's Program Management Information System (PMIS) for the fiscal years 1993–94 through 1998–99.

Notes: The costs shown are in 2000 dollars. Rounding may cause slight discrepancies in sums and differences.

^aIt is assumed that those who never took up the supplement participated in pre-initiation activities for 12 months. This assumption may underestimate the unit cost for this service but overestimate the average number of months participating.

^bThis cost does not include the actual SSP payments or the cost of administering the payments. These expenses are included in Table 5.3.

^cThis cost does not include the cost of SSP's PMIS, which is the computer system used to record activities and track cases. These expenses are included in Table 5.3.

Outreach

Activities categorized as outreach included all activities related to contacting and talking with program group members prior to their participation in an SSP orientation session. It included staff activities such as sending notification letters following random assignment, reminder letters at the midway point of the qualifying period, eligibility letters for program group members, and invitations to SSP orientation sessions. Notification letters were sent shortly after random assignment, which occurred for Applicants between February 1994 and March 1995. Outreach activities relating to program eligibility would have occurred a year later for Applicants, after their one-year qualifying period.

Table 5.2 shows that the average cost for conducting outreach was \$29. Given that outreach was the initial tool used by staff to inform program group members about SSP and their potential eligibility, the participation rate for this component was 100 per cent.

Orientation

Orientation refers to group and individual sessions, delivered to eligible program group members, to inform them about the program and provide the details of program participation. This included staff time spent preparing for and conducting the sessions, travelling to and from group orientation sessions held in locations other than the SSP offices, and making home visits to conduct individual sessions. Most orientation sessions were delivered to eligible program group members in the 1995–96 fiscal year, following their one-year qualifying period.

Table 5.2 shows that the average unit cost for group and individual orientation sessions was \$192 per participant. However, only 56 per cent of Applicant program group members qualified for the supplement *and* subsequently participated in an orientation session. As a result, this translates into a \$107 cost for orientation activities per Applicant program group member.

Pre-supplement Contact

This component of SSP included activities that occurred between a program group member's orientation and the time at which he or she took up the supplement. For those who did not take up the supplement, this would be the one-year time period in which they could have taken up the supplement.¹⁴ The types of services offered during this period included, for example, responding to inquiries from participants regarding SSP work requirements or referrals to outside agencies that provided job-search or child-care assistance.

The average cost per month for pre-supplement activities was about \$11. On average, Applicant program group members were in this pre-initiation phase for 5.2 months.¹⁵ As a result, the cost for pre-supplement activities per Applicant program group member was approximately \$59.

Supplement Take-Up and Payment-Related Activities

This category included all program activities related to initiating the supplement and settling payment-related issues once participants began to receive the supplement. It included tasks such as checking job retention and completing supplement voucher requirements each month. The cost shown in Table 5.2 does not include the payments themselves or any administrative costs associated with the payments or the payment office. Administration of the supplement took place in a different location than the SSP program office. These costs are treated separately from operating expenses of the program, and are presented in a later table.

As shown in Table 5.2, this was the most expensive component in terms of program operations. The average cost per Applicant program group member for take-up and payment-related activities was \$865, making up more than three quarters of the total operating costs.¹⁶

Caveats for Interpretation of SSP Operations and Cost Estimates

SSP was first and foremost a research demonstration project that used an experimental design to evaluate program impacts. Although the Applicant study, in particular, was designed to simulate the effect of an ongoing program, as opposed to one that was newly implemented (as was the case for the Recipient study), similarities with an ongoing program were limited to their effect on the behaviour of those offered the supplement. There were still many aspects of SSP that differed from "real-world" implementation. For example, many of the program offices, staffing structures, and operating procedures would be different in a "full-scale" implementation. Several caveats arise that are important to bear in mind when interpreting the cost estimates provided above. Some of these arise specifically out of the

¹⁴For those who took up the supplement, the number of months between their orientation and the date they took up the supplement was defined as the pre-initiation phase. It was assumed that those who never took up the supplement participated in these activities for the full 12 months. This assumption may underestimate the unit cost for this service, but overestimate the average number of months of participation.

¹⁵Ineligible Applicants (those who left income assistance within their qualifying year) had zero months of pre-initiation but are included in the average, as the costs are being calculated *per Applicant program group member*.

¹⁶It may seem somewhat surprising that the payment-related expenses would be so costly given that there was a payment office in Halifax, Nova Scotia. However, as the program progressed, the participants became comfortable dealing with SSP program staff. Therefore, program staff at the site offices spent a significant amount of time on these types of activities. It is likely that these and other operating costs would be significantly lower if SSP were to be operated as an ongoing government program.

approach to costing program activities in a social experiment, while others are inherent in the differences between operating a demonstration project and a “real-world” implementation.

First, the unit cost estimates underlying the above operating expenses were calculated using data from SRDC and project partners, which spanned six years¹⁷ of project operations.¹⁸ Utilizing data on operating costs and participant use of program services over the length of the study, as opposed to data from individual years, smoothes annual cost fluctuations, captures changes in participant service utilization over time, and provides the most accurate estimate of actual costs incurred for the SSP Applicant study.¹⁹ However, the relative cost of the various program activities could vary somewhat in a “real world” implementation, where entry into the program would be ongoing and variable subject to seasonal and economic factors.

Second, as mentioned earlier, the SSP demonstration was run completely independently from other government programs. This meant that all of the staff, office equipment, and development of complex management information were paid for and used exclusively for SSP. If SSP were run as an ongoing government program, the expenses and resources would be shared by other programs, or services would be subcontracted to existing community agencies.²⁰

Third, staff-to-participant ratios may differ somewhat in an ongoing program. SSP was generously staffed — partly to prepare for the possibility of a high take-up rate and partly to handle the large task of orientation. Once the task of orientation was completed, staff levels were not reduced initially. Therefore staff had more time to work with participants who eventually took up the supplement, as well as with those who did not. It is important to note that the “extra” time staff spent with clients in SSP could have contributed to the positive effects of the program.

Fourth, because of the nature of the demonstration and evaluation of SSP, many of the tasks performed by staff were very comprehensive, and perhaps more extensive than might be found in an ongoing program. Examples of this include in-home orientation meetings with participants prior to supplement initiation and comprehensive verifications of employment at initiation and during supplement receipt. Other examples include the extremely detailed and careful notes kept by staff on the information systems and the follow-up contacts with participants who lost their jobs after initiating the SSP supplement payments, reminding them of the option to go back to work and continue receiving the supplement.

¹⁷The fiscal years from 1993–94 to 1998–99 include the primary years of recruitment for both Recipient and Applicant studies, the qualifying year for Applicants, the supplement take-up window, and the three-year supplement eligibility period for almost all sample members.

¹⁸This is in contrast to the Recipient study analysis, which used a “stable-year” of project operations for Recipients in 1994–95 to estimate unit costs. This approach was not appropriate for estimating unit costs for the Applicant study, as Applicants were involved only in outreach and orientation during 1994–95, given their later recruitment and one-year qualifying period. Subsequent years were also difficult to consider as stable and representative of project operations for Applicants because staff was not engaged in all of the various program activities in the same period. Using data on costs and use of services in multiple years over the length of the study provides the most accurate estimate of unit costs for Applicants.

¹⁹A sensitivity analysis of unit operating costs using different individual years of operation (1993–94 through 1998–99) revealed considerable variation in the underlying cost estimates.

²⁰Start-up costs related to the development of the program and the program management information systems are not included in this analysis.

It is important to keep in mind that some of the additional attention and services offered to participants were part of the design of SSP and likely contributed to its positive effects.

Transfer Payments and Administrative Costs of Payments

Transfer payments were cash assistance payments made to program and control group members throughout the observation period. For both the program and control groups, transfer payments included IA payments and EI payments. For program group members, cash assistance could include the SSP supplement.

The administrative cost of supplement payments included expenses associated with administering the payments and the costs associated with the payroll office in Halifax. Administrative costs of IA payments included all costs associated with operating the IA program and with administering IA payments. The administrative costs presented in Table 5.3 do not include any costs associated with the program management information systems for either program. The costs of these information systems are shown separately in the third panel of the table.

Table 5.3: Estimated SSP Impacts on Transfer Payments and Administrative Costs of Payments During the Six-Year Follow-Up

Type of Payment or Cost	Program Group	Control Group	Difference
Transfer payments (\$)			
Income assistance	24,183	27,323	-3,140***
SSP supplement	5,171	0	5,171***
Employment Insurance	2,346	2,247	99
Total transfer payments	31,700	29,570	2,130**
Administrative costs of transfer payments (\$)			
Income assistance	1,284	1,426	-142***
SSP supplement	238	0	238***
Employment Insurance ^a	26	24	1
Total administrative costs of transfer payments	1,548	1,450	98**
Program management information systems^b			
SSP management information system ^c	79	0	79
IA management information system ^c	257	288	-31
Total program management information systems	336	288	48
Supports for work (\$)^d			
Child-care subsidies ^e	1,713	1,329	383***
BC transportation/transition-to-work allowances ^f	211	110	100***
Total supports for work	1,923	1,440	484***

Sources: Calculations from IA administrative records; payment records from SSP's Program Management Information System (PMIS); Employment Insurance administrative records; annual reports for the province of British Columbia (1995–1996); and 12-month, 30-month, 48-month, and 72-month follow-up survey data.

Notes: The costs shown are in 2000 dollars. All costs are discounted and adjusted for inflation except PMIS costs, which are not discounted.

^aExact information regarding unemployment benefit administrative costs was not readily available. Bloom et al. (1999) estimate the operating cost per claim (initial and renewal), processed from application to adjudication, at \$70.

^bDifferences in these costs were not tested for statistical significance.

^cThese costs do not include the costs associated with purchasing new computer hardware or software or the design of the systems.

^dAdministrative costs of support service payments were not estimated.

^eData on child-care subsidies were not available. The estimates of subsidy amounts presented in this table were imputed for the observation period from self-reported child-care subsidy amounts received during the six months prior to each of the follow-up surveys (30, 48, and 72 months after random assignment).

^fIn 1996 transportation subsidies were replaced with a once-in-a-lifetime transitional benefit of \$150 per month for up to one year.

Table 5.3 presents the costs associated with transfer payments and administration of these payments, as well as costs for the program management information systems and expenditures by outside agencies on support services. The costs in Table 5.3 are estimated for the observation period and are expressed in Year 2000 dollars and discounted to the first year of follow-up.²¹ During the six-year observation period, transfer payments cost \$31,700 per program group member and \$29,570 per control group member. In other words, program group members gained \$2,130 more in transfers over the observation period. This increase is due primarily to the average of \$5,171 in SSP supplements that program group members received, which more than made up for their \$3,140 loss in IA payments relative to the control group.

Because more program group members worked and were eligible for EI benefits, SSP could have increased the amount of EI that program group members received. Table 5.3 shows that there was a small increase in the average amount of EI benefits received by the program group of \$99. However, this difference is not statistically significant.

The second panel of Table 5.3 presents the costs of administering the transfer payments. The average gross cost of administering the SSP supplement payments to eligible Applicant program group members was \$238. There were savings on the administration of IA payments of \$142, which offset some of the cost of supplement administration, since program group members received fewer months of income assistance through the full six-year follow-up. The small increase in EI benefits received by the program group had little effect (\$1) on the administrative costs of the EI transfer.

The third panel of Table 5.3 presents the costs for the program management information systems. Although the unit cost estimates for the income assistance and SSP program management information systems were similar, the average cost for the program group was much higher for the IA than for the SSP program management information system. Most of the difference in the cost between the two programs is explained by longer periods of IA receipt compared with SSP receipt over the six-year follow-up period.²² The total program management information system cost attributable to SSP, for the supplement or IA benefits was \$48 per program group member. Again, the decrease in IA receipt due to SSP produced a \$31 decrease in IA program management information system costs, which offset some of the \$79 administrative cost of the SSP program management information system.

Expenditures by Non-SSP Agencies

British Columbia offered a number of supports to low income individuals returning to work from welfare. These supports included, for example, child-care subsidies and transportation allowances. Government-funded child-care subsidies were offered to families with young children who used approved daycare arrangements. A transition-to-work allowance was also offered to working low income families in British Columbia. This transition-to-work allowance included transportation subsidies and child-care surcharge

²¹Costs for program management information systems are expressed in Year 2000 dollars but are not discounted.

²²For example, on average, Applicant program group members were participating in the SSP program for about 12 months after their qualifying year (5 months in pre-initiation and 7 months of supplement receipt) compared with 27 months of IA receipt over the six-year follow-up period.

allowances.²³ The child-care surcharge allowances are separate from the provincial child-care subsidies offered to working families.

Although SSP did not offer any child-care subsidies or transition-to-work allowances, it is plausible that agencies providing these kinds of services may have experienced an increase in expenditures for Applicant program group members as a result of SSP's impact on full-time employment. It is also important to note that these kinds of services were equally available to control group members who went to work full time.

The bottom panel of Table 5.3 presents estimated child-care subsidies and transition-to-work allowances.²⁴ Any SSP staff time spent on providing program group members with information or referrals to these outside programs is covered in Table 5.2. As the table shows, child-care subsidies were \$1,713 for program group members compared with \$1,329 for control group members, an impact of \$383 for the six-year follow-up period. Program group members also received \$211 in transition to work allowances compared with only \$110 for control group members, for an impact of about \$100. Together, the impact on government expenditures for supports for work was \$484 over the six-year follow-up period.

Total Gross and Net Costs

Table 5.4 summarizes the estimated gross and net costs per program group member for the six years of follow-up. For example, it provides the total gross cost of SSP including transfer payments (panel 1), operating and administrative costs of the supplement (panel 2), and supports for work (panel 3). The estimated total gross cost per program group member was \$36,567, while for the average control group member it was \$32,748.

The net cost of SSP per program group member is the total gross cost per program group member over and above the total gross cost per control group member, represented in Figure 5.1 by box N. Over the six-year observation period the estimated net cost per program group member was \$3,819.

FINANCIAL BENEFITS OF SSP

This section presents estimates of the primary components that make up the financial benefits of SSP for program group members and government budgets. These include earnings, fringe benefits, taxes and premiums, and tax credits. Although transfer payments were also a benefit for sample members, they were discussed in the previous section as they represented a cost to the government budget. The financial impacts in this section are for the full six-year observation period and are discounted and adjusted for inflation.

²³In 1996 the transportation and daycare surcharge allowances were replaced with a once-in-a-lifetime transitional benefit of \$150 per month for up to one year.

²⁴Child-care subsidies are imputed for all months in which the respondent was employed and reported receiving a daycare subsidy at the subsequent follow-up survey. Rates are calculated based on 1999 rules for the BC daycare subsidy program administered by the Ministry of Human Resources. When respondents report receiving subsidy amounts in excess of the rates calculated based on program rules, amounts are imputed using the latter. This approach is a variant of that used in the SSP Recipient study analysis. Appropriate adjustments are made to the Recipient study benefit-cost outcomes when comparisons are made with the Applicant study results.

Table 5.4: Six-Year Estimated Gross Costs and Net Costs of SSP

Type of Payment or Cost	Gross Cost per Program Group Member (\$) (A)	Gross Cost per Control Group Member (\$) (B)	Net Cost per Program Group Member (\$) (C) = (A-B)
Cost of transfer payments			
SSP or IA transfer	29,354	27,323	2,031
EI transfer	2,346	2,247	99
Total transfer payments	31,700	29,570	2,130
Operating and administration of payments^a			
Operating and administration ^b	2,608	1,450	1,158
SSP and IA program management information systems ^c	336	288	48
Total program operations and administration	2,944	1,738	1,205
Supports for work^d			
Child-care subsidies ^e	1,713	1,329	383
BC transportation/transition-to-work allowance ^f	211	110	100
Total supports for work	1,923	1,440	484
Total cost	36,567	32,748	3,819

Sources: Calculations from IA administrative records; payment records from SSP's Program Management Information System (PMIS); Employment Insurance administrative records; SRDC expenditure reports for Systemhouse, Bernard C. Vinge and Associates, and Saint John Family Services; annual reports (1995-96) on expenditures from the province of British Columbia; and 12-month, 30-month, 48-month, and 72-month follow-up survey data.

Notes: The costs shown are in 2000 dollars.

All costs are discounted and adjusted for inflation except operating and PMIS costs, which are not discounted.

^aOperating and PMIS costs were not discounted.

^bOperating costs for income assistance are included in the cost of administering the IA transfer payment.

^cPMIS costs do not include the costs associated with purchasing new computer hardware or software or the design of the systems.

^dAdministrative costs of support service payments were not estimated.

^eChild-care subsidies are imputed for all months in which the respondent was employed and had reported receiving a daycare subsidy at the subsequent follow-up survey. Rates are calculated based on 1999 rules for the BC daycare subsidy program administered by the Ministry of Human Resources. When respondents report receiving subsidy amounts in excess of the rates calculated based on program rules, amounts are imputed using the latter.

^fIn 1996 transportation subsidies were replaced with a once-in-a-lifetime transitional benefit of \$150 per month for up to a year.

Earnings and Fringe Benefits

The first panel of Table 5.5 illustrates that the value of earnings gains due to SSP over the six-year observation period was \$7,415 per program group member.²⁵ Fringe benefits were also a part of sample members' total compensation from working. Fringe benefits may include employer-provided life insurance, pension contributions, workers compensation, supplementary health benefits, and vacation and statutory holidays. Similar to the SSP Recipient study analysis, these benefits were estimated at 15.1 per cent of the total annual base earnings.²⁶ The average increase in earnings of \$7,415 per program group member plus an additional \$1,119 in fringe benefits yielded an average increase in total gross work-related compensation of \$8,534 per program group member during the observation period.

²⁵Earnings effects presented here are somewhat different from those presented in Chapter 3 due to discounting and inflation adjustments.

²⁶In New Brunswick fringe benefits for 1999 were mandated at 15.1 per cent of total annual base payroll costs. This estimate was also applied to sample members in British Columbia for the SSP Recipient study analysis.

Table 5.5: Estimated SSP Impacts on Earnings, Personal Taxes, and Tax Credits During the Six-Year Observation Period

Outcome	Program Group	Control Group	Impact
Earnings (\$)			
Earnings	54,856	47,441	7,415***
Fringe benefits ^a	8,278	7,159	1,119***
Total earnings and fringe benefits	67,134	54,600	8,534***
Personal taxes and premiums (\$)			
Federal income tax	3,531	2,665	866***
Provincial tax	1,747	1,317	429***
Provincial surtax	4	8	-4
Sales tax ^b	8,334	7,671	663***
EI premiums	3,213	2,785	428***
Canada Pension Plan premiums	2,914	2,521	393***
Total taxes and premiums	19,742	16,967	2,775***
Tax credits (\$)			
Canada Child Tax Benefit / National Child Benefit	11,224	11,403	-179
GST credits	2,265	2,326	-60
Working Income Supplement / NCBS	914	1,021	-107**
BC Earned Income Benefit	327	316	11
BC Family Bonus	975	1,023	-48
Total tax credits	15,705	16,089	-384

Sources: Calculations from 12-month, 30-month, 48-month, and 72-month follow-up survey data and federal and provincial tax regulations as provided in the Canada Customs and Revenue Agency (CCRA) 1999 Tax Guide and Forms and government publications.

Notes: The costs shown are in 2000 dollars. Rounding may cause slight discrepancies in sums and differences. Estimates reflect discounting and adjustment for inflation.

^aFringe benefits include annual vacation pay, employer contributions to EI and Canada Pension Plan premiums, statutory holidays, and Workers' Compensation. Similar to the SSP Recipient CBA, the estimate of fringe benefits was set at 15.09 per cent of total annual base payroll costs.

^bThe source for the proportion of income spent on taxable items is the Department of Finance, Canada. Sales tax is estimated using net income (estimated income after taxes and credits).

Personal Taxes and Credits

Given that SSP increased taxable income through increased earnings and SSP supplement payments, it was expected that the program would also increase federal and provincial income taxes, payroll taxes, and sales taxes. Tax payments, along with the Canada Child Tax Benefit and Goods and Services Tax (GST) credits, were imputed from the relevant earnings and income base, using tax rates and rules for the 1999 tax year.²⁷ Table 5.5 shows that the total personal taxes and premiums increased by \$2,775 per program group member during the observation period. About half of the increase is attributable to federal (\$866) and provincial (\$429) income taxes.

The increase in income taxes was not accompanied by an increase in tax credits. Most credits were based on taxable income and, because SSP increased income of program group members, the program group experienced a \$384 loss in these types of credits for the observation period.

²⁷The source for the tax rules was the Canada Customs and Revenue Agency (CCRA) 1999 Tax Guide and Forms obtained from the CCRA Web site (www.ccr-aadrc.gc.ca).

CAN WORK INCENTIVES PAY FOR THEMSELVES?

Table 5.6 summarizes SSP's main financial effects from the perspectives of the program group, government budgets, and society as a whole for the full six years after random assignment. Differences between the program group and the control group were defined as gains (indicated by positive values) and losses (indicated by negative values). Values of zero are not considered a gain or a loss for the accounting perspective to which they apply. The results were then added together to obtain an estimate of the overall net gain or loss from each perspective.

Table 5.6: Six-Year Estimated Net Gains and Losses per SSP Program Group Member, by Accounting Perspective

Component of Analysis	Accounting Perspective		
	Program Group	Government Budget	Society
Financial effects (\$)			
Transfer payments	2,130	-2,130	0
Transfer payment administration ^a	0	-98	-98
Operating cost of SSP ^b	0	-1,060	-1,060
Program management information systems	0	-48	-48
Supports for work ^b	0	-484	-484
Earnings and fringe benefits	8,534	0	8,534
Taxes and premiums ^c	-2,775	2,775	0
Tax credits	-384	384	0
Net gain or loss (net present value) (\$)	7,504	-660	6,844

Sources: Calculations from IA administrative records; payment records from SSP's Program Management Information System (PMIS); EI administrative records; SRDC expenditure reports for Systemhouse, Bernard C. Vinge and Associates, and Saint John Family Services; annual reports for the province of British Columbia (1995–96); 12-month, 30-month, 48-month, and 72-month follow-up survey data; and federal and provincial tax regulations as provided in the Canada Customs and Revenue Agency (CCRA) 1999 Tax Guide and Forms and government publications.

Notes: The costs shown are in 2000 dollars.

All costs are discounted and adjusted for inflation except operating and PMIS costs, which are not discounted.

Rounding may cause slight discrepancies in sums and differences.

^aIA operating costs are part of payment administration. For income assistance this cost does not include any outreach or orientation.

^bIncludes imputed child-care subsidies for both provinces and transportation/transition-to-work benefits.

^cThe employee portion of Canada Pension Plan premiums is counted as a cost to the program group for simplicity. However, these costs would likely be more than offset by future pension payments.

Perspective of the Program Group

The first column of Table 5.6 presents the benefits and costs of SSP from the perspective of members of the program group. It presents impacts on transfer payments, operating costs, support service payments, earnings and fringe benefits, income taxes, and tax credits. The majority of program group member gains came through increased earnings and fringe benefits (\$8,534) from working, although transfer payments from SSP, EI, and income assistance (\$2,130) also contributed. As a result of increased income from earnings and supplement payments, the program group had higher taxes and reduced tax credits (\$3,159). Over the full six-year period, families in the SSP program group experienced a net financial gain of \$7,504.

Perspective of the Government Budget

The second column of Table 5.6 presents the gains and losses of SSP from the perspective of the government budget. In this table, effects on the federal and provincial government budgets are combined. Table 5.7 separates the costs for federal and provincial governments.

Table 5.7: Six-Year Estimated Net Gains and Losses per SSP Program Group Member, by Federal and Provincial Government Budget Perspectives

Component of Analysis	Accounting Perspective	
	Federal Government Budget	Provincial Government Budget
Financial effects (\$)		
Transfer payments	-99	-2,031
Transfer payment administration ^a	-1	-96
Operating cost of SSP ^b	0	-1,060
Program management information systems	0	-48
Supports for work ^b	0	-484
Earnings and fringe benefits	0	0
Taxes and premiums ^c	2,019	757
Tax credits	347	37
Net gain or loss (net present value) (\$)	2,265	-2,925

Sources: Calculations from IA administrative records; payment records from SSP's Program Management Information System (PMIS); EI administrative records; SRDC expenditure reports for Systemhouse, Bernard C. Vinge and Associates, and Saint John Family Services; annual reports for the province of British Columbia (1995–96); 12-month, 30-month, 48-month, and 72-month follow-up survey data; and federal and provincial tax regulations as provided in the 2000 Canadian Master Tax Guide, the Canada Customs and Revenue Agency (CCRA) 1999 Tax Guide and Forms, and government publications.

Notes: The costs shown are in 2000 dollars.

All costs are discounted and adjusted for inflation except PMIS costs, which are not discounted.

Rounding may cause slight discrepancies in sums and differences.

^aIA operating costs are part of payment administration. For income assistance, this cost does not include any outreach or orientation.

^bIncludes imputed child-care subsidies for both provinces and transportation/transition-to-work benefits in British Columbia.

^cThe employee portion of Canada Pension Plan premiums is counted as a cost to the program group for simplicity. However, these costs would likely be more than offset by future pension payments.

The single largest cost for government was transfer payments (supplement payments less any reductions in income assistance due to SSP) at \$2,130 per program group member, followed by the operating costs of SSP (\$1,060) and subsidies and supports for work (\$484). Administrative costs associated with transfer payments (\$98) and the project management information systems (\$48) accounted for an additional \$146 of the total \$3,820 cost per program group member for the full six-year follow-up.

Remarkably, increased government revenues from income, payroll, and sales taxes (\$2,775), as well as reductions in tax credits (\$384) attributable to SSP, offset a substantial proportion of the total cost of SSP. After accounting for all benefit and costs of the program over the full six-year follow-up, there was only a small net cost to government budgets of \$660 per program group member.

Perspective of Society

The last column of Table 5.6 presents the benefits and costs of SSP from the perspective of society as a whole. As described earlier, the estimates for society are the sum of the perspectives of the program group and government budget perspectives. The gains to society represent gains to the SSP families from earnings and fringe benefits. These gains were not offset by any costs to the government budgets. Losses to society were due mainly to increased costs to the government for administration of transfer payments, project management information systems, and program operations. The net financial gain to society from SSP was \$6,844 per program group member over the six-year follow-up.

Another way to summarize SSP's financial effects across these perspectives is to examine the ratio between government costs and gains to families, and compare the result with other government programs. Some estimates suggest that transfer programs may require \$1.50 in government expenditure for each \$1 in financial gains to families.²⁸ In the SSP Recipient study, the government spent about \$3,379 more than it would have under the traditional IA system over the five-year follow-up for BC Recipient program group members.²⁹ Recipient study program group members gained \$5,007 over the same five-year period. For each dollar of financial gains to Recipient families, then, the cost to the government was about 67¢. In comparison, the financial gains to Applicants and their families (\$7,504) were achieved with a very low increase in costs to the government budget. For each \$1 of financial gains for families there was a small cost for the government of about 10¢.

Net Gains and Losses of SSP for Federal and Provincial Governments

Table 5.7 presents the benefits and costs of SSP from the perspective of the federal and provincial government budgets separately. The perspective of the federal government does not include any costs or benefits associated with SSP supplement payments, IA benefits, or from operating costs of the program. Although the federal government funded the SSP demonstration, the costs for operating SSP in a province is allocated to the provincial government in this analysis.³⁰ The federal government perspective does not account for transfers to the provincial governments such as the Canadian Health and Social Transfer (CHST). Similarly, the perspective of the provincial government does not include any financial gains from federal government transfers to the provinces.

The first column of Table 5.7 shows that the federal government budget experienced a net financial gain of \$2,265 per program group member over the six-year follow-up period. This gain is primarily from increased income taxes and decreased tax credits for program

²⁸See Burtless, 1987, 1994, for a discussion of the efficiency of transfer programs.

²⁹The benefit-cost analysis for Recipients reported in *Making Work Pay: Final Report on the Self-Sufficiency Project for Long-Term Welfare Recipients* (Michalopoulos et al., 2002), presents impacts for a five-year period (which included an observation and projection period) following random assignment. Program group members in the Recipient study were eligible for the supplement immediately after random assignment. In contrast, program group members in the Applicant study had to remain on income assistance for 12 months in order to become eligible for the supplement. Hence, with a 72-month follow-up period, the Applicant study also involved five years of follow-up following the onset of supplement eligibility. Despite the equivalence in the length of follow-up after the onset of supplement eligibility, only the impacts from the two studies should be compared. The absolute level of outcomes for the program or control group are not directly comparable across the two studies, since estimates from the Applicant study span six years compared with only five in the Recipient study.

³⁰It is assumed that if SSP were to operate as an ongoing program, the provincial government would fund such a program as an alternative to the current social assistance program (which is funded by the provincial government).

group members. The provincial government experienced increased costs as a result of SSP of \$2,925 per program group member. This loss is mainly due to higher transfer payments for the program group (\$2,031) and the operating costs of the program (\$1,060) although increases in provincial taxes (\$757) offset these costs to a degree.

CONCLUSIONS

SSP successfully increased the income and financial well-being of families while decreasing their reliance on income assistance. The total net financial gain per program group member was \$7,504. With five years of follow-up after the onset of supplement eligibility, this represents a net gain of about \$1,501 per year per program group member, which is about 50 per cent more than that observed for SSP Recipients in BC.

The majority of these financial gains to families came as a result of the rather significant increases in employment and earnings. SSP supplement payments contributed a much smaller proportion to the net effect. As a result, the financial benefits to the program group came with little net increase in costs to the government budget, making SSP a very efficient program for Applicants. For every dollar of financial gains to families the cost to the government budget was only about 10¢.

This benefit-cost analysis is not a comprehensive representation of the effects of SSP. There were additional benefits and costs that were not accounted for. For example, this analysis does not attempt to place a value on the non-financial benefits of improved outcomes for children or the cost of lost personal and family time as a result of increased employment. Moreover, the operating costs presented in this chapter reflect those incurred in the SSP demonstration, but these costs would likely differ if SSP were operated as an ongoing earnings supplement program. For these reasons the results in this chapter should be considered only an approximation of SSP's full effects. Moreover, the precision of the estimates presented in this chapter must be treated with caution, especially when attempting to generalize to "real-world" implementation for different populations, locations, or time periods.

Chapter 6: Comparing SSP for Applicants and Recipients

The Applicant study — the focus of the previous chapters of this report — targeted a sample of single parents in British Columbia who had just started receiving income assistance (IA) and became eligible for the supplement program only if they became long-term welfare recipients. Chapter 5 concludes that the financial impacts of this program on individuals, government budgets, and society differed from those of a similar program for single parents who were already long-term welfare recipients, the subject of the separate Self-Sufficiency Project (SSP) study called the “Recipient study” (Michalopoulos et al., 2002). The cost to governments per dollar of financial gain to Recipient families in BC was 67¢. The cost to governments per dollar of financial gain to Applicant families was about 10¢. These findings suggest that as an SSP-style program matures, its costs to government will decline. This chapter examines how and why the results differ between the studies and what policy lessons can be learned from these differences.

This comparison is crucial to understanding how a program based on SSP might work in practice. The project was designed to find out what would happen following the introduction of a program offering earnings supplements to single parent, long-term welfare recipients. Initially, all of the people in the existing population of long-term welfare recipients would be eligible for such a program. So, the Recipient study offered the supplement to a sample drawn from long-term welfare recipients, who would not necessarily have known in advance that such a program was going to be introduced. However, as the program matured, all existing long-term recipients would have received the supplement offer, leaving only those *entering* long-term welfare receipt eligible for the supplement. Furthermore, these entrants into long-term receipt would know — in advance — that the program would be an option for them if they stayed on income assistance. The Applicant study thus involved a sample comprised of members of the population who were newly entering the welfare system: people who had the potential to become long-term recipients. They were told that the supplement would be available to them only if they remained on income assistance for a year.

The Recipient study thus tested what would happen as an SSP-type program was introduced, and the Applicant study tested what would happen as the program reached an operationally steady state. The results from the two studies together enable policy-makers to determine what might change over time as a new program is introduced.

This chapter compares the results from these two studies. It outlines the design differences between the tested interventions. The chapter goes on to compare key economic impacts for evidence of what differences most influence the overall outcomes for the two groups. Necessarily, this comparison between Applicant and Recipient studies is non-experimental because, as this chapter shows, the two groups differ in personal characteristics as well as the timing and nature of the program that they encountered.¹ The chapter reviews

¹Recipient study data are restricted to the British Columbia sample to enhance comparability with the Applicant study, which took place only in British Columbia.

alternative explanations for differences in impacts, and ends with a discussion of what can be learned additionally from the study differences for implementation of an earnings supplement program for long-term welfare recipients.

SUMMARY OF FINDINGS

- **Following eligibility determination, more eligible Applicants took up the supplement than Recipients (47 versus 34 per cent).** The bulk of this difference arose over the first six months, because eligible Applicants took up the supplement very quickly following eligibility determination.
- **SSP increased earnings more for Applicants than Recipients.** Impacts on other economic outcomes like employment, hours of work, and poverty were similar between the studies, although Applicants achieved these impacts while receiving less in supplement payments. Impacts on employment, hours, and earnings per *eligible* Applicant program group member were significantly higher than for Recipients, and IA receipt and transfer payments were generally lower.
- **SSP appeared to generate equivalent or improved economic outcomes for Applicants more efficiently than for Recipients.** Advance knowledge of the SSP offer had only a modest effect on delayed exits from welfare among Applicants, and had no significant impact on the amount of income assistance paid during the qualifying year. Once eligibility had been determined, there was no evidence that “windfall” claims on supplement payments differed substantially between the two studies.
- **Applicants were more likely to report characteristics associated with a more advantageous position in the labour market.** Applicants were better educated than Recipients, and fewer reported physical and mental health problems. These differences could account for why they responded differently to SSP. Eligible Applicants resembled Recipients more closely than ineligible Applicants, but they were still more likely to report characteristics associated with greater employability than Recipients.
- **The different recruitment schedule for the two studies may have accounted for some of the observed differences.** Economic and policy changes in BC may have accounted for some differences in response between Applicants and Recipients. There was little evidence that inflation or minimum wage changes accounted for major differences between the studies. The experience of the control groups helped reduce any bias on impacts due to time-varying factors within each study.
- **If SSP were implemented as a policy, it would be effective initially in reducing the current IA caseload and would be even more effective in the long run.** The Recipient study simulated the effect of *initiating* a program like SSP and showed its effectiveness in the difficult task of reducing welfare receipt among a stock of long-term welfare recipients. The Applicant study simulated an *ongoing* program among clients who were just starting a welfare spell. The Applicant study showed that SSP was even more effective for this population. As a consequence, the two studies suggest that the effectiveness of SSP would increase over time if it were operated as a program.

DESIGN OF THE APPLICANT AND RECIPIENT STUDIES

This section describes how and why the test of the SSP program differed between Applicants and Recipients. It also explains why it is sometimes valuable to compare SSP's impacts for Recipients against estimates for the subgroup of Applicants who actually became eligible to take up the supplement.

The SSP Recipient and Applicant studies were similar, but some key design differences should be borne in mind when comparing study findings (described in Table 6.1). The Recipient study simulated the introduction of the program. The program group, drawn from the existing population of long-term recipients, was offered a supplement if they left income assistance for full-time work within a year of notification. They did not know about the program before it was introduced.

Table 6.1: Differences Between the Applicant and Recipient Studies

	Applicants	Recipients (in British Columbia)
Population	Included single parents starting a new spell on income assistance after at least six months not in receipt of income assistance.	Included single parents on income assistance for at least one year. More than a third had received income assistance for over three years.
Date of random assignment	February 1994 through March 1995	January 1993 through March 1995
The SSP offer made to program group members following random assignment	Those who remained on income assistance for 12 out of 13 months became eligible to receive the supplement if they then left welfare for full-time employment within one year.	Those who left welfare for full-time employment within one year received the SSP supplement.
Supplement eligibility determined	12–13 months after random assignment	At random assignment
Who is eligible for the supplement?	Only program group members who remained on income assistance for 12 of the 13 months following random assignment became “eligible Applicants.”	All program group members
Follow up surveys	12, 30, 48, and 72 months after random assignment	18, 36, and 54 months after random assignment
Last supplement cheque issued	December 1999	January 1999

The Applicant study simulated later, steady-state operation of the program. Policy-makers were concerned that welfare applicants — who were likely to be aware of their potential entitlement in advance — might delay their exit from income assistance *in order to become eligible* for the SSP supplement.² Thus, the program group was drawn from among people new to welfare who were told that they would be eligible for a supplement if they

²Policy-makers would also likely be interested in whether the availability of SSP supplements would increase applications for welfare. Berlin et al. (1998) took the view that if applicants were found unwilling to extend their existing stay on welfare by a few months in order to qualify, then the likelihood of additional people attempting to apply for welfare because they knew of a possible payoff a year later would be slight.

continued IA receipt for a year and then left income assistance within the following year for full-time work.

For this simulation to work, Applicant program group members had to be aware of the SSP program in advance to be able to act on it. Their SSP knowledge would need to be comparable to knowledge of other program options for welfare recipients. An early SSP study tested this by comparing awareness of the SSP program features among Applicant program group members with awareness of work incentives in the IA system as reported by program and control group members (Berlin et al., 1998). The authors concluded that the SSP message was as well understood as other key features of the IA system.³

Berlin et al. (1998) found that only 3.1 per cent of Applicants stayed on welfare for all 12 of the required qualifying months just because they knew about the SSP offer. And, as Chapter 3 shows, there was no significant increase in IA amounts paid to Applicant program group members during the qualifying year. This suggests that once SSP became a regular program feature, the increase in IA expenditure caused by people waiting to become entitled to SSP would be marginal. The decrease in the IA caseload after supplements became available in Applicants' second year more than offset the initial effect of "delayed exit" from income assistance.

Of course, in addition to answering these questions about how a supplement program might affect patterns of welfare use in the first year, the Applicant sample was followed over five years to determine the longer-term impacts of SSP for this population. The earlier chapters of this report have explored these impacts in detail. The next section compares some of SSP's longer-term impacts on Applicants with impacts on Recipients.

Design differences mean that some comparisons of the effect of SSP's supplement offer are best made between *eligible* Applicants and Recipients. This is because Applicants and Recipients were eligible for the supplement only once they were long-term recipients of welfare. Applicant program group members who were still on assistance at eligibility determination, one year on from random assignment, represent a random sample of new welfare recipients achieving eligibility for SSP, and their behaviour can be compared with the Recipient sample who were already eligible at random assignment.

For example, these *eligible Applicant* program group members took up the supplement much more quickly than the Recipient program group. Overall, close to half (47 per cent) of all eligible Applicants took up the supplement — 13 percentage points more than among Recipients (34 per cent). The bulk of the difference arose by Month 6 when take-up among Applicants was 12 percentage points higher than for Recipients. This suggests that eligible Applicants were especially quick to take up the supplement by leaving income assistance and moving into full-time work once their eligibility had been established.

In the next section, impacts for all Applicants, and then for eligible Applicants, are compared with those for Recipients.

³At least half the program group knew, without prompting, that they had to stay on IA for a year — and 61 per cent knew they had to find a job — in order to receive the supplement. Similar proportions among program and control groups knew correctly that people could earn some money without it affecting their IA and that the IA system offered transition-to-work benefits (around 54 to 57 per cent in both cases).

COMPARISON OF KEY ECONOMIC IMPACTS

This section considers how the impact of SSP on key economic outcomes — employment, earnings, and transfer receipt — differed between the two studies. These economic outcomes are not only central to the research questions that SSP set out to test, but also they are also important in any consideration of differences in net costs to government. Among the gains and losses per program group member by accounting perspective (in Table 5.6 of this report and Table 7.7 in Michalopoulos et al., 2002), three major areas of difference between study results are evident: transfer payments, earnings and fringe benefits, and taxes and premiums.⁴ In very general terms, Applicants benefit more from SSP because of higher earnings while the government benefits from both higher taxes and reduced transfer payments, relative to Recipients. Given that impacts on taxes and premiums are directly related to earnings, the difference in net cost between the two studies can be attributed largely to differences in transfers and differences in earnings, both of which are typically driven by employment behaviour. This section thus concentrates on the comparison of program impacts in these areas.

Employment, Earnings, and Transfers

The first and second panels of Table 6.2 show various impact estimates for the two main study groups in the 54 months after the groups became eligible for the supplement.⁵ The bottom panel contains impact estimates for a six-month period that occurred in the last half of the third year after eligibility determination.

While participants in both studies responded to SSP similarly in terms of increasing employment and decreasing welfare receipt, column 3 shows that Applicants earned significantly more and received less in SSP supplements. Differences in total combined IA and SSP transfer amounts between studies did not reach statistical significance.

Earnings impacts are a large component of how the Applicant response to the SSP offer differed from Recipients in the benefit cost analysis in the preceding chapter. SSP increased Applicants' earnings by more than \$7,370 over the four-and-a-half-year period while supplements could be received. It increased Recipients' earnings over the same period by just over \$3,000.⁶ The \$4,299 difference between Applicant and Recipient impacts⁷ is equivalent to \$80 more earned by Applicants for every month observed. Although SSP increased hours worked among Applicants more than among Recipients, the difference between these impacts was not significant.

⁴A fourth area of difference arises due to a technicality concerned with the attribution of supports for work. Michalopoulos et al. (2002) treat these as a benefit to program group members, whereas the current report does not. However, the estimates of government costs from the recipient study quoted in this report are revised estimates using the methods adopted in Chapter 5.

⁵This 54-month period is the full observation period for Recipients. The equivalent period for Applicants is when SSP's impacts are expected to be at their most pronounced, since the supplement was not available in the initial 12 months preceding eligibility determination nor during the final 6 months leading up to the 72-month interview. The modest increase in Applicants' IA receipt during the first 12 months of the study is necessarily omitted in this comparison.

⁶These amounts, from Table 6.2, differ from estimates in Chapter 5, since the latter are presented in constant dollars and adjusted to net present value.

⁷Regression-adjusted earnings impacts are somewhat more similar between Applicants and Recipients. For example, the difference between the studies' regression-adjusted impacts for cumulative earnings over the 54-month period was \$3,109 rather than \$4,299. This impact was still significant at the 10 per cent level. Regression adjustment of impacts is explained in Chapter 1.

Table 6.2: Comparisons of Program Impacts on Employment, Transfer Payments, and Income Between the Applicant and Recipient Studies

Outcome	Applicants vs. Recipients			Eligible Applicants vs. Recipients		
	Impact per Applicant (1)	Impact per Recipient (2)	Difference (3)	Impact per Eligible Applicant ^a (4)	Impact per Recipient (5)	Difference (6)
Total over 54 months following supplement eligibility						
Months of employment ^b	3.6***	2.6***	1.0	6.2***	2.6***	3.6***
Months of full-time employment	4.5***	3.4***	1.1	7.7***	3.4***	4.3***
Months of IA receipt	-3.5***	-2.9***	-0.6	-6.0***	-2.9***	-3.1**
Cumulative total over 54 months following supplement eligibility						
Hours worked	656***	499***	157	1,126***	499***	626***
Earnings (\$)	7,370***	3,070***	4,299**	12,650***	3,070***	9,579***
IA payments (\$)	-3,454***	-2,835***	-619	-5,929***	-2,835***	-3,094**
SSP payments (\$)	5,362***	6,083***	-721*	9,203***	6,083***	3,121***
IA and SSP payments (\$)	1,908**	3,248***	-1,340	3,274**	3,248***	27
Income and net transfers in six months prior to the 36-month interview (Recipients) or 48-month interview (Applicants)						
Monthly income tax (\$) ^c	43***	29***	14	74***	29***	45***
Monthly net transfers (\$) ^d	3	45*	-42	5	45*	-40
Monthly net individual income (\$) ^e	112***	83***	29	192***	83***	109**
Income below the low income cut-off (%) ^f	-6.3**	-6.2***	-0.1	-10.8**	-6.2***	-4.6
Sample size	2,371	2,538		2,371	2,538	

Sources: Calculations from Applicant 12-month, 30-month, 48-month, and 72-month follow-up survey data; Recipient 18-month, 36-month, and 54-month follow-up survey data; income assistance (IA) administrative records; and payment records from SSP's Program Management Information.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups. A Q-statistic was used to test for differences in impacts estimates.

"Recipients" are British Columbia sample members from the recipient study who responded to the 54-month survey. Statistical significance levels are indicated as: * = 10 per cent, ** = 5 per cent, *** = 1 per cent. Rounding may cause slight discrepancies in sums and differences.

^a"Impact per eligible Applicant" is the impact for Applicants divided by the SSP eligibility rate among program group members (0.583).

^bFull-time employment is defined as working 30 hours or more in at least one week during the month.

^cIncludes projected Employment Insurance (EI) premiums and Canada Pension Plan premiums deducted at payroll and projected income taxes. Payroll deductions and 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.

^dAverage monthly public expenditures on SSP, IA payments, and other transfers (Child Tax Benefit, Goods and Services Tax Credit, EI benefit, and provincial tax credits), net of projected tax revenue.

^eNet individual income includes earnings, income assistance, and SSP payments, as well as all other sources of individual cash income (alimony and child support, Child Tax Benefit, the Goods and Services Tax Credit, Employment Insurance, provincial tax credits, the BC Family Bonus, income from roomers and boarders, and other reported income).

^fCalculated by comparing annualized family income (individual pre-tax income plus earnings of other family members) with the low income cut-off defined by Statistics Canada for the sample member's location and family size.

Wages

The finding that SSP's impact on earnings differed between studies in the absence of a corresponding difference in SSP's impact on hours raises the question of the wage rates achieved by Applicants and Recipients. Did SSP generate more earnings for Applicants because it helped Applicants more than Recipients to secure jobs at higher wages?

It is difficult to compare directly wage rates between the studies, since not every participant was employed. For example, Table 3.5 earlier in this report shows that SSP increased the proportion of Applicants working at \$2 or more above the minimum wage in Month 26 by 5.2 percentage points. BC Recipients had only a 1.6 percentage point increase at this wage rate in a comparable month (Month 15). However, SSP had a smaller impact on the proportion of Recipients working *at all* compared with Applicants (12.2 versus 12.7 percentage points). Although this difference is not significant, it makes it difficult to disentangle the observation of more workers with high wages among Applicants from effects on the proportions in work.

A comparison of wage rates can be undertaken if it is assumed that any SSP-induced increase in earnings and hours is attributable to people newly employed due to SSP. For example, if the \$7,370 increase in earnings for Applicants due to SSP in Table 6.2 was wholly due to new workers, then they worked an average of 656 additional hours (the hours impact for Applicants in Table 6.2) to earn this amount. This implies that these new Applicant workers earned around \$11.24 per hour (\$7,370 divided by 656 hours), considerably above the BC minimum wage.⁸ Applying the same logic to the Recipient impacts produces an hourly wage rate among SSP-induced new workers of close to \$6.15 (\$3,070 divided by 499 hours). This would imply that the additional employment generated by SSP was at higher wages for Applicants than Recipients. While this finding suggests that SSP helped Applicants find jobs with higher wages, it is based on a strong assumption about the distribution of SSP-induced employment and must be interpreted with caution.

The Efficiency of the SSP Supplement

It is interesting to note that the significant differences between SSP's impacts on earnings for Applicants compared with Recipients arose in the absence of significant differences in employment impacts between the studies. Transfer payments were not dramatically different, although somewhat lower payments of earnings supplements to Applicants were required to leverage SSP's employment and IA effects for Applicants. So why did Applicants require less in supplement payments? Three possible reasons are summarized below:

- **Higher earnings.** Applicants had higher earnings on average, which, because of the SSP formula, would result in lower supplement payments.
- **Fewer supplement takers.** Fewer Applicants were in receipt of supplements at any one time. In total, just 27 per cent of Applicants became takers compared with 34 per cent of Recipients.

⁸An earlier report (Michalopoulos, Robins, & Card, 1999, p. 20) used the same method to derive a similar \$12 estimate.

- Less windfall.** Differences in supplement payments could indicate a difference in the efficiency of program use among Applicants and Recipients. If participants who took up the supplement would have left income assistance anyway, this produces “windfall” gains of program funds to those participants, which in turn generates no additional fall in IA receipt.⁹ If there were large differences in windfall between the two studies, similar program impacts on IA receipt might not translate into similar gains for government. Estimates of windfall are presented in Table 6.3 and explained in the accompanying text box. These imply that windfall rates were very similar in the Applicant and Recipient studies — except towards the end of the study periods when the Recipient IA impact was declining. There are few grounds for suspecting that SSP was notably less efficient in this respect for Recipients, and consequently that differences in costs to government between the studies were substantially affected by windfall.

Estimating Windfall

SSP provides a “windfall” to people who would have left income assistance without the supplement offer but who are nevertheless receiving supplement payments. An estimate of this windfall is the difference between the percentage receiving supplement payments and the impact on receipt of income assistance. These estimates are presented in Table 6.3. For example, in Quarter 6 following eligibility determination,^{*} 19.2 per cent of the Applicant sample received supplement payments, while SSP decreased IA receipt by 11.1 percentage points. These figures suggest that 8.1 per cent of the Applicant sample, or about 42 per cent of all supplement takers, were windfall cases who would have left income assistance without the supplement offer. A similar calculation reveals that the proportion of windfall during the equivalent quarter for Recipients was 43 per cent.

^{*}For Recipients, eligibility determination took place at random assignment. For Applicants, eligibility was determined 12 months after random assignment.

Of these three reasons why Applicants might have required less in supplement payments to achieve similar economic impacts to Recipients, that Applicants achieved significantly higher earnings appears the most obvious one. According to the second reason, fewer supplement takers lowers *supplement* costs to government because relatively fewer Applicants than Recipients became eligible and took up the supplement. However, it is not clear that this in itself made supplement payments more efficient in achieving outcomes, since SSP’s effects would necessarily be concentrated among a smaller group of takers. Before broader factors affecting differences in economic impacts are considered, therefore,

⁹An incentive payment that rewards an activity that would have happened even if it were not available could be interpreted as a waste of program dollars. Of course, windfall supplement dollars may have other benefits, such as contributing to the income and anti-poverty effects of SSP.

the following section considers estimates of impacts per eligible program group member. This offers one way to compare the potential magnitude of economic outcomes among Applicants and Recipients actually eligible for the supplement.

Table 6.3: Proportion of Windfall Supplement Recipients — Applicant and Recipient Studies

	Windfall Supplement Recipients					
	As Proportion of Program Group			As Proportion of Supplement Recipients		
	Applicant Sample (1)	Recipient Sample (2)	Difference (1)-(2)	Applicant Sample (3)	Recipient Sample (4)	Difference (3)-(4)
Quarter following eligibility determination^a						
Quarter 2	3.8	4.6	-0.8	45.1	66.7	-21.7
Quarter 3	5.4	6.1	-0.7	42.5	54.5	-12.0
Quarter 4	6.2	7.2	-1.0	40.3	51.1	-10.8
Quarter 5	7.3	7.4	-0.1	38.0	41.6	-3.5
Quarter 6	8.1	9.2	-1.0	42.4	43.0	-0.6
Quarter 7	9.6	9.5	0.1	49.4	48.9	0.5
Quarter 8	10.3	9.7	0.6	54.6	54.0	0.6
Quarter 9	10.5	10.7	-0.2	59.1	57.7	1.4
Quarter 10	10.0	11.1	-1.1	56.6	62.1	-5.5
Quarter 11	10.3	11.7	-1.3	62.0	69.3	-7.3
Quarter 12	11.2	12.2	-1.0	66.5	66.1	0.4
Quarter 13	8.7	11.8	-3.2	63.8	69.2	-5.4
Quarter 14	3.5	12.3	-8.7	37.9	78.3	-40.4
Quarter 15	1.2	10.5	-9.2	18.7	76.7	-58.0

Sources: Calculations from IA administrative records and payment records from SSP’s Program Management Information System for the Applicant 72-month report sample and the Recipient 54-month report sample in BC.

Notes: The windfall estimates for each quarter are calculated from estimates of average supplement and IA receipt for the three months within the quarter.

“Windfall” is defined as the proportion of the sample in receipt of supplements in each quarter less the experimental estimate of the program impact on IA receipt in the same quarter. The windfall “per supplement Recipient” is the same estimate divided by the average proportion of the sample in receipt of supplements in the quarter.

Rounding may cause slight discrepancies in sums and differences.

^aFor Recipients, eligibility determination took place at random assignment. So Quarter 2 in the table is also Quarter 2 following random assignment. For Applicants, eligibility determination took place at the start of Quarter 5 following random assignment. So Quarter 2 in the table is Quarter 6 following random assignment.

Comparing Impacts per Eligible Applicant With Recipients

Following completion of the qualifying year, the behavioural impact of the supplement offer on Applicants was likely concentrated among those still eligible to take it up. Thus impacts per *eligible* Applicant would be expected to exceed those for all Applicants when compared with impacts per eligible Recipient. *Impacts per eligible program group member* provide an alternative and perhaps intuitively more logical basis for comparing how people who have just become long-term IA recipients respond to the availability of a supplement with how all long-term recipients respond.

In columns 4 through 6 of Table 6.2, impacts per eligible program group member in the two studies are compared. For the Recipients, the impacts per eligible program member are the same as impacts for the entire Recipient sample because 100 per cent of program group members in the Recipient study were eligible for the supplement at random assignment. In

the Applicant study, only 58.3 per cent of Applicant program group members were eligible for the SSP supplement and, therefore, estimates of impacts per eligible program group member are obtained by dividing full sample impacts by 0.583.¹⁰

According to column 6 of Table 6.2, most impacts per eligible program group member in the Applicant sample were significantly larger in magnitude than impacts per Recipient program group member. For example, the impact of SSP on average monthly full-time employment through the 54 months was more than four months higher per eligible Applicant than per Recipient. The switch to impacts per eligible program group member reveals a remarkable effect on earnings. The earnings impact per eligible Applicant program group member was \$12,650 over 54 months versus \$3,070 in the Recipient study.¹¹ Impacts on hours were similarly higher. The bottom panel shows that during the period in which a direct comparison of reported total income and transfers is possible, there were significant differences between SSP's impacts per eligible Applicant compared with Recipients. Eligible Applicants paid more in income tax and reported slightly higher net individual incomes.¹²

These findings suggest that the availability of the SSP supplement increased employment and earnings per eligible program group member and reduced IA receipt and transfer payments significantly more for Applicants than for Recipients.

The comparison of impacts between the studies implies clearly that the main mechanisms leading to a more positive benefit-cost analysis for Applicants compared with Recipients are higher earnings and reduced transfers. It does not say why SSP might have had different impacts in the two studies, which is the subject of the next section.

WHY DO OUTCOMES DIFFER BETWEEN APPLICANTS AND RECIPIENTS?

Substantial differences emerge when the same SSP program is tested on what appears ostensibly to be the same group of people at the same time — single parent welfare recipients in British Columbia in the 1990s. This section considers the reasons why the differences arose and what lessons for welfare policy might emerge from these differences.

There are three potential reasons why results for Applicants might differ from results for Recipients. First, the program was different. While the earnings supplement program operated in the same way, Applicants knew about their potential eligibility for the supplement a full year earlier than Recipients and had up to two years in which to plan activities to help them secure paid employment. Recipients had just one year.

¹⁰Impacts per eligible program group member are valid impact measures if ineligible program group members did not change their behaviour in response to the SSP offer. Although this is a plausible assumption, effects on ineligible program group members cannot be ruled out. For example, some members of the program group could look for work early in an effort to become eligible for the supplement later on. Because such changes cannot be ruled out, impacts *per* eligible applicant program group member are not necessarily the same as impacts *among* eligible applicant program group members.

¹¹Regression-adjusted earnings impacts (see Chapter 1) are also significantly larger per eligible applicant compared with recipient impacts over the 54-month period.

¹²The regression-adjusted impact on net individual income was not statistically significant.

Second, the Recipient sample differed from the Applicant sample. Recipients were sampled from the population of long-term welfare recipients. Therefore, some had been on welfare for a substantial number of years. In contrast, the Applicant sample was drawn from new welfare applicants. By definition, none of the participants sampled as Applicants was a long-term recipient: 58 per cent of them *became* long-term Recipients after they spent a year on welfare. Only a subset of this Applicant flow sample would ever stay on welfare for as long as the Recipients. Since people do not leave welfare at random, the characteristics of the two samples differed, in turn likely affecting response to SSP.

Third, the one-year waiting period meant that Applicants qualified for the supplement somewhat later, in real time, than Recipients. A whole range of factors, such as inflation, shifts in minimum wage rates, changes in policy, and the local economy could mean that Applicants experienced supplement eligibility in a different environment than Recipients.

Of these three sets of reasons that could account for different outcomes, the first two were intentional. For example, the program design under test included a two-year period for Applicants¹³ from their first notification about the supplement offer until the date they would forfeit the supplement. It was also anticipated that the composition of the population exposed to the SSP offer would change as the program matured. However, the differences in relative timing of supplement eligibility need further exploration since they could confound the findings.

These three sets of reasons are elaborated, in turn, below.

Differences in the Program: Awareness of the Earnings Supplement Offer

Having to spend an additional year on welfare to qualify for the supplement could have altered program effects for Applicants by allowing those who would become eligible more time to prepare for supplement eligibility. Berlin et al. (1998) found that advance notice produced a modest 3.1 percentage point impact on Applicants' likelihood of staying on income assistance for a full year. This added to government costs. However, there is some evidence to suggest that Applicants used the time to prepare for the availability of supplements in other ways.

Table 6.4 illustrates two of these ways. For the initial 12-month eligibility period, the top panel compares the percentage of Applicant program and control group members who were working full time in each month. For the same groups, the second panel compares the percentage working full time while continuing their IA receipt (in a way that would maintain their eligibility for the supplement).¹⁴

¹³The two-year period consists of the one-year qualifying period on income assistance and the year that followed in which applicants could leave income assistance and take up the supplement.

¹⁴The data permit calculation of whether control group members would have remained eligible for SSP supplements if they had been in the program group.

Table 6.4: SSP Impacts on Full-Time Employment, Eligibility for the SSP Supplement, and Job Search During the 12 Months Following Random Assignment

Outcome (Monthly Average)	Applicants: 72-Month Survey Sample			
	Program Group	Control Group	Difference (Impact)	Standard Error
Employed full time (%)				
Month 1	13.0	13.4	-0.4	(1.25)
Month 2	16.3	15.5	0.8	(1.49)
Month 3	18.8	16.4	2.4	(1.61)
Month 4	20.0	17.7	2.3	(1.69)
Month 5	21.9	18.5	3.4*	(1.76)
Month 6	23.0	19.4	3.6**	(1.82)
Month 7	23.6	20.4	3.2*	(1.86)
Month 8	23.9	21.1	2.8	(1.88)
Month 9	25.7	21.2	4.5**	(1.92)
Month 10	25.4	21.8	3.6*	(1.92)
Month 11	25.8	21.8	4.0**	(1.93)
Month 12	26.8	22.4	4.4**	(1.95)
Employed full time while still “eligible” for SSP supplement (%)^a				
Month 1	13.0	13.4	-0.4	(1.25)
Month 2	15.3	14.1	1.2	(1.48)
Month 3	14.0	11.0	3.0**	(1.49)
Month 4	12.0	9.5	2.5*	(1.43)
Month 5	12.7	8.5	4.2***	(1.44)
Month 6	12.0	7.5	4.6***	(1.40)
Month 7	10.6	7.0	3.6***	(1.34)
Month 8	9.6	6.3	3.3**	(1.28)
Month 9	9.7	6.1	3.6***	(1.29)
Month 10	9.0	5.7	3.3***	(1.25)
Month 11	8.3	5.7	2.6**	(1.22)
Month 12	8.9	5.0	4.0***	(1.22)
Job search during 12-month eligibility period (%)				
Respondent looked for work				
since baseline interview	55.7	52.0	3.7*	(2.09)
in four weeks prior to 12-month interview ^b	30.9	26.9	4.0**	(1.90)
In four weeks prior to 12-month interview, respondent looked for				
full-time work ^b	25.9	22.5	3.3*	(1.80)
part-time work ^b	18.7	14.8	3.9**	(1.57)

Sources: Calculations from 12-month and 72-month follow-up survey data and IA administrative records.

Notes: Two-tailed t-tests were applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

^aBy definition, control group members were not eligible for SSP. The proportion who would have been eligible, however, was calculated — as if they had been in the control group — based on their receipt of income assistance during the first year following random assignment.

^bThe proportions looking for full-time work and looking for part-time work do not sum to the proportions looking for any work, as respondents could report looking for both types of work simultaneously.

During a number of months from the fifth month following random assignment, there were significant impacts of the SSP offer on full-time employment. Similar significant impacts on working full time while remaining eligible for the supplement occurred from the third month on.¹⁵ This suggests that the SSP offer encouraged program group members to work full time while remaining on income assistance. Control group members had no such incentive to remain on income assistance, so they were less likely than program group members to take up full-time employment and they were much less likely to combine this with IA receipt.¹⁶

Applicant program group members increased full-time employment as fast as — or possibly marginally faster than — the control group. But more program group members preserved their future eligibility for the supplement while working full time. By remaining eligible while already having a full-time job, such program group members would be better able to qualify for the SSP supplement following eligibility determination. Among program group members who were still eligible, 15 per cent were employed full time in Month 12, compared with 9 per cent in the control group.¹⁷ Such anticipatory behaviour could partly account for the fast rate of supplement take up among eligible Applicants described earlier in this chapter. Four in every five Applicant program group members (80 per cent) who were employed full time and still eligible in Month 12 became takers. They comprised about 26 per cent of all takers.

Applicants' job-search behaviour during the year before eligibility determination appears in the final panel of Table 6.4. Even if Applicants had not made use of the advance notice of the SSP offer to secure work, they might have started to look for work. There were small impacts on job-search behaviour among program group members. Much of this activity was in the four-week run-up to the 12-month interview suggesting that some participants were acting in anticipation of imminent supplement eligibility.¹⁸

There is thus some evidence to suggest that receiving the SSP offer early did promote anticipatory behaviour among Applicant program group members — activities that would increase their chances of qualifying for the supplement once eligible. These activities might also have improved their earning potential (allowing them to secure higher wages or better job stability) in their later, supplemented employment.¹⁹ There was no evidence to suggest

¹⁵When these impacts are regression-adjusted to account for small discrepancies in program and control group sample characteristics at baseline, SSP's impacts on full-time employment during the first year mostly disappear, while impacts on working full time while remaining SSP-eligible remain.

¹⁶At the time of the study IA entitlement did not automatically cease for single parents in BC who worked full time. Gradual withdrawal of benefits with increasing earnings and a system of earnings disregards meant that additional earnings did not reduce IA amounts dollar for dollar.

¹⁷For program and control group members to be deemed "potentially eligible" for SSP, they had to receive IA in the month of random assignment and in 11 of the 12 months following the month of random assignment. A small number of applicants were randomly assigned late — more than a month after the month in which IA receipt began. These individuals were deemed potentially eligible if they had spent at least 11 months on IA during the 12 months *since their first month of IA receipt*. To ensure that full-time employment impacts among those eligible for the supplement in Table 6.4 were not due to early supplement eligibility among those with delayed random assignment, a separate analysis (not shown) excluded all those randomly assigned late. Impacts on full-time employment while remaining SSP-eligible were virtually unchanged from those in Table 6.4. Significant differences (at the five per cent significance level) were observed in months 5 through 12.

¹⁸The 12-month interview always took place before eligibility determination.

¹⁹Applicant program group members might have prepared for the supplement in other ways such as seeking out additional education or training. Unfortunately, there are insufficient data to explore whether there was an impact of the SSP offer on education behaviour among applicants during the 12-month eligibility period.

that such activities were widespread. But clearly there were no opportunities for similar preparatory behaviour among Recipients.

Differences in Personal Characteristics

An important reason for differences in the effects of SSP for Applicants and Recipients is simply that they were different groups of people. The composition of people entering welfare is different from the composition of long-term recipients. Applicants were selected who had just begun receiving income assistance after at least a six-month absence. Recipients, on the other hand, had already received income assistance for at least 11 of the 12 months before the month of random assignment. Recipients could be considered a very select group of former welfare applicants who had the greatest propensity to stay on welfare for a long time. Since the factors that predispose welfare recipients to long durations of receipt could also influence response to an intervention like SSP, differences between Applicants' and Recipients' program responses would be expected.

Table 6.5 presents selected characteristics of Applicant and Recipient program group members at random assignment. The most noticeable feature of the table is that the two groups were significantly different at the highest level of confidence on nearly *every* characteristic. Almost by design, Applicants held stronger recent records of employment, since they had spent much less time in receipt of income assistance — 10.4 fewer months on average. One of the most important differences was in educational experience. Nearly two thirds of Applicants had completed high school and more than a fifth had some post-secondary education. More than half the Recipients had not completed high school and less than one in eight had gone on to post-secondary education. Furthermore, there were fewer Applicants reporting physical and emotional limitations. Perhaps contrary to expectations, there were more immigrants in the Applicant program group, suggesting that immigrants were not disproportionately represented among long-term welfare recipients. The opposite was the case for people reporting First Nations ancestry. And Applicants were much more likely to have been married before they became single parents.

Overall, Applicants tended to report characteristics associated with a more advantageous position in the labour market. The differences in education, physical and emotional limitations, marital status, and past work experience may help to explain why Applicants and Recipients reacted differently to SSP.

The difference in Recipients' and Applicants' responses to the SSP offer may be further explained by examining characteristics at the time program group members actually became eligible for the supplement. Thus Table 6.6 includes differences between eligible Applicants and Recipients using data wherever possible from the Applicant 12-month follow-up survey, collected at the time when Applicants' eligibility for the supplement was determined. Ineligible Applicant program group characteristics are also included for comparison.

The table demonstrates that eligible Applicants were more similar to Recipients than ineligible Applicants on most characteristics. Nonetheless eligible Applicants still differed from Recipients significantly on *almost* every characteristic, at the highest level of confidence (shown in the final two columns). There were notable differences between eligible Applicants and Recipients in their recent work history, in education level, and in

physical and emotional limitations reported at baseline.²⁰ More recent work experience may also have assisted Applicants in finding better paying jobs than Recipients.

Table 6.5: Baseline Characteristics of Applicants vs. Recipients, Program Group Members Only

Baseline Characteristic	Applicant Program Group	Recipient Program Group	Difference	Standard Error
IA history				
Average number of months of prior IA receipt ^a	1.5	11.9	-10.4***	(0.0)
Average monthly IA payment at random assignment (\$) ^b	916	1,022	-107***	(13.5)
Work history				
Ever worked for pay (%)	97.7	95.8	1.9***	(0.7)
Worked in month prior to random assignment (%) ^c	24.0	18.2	5.8***	(1.6)
Personal characteristics				
Female (%)	91.7	95.3	-3.5***	(1.0)
Under age 25 (%)	15.5	17.4	-1.9	(1.5)
Less than high school education (%)	34.3	52.6	-18.3***	(2.0)
High school graduate, no post-secondary education (%)	40.9	35.5	5.4***	(2.0)
Some post-secondary education (%)	22.4	11.9	10.5***	(1.5)
First Nations ancestry (%)	7.2	13.1	-5.9***	(1.2)
Immigrant (%)	29.4	22.5	6.9***	(1.8)
Physical limitation (%)	19.8	25.7	-5.9***	(1.7)
Emotional limitation (%)	5.7	9.0	-3.2***	(1.1)
Family structure				
Average number of children (up to age 18)	1.7	1.8	-0.1	(0.0)
Never married (%)	21.6	43.7	-22.2***	(1.8)
Sample size (total = 2,480)	1,186	1,294		

Sources: Calculations from Applicant and Recipient baseline survey data, 54-month Recipient follow-up survey data, 72-month Applicant follow-up survey data, and IA administrative records.

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

Two-tailed t-tests were applied to differences in baseline characteristics between Applicant and Recipient program groups. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

^aFor Applicants, the number in the table is the average number of months of IA receipt in the 12 months before random assignment.

For Recipients, the number in the table is also the average months of IA receipt in the 12 months before random assignment.

^bFor Applicants, this is the average IA payment in the month of random assignment. For Recipients, this is the IA payment received in the month before random assignment.

^cFor Applicants and Recipients, the number in the table represents the proportion of participants working in the month prior to random assignment.

The eligible Applicants tended to have higher education levels at baseline than the Recipients. Not only were there more eligible Applicants who had completed high school, but also there were more who had some post secondary education — a difference of 6.8 percentage points. Moreover, there were fewer eligible Applicants than Recipients who reported physical or emotional limitations.

²⁰Unfortunately, education data were not collected in the 12-month survey in a way that would permit Applicants' qualifications at that point to be compared with Recipients'.

Table 6.6: Characteristics of Ineligible Applicants vs. Recipients and Eligible Applicants vs. Recipients, Program Group Members Only

Characteristics	Applicant 72-Month Sample		Recipient 54-Month Sample	Ineligible Applicants vs. Recipients		Eligible Applicants vs. Recipients	
	Ineligible Applicant Program Group (1)	Eligible Applicant Program Group (2)	Recipient Program Group (3)	Difference (1)-(3)	Standard Error	Difference (2)-(3)	Standard Error
IA history at 12 months							
Average number of months in IA receipt in prior 12 months to random assignment ^a	4.8	11.8	11.9	-7.0***	(0.1)	0.0**	(0.0)
Average monthly IA payment in prior 12 months to random assignment (\$) ^b	4,227	11,666	11,972	-7,745***	(152)	-306**	(136)
Work history							
Ever worked for pay (%)	99.2	97.0	95.8	3.4***	(0.9)	1.1	(0.9)
Worked in month prior to eligibility determination (%) ^c	55.3	28.5	18.2	37.0***	(2.2)	10.3***	(1.9)
Average number of months of employment in prior year ^d	6.0	2.8	2.0	4.0***	(0.2)	0.9***	(0.2)
Personal characteristics at baseline							
Female (%)	90.7	92.5	95.3	-4.6***	(1.3)	-2.8**	(1.1)
Under age 25 (%)	14.2	16.4	17.4	-3.2*	(2.0)	-1.0	(1.8)
Less than high school education (%)	29.2	38.0	52.6	-23.38***	(2.6)	-14.56***	(2.4)
High school graduate, no post-secondary education (%)	41.3	40.6	35.5	5.8**	(2.6)	5.2**	(2.3)
Some post-secondary education (%)	27.5	18.7	11.9	15.6***	(1.9)	6.8***	(1.7)
First Nations ancestry (%)	7.1	7.2	13.1	-6.0***	(1.7)	-5.9***	(1.5)
Immigrant (%)	24.8	32.6	22.5	2.3	(2.2)	10.1***	(2.1)
Physical limitation (%)	19.9	19.7	25.7	-5.8***	(2.3)	-6.0***	(2.0)
Emotional limitation (%)	6.3	5.3	9.0	-2.7**	(1.5)	-3.6***	(1.3)

(continued)

Table 6.6: Characteristics of Ineligible Applicants vs. Recipients and Eligible Applicants vs. Recipients, Program Group Members Only (Cont'd)

Characteristics	Applicant 72-Month Sample		Recipient 54-Month Sample	Ineligible Applicants vs. Recipients		Eligible Applicants vs. Recipients	
	Ineligible Applicant Program Group (1)	Eligible Applicant Program Group (2)	Recipient Program Group (3)	Difference (1)-(3)	Standard Error	Difference (2)-(3)	Standard Error
Family structure at 12 months							
Average number of children (up to age 18)	1.4	1.7	1.8	-0.4***	(0.0)	-0.1	(0.0)
Never married (%)	17.9	21.5	43.7	-25.9***	(2.5)	-22.3***	(2.2)
Currently married/common-law (%)	14.0	4.0	1.9	12.1***	(1.1)	2.1**	(0.8)
Sample size	492	694	1,294				

Sources: Calculations from Applicant and Recipient baseline survey data, 54-month Recipient follow-up survey data, 72-month Applicant follow-up survey data, and IA administrative records.

Notes: "Eligible Applicants" are defined as members from the Applicant study who were in receipt of income assistance for 11 of the 12 months following the month of random assignment.

Sample sizes vary for individual measures because of missing values.

Two-tailed t-tests were applied to differences in personal characteristics at baseline between ineligible Applicant and Recipient program groups and "eligible" Applicant and Recipient program groups. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

^aFor Applicants, the number in the table is the average number of months of IA receipt in the 12 months since random assignment. For Recipients, the number in the table is the average months of IA receipt in the 12 months before random assignment.

^bFor Applicants, this is the average IA payment in the months 1 through 12 since random assignment. For Recipients, this is the IA payment received in the months 1 through 12 before random assignment.

^cFor Applicants, eligibility determination was at the 12th month of the follow-up period. For Recipients, eligibility determination was at random assignment.

^dFor Applicants, the number in the table is the average number of months of employment in the 12 months since random assignment. For Recipients, the number in the table is the average number of months of employment in the 12 months prior to random assignment.

The evidence in Table 6.5 suggests that Applicants as a whole had characteristics that better prepared them for labour market participation than Recipients. This conclusion is further confirmed by evidence in Table 6.6. Those among Applicants disposed to remain longer on welfare, who thus became eligible for the supplement, were nonetheless still more job ready than Recipients.

Different Study Periods

Recruitment of Applicants and Recipients in BC took place over roughly the same period. Recipients were randomly assigned in January 1993 through March 1995. Applicant recruitment started a year later, in February 1994, and similarly ended in March 1995. But because Applicant program group members had to wait a year before they could become eligible to receive the supplement, supplement eligibility arrived between 11 and 25 months later in real time for the Applicant sample than it did for Recipients. Could economic factors that vary with time, like social policies, the local economy, dollar values, and minimum wage rates account for differences in how Applicants experienced supplement eligibility compared with Recipients? Each of these issues is discussed in turn below.

Policy Changes

Chapter 1 describes how the bulk of the changes in welfare policy in BC likely to affect welfare receipt and transitions to employment among SSP study members occurred during 1996. In that year the province introduced sanctions for those who left work without good cause, reduced its earnings disregard, and introduced the family bonus (in a way that increased the incentive to take low-paying work over welfare). January 1996 was also the turning point in welfare caseload numbers in BC. A steady reduction in the welfare caseload began, following steady increases, during the first half of the 1990s.²¹

The critical year of 1996 in BC welfare policy was a core period for supplement receipt among Recipients, since even the very earliest Recipient study recruit could not have completed three years of supplement receipt before January 1996. The latest date that final Recipient recruits could have started supplement receipt was March 1996. By contrast, the earliest Applicant recruits would only have been midway through supplement receipt towards the end of 1996. Some Applicants did not even begin receipt before 1997. Thus Applicants would have been exposed to BC's policy changes relatively earlier during supplement receipt.

It is important to note that the different policy changes could have affected response to the SSP offer in different ways. Sanctions and the family bonus may have made staying in work more attractive, but reductions in the earnings disregard made combining low-paying work and welfare less attractive. Someone contemplating whether to initiate the supplement following the policy changes (an option only for later-recruited Applicants) might have been discouraged by sanctions but encouraged by the new family bonus. The lower earnings disregard might have increased the attractiveness of "low-paying work plus supplement" over "low-paying work plus welfare."

²¹There were 57,000 single parent IA cases in BC in 1995 and 55,000 in 1996, but only 48,000 in 1997 and 39,000 by 2000.

It is very difficult to discern how important the later onset of such potentially offsetting policies might have been for the Applicant response to SSP relative to Recipients. Control group members would have been affected by policy changes as well, reducing the effect of later changing policy on the actual impact estimates being compared in Table 6.2.

Changes in the Local Economy

As reported in Chapter 1, the Vancouver labour market gradually improved during the 1990s. Figures for BC indicate that employment of 25- to 44-year-old women remained stable between 1994 and 2000. Employment of younger women fell between 1994 and 1998, before increasing again from 1998 to 2000. It is thus plausible that the later-recruited Applicants fared better than Recipients because they sought work in a slightly more favourable labour market. However, the differences between years were small (in the order of one percentage point in unemployment rates), and control group members would be expected to take advantage of such differences as well, reducing the effect the changing economy could have had on Applicant impacts relative to Recipients.

The effect of other time-related differences between Applicants and Recipients — due to changing minimum wage rates and inflation over time on Recipient and Applicant incomes — can be estimated relatively easily. When Applicant impacts are expressed in these constant dollar amounts, there is virtually no change seen from the pattern or magnitude of impacts observed in Table 6.2.

It is difficult to conclude that the timing of the recruitment accounted for much of the difference in impacts between BC Recipients and Applicants. Control group members experienced identical policy and economic environments to program group members (except for the SSP offer). This prevented time-varying factors from biasing program impacts within each study. Nonetheless, it is impossible to rule out that some changes, notably those associated with changes in welfare policy, may have influenced the comparison of impacts between the two studies.

CONCLUSIONS

The Recipient study showed that SSP was an effective policy for Recipients. The Applicant study results suggest that SSP was even more effective for Applicants. Among Applicants eligible for the supplement, supplement take-up was much faster than among Recipients. Resulting earnings were higher and transfer payments were lower, lowering the costs to government. Applicants appeared to use the supplement more efficiently than Recipients, requiring lower supplement payments to achieve similar economic outcomes.

Of course, Recipients represented clients of the IA system who would be expected to fare less well in the labour market than Applicants. Recipients were a cross-section of long-term welfare recipients, including those who faced considerable employment barriers and had remained on assistance for long periods. Despite these challenges, Michalopoulos et al. (2002) shows that SSP was highly successful in promoting employment, reducing welfare use, and reducing poverty among this hard-to-serve clientele. The Recipient study found SSP to be one of the most successful voluntary welfare-to-work interventions to have been tested using a random assignment experiment. Evidence from this chapter shows that SSP was even more successful for Applicants.

However, the conclusion of this chapter is yet more optimistic. The Recipient study simulated the effect of *initiating* a program like SSP. It captured the likely start-up costs of dealing with the stock of current welfare recipients, some of whom have extremely long IA histories and high barriers to employment. It simulated the short-term consequences of initiating SSP. If that were to happen, eventually all of the current stock of long-term welfare recipients would have become eligible for SSP. At that point, the only people left to become eligible would be new welfare applicants — like participants in the Applicant study. In this sense, the Applicant study simulated the future of SSP as an ongoing program. This future is promising. This study shows that SSP is even more effective in helping new applicants to welfare.

Taking results from the two studies together suggests that SSP would be a very effective program to help current long-term welfare recipients and that its effectiveness would grow over time.

Chapter 7: What Are the Lessons From the SSP Applicant Study?

This is the final chapter of the last report on the Self-Sufficiency Project (SSP) Applicant study. It confirms what SSP did, as a program, for its target population of new welfare applicants and identifies key new messages from the study for practitioners, policy-makers, and researchers. The focus is on what should be learned from the SSP Applicant study findings, together with those from the SSP Recipient and SSP Plus studies, for future implementation of an SSP-type policy. The chapter also draws attention to some challenges that may emerge in the application of lessons learned from the study to future policy.

WHAT DID SSP DO FOR APPLICANTS?

SSP offered a conditional, temporary work incentive that required welfare applicants to change their behaviour over a specific time period. Single parents new to welfare were told that they might be entitled to an earnings supplement for up to three years if they stayed on welfare for a year and then left welfare for full-time work in the next year. This report has shown that SSP produced strong impacts on the receipt of income assistance (IA), employment, and economic well-being of families, at very low net cost to governments.

In reviewing what SSP did for Applicants, it is worth recalling that its effects were driven largely by the response of a relatively small proportion of the initial population of interest. Perhaps surprisingly, given that receipt of an earnings supplement — the core element of the intervention — was potentially an option for every member of the program group, only just over a quarter took it up. This rate of take-up of the supplement was close to 27 per cent among very different subgroups in the sample. Given the likelihood that SSP's impacts were concentrated among these people actually taking up the supplement and that the report's impact estimates are based on averages taken across the entire program and control groups, actual impacts on these "takers" were likely three to four times larger than the reported impacts.

Becoming a taker was a two-stage process. As is explained in Chapter 2, Applicants with characteristics associated with a weaker position in the labour market, such as not completing high school, were more likely to become eligible for the supplement (by staying on welfare for the first year). However, among participants who did become eligible, the likelihood of leaving income assistance during the second year and receiving the supplement was related to stronger labour market characteristics. On balance, the effects of these two stages of the program cancelled each other out, creating similar take-up rates across diverse groups in the sample.

Those who took up the supplement received substantial payments, just under \$20,000 on average, with half receiving them for 29 months or more. Furthermore, the end of such generous supplement payments was not associated with any noticeable change in full-time employment rates or the IA receipt rates of takers.

Once the qualifying year was over, the offer of an earnings supplement reduced Applicants' reliance on income assistance and increased full-time employment for five years. This included the sixth year of the study during which the supplement was no longer available to the vast majority of participants. Earnings increased substantially over five years following eligibility determination. Those for whom SSP had the strongest and longest-lasting impacts were those who had completed high school and who were not working at baseline.

In turn, higher earnings produced higher incomes and a reduction in the proportion of families whose incomes fell below Statistics Canada's low income cut-offs, both while the supplements were being received and to some extent afterwards in the run-up to the final survey. Correspondingly, over the same period, family expenditures were increased. Reductions in poverty were concentrated among those who had completed high school, those who were not working at baseline, and those who did not report a physical or emotional condition limiting their activity.

The benefit-cost analysis in Chapter 5 finds that SSP had achieved its impacts on IA receipt, employment, and income at a very low net cost. The gross cost to governments of operating a system that included SSP was estimated at \$36,567 per participant over six years, or about \$3,819 more than a system without SSP. Once the changes in participants' tax payments and credits were taken into account, however, net expenditure on SSP was \$660 over six years — or about \$110 per year — per participant. This expenditure raised each participant's income by \$7,504 on average.

While many findings from the Applicant study — including the gross cost of operating SSP — will not come as a surprise to those familiar with SSP's impacts on long-term welfare recipients (the "Recipient study") reported by Michalopoulos et al. (2002), the net costs of the program were substantially lower for Applicants. Chapter 6 shows that this was because Applicants were able to respond more effectively to the supplement offer. They had characteristics that implied a more advantageous position in the labour market and were able to use SSP to secure higher earnings over the study period, with no additional windfall costs relative to Recipients. With higher earnings came increased tax returns to government. The cost to governments per dollar gained by Recipients in BC was 67¢. The cost to governments per dollar gained by Applicants was only about 10¢.

The Recipient study concluded that SSP *accelerated* by two to three years welfare recipients' transition to full-time employment. In doing so, it produced some of the largest employment impacts seen in random assignment program evaluations. Findings from the Applicant study do not alter this basic conclusion. Applicants as a population may have been better prepared for the labour market, but SSP still made a difference to their employment, IA behaviour, and earnings. Close examination of Figure 3.2 reveals that Applicant program group members had achieved a rate of full-time employment in Month 29 that control group members had not achieved until Month 65, three years later. In Table 3.4, program group earnings were \$10,571 in Year 3, a level not reached by control group earnings until two years later.

Where the Applicant study has added to the lessons from the Recipient study is in the effectiveness of incentives. While both the Recipient and Applicant studies show that incentives worked when an earnings supplement was offered to long-term welfare recipients to leave welfare, the Applicant study shows that another incentive was less effective. When

Applicants were offered an incentive to stay on welfare for a year, relatively few were tempted. Only 3.1 per cent of Applicants were motivated to stay a year on welfare in order to qualify for SSP. The findings from focus groups reported in Chapter 2 suggest that incentives may not be taken up if they do not resonate closely with the immediate goals and identities of participants.

SSP for Applicants thus offered families who — while new to welfare — would become long-term welfare recipients an effective incentive to increase their employment and earnings and reduce their IA receipt over the medium to long term. It was successful in doing so *without* creating an effective incentive for other families to become long-term welfare recipients in order to qualify. Compared with Recipients, the positive impacts of SSP lasted up to a year longer for Applicants and were achieved at lower net cost to government.

KEY LESSONS FROM SSP FOR APPLICANTS

The evidence emerging from the Applicant study, especially when used in conjunction with evidence from the other two SSP studies — for long-term welfare recipients and SSP Plus — contains lessons for policy-makers, practitioners, and social policy researchers.

Lessons for Policy-Makers

The three SSP studies have demonstrated that mixing work and transfers is a legitimate way to increase work incentives and reduce poverty. Importantly, the Applicant study has shown that a program that dramatically increases clients' incomes as a reward for leaving income assistance does not necessarily generate additional costs for taxpayers. This is the case even when the initial offer has the potential to encourage people to stay for a year on income assistance, and — as Chapter 6 shows — 40 per cent or more of supplement takers would likely have left income assistance in the absence of the offer. What may have appeared an ambitious or a risky strategy of highly generous supplementation has proven itself to be not only viable, but also a cost-effective way to reduce IA use while benefiting participants.

Participants were able to combine income from employment with supplement payments to create an attractive combined income package that made working — or working more — financially worthwhile. Given that the ability to supplement earnings led to increased employment and higher earnings, the program had a multiplier effect on earnings. For most groups, earnings were higher than they would have been in the absence of SSP's offer of a temporary earnings supplement.

There are four caveats from the research, however, that suggest that supplementation alone will not increase longer-term self-sufficiency for all single-parent welfare recipients.

First, the SSP Recipient study found that early large employment impacts declined considerably in subsequent months because many supplement takers were unable to sustain full-time employment. The Applicant study provides evidence of similar job loss in Figure 2.2. This suggests that additional support is needed for some supplement takers to retain employment.

Second, the SSP Applicant study has shown that for one subgroup — those already working at baseline — continuing to work while leaving income assistance for supplements did not increase final income. Economic theory implies that supplements could reduce

incentives to search for higher-paying jobs. So, possibly, those already in low-paying jobs were encouraged by SSP to stay in low-paying jobs rather than seek out higher-paying jobs or jobs with wage progression, as they might have in the absence of SSP.

Third, the SSP Plus study has shown that the earnings of long-term welfare recipients increased when job-search assistance was offered in addition to supplements. These findings add to those above to suggest that following initial supplementation, longer-term self-sufficiency may require more selective support focused on preserving the sustainability of employment and potential for development in the jobs that former welfare recipients accept. Such support could include job coaching and support services, workplace mediation, pre-placement preparation, and intervention to encourage rapid re-employment.

Finally, all three studies have found that supplements cannot reach a substantial proportion of the target population. At most, only around half of those eligible have taken up the supplement. Even among Applicants — the study sample with the most advantageous position in the labour market — towards the study's end, when employment was at its highest, half of the program group were not working full time and two fifths were not working at all. Close to a fifth of Applicants remained on income assistance at the end of the study, seemingly unable or unwilling to leave welfare with or without an incentive. To tackle longer-term welfare receipt may require alternative, and more intensive, policies — such as case management for those with multiple barriers to employment, vocational counselling, and job readiness training.

These caveats aside, the SSP approach has been found to be broadly robust as a means to reduce IA use and increase incomes across single parent welfare recipients at different stages of welfare receipt and in different subgroups. These findings suggest that SSP will be cost-effective when initially offered across the longer-term caseload of harder-to-serve clients, and actually has the potential to pay for itself when operating as a steady-state program for new welfare applicants. It is an example of generous and innovative social spending that need not result in net costs to taxpayers.

Lessons for Practitioners

The SSP studies have shown that earnings supplements can help even disadvantaged families to support themselves effectively through the labour market. When designed and delivered well, programs can yield gains to families — increasing employment, income, and family expenditures and lowering levels of hardship — that are paid for increasingly by those families' own efforts. This occurs when income changes arise as much from changes in parents' behaviour — as the program encourages them to work and earn more — as from the direct effect of program dollars. Under SSP, each Recipient's gross income was supplemented by a net additional transfer that averaged close to \$3,500, to which Recipients themselves added \$3,631 of additional earnings. The net additional transfer to Applicants was just \$2,130, yielding \$8,534 in additional earnings. There appeared to be no long-term detriment for children, and the Recipient study suggests that elementary-school-age children may even benefit from programs that increase employment and income simultaneously.

What is more, SSP required participants to change their employment behaviour before they received supplement dollars. Participants had to leave the security of income assistance and secure viable full-time employment before the program delivered its supplements. That

so many low income, single parents were willing to risk a major change in their families' income security is testament to the willingness of families to make the change, the strength of the program message, and the trust placed in the SSP staff who delivered it. As Chapter 6 shows, Applicants started changing their behaviour well in advance of supplement eligibility by combining full-time work with IA receipt in a way that made them better able to qualify for the supplement as soon as the qualifying period was over. And participants continued to behave differently — working more and relying less on income assistance — long after their participation in SSP was over. Thus program dollars delivered over a maximum of three years generated effects over five or six years of families lives.

Lessons for Researchers

The Applicant study was run as a long-term experimental demonstration, testing hypotheses about the positive and negative consequences of offering work incentives. Thanks to the experimental design, this report has been able to report empirically on how welfare recipients would respond over the longer term to SSP's financial incentives — which vary in a complex manner over time — in a way that would have been difficult to determine from statistical prediction alone or an evaluation lacking a convincing counterfactual.

For example, it was very hard to predict how single parents applying for welfare would respond to advance knowledge that after a year on welfare they would become eligible for a generous earnings supplement. This test for the potential unintended consequences of a welfare-to-work program revealed that advance knowledge had only a moderate effect on prolonging welfare receipt. Just 3.1 per cent more Applicant program group members than control group members stayed on welfare for a full year solely because they knew they could become eligible for the supplement.

Thus the Applicant study has shown the benefit of testing for the potential negative effects of policy. If SSP researchers had not sought to determine whether the supplement offer would increase welfare applicants' reliance on income assistance, they could not have discovered that such effects were modest and of minimal financial consequence.

The SSP studies as a whole have shown the benefit of testing policy over the long-term. If researchers had not tracked Applicants over the longer term, they could not have discovered that generous earnings supplements are highly cost-effective for this population. If all SSP participants had not been followed for at least four and half years, then they could not have discovered the long-term influence of programs on behaviour, long after the program itself has ceased to deliver.

The SSP studies have taken 11 years to complete. This is a long research project by any definition. However, over that time Recipients and Applicants were studied simultaneously. The Recipient study simulated the initial introduction of an earnings supplement policy for the existing stock of long-term welfare recipients. The time would inevitably come when all members of the stock would have received the offer. The Applicant study thus simulated the effect of such a policy when the only new recipients of the SSP offer are the inflow of new welfare applicants. By taking the results together, the study has simulated the short-term and long-term consequences of introducing earnings supplementation for welfare recipients. In other words, by careful design, a research program of finite length has been able to predict the long-term consequences of a new policy, from introduction to steady state maturity.

CHALLENGES IN APPLYING THE LESSONS FROM SSP

IA recipients leave welfare all the time. By using a rigorous random assignment evaluation, SSP has determined the difference that an earnings supplement program can make over and above what would have happened to IA clients in the absence of the program. The study has produced reliable estimates of a range of benefits and costs resulting from offering the earnings supplement. It has also permitted comparison of the consequences of making the offer at different stages of welfare receipt. The answers to SSP's research questions can be presented as definitive lessons learned, thanks to the way the SSP study was implemented. Nonetheless, caution is urged in applying these findings directly to implementation of new policy, for the following reasons.

First, SSP tested a specific program model on a specific population. Earnings supplements may produce different effects when introduced as part of different programs for different populations. For example, SSP was tested as a voluntary alternative to welfare for single parents. Parents chose how they wished to combine employment, welfare, and supplement payments. Earnings supplements delivered in a compulsory program¹ might not yield the same results.

Second, pilots of interventions among selected samples, especially experimental demonstrations like SSP, cannot generalize the "equilibrium" effects of the intervention on broader labour market behaviour. Supplemented workers may conceivably displace existing low-paid workers in their local labour markets, wages may be lowered, and jobs may be created or lost if supplementation becomes widespread. Depending on the size and influence of the target group in the relevant labour market, some effects of an intervention will not be forecast.

Third, the data were collected from a program run outside the existing system during a particular period (the mid to late 1990s) in a single site (British Columbia's Lower Mainland). It is probable that a future program would be implemented by the provincial welfare agency. This is assumed in the benefit-cost analysis in Chapter 5. However, supplements could be delivered by a separate delivery agency (as with SSP) or through the tax system (as refundable tax credits). How these different organizations approach publicizing and operating the initiative will have implications for the response. For example, the "entry effects" study simulated the delivery of information to participants about the supplement to achieve a level of awareness equivalent to knowledge about work incentives in the welfare system. It is likely that current knowledge of similar incentives in the tax system is less well developed. Thus behavioural responses from future implementation of earnings supplements through the tax system compared with the welfare system would likely differ, as they might also between different welfare systems.

Finally, a margin for error is common in research that estimates effects based on a random sample. This is reflected in the standard errors and significance levels used in the tables for this report.

The final report on the Recipient study (Michalopoulos et al., 2002) concludes by drawing attention to how lessons from its exploration of the effects of a specific intervention

¹An example of a compulsory program would be one in which single parents are required to look for full-time work.

that made a once-in-a-lifetime offer to a specific target population in two locations over a particular period of time could not be applied directly to other policy problems. The Applicant study conclusion must reassert these warnings especially since it does not share the benefit of the Recipient study in having an equivalent intervention tested in another province. Great care must be taken in extrapolating the findings to current and future provincial policy.

Within these caveats, the SSP studies have nonetheless afforded policy-makers a very high level of confidence in answers about what the program can achieve. New policy can be developed with many more certainties than was possible before the SSP studies began. The answers to SSP's research questions can be presented as definitive lessons learned, thanks to the way the SSP study was implemented. This approach has afforded policy-makers a very high level of confidence in the studies' answers about what the program has achieved.

CONCLUSIONS

As a test of a policy option — making work pay through a time-limited offer of earnings supplements tied to a full-time hours requirement — SSP has delivered definitive answers to the research questions it was set. A viable program design was effectively implemented as a demonstration within a random assignment experimental design with long-term follow-up of program outcomes. If a different approach had been taken, the answers would have been more equivocal and conclusions about the effectiveness of earnings supplements would have been harder to draw.

The Applicant study has found that generous financial work incentives can generate large increases in employment, earnings, and income and reduced welfare receipt and poverty over five to six years. Moreover, it has found that such an incentive program comes very close to paying for itself when the recipients' increased taxes and reduced IA receipt are taken into account. Such findings are remarkable and might be the subject of considerable debate if they were not the culmination of a sequence of findings from a related series of SSP studies subject to a rigorous experimental study design. The Recipient study showed that SSP was an effective policy for Recipients. The Applicant study results suggest that SSP was even more effective for Applicants.

These studies have delivered a wealth of policy lessons. The Recipient study concluded that SSP *accelerated* by two to three years welfare recipients' transition to full-time employment. In doing so, it produced some of the largest employment impacts seen in random assignment program evaluation. It made it clear that financial incentives do matter to the employment decisions of welfare recipients. Findings from the Applicant study do not alter this basic conclusion. Applicants as a population appear better prepared for the labour market, but SSP still made a dramatic difference to their employment behaviour, earnings, and use of income assistance. The Applicant study has shed yet more light on the effectiveness of incentives. Both the Recipient and Applicant studies show that financial incentives to seek full-time work could be very effective. However, the Applicant study also offered a financial incentive to remain on welfare in the first 12 months. Fortunately, this incentive was less effective, possibly because it was less in line with Applicants' own goals and preferences.

Like SSP for Recipients, SSP for Applicants has helped a significant proportion of families on welfare for a year or more to rely more on employment and less on welfare,

without detectably harming family well-being, in a way that also reduced poverty. Compared with Recipients, these impacts lasted up to a year longer and were achieved at less cost to government. The two studies together suggest that the cost-effectiveness of SSP and the benefits it produces for families will increase over time.

Appendix A: Analysis of Non-response Bias in the 72-Month Follow-Up Interview

Most of the results discussed in this report are based on the 2,371 original study participants who responded to the 72-month follow-up survey. This 72-month survey sample is a subset of the initial sample of Applicants recruited to the study at the time of random assignment. The full sample at random assignment was 3,315 respondents. There were 944 participants who did not respond to the final 72-month survey, indicating a 72 per cent response rate.¹ This appendix considers the effect of this non-response on the analysis.

Since the impacts of SSP are estimated based on the experiences of the survey sample, the reliability of the estimates may be affected by non-response. To assess the extent of the bias imposed by non-response, the survey sample was examined to establish how well it represented the complete initial study sample. For example, if the follow-up survey sample over-represented people who were originally employed full time, then the impacts from SSP might appear lower than they would have been for the initial target sample.

It is important to look not only at the effect of response rates on the composition of the initial sample, but also at whether survey non-response affected the program and control groups equally. When the decrease in response affects the characteristics of the research groups equally, then the likelihood of systematic bias in impact estimates is reduced.

EFFECTS OF NON-RESPONSE ON BASELINE CHARACTERISTICS

Table A.1 shows a comparison of baseline characteristics of the two research groups as determined from the full initial sample, and from the report (72-month follow up survey) sample. Differences between program and control groups are shown for both samples, and program–control differences are also presented for those who *did not* respond to the 72-month survey. The fluctuations of the research groups appear to be relatively similar, in the sense that differences between the two samples affect the program and control groups equally. There are no major differences between program and control groups within each sample, which confirms the success of random assignment.

There were, nonetheless, some differences between research groups in the baseline sample. Fewer women were in the program group than the control group, and this difference was found to be statistically significant. The program group also had fewer participants of First Nations ancestry and fewer people reporting emotional limitations. Both of these traits were significantly different. Furthermore, the program group had lower monthly income assistance (IA) payments. Overall, these differences were too small to constitute a significant bias to the sample.

¹The response rates of the program group (72.0 per cent) and the control group (71.1 per cent) were similar. The difference of 0.9 percentage points was not statistically significant.

Table A.1: Comparison of Baseline Characteristics of 72-Month Survey Respondents and Non-respondents

Characteristic	Baseline Research Sample			72-Month Survey Sample			72-Month Non-respondents	
	Program Group (1)	Control Group (2)	Difference (3)	Program Group (4)	Control Group (5)	Difference (6)	Program-Differences (7)	Difference From Respondents (7)-(6) ^b
IA history								
Average number of months of IA in two years prior to random assignment	3.2	3.1	0.1	3.1	3.1	0.0	0.3	0.3 n.s.
Average monthly IA payment at random assignment (\$)	928	940	-12	916	928	-12	-9	3.0 n.s.
Work history								
Ever worked for pay (%)	97.0	96.3	0.7	97.9	96.9	1.0	0.0	-1.0 n.s.
Worked in month before random assignment (%)	22.1	21.1	1.0	24.0	23.1	0.9	1.1	0.2 n.s.
Personal characteristics								
Female (%)	89.5	91.6	-2.1**	91.7	93.2	-1.5	-3.8*	-2.3 n.s.
Under age 25 (%)	15.7	14.6	1.1	15.5	14.3	1.3	0.7	-0.6 n.s.
Less than high school education (%)	37.0	38.0	-0.9	34.3	37.2	-2.9	4.5	7.4 †
High school graduate, no post-secondary education (%)	38.9	37.6	1.3	40.9	37.6	3.3*	-4.0	-7.3 ††
Some post-secondary education (%)	21.2	22.4	-1.2	22.4	23.4	-1.0	-1.8	-0.8 n.s.
First Nations ancestry (%)	8.1	9.9	-1.8*	7.2	8.7	-1.5	-2.3	-0.7 n.s.
Immigrant (%)	30	31	-1.0	29	29	0	-4.3	-4.7 n.s.
Physical limitation (%)	20	20	0	20	19	1	-1	-1.5 n.s.
Emotional limitation (%)	6.1	8.4	-2.3**	5.8	8.0	-2.2**	-2.4	-0.2 n.s.
Family structure								
Average number of children (under 19 years)	1.5	1.6	0.0	1.5	1.6	0.0	-0.1	0.0 n.s.
Never married (%)	22.6	24.5	-1.9	21.6	25.1	-3.5**	2.1	5.6 †
Sample size	1,648	1,667		1,186	1,185		944^a	

Sources: Calculations are from baseline and 72-month survey data and IA administrative records.

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

Two-tailed t-tests were applied to differences between the program and control groups and to the differences between the 72-month report sample and the baseline research sample.

Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent.

A Q-statistic was used to test differences between respondents and non-respondents to the 72-month survey. Statistical significance levels are indicated as † = 10 per cent; †† = 5 per cent;

††† = 1 per cent. The abbreviation "n.s." indicates that the variation in impacts among the subgroups is not statistically significant.

^aThis sample size includes the program group and the control group.

The differences between the program and control group using the survey sample were similar to the differences using the baseline sample. However, there were some differences. In addition to fewer participants reporting emotional limitations in the program group, there were also more program group participants with a high school education and who were once married. For example, in the survey sample the difference in proportions of program and control group members who reported a high school education but not post-secondary education was statistically significant at the 10 per cent confidence level, while in the baseline sample the difference was not significant.

The final two columns of Table A.1 examine whether non-response disproportionately affected the characteristics of the program group compared with the control group in the report sample. Whereas column 6 displays, *for the report sample*, program–control group differences in baseline characteristics, column 7 displays these differences for *non-respondents* to the 72-month survey. The final column tests whether there is a statistically significant difference between columns 6 and 7. Such a difference exists for three baseline characteristics. First, the report sample contains 3.3 percentage points more program group members than control group members who have completed high school (and not attended post-secondary education). Among non-respondents, the difference is reversed, with 4.0 percentage points more in the control group having completed high school. Second, non-respondents include disproportionately more control group members who have not completed high school. Third, non-response also disproportionately raised the proportion of never-married control group members in the report sample.

The effect of differential non-response between program and control groups has been to increase the educational experience of the report sample program group relative to the baseline sample. Notably, differential non-response also *reduced* the initial baseline differences in gender and reports of First Nations ancestry. To the extent that differences in such characteristics are associated with IA, employment, and earnings outcomes, non-response could introduce a bias on impact estimates. As explained in Chapter 1, however, key report impacts were checked using additional regression adjustment to take account of differences in baseline characteristics (such as in education), and few differences from the presented, unadjusted impacts were found.

IMPACT ESTIMATES FROM ADMINISTRATIVE RECORDS

Administrative records are particularly useful to assess a possible bias in SSP impacts because these data sources collect information from survey non-respondents. IA data was collected by the BC Ministry of Human Resources, and SSP supplement data was collected by the SSP Program Management Information System. The use of administrative records allows the effect of non-response on critical outcomes like transfer payments to be assessed even for those who refuse or remain untraced by surveys. Moreover, changes that occurred *after* the baseline survey can be detected using administrative records. Table A.2 shows the proportion of participants in receipt of IA and/or SSP supplements in each quarter following baseline and also the average monthly amounts of such payments.

Table A.2: SSP Impacts on IA and Supplement Receipt and Payments, by Respondents and Non-respondents

Outcome (Monthly Average)	Baseline Research Sample				72-Month Survey Sample				72-Month Non-respondents					
	Program Group		Control Group		Program Group		Control Group		Program Group		Control Group		Difference From Respondent Impact	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Receiving IA (%)														
Quarter 1	87.6	87.1	0.5	87.8	86.4	1.4								
Quarter 2	74.7	71.5	3.1 **	76.1	70.0	6.1 ***								-3.0 n.s.
Quarter 3	68.0	65.0	3.0 *	68.8	64.2	4.6 **								-10.3 †††
Quarter 4	64.9	61.8	3.1 *	65.2	61.7	3.5 *								-5.5 n.s.
Quarter 5	60.8	59.5	1.3	60.7	59.7	0.9								-1.7 n.s.
Quarter 6	52.2	55.8	-3.6 **	52.1	56.7	-4.6 **								1.1 n.s.
Quarter 7	46.0	52.7	-6.7 ***	45.7	53.0	-7.3 ***								3.5 n.s.
Quarter 8	40.8	49.0	-8.2 ***	40.3	49.5	-9.2 ***								2.1 n.s.
Quarter 9	35.5	46.3	-10.8 ***	34.3	46.2	-11.8 ***								3.5 n.s.
Quarter 10	33.1	43.0	-9.8 ***	31.6	42.7	-11.1 ***								3.8 n.s.
Quarter 11	30.9	39.0	-8.1 ***	29.1	38.9	-9.8 ***								4.5 n.s.
Quarter 12	29.8	36.9	-7.1 ***	28.6	37.2	-8.6 ***								6.3 †
Quarter 13	28.6	34.4	-5.9 ***	27.8	35.1	-7.3 ***								5.2 n.s.
Quarter 14	26.3	32.3	-6.0 ***	25.6	33.2	-7.6 ***								5.0 n.s.
Quarter 15	25.5	30.6	-5.1 ***	25.2	31.6	-6.4 ***								5.6 †
Quarter 16	24.8	29.4	-4.6 ***	24.5	30.2	-5.6 ***								4.4 n.s.
Quarter 17	23.9	27.9	-4.0 ***	23.6	28.6	-4.9 ***								3.5 n.s.
Quarter 18	22.2	26.4	-4.2 ***	21.8	27.6	-5.8 ***								3.3 n.s.
Quarter 19	21.4	25.2	-3.8 ***	21.2	26.6	-5.4 ***								5.3 †
Quarter 20	20.6	23.7	-3.1 **	20.7	25.5	-4.8 ***								5.5 †
Quarter 21	19.4	22.5	-3.1 **	20.0	24.2	-4.2 **								5.6 †
Quarter 22	19.0	21.9	-2.9 **	19.8	23.3	-3.5 **								3.6 n.s.
Quarter 23	18.3	21.1	-2.8 **	19.0	23.0	-4.0 **								2.1 n.s.
Quarter 24	18.6	20.1	-1.6	19.4	22.1	-2.7 *								4.1 n.s.
Quarter 25	17.9	20.1	-2.2 *	19.3	21.9	-2.7 *								3.8 n.s.
Quarter 26	17.9	19.2	-1.2	19.3	21.1	-1.8								1.4 n.s.
Quarter 27	17.3	18.6	-1.3	18.7	20.3	-1.6								1.9 n.s.
Quarter 28	17.4	18.0	-0.7	18.5	19.4	-1.0								0.9 n.s.

(continued)

Table A.2: SSP Impacts on IA and Supplement Receipt and Payments, by Respondents and Non-respondents (Cont'd)

Outcome (Monthly Average) Receiving either IA or SSP (%)	Baseline Research Sample			72-Month Survey Sample			72-Month Non-respondents		
	Program Group (1)	Control Group (2)	Difference (Impacts) (3)	Program Group (4)	Control Group (5)	Difference (Impacts) (6)	Program-Control (Impacts) (7)	Difference From Respondent Impact (7)-(6) ^p	
Quarter 1	87.6	87.1	0.5	87.8	86.4	1.4	-1.6	-3.0 n.s.	
Quarter 2	74.7	71.5	3.1 **	76.1	70.0	6.1 ***	-4.2	-10.3 †††	
Quarter 3	68.0	65.0	3.0 *	68.8	64.2	4.6 **	-0.9	-5.5 n.s.	
Quarter 4	64.9	61.8	3.1 *	65.2	61.7	3.5 *	1.8	-1.7 n.s.	
Quarter 5	62.3	59.5	2.8 *	62.7	59.7	3.0	2.4	-0.5 n.s.	
Quarter 6	59.4	55.8	3.5 **	60.5	56.7	3.8 *	2.8	-0.9 n.s.	
Quarter 7	56.9	52.7	4.2 **	58.4	53.0	5.4 ***	1.0	-4.5 n.s.	
Quarter 8	54.1	49.0	5.1 ***	55.7	49.5	6.2 ***	2.3	-3.9 n.s.	
Quarter 9	52.0	46.3	5.8 ***	53.5	46.2	7.3 ***	1.9	-5.4 n.s.	
Quarter 10	49.5	43.0	6.6 ***	50.8	42.7	8.1 ***	2.6	-5.5 n.s.	
Quarter 11	47.2	39.0	8.2 ***	48.5	38.9	9.6 ***	4.5	-5.1 n.s.	
Quarter 12	45.5	36.9	8.6 ***	47.5	37.2	10.3 ***	4.2	-6.1 †	
Quarter 13	43.4	34.4	9.0 ***	45.6	35.1	10.5 ***	5.0 *	-5.6 n.s.	
Quarter 14	41.0	32.3	8.7 ***	43.2	33.2	10.0 ***	5.3 *	-4.6 n.s.	
Quarter 15	39.7	30.6	9.1 ***	41.9	31.6	10.3 ***	5.8 **	-4.5 n.s.	
Quarter 16	38.8	29.4	9.4 ***	41.3	30.2	11.2 ***	4.9 *	-6.3 †	
Quarter 17	35.2	27.9	7.3 ***	37.2	28.6	8.7 ***	3.8	-4.9 n.s.	
Quarter 18	29.8	26.4	3.4 **	31.1	27.6	3.5 **	2.8	-0.7 n.s.	
Quarter 19	26.8	25.2	1.5	27.9	26.6	1.2	2.2	0.9 n.s.	
Quarter 20	23.4	23.7	-0.4	24.2	25.5	-1.3	1.9	3.1 n.s.	
Quarter 21	20.0	22.5	-2.6 *	20.8	24.2	-3.4 **	-0.5	2.9 n.s.	
Quarter 22	19.0	21.9	-2.9 **	19.8	23.3	-3.5 **	-1.4	2.1 n.s.	
Quarter 23	18.3	21.1	-2.8 **	19.0	23.0	-4.0 **	0.1	4.1 n.s.	
Quarter 24	18.6	20.1	-1.6	19.4	22.1	-2.7 *	1.1	3.8 n.s.	
Quarter 25	17.9	20.1	-2.2 *	19.3	21.9	-2.7 *	-1.3	1.4 n.s.	
Quarter 26	17.9	19.2	-1.2	19.3	21.1	-1.8	0.0	1.9 n.s.	
Quarter 27	17.3	18.6	-1.3	18.7	20.3	-1.6	-0.7	0.9 n.s.	
Quarter 28	17.3	18.0	-0.7	18.4	19.4	-1.0	-0.1	0.9 n.s.	

(continued)

Table A.2: SSP Impacts on IA and Supplement Receipt and Payments, by Respondents and Non-respondents (Cont'd)

Outcome (Monthly Average)	Baseline Research Sample						72-Month Survey Sample			72-Month Non-respondents						
	Program Group		Control Group		Difference (Impacts)		Program Group		Control Group		Difference (Impacts)		Program-Control (Impacts)		Difference From Respondent Impact (7)-(6) ^p	
	(1)	(2)	(2)	(2)	(3)	(3)	(4)	(4)	(5)	(5)	(6)	(6)	(7)	(7)	(7)-(6) ^p	
Average IA payments (\$/month)																
Quarter 1	851	862	843	846	-12	-3	843	846	846	846	-3	-32	-32	-32	-29.2 n.s.	
Quarter 2	722	718	726	692	4	34 *	726	692	692	692	34 *	-72 **	-72 **	-72 **	-106.2 †††	
Quarter 3	660	643	661	627	17	33	661	627	627	627	33	-24	-24	-24	-57.1 n.s.	
Quarter 4	632	613	629	605	19	24	629	605	605	605	24	5	5	5	-19.2 n.s.	
Quarter 5	596	590	590	588	6	1	590	588	588	588	1	18	18	18	16.9 n.s.	
Quarter 6	514	552	506	560	-38 **	-54 **	506	560	560	560	-54 **	2	2	2	55.8 n.s.	
Quarter 7	450	515	441	519	-65 ***	-78 ***	441	519	519	519	-78 ***	-31	-31	-31	46.4 n.s.	
Quarter 8	382	460	370	463	-78 ***	-93 ***	370	463	463	463	-93 ***	-39	-39	-39	53.9 n.s.	
Quarter 9	321	414	306	413	-94 ***	-106 ***	306	413	413	413	-106 ***	-61 **	-61 **	-61 **	44.9 n.s.	
Quarter 10	280	367	264	365	-87 ***	-101 ***	264	365	365	365	-101 ***	-50 *	-50 *	-50 *	51.8 n.s.	
Quarter 11	256	325	239	323	-69 ***	-84 ***	239	323	323	323	-84 ***	-29	-29	-29	55.6 †	
Quarter 12	243	308	231	311	-65 ***	-80 ***	231	311	311	311	-80 ***	-27	-27	-27	52.8 †	
Quarter 13	236	286	224	291	-50 ***	-67 ***	224	291	291	291	-67 ***	-8	-8	-8	58.9 †	
Quarter 14	213	270	203	279	-56 ***	-76 ***	203	279	279	279	-76 ***	-7	-7	-7	68.8 ††	
Quarter 15	205	255	200	266	-49 ***	-66 ***	200	266	266	266	-66 ***	-9	-9	-9	56.6 †	
Quarter 16	202	243	198	250	-42 ***	-53 ***	198	250	250	250	-53 ***	-15	-15	-15	38.1 n.s.	
Quarter 17	194	234	191	240	-39 ***	-49 ***	191	240	240	240	-49 ***	-16	-16	-16	32.9 n.s.	
Quarter 18	178	217	173	230	-39 ***	-57 ***	173	230	230	230	-57 ***	6	6	6	62.7 ††	
Quarter 19	171	207	169	221	-36 ***	-52 ***	169	221	221	221	-52 ***	6	6	6	58.3 ††	
Quarter 20	162	196	160	212	-34 ***	-52 ***	160	212	212	212	-52 ***	11	11	11	63.1 ††	
Quarter 21	153	184	155	200	-32 ***	-45 ***	155	200	200	200	-45 ***	1	1	1	46.2 †	
Quarter 22	148	178	154	193	-30 **	-39 ***	154	193	193	193	-39 ***	-7	-7	-7	32.0 n.s.	
Quarter 23	143	170	148	187	-28 **	-39 ***	148	187	187	187	-39 ***	-1	-1	-1	38.4 n.s.	
Quarter 24	145	162	152	180	-17	-29 **	152	180	180	180	-29 **	10	10	10	38.3 n.s.	
Quarter 25	142	162	151	179	-20 *	-28 **	151	179	179	179	-28 **	-2	-2	-2	26.0 n.s.	
Quarter 26	146	158	157	175	-12	-18	157	175	175	175	-18	2	2	2	20.5 n.s.	
Quarter 27	138	149	150	163	-10	-13	150	163	163	163	-13	-4	-4	-4	9.4 n.s.	
Quarter 28	140	148	150	161	-8	-11	150	161	161	161	-11	-3	-3	-3	7.3 n.s.	

(continued)

Table A.2: SSP Impacts on IA and Supplement Receipt and Payments, by Respondents and Non-respondents (Cont'd)

Outcome (Monthly Average)	Baseline Research Sample			72-Month Survey Sample			72-Month Non-respondents		
	Program	Control	Difference	Program	Control	Difference	Program	Control	Difference
	Group	Group	(Impacts)	Group	Group	(Impacts)	Group	Group	(Impacts)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Average SSP and IA payments (\$/month)									
Quarter 1	851	862	-12	843	846	-3	-32		-29.2 n.s.
Quarter 2	722	718	4	726	692	34 *	-72 **		-106.2 †††
Quarter 3	660	643	17	661	627	33	-24		-57.1 n.s.
Quarter 4	632	613	19	629	605	25	5		-19.3 n.s.
Quarter 5	622	590	33 *	621	588	33	32		-0.9 n.s.
Quarter 6	590	552	37 **	595	560	35	44		9.7 n.s.
Quarter 7	556	515	41 **	560	519	41 *	39		-2.5 n.s.
Quarter 8	507	460	48 ***	512	463	50 **	42		-7.9 n.s.
Quarter 9	468	414	53 ***	475	413	63 ***	30		-32.2 n.s.
Quarter 10	416	367	49 ***	420	365	55 ***	32		-23.3 n.s.
Quarter 11	395	325	70 ***	402	323	78 ***	50 *		-28.7 n.s.
Quarter 12	371	308	63 ***	383	311	71 ***	42		-29.2 n.s.
Quarter 13	353	286	67 ***	362	291	71 ***	58 **		-12.8 n.s.
Quarter 14	328	270	58 ***	338	279	59 ***	57 **		-1.7 n.s.
Quarter 15	319	255	64 ***	329	266	64 ***	64 **		0.4 n.s.
Quarter 16	309	243	65 ***	323	250	73 ***	44 *		-28.4 n.s.
Quarter 17	277	234	44 ***	289	240	49 ***	30		-18.3 n.s.
Quarter 18	234	217	17	240	230	9	36		26.4 n.s.
Quarter 19	210	207	3	215	221	-6	24		30.8 n.s.
Quarter 20	182	196	-14	184	212	-28 *	20		48.5 †
Quarter 21	156	184	-28 **	160	200	-40 ***	2		41.9 †
Quarter 22	148	178	-30 **	154	193	-39 ***	-7		32.0 n.s.
Quarter 23	143	170	-28 **	148	187	-39 ***	-1		38.4 n.s.
Quarter 24	145	162	-17	152	180	-29 **	10		38.3 n.s.
Quarter 25	142	162	-20 *	151	179	-28 **	-2		26.0 n.s.
Quarter 26	146	158	-12	157	175	-18	2		20.5 n.s.
Quarter 27	138	149	-10	150	163	-13	-4		9.4 n.s.
Quarter 28	140	148	-9	150	161	-11	-4		6.9 n.s.
Sample size	1,648	1,667		1,186	1,185		944 ^a		

Sources: Calculations from IA 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.

Two-tailed t-tests were applied to differences between the outcomes for the program and control groups. Statistical significance levels are indicated as * = 10 per cent; ** = 5 per cent; *** = 1 per cent. Rounding may cause slight discrepancies in sums and differences.

^aThis sample size includes the program group and the control group.

^bA Q-statistic was used to test differences between respondents and non-respondents to the 72-month survey. Statistical significance levels are indicated as † = 10 per cent; †† = 5 per cent; ††† = 1 per cent. The abbreviation "n.s." indicates that the variation in impacts among the subgroups is not statistically significant.

The most pronounced impacts on receipt of income assistance for the sample present at baseline are in quarters 6 to 23. Alternatively, those who responded to the 72-month survey appear to have their largest and most significant impacts in quarters 6 through to 25. It appears that the survey sample experienced significant impacts for somewhat longer periods of time. This pattern applied similarly to SSP supplements and average monthly IA payments.

In the first four quarters, the survey sample estimates of the proportion of participants in the *program* group in receipt of income assistance are higher than estimates using the baseline sample. Furthermore, according to the report sample, participants in the *control* group appeared less likely to receive income assistance, especially in the second quarter, which creates a differential non-response bias in the report sample detected in the final column.

Overall, however, data on average IA payments do not offer evidence of significant non-response bias on impact estimates. Estimates based on the report sample potentially overestimate IA costs during the first four quarters (significant at the highest level in Quarter 2) and overestimate IA savings (especially quarters 14 and 18–20) in the later period. To some degree, these differences cancel out. The survey sample may slightly overestimate SSP's reductions in IA receipt; however, the overestimate is not likely to be large enough to change the major findings from the Applicant study.

Appendix B: Effects on Families and Children

This appendix considers the effects of the Self-Sufficiency Project (SSP) on Applicants' families and specifically their children. For over five years members of the SSP Applicant program group worked more and experienced less poverty. Such substantial changes in program group members' lives are likely to have also changed their families' experiences. Although SSP was targeted at the adult members of single parent families, findings from the SSP Recipient study have suggested that SSP had broader effects on participants' children.

In the Recipient study, three years after random assignment, SSP improved elementary-school-aged children's performance in school and on standardized academic tests. Parental reports on children's health were also better among program group members (Morris & Michalopoulos, 2000). Evaluations of other programs in the United States have similarly shown that children can benefit from programs that increase employment and income (Morris, Huston, Duncan, Crosby, & Bos, 2001).

Evidence that children can benefit from policies that simultaneously reduce poverty and promote work is encouraging. It is possible, however, that such policies may cause considerable disruption in families, which might be harmful for children. For example in the SSP Recipient study, program group members' children who were adolescents at the time of the 36-month follow-up interviews were more likely to have below average academic achievement and were more likely to drink, smoke, and engage in delinquent activity (Morris & Michalopoulos, 2000). While the follow-up survey suggested that there were no longer-term negative effects for this age cohort (Michalopoulos et al., 2002), it remains important to consider any undesirable consequences for children.

This appendix examines whether SSP had any positive or negative effects on children in Applicant study families. Because SSP did not directly target children, any impact on children due to SSP would be indirect: due to changes in family structure, parenting, maternal well-being, and child-care arrangements of program group families. This appendix first investigates whether SSP had any effects on these outcomes. Then it reports effects on children for two age groups: children who were infants and toddlers, and children who were preschoolers or school-aged when their parents could have become eligible for the supplement. These children were aged between zero and eight years old at random assignment. Those among these children whose parents were in the program group and stayed on income assistance (IA) for one year would have been a year older — aged between 1 and 9 years — when their parents became eligible for the SSP supplement. The analysis in this appendix focuses on the program's impacts on these children who were at least 6 years of age but under 15 years of age at the 72-month follow-up,¹ although outcomes on some measures for all parents are also included.²

¹Younger children — born after random assignment — were excluded from the analyses because the timing of their births could have been affected by SSP. The sample contained too few older children to analyze separately.

²In tables 1, 3, 4, and 5, outcomes are reported for each child (in the appropriate age groups) whose parents completed the 72-month parental self-complete questionnaire. Table 2, which examines trends over the study period, reports outcomes at the level of families in the report sample, as in the rest of this report.

SSP'S IMPACTS ON MATERNAL WELL-BEING

Work can have a wide range of effects on well-being. On the one hand, people can develop a sense of accomplishment from work and this may improve their self-esteem and self-efficacy. On the other hand, work can generate stress and might lead to depression or parenting problems. Because SSP increased employment among program group members, it could potentially have had positive or negative effects on maternal well-being.

As Table B.1 shows, 72 months after random assignment SSP had neither positive nor negative consequences for the parents of children aged 6 to 14 years, and across all parents it had an impact only on depression scale scores. The table reports outcomes for depression, self-efficacy, and parenting problems. Program group members had lower mean scores on the depression scale. This difference was not statistically significant for parents of 6- to 14-year-old children. There was also no significant difference in mean outcomes on the scale measuring self-efficacy among program and control group members. The proportions of program and control group members experiencing parenting problems were the same and very low, at or below two per cent.

Table B.1: SSP Impacts on Maternal Well-Being

Outcome	All Parents				Parents of Children Aged 6 to 14 Years			
	Program ^a Group	Control Group	Difference (Impact)	Standard Error	Program ^a Group	Control Group	Difference (Impact)	Standard Error
All parents								
Depression scale ^b	7.3	8.1	-0.8**	(0.3)	6.9	7.4	-0.5	(0.4)
At risk for depression ^c (%)	35.2	37.8	-2.6	(2.4)	31.5	33.6	-2.1	(2.9)
Self-efficacy ^d	11.4	11.5	-0.1	(0.1)	11.5	11.6	-0.1	(0.1)
Parenting problems ^e	1.9	2.0	-0.1	(0.1)	1.9	1.9	0.0	(0.1)
Sample size	1,011	867			646	549		

Source: Calculations from 72-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 per cent; ** = 5 per cent; *** = 1 per cent.

Rounding may cause slight discrepancies in sums and differences.

Sample sizes may vary for individual items because of missing values.

^aSample sizes are the number of children (of all ages up to and including 18 years and aged 6 to 14 years) whose parents completed the 72-month parental self-complete questionnaire.

^bThis scale, using a subset of items from the Center for Epidemiological Studies–Depression (CES-D) scale, ranges from 0 to 33, with higher scores indicating greater depression.

^cParents with depression scale scores greater than or equal to 9 were scored as being at risk for depression.

^dThis scale ranges from 4 to 16, with higher scores indicating a higher degree of efficacy.

^e“Parenting problems” is rated on a scale from 1 (“not difficult”) to 5 (“very difficult”).

IMPACTS ON MARRIAGE, FAMILY STRUCTURE, AND FERTILITY

The home environment is an important factor determining a child’s well-being. The SSP supplement offer may have affected children’s home environments by altering marriage rates, family structure, and fertility. SSP created a marriage incentive for participants because the amounts of its supplement payments were determined only by individuals’ earnings. By contrast, IA payments are typically reduced when recipients marry or live in common-law unions (Harknett & Gennettian, 2001). The extra income from SSP might have encouraged or enabled participants to have more children.

Table B.2 illustrates changes in marriage and household composition over the study period for all participants. Over this period, the first panel of Table B.2 shows that SSP did not have a major impact on marriage. Marriage increased over time similarly for members of both research groups. However, at the 72-month follow-up survey the small difference in reported common-law unions was statistically significant. The second and third panels suggest that — apart from a small impact after 12 months on the proportion living with a spouse and children only — SSP did not have an impact on household composition or fertility over the study period.³

Table B.3 considers these household changes from the perspective of children aged 6 to 14 years. These children did experience some change due to SSP in their parents' marital status and household composition 72 months after random assignment. The first panel reveals that the supplement offer increased the proportion of program group members living in common-law relationships.

Children aged 6 to 14 years in the SSP study lived in a range of family environments, as the second panel of Table B.3 shows. About half of the children in both the control and program groups lived with their siblings and one parent. SSP did not affect these proportions. Another 31 per cent of the children in the control group lived with two parents (not necessarily biological parents). SSP increased this proportion by nearly five percentage points. This result is consistent with the increase in common-law relationships in the first panel of Table B.3.

Children in the program group were less likely to be living with their parent and another adult. Some participants may have been living with another adult in order to reduce their expenses. The additional income provided by the SSP supplement may have provided sufficient resources to leave such situations.

It is possible that the impact on living with another adult results from a change in participants' willingness to report their living situations. Participants living in a common-law relationship may have been less willing to reveal their partnership status in order to protect their eligibility for income assistance. Since fewer program group members relied on assistance, they may have felt more comfortable revealing their living arrangements. Although such a change in reporting is possible, it is unlikely since all participants were informed that individual information collected for the SSP study would be anonymous and confidential.

The final panel in Table B.3 reports on any new children born after random assignment. It appears from this panel that the additional income provided by the supplement offer did not have any effects on fertility for the mothers of children aged 6 to 14 years by the time of the 72-month follow up survey.

³SSP also had no statistically significant impact on birth weights. The proportion of children under 6 years of age whose weights at birth, reported by program group members at the 72-month follow up were low (under 5.5 pounds or 2.5 kilograms) were similar in both the program and control groups.

Table B.2: SSP Impacts on Marriage, Household Composition, and Fertility at the 12-Month, 30-Month, 48-Month, and 72-Month Follow-Up Interviews for the Full Report Sample

Outcome	12-Month Interview		30-Month Interview		48-Month Interview		72-Month Interview	
	Control Group	Difference ^a (Impact) Standard Error	Control Group	Difference ^a (Impact) Standard Error	Control Group	Difference ^a (Impact) Standard Error	Control Group	Difference ^a (Impact) Standard Error
Marital status (%)								
Ever married or in common-law relationship since baseline	9.9	0.0 (1.3)	18.8	-0.9 (1.7)	26.3	0.6 (1.9)	33.0	0.4 (1.9)
Married	5.5	-0.2 (0.9)	9.9	0.1 (1.3)	13.6	-1.6 (1.4)	23.1	-0.9 (1.7)
Common-law	2.4	0.9 (0.7)	5.1	0.3 (1.0)	6.0	1.5 (1.1)	6.9	1.9* (1.1)
Household composition (%)								
Lives with no children	5.2	-1.0 (0.9)	7.2	0.7 (1.1)	10.4	1.0 (1.3)	18.3	0.9 (1.6)
Lives alone with children	65.5	2.5 (2.0)	58.5	-0.4 (2.1)	52.9	0.2 (2.1)	44.5	1.1 (2.0)
Lives with children and spouse only	13.5	-2.6* (1.4)	19.7	-0.6 (1.7)	22.5	-2.5 (1.7)	22.7	-0.5 (1.7)
Lives with children and parents/parents-in-law only	3.0	0.0 (0.7)	2.4	0.4 (0.7)	2.3	-0.1 (0.6)	1.3	0.7 (0.5)
Lives with children and another adult	12.7	1.1 (1.4)	12.2	-0.1 (1.4)	11.8	1.4 (1.4)	13.2	-2.2 (1.3)
Fertility (%)								
Any new children in family since previous interview ^b	6.3	-0.9 (1.0)	6.0	-0.1 (1.0)	5.9	0.1 (1.0)	5.2	1.3 (1.0)
Sample size	1,185	2,371	1,185	2,371	1,185	2,371	1,185	2,371

Sources: Calculations from 12-month, 30-month, 48-month, and 72-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 per cent; ** = 5 per cent; *** = 1 per cent.

Standard errors were adjusted to account for shared variance between siblings.

Rounding may cause slight discrepancies in sums and differences.

Sample sizes may vary for individual items because of missing values.

^aSample size in this column is the sum of the 72-month survey report sample program and control group sample sizes.

^bThis records children born in the 12 months before the 12-month interview, in the 18 months before the 30-month and 48-month interviews, and in the 24 months before the 72-month interview.

Table B.3: SSP Impacts on Marriage, Household Composition, and Fertility Among Parents of Children Aged 6 to 14 Years

Outcome	Program Group	Control Group	Difference (Impact)	Standard Error
Marital status at 72 months (%)				
Married or in common-law relationship	39.2	36.0	3.2	(2.8)
Married	27.9	29.6	-1.7	(2.6)
Common-law	11.3	6.5	4.8***	(1.6)
Household composition (%)				
Lives alone with children	53.0	52.9	0.2	(2.9)
Lives with children and spouse only	35.8	30.8	5.0*	(2.7)
Lives with children and parents/parents-in-law only	1.8	2.3	-0.5	(0.8)
Lives with children and another adult	9.3	14.0	-4.7**	(1.8)
Fertility (%)				
Any new children in family since random assignment	24.4	24.6	-0.2	(2.5)
Sample size	656	558		

Source: Calculations from 72-month follow-up survey data.

Notes: Only children who were living in the home at random assignment were analyzed.

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 per cent; ** = 5 per cent; *** = 1 per cent.

Standard errors were adjusted to account for shared variance between siblings.

Rounding may cause slight discrepancies in sums and differences.

Sample size is the number of children aged 6 to 14 years whose parents completed the 72-month parental self-complete questionnaire. Sample sizes may vary for individual items because of missing values.

IMPACTS ON CHILD CARE

Since most SSP participants remained single parents, in order to have left welfare for employment they would almost certainly have required child care for their children. High quality child care can have a positive effect on children's development. Conversely, child care may be harmful if it provides little supervision or support.

Because child-care needs and costs vary with children's ages, SSP's effects on child-care use are analyzed for children aged 6 to 8 years and children aged 9 to 12 years.⁴

The first panel of Table B.4 reveals that SSP actually reduced child-care use for younger children in the two years prior to the 72-month follow-up survey. Although this result is not statistically significant, it seems inconsistent with the employment impacts reported in Chapter 3. The number of child-care arrangements, reported in the second panel, was significantly lower as a result of SSP. A possible explanation is that program group members' work hours coincided with school hours more often than control group members' schedules. This might reduce the need for after- or before-school care.

⁴Information about child-care use was not collected for children aged 13 and 14.

Table B.4: SSP Impacts on Child-Care Use for Children Aged 6 to 8 and 9 to 12 Years

Outcome	Children Aged 6 to 8 Years			Children Aged 9 to 12 Years		
	Program Group	Control Group	Difference (Impact) Standard Error	Program Group	Control Group	Difference (Impact) Standard Error
Type of child care used (%)						
Any type of care	58.2	62.3	-4.1 (4.8)	51.4	50.0	1.4 (5.1)
Formal care	22.7	31.9	-9.3** (4.4)	14.5	10.2	4.3 (3.4)
Informal care	40.9	41.9	-1.0 (4.9)	42.3	43.2	-0.9 (5.0)
Relative care	28.9	32.5	-3.6 (4.5)	28.6	31.3	-2.6 (4.6)
Non-relative care	17.3	14.1	3.2 (3.6)	18.2	15.3	2.8 (3.8)
Extent of child-care use						
Number of child-care arrangements in past 2 years	0.8	1.0	-0.2* (0.1)	0.7	0.7	0.0 (0.1)
Average hours per week in current arrangement	12.8	13.2	-0.3 (1.4)	9.5	9.8	-0.3 (1.3)
Stability and quality of child care (%)						
Changed child-care arrangement at least once in past six months	3.6	7.3	-3.8* (2.2)	2.3	3.4	-1.1 (1.7)
Sample size	225	191		220	176	

Source: Calculations from 72-month follow-up survey data.

Notes: Only children who were living in the home at random assignment were analyzed.

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 per cent; ** = 5 per cent; *** = 1 per cent.

Standard errors were adjusted to account for shared variance between siblings.

Rounding may cause slight discrepancies in sums and differences.

Sample sizes may vary for individual items because of missing values.

The reduction in overall child-care use stems primarily from a decrease in the use of formal care. Children in the program group were over nine percentage points less likely to be in some type of formal care.

As the last panel of Table B.4 shows, the proportion of children aged 6 to 8 years who were in more than one child-care arrangement during the six months prior to the 72-month follow-up survey was lower for program group members. It might be that the increase in employment stability reported in Chapter 3 led to this increase in child-care stability. It is also possible that this result captures the effect of the reduction of child-care use.

Older children are less likely to be in child care. It is not surprising then, as the second part of Table B.4 suggests, that SSP had no effect on child-care outcomes for the group of children aged 9 to 12 at the 72-month follow-up.

IMPACTS ON CHILD OUTCOMES

Poverty and maternal employment may differentially affect children at different developmental stages. For this reason, SSP's impacts on children are estimated for two age groups separately. Those in the younger group, ages 6 to 8, were 1 to 3 years of age when their parents could have become eligible for the SSP supplement.⁵ Those in the older group, ages 9 to 14, were preschoolers (aged 4 to 5 years) and school-aged (6 to 9 years) at that time.

Table B.5 reports measures of children's academic achievement, behavioural outcomes, and health. Since younger children may be at greater risk than older children when living in poverty, they might have had the most to gain from SSP. The table suggests, however, that SSP had no effect on outcomes for younger children. Although program group members were more likely to report above average school achievement and fewer health problems for their children aged 6 to 8 years, these differences were not statistically significant.

For the older children, who were aged 9 to 14 at the 72-month follow-up, SSP appears to have had some small impacts on their behaviour. Program group members were more likely to report that their children exhibited positive behaviours. They were also more likely to report behaviour problems in their children. There were no impacts on behaviour problems at school. Additionally, no impacts were found for children's school performance or their health outcomes.

⁵Program group members could become eligible for the supplement by remaining on IA for the first 12 months after random assignment. Their children would have been zero to two years of age at random assignment.

Table B.5: SSP Impacts on Child Outcomes for Children Aged 6 to 8 and 9 to 14 Years

Outcome	Children Aged 6 to 8 Years				Children Aged 9 to 14 Years			
	Program Group	Control Group	Difference (Impact)	Standard Error	Program Group	Control Group	Difference (Impact)	Standard Error
Academic functioning								
Average achievement ^a	3.8	3.8	0.0	(0.1)	3.7	3.6	0.1	(0.1)
Above average, any subject (%)	74.6	72.5	2.1	(4.3)	70.2	69.8	0.4	(3.5)
Below average, any subject (%)	20.2	19.0	1.1	(3.9)	24.7	25.9	-1.1	(3.3)
Any grade repeated (%)	4.0	5.8	-1.8	(2.1)	6.4	9.4	-3.0	(2.1)
Ever in special education (%)	10.0	13.7	-3.6	(3.2)	15.9	15.0	0.9	(2.8)
Behaviour and emotional well-being								
Behaviour problems ^b	1.51	1.51	0.00	(0.03)	1.52	1.49	0.03*	(0.02)
School behaviour problems ^c	1.17	1.17	0.00	(0.05)	1.20	1.20	0.00	(0.04)
Positive social behaviour ^e	1.76	1.73	0.03	(0.02)	1.76	1.72	0.04*	(0.02)
Health and safety								
Average health ^d	4.1	4.1	0.0	(0.1)	4.2	4.2	0.0	(0.1)
Any long-term problems (%)	23.0	25.3	-2.2	(4.1)	29.2	31.9	-2.7	(3.5)
Any injuries (%)	8.4	10.3	-1.9	(2.8)	17.3	16.7	0.6	(2.8)
Sample size	239	194			379	322		

Source: Calculations from 72-month follow-up survey data.

Notes: Only children who were living in the home at random assignment were analyzed.

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 per cent; ** = 5 per cent; *** = 1 per cent.

Standard errors were adjusted to account for shared variance between siblings.

Rounding may cause slight discrepancies in sums and differences.

Sample sizes may vary for individual items because of missing values.

^aAverage achievement is rated on a scale of 1 (“not very well at all”) to 5 (“very well”).

^bBehaviour problems and positive social behaviour are rated on a scale from 1 (“never”) to 3 (“often”).

^cParents of children were asked how often in the past school year they were contacted by the school about their child’s behaviour problems in school. Responses range from 1 (“never contacted or contacted once”) to 3 (“contacted four or more times”).

^dAverage health is rated on a scale from 1 to 5, with 5 indicating excellent general health.

CONCLUSIONS

On balance, SSP seems neither to have benefited nor harmed the children of program group members. For the most part, six years after random assignment, children and their families were faring just as well, on the measured outcomes, as they might have been had they not been offered the supplement.

SSP did not increase the chances that mothers were at risk of depression, nor did it increase reports of parenting problems or self-efficacy. Children aged 6 to 14 years were more likely to live in a family with their parent and their parent’s spouse, and were less likely to live with another adult. SSP did not increase child-care use but did have a small positive effect on child-care stability in the six months before the 72-month follow-up. Because SSP had very little impact on family structure and mother’s well-being, it is not surprising that SSP had no major impact on children’s outcomes.

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