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Welfare Dynamics in Canada: The Role of Individual Attributes and Economic-Policy Variables

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Abstract

This paper uses Canadian longitudinal tax-based data to estimate models of the receipt of social assistance (SA), or welfare, in a given year as well as the underlying dynamics: entry onto SA from one year to another, exit from a given spell of SA, and re-entry onto SA after the end of a previous spell. This combination of models provides a relative full picture of the evolution of SA usage in terms of the underlying entry, exit, and re-entry processes. Separate models are estimated by sex and family type. The demographic variables, including marital status, number of children, and age, generally behave in the anticipated manner, but when quantified and put together across the different models point to different structures of SA participation across these characteristics. We also include a set of economic-policy variables. The unemployment rate and SA benefit level effects are especially clear and strong in the "purer" entry models, and movements in these variables over time—lower unemployment rates and reduced benefit levels—appear to have had a significant effect on the overall declines in SA rates observed over the period studied. Our results also generally imply that SA usage is related to Canada's Employment Insurance (EI) program: a reduction in its generosity appears to lead to reduced SA usage, as individuals seek alternatives to entering the combination of income support programs.

Keywords: social assistance, welfare dynamics, welfare benefits, employment insurance

I. Introduction

The use of social assistance (SA), or welfare, is an important issue on Canada's social and economic policy agenda for a number of reasons. For families, SA usage often reflects a situation of economic deprivation and social exclusion. For adults, being on SA can lead to a deterioration of human capital and the accumulation of "stigma" effects that can affect labour force participation and earnings capacity. For children, periods on SA may be associated with adverse developmental effects, potentially of a lasting nature. For governments, SA programs are relatively expensive to run and pose design challenges regarding the incentives they typically create for individuals to reduce their labour supply or switch from one income support program to another.

To address these issues, a good understanding of SA usage is imperative. And this implies not only having a grasp of its "static" nature, such as the number and characteristics of individuals on SA at a point in time, but also—indeed probably even more so—the underlying dynamics. How many individuals move onto SA in a given year? How long do spells of SA usage typically last? What individual and family characteristics are associated with longer or shorter periods of time on SA? How do current economic conditions and various program parameters affect entry and exit rates? What percentage of individuals cycle back onto SA after exiting, and how long do they take to do so? How do all these dynamics vary by family type?

The 1990s saw some important progress in our understanding of SA dynamics in Canada, including Barrett and Cragg (1998), Charette and Meng (1994), Christophides et al., (1998), Duclos et al., (1999), and Lacroix (2000). For the most part, these studies are based on particular province's SA administration files and follow individuals through their SA spells in the province in question. They thus provide extremely useful information on some of the dynamics just mentioned, including the general length of spells and how these vary with individual characteristics such as family type, number of children, and various administrative classifications regarding their "aptness" for work.

These studies are, however, limited in a number of ways. They typically follow individuals only while they are on SA and therefore do not reveal anything regarding entry—and sometimes re-entry—rates. They are generally unable to distinguish those who leave SA from those who leave the province or otherwise fall off the rolls in a manner that does not represent a proper exit. They are usually limited in terms of their treatment of policy variables (e.g., how SA benefit levels affect participation) since these do not vary a great deal in a given province and are difficult to separate from other province-specific and time effects. And none of these studies provide a national perspective or allow direct province-to-province comparisons of these dynamics.

The contribution of the present paper is to exploit the unique properties of the Longitudinal Administrative Database (LAD) to provide a national level study of SA dynamics in Canada covering the period 1992-2000. It begins with a look at SA participation in any given year (i.e., a cross-sectional perspective), and then probes the underlying entry, exit, and re-entry dynamics. More specifically, we estimate models representing i) the probability of moving onto SA in a given year, ii) the subsequent probability of exiting SA, and iii) the rate of re-cycling onto SA after exiting.

We focus on how these dynamics vary with individual and family characteristics (family type, age, number of children, province, area size of residence), the degree to which exit and re-entry rates vary over the length of a spell (i.e., duration effects), and the general trends in these relationships over time.

We also investigate the role of some key policy-related variables, including SA benefit levels, the local unemployment rate, and a measure of the generosity of the Employment Insurance system in order to begin to see how these two programs are inter-related.

The dynamic models are presented individually, but we also attempt to link them to the simple (cross-sectional) participation models which initiate the analysis in an informal fashion as a first step in unravelling how the stock of SA participants in any year is determined by the underlying dynamics—and how these relationships have evolved in recent years. But we leave a fuller development of this complex set of relationships, as recently discussed by Grogger, Haider and Klerman (2003), and Klerman and Haider (2001) who focus only on the entry dynamic, to later work. The estimates presented here are thus descriptive rather than structural, but exploiting the unique attributes of the database employed, should provide interesting and useful empirical evidence on how individuals use SA in Canada.

The next section discusses the LAD data, sample selection, the unit of analysis, and the definitions of SA participation and SA dynamics employed. The third section summarizes the Canadian economic and policy environment of the 1990's. The fourth section presents the estimation results. The final section summarizes the principal findings and some of their implications.

II. The Data

II.1 The LAD Database

The LAD is a 20 percent representative sample of Canadian tax filers constructed from Canada Customs and Revenue Agency (previously Revenue Canada) records that follows individuals over time and matches them into family units on an annual basis, thus providing individual- and family-level information on incomes, taxes, and basic demographic characteristics in a dynamic framework. The first year of data is 1982, but only the 1992-2000 period is employed in this study because SA income is not sufficiently well captured on the file in the earlier years.

Individuals are selected into the LAD according to their social insurance numbers (SINs) by a random number generator, and then followed over time by this same identifier. The LAD's coverage of the adult population is very good since, unlike some other countries (*e.g.*, the U.S.), the rate of tax filing in Canada is very high. Upper- and middle-income Canadians are required to file, while lower-income individuals have strong incentives to file in order to recover income tax and other payroll tax deductions made throughout the year or to receive various tax credits. Overall, the full set of annual files from which the LAD is constructed is estimated to cover 95-97 percent of the underlying adult population over the period in question, thus comparing very favourably with other databases.[1]

The income information contained on the LAD is detailed and judged by Statistics Canada to be generally superior to what individuals typically provide in surveys.[2] Most pertinent to this study is SA income. Since 1992, individuals have been required to report SA income on their tax forms (which

1. See Finnie and Sweetman (2003) on these issues in the context of an analysis of low-income dynamics based on the LAD.

2. Primarily for this reason, Statistics Canada now generally seeks survey respondents' permission to use their tax records to obtain income information. See Atkinson, Bourguignon, and Morrison (1992), for discussion of the general advantages of administrative data over survey data in this regard and others.

enters various calculations), and are sent the appropriate T-5 tax forms to this end, copies of which are provided to federal tax authorities (similar to the case of T-4 forms which show wages and salaries), thereby permitting the verification of this reporting. This procedure results in an estimated 80-90 percent capture rate of social assistance payments on the LAD.[3]

Other individual and family information is derived from the tax files of the individual tax-filer and other filers in the individual's family (see more below). This includes age, family type, number and age of children, province, and area size of residence.

For these attributes—its national level representativeness, longitudinal nature, information available, and sample size (at least two million in any given year over the period covered by this analysis)—the LAD is unique in Canada and exceptional even at the international level, and is quite well-suited to the study of SA dynamics.

II.2 Sample selection

The samples are first restricted to individuals who filed tax forms in any consecutive five-year period (1992-1996, 1993-1997, 1994-1998, 1995-1999 and 1996-2000). This procedure not only facilitates the estimation of entry and exit models (which require at least two and three years of data, respectively, as described below), but also permits us to carry out longitudinal checks and edits of family status, which is subject to a margin of error in any given year.[4]

The analysis is further limited to individuals aged 18 to 64. The lower cut-off helps eliminate students and others in the early stages of the transition to economic independence who are often not eligible for SA (rules vary by province) and for whom SA status has a different significance than for others. Post-secondary students are further identified and deleted using an algorithm based on the various education-related tax deductions that appear on individuals' tax files. Older individuals are deleted because they are not generally eligible for SA (other programs apply).

Records are also deleted for individuals who show evidence of a disability at the family level (i.e., the individual tax-filer or spouse) over the given five-year period. While this represents an interesting and important class of SA recipients, we restrict the present analysis to able-bodied individuals and leave the disabled for a separate study.

The results of these sample selection procedures are shown in Table 1.

3. This figure might represent a lower bound on the SA coverage because some of the provincial totals used for comparison include various in-kind payments and in some cases even administrative costs.

4. Individuals might, for example, not be matched into a common-law relationship if they are not picked up by the LAD's matching algorithm developed for these purposes (see below). The raw LAD has, in particular, too many single parents, too many unattached individuals, and not enough couples compared to official population estimates. There are also almost certainly too many spurious changes in status over time as individuals' correct family status is not consistently identified from one year to another. Longitudinal checks allow inconsistencies to be identified, definitions imposed, and problematic observations deleted. These procedures generate a distribution of family types consistent with official population estimates.

II.3 The Unit of Analysis and Definitional Issues

Family composition is determined in the LAD by matching individuals to their spouses, children or parents according to the information given on their tax files.[5] (Canadians file taxes as individuals.) Declared common-law marriages (a category listed on tax forms in Canada since 1992) are treated in the same manner as legal marriages. These are identified using a matching algorithm based on address, name, age, and other individuals resident at the same address (if any). For this study, individuals were ultimately classified as being unattached (no spouse and no children), married with no children, married with children, or a lone-parent.[6]

An individual is defined as receiving SA in any particular year if he or she reports SA income of at least $101 at the family level (i.e., the respondent and/or his or her spouse declare SA income in this amount). The $101 cut-off minimizes the effects of reporting and coding errors, and otherwise counts very small amounts as being effectively zero. The family basis of the measure is used because typically only one person in a family receives (and reports) SA, while SA is awarded for the entire family.[7]

The definition of entry into SA is straightforward: for any two consecutive years, an individual is deemed to have entered SA in the second year if the individual is not on SA in the first year, but is on SA in the second. An exit is defined to have occurred in a given year if a person reports SA income in that year, but not the next. Note that an exit is assumed to have occurred during the last year the person reports SA income, not in the first year no SA income is reported. The reason is because the data—given their annual reporting basis—imply that it was at some point in the earlier year that the person went off SA. That is, they had some non-zero amount that year, but not in the next, indicating they were no longer on SA at the end of the last year SA income was reported—meaning they exited that year.[8]

These definitions draw attention to the annual nature of the data. Since individuals qualify for SA on a monthly basis, empirical analyses of SA participation are typically conducted using that time frame. But here, driven by the annual nature of our tax-based data, we only observe the receipt of SA in a given year, and look at participation, entry, and exit on such an annual basis.

The principal disadvantage of this approach is that we are unable to observe movements on or off SA over the course of a given year, and thus miss certain exit and re-entry dynamics. We are also unable to take advantage of knowing the precise length of a spell (i.e., to the month). But while missing such intra-

5. Spouses are identified by searching over the full set (100 percent) of tax files (i.e., all tax filers) for the appropriate individual. This procedure is facilitated by the fact that individuals are obliged to report their spouse's SIN number on their tax forms. In cases where this is not given, the spouse is searched for using the same algorithms used to match common-law couples (see below).

6. There also exists a small number of "filing children", a smallish group consisting of unattached individuals over the age of 20 deemed to be living with their parents, but such individuals are not discussed in this analysis.

7. The LAD essentially uses a census definition of the family—a husband and wife with or without children, a single parent living with children, or a single individual living alone.

8. Three years of data are thus required for our hazard exit models: an individual must first be observed to enter, then the possibility of exiting, implying a sequence of years of i) no SA (pre-entry), ii) SA (entry), iii) SA or no SA (exit or not).

year dynamics might be considered a limitation, an annual perspective may also be seen as providing a more robust, longer-term measure of SA participation precisely because it ignores short-run movements which could be considered as comprising what is truly a single longer spell of SA participation. Our findings should be interpreted in this light.

II.4 Variables Included in the Analysis

The demographic variables included in the analysis are family type, age, number of children, province of residence, the kind of area lived in (from large urban to rural), and a series of calendar year dummy variables to capture business cycle effects and secular time trends. Education is missing because it is not available on the LAD database.

Three policy-economic variables are also included. The first is the unemployment rate of the economic region in which the person resides. This is expected to be positively related to the probability of being on SA in a given year, to have a similarly positive effect on entry from one year to the next, and a negative effect on exits.[9]

The second economic variable included in the models is an index of the SA benefit levels available to the individual's family. The particular measure used here is a series published by the National Welfare Council which gives the maximum amounts normally available to certain specific family types in each province, those family types being a couple with two children, a single parent with one child, and an unattached individual.[10] Benefit levels vary by province and over time, with these variations thus identifying the effects in question.

Finally, we include a measure of the generosity of Canada's Employment Insurance (EI – previously known as Unemployment Insurance, or UI) system proposed by Arneau, Fortin and Crémieux (1998), and subsequently refined by Sargent (1995). From a theoretical standpoint, the expected sign of this variable is uncertain. If unemployment is a "gateway" to SA, then a less generous EI system could reduce dependency on SA, as individuals are more likely to stay in their jobs or to search harder for alternative employment instead of seeking EI and then cycling onto SA. Alternatively, if SA is a substitute for EI, a less generous EI system could increase SA participation, as individuals go onto SA instead of EI.

III. The Economic and Policy Environment

Prior to the mid-1990's, social policy analysts in many countries, including Canada, had become almost fatalistic about the prospects of reducing the number of dependents on welfare. The preceding two economic cycles had significantly ratcheted up the rate of SA dependence, while the rolls declined only very modestly during the subsequent recovery periods.

This pattern prompted Lindbeck (1995) to write in despair on "hazardous welfare-state dynamics", meaning that increases in the supportiveness or generosity of social programs could bring in their wake undesired and unforeseen dependence. In particular, recessions seemed to reduce the stigma effects of

9. Canada has about 65 economics regions. Very large cities have their own regions, with the divisions spreading out from there, the smaller provinces having just one or two regions each.

10. For couples with no children, we use 1.5 times the individual's rate.

SA programs as they put more people in a position of dependence. SA programs might, therefore, have been designed differently had the architects foreseen these consequences.

The experiences of Canada and the U.S. in the 1990's have, however, illustrated that substantial reverses are indeed possible. What was the economic and policy context of these dramatic reversals? Here we concentrate on the Canadian record.

In the first instance, the economy lingered through a deep recession and then, especially after 1995, recovered strongly, with the unemployment rate dropping five percentage points from its peak rate through the year 2000. This improvement in the job market provided many individuals a greater opportunity to escape from—or avoid—welfare dependency.

A second important development was that the real value of SA benefits fell, in many cases by large amounts, on the order of a quarter, a third, or even more in some provinces for some family types. Such declines provided strong incentives for individuals to seek alternatives to SA, and should therefore have had a significant effect on SA participation.

Third, provincial governments changed the rules governing the receipt of SA and related administrative procedures—such as the employment of additional monitors, the opening of "snitch lines", the introduction of requirements that recipients collect their cheques rather than having them mailed out, and so on.[11] Again, these changes would be expected to reduce SA participation rates.

At the broader political level, this period also saw a major transformation in the manner of federal-provincial funding for what is a provincially-operated program. The federal government took two radical steps in its 1995 budget. First, it cut transfers to the provinces. Second, it altered the method of transferring those funds, introducing a lump-sum transfer to cover SA, health, and post-secondary education under the Canada Health and Social Transfer, CHST. From being a shared-cost program (called the Canada Assistance Plan, CAP), SA expenditures were now more fully the responsibility of provincial governments, thus changing the financial incentives of provinces with respect to spending on SA. These changes were seen both as a means of reducing the federal government's deficit, and as a way of imposing discipline on provincial governments.

It is worth noting that these changes in the method of transferring funds to the provinces and the operation of the system at the provincial level were mirrored by similar—even more extreme—developments in the U.S. over the same period. Here too, there was a switch from a federal-state shared-cost system to a lump-sum transfer, and that switch was accompanied by legislation that altered the fundamental character of welfare in the U.S. as the Aid for Families with Dependent Children (AFDC) program was replaced with the Temporary Aid for Needy Families (TANF). The latter contains many more sticks and rather fewer carrots for not being on welfare than its predecessor: in all states there is now a 5-year lifetime limit on the receipt of welfare, there are regulations on the time frame associated with the return to work after childbirth, there are "workfare" requirements for individuals who cannot find employment, and penalties exist in the form of support-payment reductions for those who do not abide by the rules. In addition, many individual states experimented with "waivers" both before and after the 1995 legislation that allowed them to implement greater incentives for individuals to return to work.

11. National Council of Welfare (1997).

The consequences of this legislation are well-established: by the early years of the new millennium, the number of caseloads in the U.S. had dropped to less than half of its 1994 peak, although this reduction has also been attributed to an expanding economy, an enhancement of the Earned Income Tax Credit (EITC), an increase in the minimum wage, and an expansion of benefits and support available to individuals moving from welfare dependence to work.[12]

Two other developments in Canadian federal programs with implications for SA participation took place in the 1990's. The Canada Child Tax Benefit (CCTB) was introduced in 1992, and a supplement, put into place in 1998, was directed specifically to low-income families with children. Most provinces reduced SA payments to households with children by an amount equal to the supplement (although these savings were to be invested in other programs benefiting children and families with children), but the CCTB provides extra payments to the working poor and is subject to a more gradual 'claw-back' when an SA recipient joins the work force than before, thus moderating the poverty trap—and, presumably, aiding individuals escape SA dependence.

The final significant policy development related to SA in this period was a general tightening of the rules governing the receipt of Employment Insurance (EI). Changes made to EI in 1990, 1994 and 1996 effectively increased the barriers and reduced the benefits available to recipients.[13] The impact of tighter EI regulations on the number of SA recipients is, however—as noted above—indeterminate *a priori*: individuals may substitute SA for EI as the latter becomes less available and less generous, thus driving SA participation upward. Alternatively, more stringent EI regulations may induce individuals to stay at their jobs longer (or search harder for an alternative job if faced with unemployment) rather than enter onto an EI-SA cycle.

IV. Empirical Findings

IV.1 Participation/Incidence Models

We first report the findings of our simple "participation" logit model estimation results, where the dependent variable is the probability of being on SA in a given year. We are mindful of the specification challenges raised by Grogger, Haider and Klerman (2003) and Klerman and Haider (2001), as discussed above, and regard this as a simple reduced form descriptive model. Separate models are run by sex and family type: single (unattached), married with children, married without children, and lone-parent. Behaviour differs substantially along these dimensions, while the massive size of the LAD allows us to separate the models in this manner. In this context, it is worth noting that SA eligibility is much wider in Canada than the U.S., and substantial numbers of each of these types of individuals receive SA income.

12. In contrast to Canada, there now exists a large body of research work in the U.S. that investigates the impact of these various effects on welfare dependence. See, for example, Blank (2002), Mayer (2000) and Moffitt (2001).

13. EI operates on the basis of variable work requirements and variable weeks of benefits: individuals living in higher unemployment regions require a smaller number of hours of work (formerly weeks of work) to qualify for benefits, and qualify for more weeks of benefits than individuals living (or more precisely, filing) in low unemployment regions.

Table 2 shows the probability effects implied by the estimated coefficients, while the full model results (coefficient estimates and standard errors) are given in Table A1. A baseline ("intercept") probability is given in the first row of the table. This represents the predicted probability of being on SA with all of the categorical regressors set to zero, thus representing a person aged 25-39 living in a large urban area in Ontario in 1992. With respect to the continuous variables: the economic region unemployment rate is arbitrarily set to the value for Toronto in 1992, SA benefits are set at the Ontario value for the relevant family type in 1992, and the EI Index is that for Toronto in 1992.

The changes in the probability (i.e., the marginal effects) associated with each of the regressors are then shown, the asterisks indicating that the underlying coefficients are statistically significant at the indicated levels. The values for the categorical variables are those associated with "turning on" each one at a time. The unemployment rate effects are those associated with a one point increase, the SA benefit effects those of a $1,000 increase (all values in 2000 Canadian dollars), and the EI index effects those associated with an increase of one standard deviation.

The baseline probabilities reflect the general differences in SA rates by family type. The lowest rates are for couples (7-10 percent), especially those without children (5.3 for women and 7.1 for men), singles come next (16.7 and 10.7 percent for men and women, respectively), while lone-parents have the highest rates (50.4 percent in the case of lone-mothers, 27.4 percent for lone-fathers). These values are less than the related economy-wide averages principally because of the particular baseline characteristics they represent, as noted above, but provide a good basis for looking at the differences associated with each of the variables included in the models.[14]

The age effects are somewhat mixed, but generally reduce to two sets of relationships: for singles, participation rates are higher for those over 40 years of age than for those under 40; and for all other family types, they are definitively the highest for those aged 18-24, next highest for those aged 25-39, lowest for those aged 40-54 (except for attached women with children), and mixed for the 55-64 group.

SA rates rise with the number of children for the relevant family types—this in addition to the general differences already seen for individuals in families with and without children.

There are many substantial differences by province, but these are focussed upon in a companion paper (Finnie, Irvine and Sceviour (2003)) and are regarded as control variables here. The area size effects show generally lower SA rates for those in small urban areas than the large urban omitted group, and mostly, but not uniformly, lower rates for those in towns and rural areas.

The calendar year variables have to be interpreted with care. In particular, they reflect the differences remaining after controlling for the other economic-policy variables included in the models, which themselves are characterized by strong time trends: unemployment rates peaked in 1993 and then declined steadily thereafter; SA benefit levels generally declined over time, especially in Ontario from 1995 on; and the EI Index also generally declined over the years covered by the data. Nevertheless, the year variables suggest that—after controlling for these factors as well as individuals' personal and family

14. Changing the baseline group changes the probability effects due to the non-linear nature of the model and the corresponding fits, but the general direction and magnitudes of the effects are robust across the particular specification chosen.

attributes—SA rates ratcheted up in 1993 and then stayed high through the rest of the decade. These conditional year effects may be contrasted with the raw time trends, which generally show the same sort of rise in 1993 (Finnie, Irvine and Sceviour (2003)), but then a decline thereafter. The model results thus suggest that this decline was largely due to the declining unemployment rate, the declining SA benefit levels, and the reduced EI generosity, while the underlying "structure" of SA remained high through the end of the decade.

The unemployment rate has a strong effect, and the models suggest that the significant declines in unemployment rates through the latter part of the 1990's were responsible for reducing SA rates by several percentage points, or as much as a third. Economic growth, in short, appears to have played a very significant role in reducing SA participation in recent years.

SA benefit levels also appear to be strongly related to SA participation rates, especially for single mothers and single women. Our calculations indicate that a change in benefit levels of $1,000 affects SA participation rates about as much as a one percent change in the unemployment rate. The significant general declines in benefit rates over this period (e.g., by around $5,000 for single mothers in Ontario) thus appear to have been another important determinant of the changes in SA participation rates seen through the latter part of the 1990's.

The EI generosity index, whose effects were not predictable *a priori*, are in fact mixed. They are positive for couples, both with and without children, suggesting that lower EI generosity has reduced SA participation rates for such individuals. This is consistent with the "gateway" hypothesis, whereby individuals are less likely to enter an EI–SA cycle when EI generosity is diminished. For single mothers, however, the coefficient estimates are negative, suggesting that EI and SA tend to be substitutes. For unattached individuals, the results are negative for men, positive for women; but while the effects are statistically significant, they are generally not very strong.

IV.2 Entry Models

Table 3 shows the results for the first dynamic models: the probability of entering SA from one year to the next for all those not initially on SA. Table A2 has the full set of coefficients and standard errors. A set of baseline probabilities are again given in the first row. Here they represent the average rate of entering SA for individuals possessing the (same) characteristics represented by the omitted categories and the same values for the policy-economic variables as for the annual participation models seen above. These models may be viewed as the "cleanest" in behavioural terms (Grogger, Haider and Klerman (2003), Klerman and Haider (2001)) because, in contrast to the participation, exit, or even re-entry models, the entry process is not driven by complex lag processes (i.e., who goes on SA and then works through the system). The results may be interpreted in this light.

Lone-parents who remain in that state from one year to the next generally have the highest probability of entering SA, with rates of 10.2 percent for males and 14.2 percent for females. Single males come next, at 4.7 percent; then single females, at 2.8 percent, followed by couples with and without children (2 and a little over 1 percent, respectively).

In a much more direct manner than static analyses allow, changes in family status are revealed to have a dramatic association with SA transitions. Becoming a lone-mother (see the "to lone-parent" row) or becoming an unattached woman ("to single") after having been married with children are particularly

dramatic in this regard. Other effects are also strong. These effects are consistent with those reported in the U.S. literature, going back to the classic works, such as that by Bane and Ellwood (1986).

In some respects, the age effects are similar to those seen for the participation models presented above. In particular, younger individuals of all family types show significantly higher entry rates than others, and rates again decline with age for single parents. The strong positive age effects for singles seen in the participation models do not, however, show up here, leading us to suspect that those high participation rates are driven more by such individuals having *longer* spells, rather than entering at greater rates.

The number of children effects are as expected: having more children is associated with a generally greater probability of entering SA in a given year, with the effects being particularly strong for the case of four and five or more children.

Most of the area size coefficients are positive, rather than the mixed pattern seen for participation rates. The cases where entry rates are higher, but participation rates lower (e.g., the rural effect for single men) should lead us to expect considerably higher exit rates as well, reflecting rather different patterns of SA dynamics by family type (e.g., relatively more but shorter spells).

The year effects are mostly negative. This is, on the face of it, an unusual finding in a context where the year effects in the participation models seen above were positive: how can participation rates be kept high if entry rates are declining? Again, though, these findings need to be interpreted in terms of holding the economic-policy variables, themselves strongly trended over time, constant. We will return to this issue below.

Turning to the policy-economic variables, we see that the unemployment rate effects are—again—positive, significant, and strong. The same is true for the SA benefit level coefficients. Thus, at least part of the manner in which these economic-policy variables appear to affect SA participation rates at any point in time is by significantly changing entry rates. Interestingly, the EI generosity index coefficient estimates are in this set of results, strong in every case, thus unambiguously pointing to the "gateway" hypothesis: greater EI generosity leads to higher SA usage. As noted, it would perhaps be expected that the entry effects would be cleaner and stronger for the entry model, as it is a more well-defined current process, whereas the participation rates in any given year are a function of past flows and other complex lag structures.

IV.3 Exit Models

The exit models are, unlike the preceding models, defined in a proper hazard model framework. This begins with the creation of samples of SA spells that start sometime during the 1992-2000 period covered by the data, thus avoiding the left-censoring problem. The probability of exiting low income from one year to the next is then estimated as a function of the same explanatory variables as in the other models plus a series of dummy variables indicating the elapsed spell length to capture duration effects.[15]

15. This is similar to the approach employed by Gunderson and Melino (1990) to model strike durations, by Ham and Rae (1987) to analyse durations of joblessness, and the same model as that used by Finnie and Sweetman (2003) to model poverty dynamics and Finnie and Gray (2002) to model income dynamics using these same data. Keifer (1990) shows that the likelihood function for this model corresponds to that of the standard logit model specification.

As with any hazard model, right-censored observations are included in the estimation up to the point they are lost. The probability results are shown in Table 4, and the corresponding coefficient estimates in Table A3.

The baseline exit rates, which correspond to the probability of exiting SA after being on SA just one year (the additional baseline characteristic corresponding to the set of dummy variables representing elapsed spell duration), vary a great deal by family type. Single mothers have by far the lowest rate, at just 17 percent (single fathers are at 25 percent). Unattached individuals come next, at 33 percent in the case of both men and women. Couples have the highest rates of exiting SA, on the order of 40-54 percent—that is almost half (or more) appear to collect SA for just a single year.

The family type dynamics are about as strong as those found for the entry models, but reversed, as one would expect. Here, becoming married after being a lone-mother or single is associated with large increases in the probability of leaving SA for women, while moving into one of those latter states from marriage decreases the probability of exiting SA, sometimes to an extraordinarily great degree. For men, the effects are in the same direction, but not as strong (while lone-fatherhood is also a much less common state than lone-motherhood).

The age effects are more mixed than in the previous models, but there is generally an inverse relationship between the probability of exiting SA and age except—in some cases—between the youngest two groups. Apart from this latter effect, getting off SA—once on—appears to be a slower process for older individuals than younger ones. Having more children is associated with substantially reduced probabilities of exiting SA.

Interestingly, the area size variables are almost all positive: living in a smaller area might, in some cases, be associated with higher entry rates (as seen above), but it is even more strongly associated with quicker exits. SA dynamics thus appear to take a distinctly different form for those in smaller areas: sometimes more, but generally shorter, spells.

The year effects are almost uniformly positive. This might appear, at first glance, to be a curious finding, since the year variables in the annual participation rate models are also generally positive. That said, the entry models showed mostly negative year coefficients, consistent with the exit rate findings: fewer entries and faster exits. As noted there, the exit and, especially, entry models are more likely to reflect "current" influences, whereas the annual participation models capture past lags and other build-ups of past influences. The overall pattern of findings might reflect the various program changes meant to discourage SA dependency described earlier.

The unemployment rate takes its expected negative sign in every case, but it is statistically significant in only three of the eight models, and the effects are not quantitatively great. The effects are thus significantly smaller than they are for the entry models—an interesting finding with implications for the effects of movements in unemployment rates on reducing entry onto SA versus speeding them off. SA benefit levels show somewhat stronger effects, are statistically significant in five of the eight models, and are most important for single parents. The statistically significant positive effect for unattached males could be an artefact of how many SA program reforms focussed on getting singles off SA came early in our data period in many provinces, before benefit levels were cut: hence, exit rates declined most while benefit levels were still high.

The duration effects are striking. Exit rates fall off quite steeply in the first couple of years, then become quite flat. The form of the hazard function is thus more L-shaped than is often found, although this could be at least partially due to the annual nature of our data and thus an "axis-stretching" effect. We do not, furthermore, attempt to correct for unobserved heterogeneity, so these findings must be interpreted as reflecting both true duration effects and the influences of unobserved heterogeneity. The rates at which the exit probabilities flatten out are also interesting, being as low as 6-7 percent for singles of either sex and single mothers. Once individuals of this type have been on SA a few years, the odds of their leaving appear to be very low indeed.

IV.4 Re-Entry Models

The re-entry models shown in Table 5 (Table A4 has the full model results) look much like the simple year-to-year entry models shown above, but—like the exits just seen—are framed in a proper hazard framework. The samples used to estimate these models are thus restricted to individuals observed to exit a spell of SA over the 1992-2000 period (and therefore at risk to re-entering), again avoiding the left-censoring problem, while the models also include duration terms comparable to those included in the exit models.

Since the results generally resemble those of the simpler annual entry models already seen, our remarks will be confined to the baseline probabilities and hazard terms. The model estimates imply that 27.8 percent of single mothers re-enter a spell of lone-motherhood in the first year after exiting a previous spell. Again, though, the hazards decline sharply, and are soon in the 8-12 percent range after two or more years of being off SA.

The baseline rates are significantly lower for the other sex-family type models, generally on the order of less than half the single mother rate in the first year. They too, though, also fall sharply—from those lower levels—and then flatten out at decidedly low rates, somewhere around the 5 percent range or lower. That is, once an SA recipient has gone a few years without going back onto SA, the probability of doing so is not much above that of the general population

V. Conclusion

This paper has used Canadian longitudinal tax-based data to estimate models of the receipt of social assistance (SA), or welfare, in a given year and the underlying dynamics: entry onto SA from one year to another, exit from a given spell, and re-entry after the end of a previous spell.

The variables representing personal characteristics follow the anticipated patterns in most cases. However, this combination of models provides a much fuller picture of the evolution of SA usage in terms of the underlying entry, exit, and re-entry processes than could any set of static models or dynamic models which capture only one of these elements. We have, for example, been able to draw conclusions about how the participation rates associated with certain characteristics are driven by the combination of entry and exit rates, thus telling us much more about the SA experiences of different types of individuals. Furthermore, while the signs of these effects might, in many cases, have been anticipated, we have been able to quantify the effects, which has also allowed for comparisons across family type and sex groups regarding the strengths of various influences.

The models are also interesting for their incorporation of some economic-policy variables: the regional unemployment rate, SA benefit levels, and a measure of the generosity of the EI (Employment Insurance) system. The results indicate that the effects of the first two variables not only take the expected signs, but are strong, especially for the entry models, which are hypothesized to capture the relevant effects in a purer fashion due to the absence of the lag processes which characterize the exit and re-entry processes as well as being on SA in a given year. It would, furthermore, appear that changes in the values of these variables through the 1990's—lower unemployment rates and generally reduced SA benefit levels—had a significant effect on the overall declines in SA rates observed over this period.

Our results also generally imply that SA usage is related to the EI program, in that a reduction in the generosity of the latter leads to not only (presumably) lower EI usage, but lower SA usage as well, the former appearing to be a "gateway" for the latter.

Table 1: Sample Exclusions, All Years*

Restriction	1992	1993	1994	1995	1996	1997	1998	1999	2000
Full LAD	3,355,675	3,444,185	3,477,365	3,516,100	3,541,345	3,573,525	3,596,685	3,648,720	3,703,995
Filing or Imp. Over 5 yrs	499,190 (14.9)	435,535 (12.6)	340,445 (9.8)	249,030 (7.1)	144,480 (4.1)	280,110 (7.8)	411,220 (11.4)	566,775 (15.5)	725,300 (19.6)
Meet Age Restriction	1,540 (0.05)	1,650 (0.05)	1,765 (0.05)	2,245 (0.06)	3,530 (0.10)	3,175 (0.09)	2,715 (0.08)	2,050 (0.06)	875 (0.02)
Meet Family Editing Res.	178,580 (5.3)	250,785 (7.3)	310,960 (8.9)	369,160 (10.5)	369,145 (10.4)	307,475 (8.6)	234,005 (6.5)	167,745 (4.6)	159,780 (4.3)
Not Disabled	352,820 (10.5)	391,025 (11.4)	428,530 (12.3)	464,295 (13.2)	509,275 (14.4)	461,055 (12.9)	426,415 (11.9)	385,885 (10.6)	333,010 (9.0)
Not a Student	112,865 (3.4)	112,810 (3.3)	115,800 (3.3)	181,750 (5.2)	317,820 (9.0)	312,760 (8.8)	294,070 (8.2)	285,220 (7.8)	144,030 (3.9)
Final Sample	2,210,680 (65.9)	2,252,380 (65.4)	2,279,865 (65.6)	2,249,620 (64.0)	2,197,095 (62.0)	2,208,950 (61.8)	2,228,260 (62.0)	2,241,045 (61.4)	2,341,000 (63.2)

* The figures represent the number of observations excluded at each stage, with the percentage of the starting sample these deletions represent shown in parentheses. The ordering of the restrictions shown here is arbitrary and a different ordering would result in different proportions of exclusions at each stage (many observations are excluded by more than one criterion). Consequently, it is the number of observations remaining after all the restrictions are imposed which is most relevant (i.e., the last row in the table).

Table 2: Marginal Probability Results for the Probability of Receiving SA

	Men				Women			
	Single	Attached with Child.	Attached no Child.	Lone Parent	Single	Attached with Child.	Attached no Child.	Lone Parent
Base Probability	16.65 **	10.23 **	7.12 **	27.44 **	10.66 **	8.85 **	5.26 **	50.40 **
Age Group (25-39)								
18-24	0.60 **	37.05 **	9.47 **	16.19 **	1.50 **	29.03 **	7.99 **	29.28 **
40-54	2.63 **	-4.87 **	-2.79 **	-10.26 **	4.42 **	-4.38 **	-1.59 **	-19.56 **
55-64	4.63 **	-0.46 **	-3.20 **	-3.53 **	4.60 **	3.50 **	-1.79 **	-5.05 **
Number of Children (One)								
Two		-1.17 **		-0.27		-0.49 **		4.81 **
Three		2.63 **		5.33 **		3.23 **		14.48 **
Four		9.74 **		12.89 **		9.91 **		22.99 **
Five or more		23.11 **		23.70 **		22.65 **		30.00 **
Province (Ont.)								
NFLD	0.54	-2.13 **	-0.83 **	-11.01 **	-0.92 **	-1.15 **	-0.09	-8.70 **
PEI	-8.40 **	-5.74 **	-4.49 **	-9.34 **	-5.20 **	-4.37 **	-3.16 **	-13.78 **
NS	-4.38 **	-2.78 **	-1.96 **	-5.75 **	-1.41 **	-2.06 **	-1.64 **	0.56
NB	3.61 **	-0.66 **	0.80 **	-3.69 **	1.32 **	-0.23	0.81 **	-3.18 **
QUE	3.21 **	-0.75 **	1.05 **	-4.24 **	2.27 **	-0.23 **	0.90 **	-6.26 **
MAN	0.58 **	-2.34 **	-2.52 **	-0.35	-1.19 **	-1.94 **	-2.21 **	-3.63 **
SASK	1.24 **	-0.53 **	-1.69 **	-0.58	-0.16	-0.01	-1.15 **	-2.18 **
ALTA	-4.86 **	-3.58 **	-1.89 **	-8.49 **	-2.32 **	-3.13 **	0.42 **	-14.05 **
BC	1.54 **	-0.93 **	-0.82 **	1.49 **	-1.24 **	-0.47 **	-0.45 **	-1.87 **
Area Size (Large-Urban)								
Small-Urban	1.90 **	1.01 **	0.72 **	1.50 **	3.81 **	0.88 **	0.56 **	5.25 **
Town-Rural	-1.86 **	-0.94 **	0.19 **	-2.81 **	1.85 **	-1.05 **	0.05	-1.81 **
Year (1992)								
1993	5.94 **	1.93 **	3.91 **	12.91 **	3.79 **	1.42 **	3.25 **	1.73 **
1994	6.54 **	3.42 **	4.67 **	15.09 **	4.96 **	2.42 **	3.85 **	3.81 **
1995	7.20 **	4.44 **	4.86 **	18.09 **	6.58 **	3.63 **	4.33 **	7.24 **
1996	6.97 **	4.53 **	4.52 **	18.71 **	6.61 **	3.78 **	4.32 **	6.36 **
1997	6.90 **	4.21 **	4.50 **	18.67 **	6.88 **	3.42 **	4.48 **	5.50 **
1998	6.69 **	4.11 **	4.24 **	17.88 **	6.94 **	3.27 **	4.38 **	3.28 **
1999	6.26 **	3.92 **	4.13 **	17.65 **	6.80 **	3.09 **	4.35 **	-0.45
2000	5.59 **	3.94 **	4.62 **	14.85 **	6.29 **	2.61 **	4.65 **	-2.74 **
Economic-policy Variables								
ER Unemployment Rate	0.80 **	0.68 **	0.49 **	1.36 **	0.45 **	0.56 **	0.35 **	1.32 **
SA Benefits	1.48 **	0.41 **	0.37 **	1.46 **	0.64 **	0.38 **	0.06 **	1.47 **
EI Index	-0.16 **	0.32 **	0.09 **	-1.24 **	0.43 **	0.17 **	0.31 *	-0.30 **

One asterisk indicates significance at the 0.5 level, two asterisks at the 0.1 level.

Table 3: Marginal Probability Results for the Probability of Entering SA

	Men				Women			
	Single	Attached with Child.	Attached no Child.	Lone Parent	Single	Attached with Child.	Attached no Child.	Lone Parent
Base Probability	4.73 **	2.07 **	1.26 **	10.15 **	2.76 **	1.94 **	1.03 **	14.19 **
Change in Family Type								
To Single		10.24 **	4.36 **	-1.24		30.25 **	6.50 **	1.17
To Att. with Child.	23.52 **		3.19 **	11.63 **	4.42 **		1.27 **	-0.63
To Att. without Child.	2.86 **	1.42 **		8.29 **	2.01 **	0.84 **		8.52 **
To Lone Parent	6.21 **	15.24 **	16.74 **		22.79 **	31.46 **	28.03 **	
Age Group (25-39)								
18-24	1.43 **	7.55 **	2.09 **	8.86 **	2.28 **	6.45 **	1.70 **	23.44 **
40-54	-0.60 **	-0.94 **	-0.25 **	-4.30 **	0.59 **	-0.96 **	-0.07 **	-7.32 **
55-64	-1.14 **	-0.25 **	-0.32 **	-3.91 **	-0.03	1.16 **	0.21 **	-3.81 **
Number of Children (One)								
Two		-0.29 **		-1.90 **		-0.02		0.35 *
Three		0.32 **		-1.10		0.69 **		4.25 **
Four		1.49 **		1.81		1.79 **		9.78 **
Five or more		3.86 **		3.28		4.22 **		17.94 **
Province (Ont.)								
NFLD	-0.17	1.24 **	0.16	-2.11	0.47 **	0.77 **	0.57 **	-0.81
PEI	-2.06 **	-0.69 **	-0.62 **	-1.81	-1.53 **	-0.49 **	-0.24 *	-1.53
NS	-0.95 **	0.44 **	-0.22 **	-1.58	-0.23 *	0.46 **	-0.05	-0.69
NB	0.54 **	1.28 **	0.34 **	4.45 **	0.42 **	0.94 **	0.31 **	1.38 *
QUE	0.27 **	0.31 **	0.13 **	-0.85	0.66 **	0.15 **	0.13 **	-0.03
MAN	-0.38 **	-0.02	-0.45 **	0.77	-0.23 *	-0.10 *	-0.32 **	-1.28 **
SASK	0.10	1.22 **	-0.27 **	4.93 **	0.31 **	0.68 **	0.09	6.86 **
ALTA	-1.45 **	0.25 **	-0.18 **	0.39	0.08	0.15 **	0.88 **	1.90 **
BC	0.15	0.65 **	0.03	4.19 **	0.22 **	0.57 **	0.13 **	3.92 **
Area Size (Large-Urban)								
Small-Urban	0.90 **	0.15 **	0.05	0.34	0.94 **	0.37 **	0.06 *	1.58 **
Town-Rural	0.07	0.29 **	0.12 **	-0.84 *	0.47 **	0.39 **	0.22 **	0.18
Year (1992)								
1993	-1.32 **	-0.43 **	-0.23 **	-1.66 *	-0.75 **	-0.39 **	-0.14 **	-4.76 **
1994	-0.74 **	-0.07	-0.10 *	-0.93	-0.58 **	-0.20 **	-0.05	-3.90 **
1995	-1.23 **	0.04	-0.18 **	-0.53	-0.85 **	-0.12 **	0.00	-5.36 **
1996	-0.98 **	-0.08	-0.17 **	-1.30	-0.59 **	-0.29 **	0.06	-4.67 **
1997	-1.53 **	-0.12	-0.35 **	-1.16	-1.02 **	-0.35 **	-0.12 **	-5.46 **
1998	-1.69 **	-0.17 *	-0.45 **	-0.27	-1.19 **	-0.47 **	-0.25 **	-5.61 **
1999	-2.09 **	-0.35 **	-0.59 **	-1.15	-1.41 **	-0.55 **	-0.31 **	-6.15 **
Economic-policy Variables								
ER Unemployment Rate	0.22 **	0.11 **	0.09 **	0.55 **	0.13 **	0.09 **	0.05 **	0.40 **
SA Benefits	0.21 **	0.19 **	0.06 **	0.65 **	0.25 **	0.15 **	0.08 **	0.76 **
EI Index	0.37 **	0.36 **	0.10 **	0.05	0.11 **	0.27 **	0.12 **	0.77 **

One asterisk indicates significance at the 0.5 level, two asterisks at the 0.1 level.

Table 4: Marginal Probability Results for the Probability of Exiting SA

	Men				Women			
	Single	Attached with Child.	Attached no Child.	Lone Parent	Single	Attached with Child.	Attached no Child.	Lone Parent
Base Probability	32.52 **	40.40	42.91 *	25.10 **	33.19 **	40.35	53.69	17.17
Change in Family Type								
To Single		-7.77 **	-15.06 **	-8.32 *		-20.17 **	-17.52 **	-4.08 **
To Att. with Child.	-10.42 **		-1.75	28.01 **	4.03		-19.47 **	29.98 **
To Att. without Child.	9.88 **	-1.63		19.42 **	17.32 **	-3.27 *		13.67 **
To Lone Parent	-14.66 **	-18.44 **	-30.35 **		-22.64 **	-26.06 **	-42.74 **	
Age Group (25-39)								
18-24	1.66 **	-0.87	3.41 **	-7.22 *	0.11	-4.56 **	1.69	-4.36 **
40-54	-8.22 **	-5.04 **	-9.56 **	-1.14	-9.31 **	-3.07 **	-13.85 **	-0.06
55-64	-16.71 **	-17.51 **	-19.58 **	-8.20 **	-16.86 **	-19.62 **	-25.22 **	-5.92 **
Number of Children (One)								
Two		0.50		1.48		1.11 *		0.04
Three		-2.43 **		3.13		-1.49 **		-1.50 **
Four		-6.45 **		-0.20		-6.19 **		-2.20 **
Five or more		-9.26 **		10.40		-9.92 **		-3.02 **
Province (Ont.)								
NFLD	2.34	-10.75 **	-4.56	-5.58	-2.07	-7.88 **	-0.70	-5.67 **
PEI	8.26 **	5.12	15.91 **	0.42	11.29 **	7.32 **	16.34 **	1.64
NS	6.83 **	-4.56 **	4.15	-3.90	1.90	0.55	1.29	-5.37 **
NB	7.61 **	-7.18 **	-4.46	-9.23 **	0.67	-3.04 *	2.84	-4.77 **
QUE	-3.98 **	-9.32 **	-6.41 **	-8.05 **	-6.02 **	-6.84 **	-2.07	-5.06 **
MAN	3.19 **	-1.87	2.56	-11.19 **	3.59 *	-1.86	9.72 **	-2.05 **
SASK	0.61	-4.29 **	-3.08	-7.09 *	3.63 *	-2.87 **	4.00	-2.69 **
ALTA	10.48 **	9.81 **	5.53 **	0.61	6.60 **	7.49 **	-3.90 *	3.77 **
BC	4.17 **	3.46 **	4.23 **	-1.78	5.82 **	3.50 **	9.86 **	-0.34
Area Size (Large-Urban)								
Small-Urban	-0.25	2.62 **	1.84	1.47	-0.56	2.38 **	-1.12	0.84 *
Town-Rural	3.17 **	4.94 **	2.78 **	6.19 **	2.14 **	4.92 **	-0.13	3.48 **
Year (1993)								
1993	2.65 **	2.96 **	4.92 **	-3.73	0.57	3.75 **	3.55 *	2.02 **
1994	8.37 **	5.94 **	6.89 **	-0.17	6.13 **	3.91 **	4.65 **	5.33 **
1995	9.62 **	6.29 **	4.56 *	-4.44	4.10 **	5.85 **	2.94	5.68 **
1996	11.91 **	9.56 **	7.14 **	-1.59	5.69 **	9.33 **	5.76 **	7.36 **
1997	13.10 **	12.56 **	8.77 **	0.28	8.04 **	11.80 **	4.10	9.82 **
1998	12.35 **	12.55 **	7.57 **	-0.57	7.80 **	10.45 **	3.79	9.51 **
Economic-policy Variables								
ER Unemployment Rate	-0.29 **	-0.41 **	-0.64 **	-0.06	-0.07	-0.51 **	-0.26	-0.13
SA Benefits	1.40 **	-0.48 *	-0.73 *	-2.36 **	0.24	-0.24 *	0.27	-1.24 **
EI Index	-0.20	0.00	0.38	-1.79	-1.03 *	-0.44	-0.07	-0.16
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Duration (One Year)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Two Years	-7.18 **	-8.03 **	-9.88 **	-6.96 **	-7.12 **	-8.63 **	-9.66 **	-4.63 **
Three Years	-15.42 **	-15.92 **	-18.51 **	-12.82 **	-14.98 **	-15.92 **	-18.20 **	-7.19 **
Four Years	-19.39 **	-21.03 **	-24.64 **	-11.40 **	-19.04 **	-18.69 **	-25.92 **	-9.05 **
Five Years	-21.95 **	-21.84 **	-29.14 **	-16.25 **	-22.18 **	-21.62 **	-30.44 **	-9.53 **
Six Years	-23.63 **	-25.62 **	-31.55 **	-15.23 **	-24.76 **	-22.23 **	-29.98 **	-9.26 **
Seven Years	-26.31 **	-27.14 **	-31.27 **	-16.40 **	-25.06 **	-24.05 **	-33.04 **	-10.46 **

One asterisk indicates significance at the 0.5 level, two asterisks at the 0.1 level.

Table 5: Marginal Probability Results for the Probability of Re-entering SA

	Men				Women			
	Single	Attached with Child.	Attached no Child.	Lone Parent	Single	Attached with Child.	Attached no Child.	Lone Parent
Base Probability	15.84 **	13.10 **	10.64 **	25.63 **	14.77 **	12.61 **	13.14 **	27.81 **
Change in Family Type								
To Single		14.91 **	8.86 **	8.99		44.86 **	22.45 **	7.83 **
To Att. with Child.	42.31 **		11.04 **	19.10 **	5.59		1.22	-2.63 *
To Att. without Child.	7.63 **	5.50 **		37.30 **	2.42	5.11 **		11.34 **
To Lone Parent	10.13 **	25.92 **	10.59		27.39 **	48.98 **	45.57 **	
Age Group (25-39)								
18-24	0.39	4.88 **	0.27	3.50	1.13	5.36 **	0.88	14.97 **
40-54	3.81 **	0.20	4.38 **	-1.36	3.74 **	-0.46	7.42 **	-4.77 **
55-64	4.94 **	5.51 **	9.07 **	0.65	1.89 **	13.20 **	12.35 **	-2.88
Number of Children (One)								
Two		0.58		-2.14		1.73 **		0.89
Three		2.25 **		-3.44		4.41 **		3.45 **
Four		4.07 **		0.45		7.04 **		8.18 **
Five or more		5.58 **		-0.37		8.83 **		13.45 **
Province (Ont.)								
NFLD	4.04 *	14.12 **	9.23 **	7.31	10.41 **	8.39 **	19.04 **	9.73 **
PEI	-0.78	2.54	-5.12	11.50	2.02	1.85	8.32 *	5.66
NS	-0.59	9.74 **	2.04	7.42	3.39 *	5.82 **	6.12 **	4.71 **
NB	3.61 **	14.06 **	7.30 **	17.95 **	5.45 **	9.04 **	10.23 **	8.84 **
QUE	3.93 **	6.44 **	2.28 **	9.06 **	5.71 **	4.19 **	3.85 **	6.94 **
MAN	4.07 **	7.60 **	5.31 **	12.42 *	3.07 *	6.18 **	6.90 **	8.38 **
SASK	5.90 **	14.41 **	2.40	10.02 *	6.02 **	7.95 **	11.59 **	13.78 **
ALTA	-0.84	6.67 **	3.22 **	9.34 *	7.10 **	4.18 **	14.72 **	7.53 **
BC	1.65 **	5.79 **	2.51 **	13.23 **	2.09 **	5.01 **	5.11 **	7.46 **
Area Size (Large-Urban)								
Small-Urban	1.28 **	1.44 **	0.00	-0.67	0.80	1.26 **	1.28	1.16
Town-Rural	-0.24	1.77 **	0.47	-4.49 *	0.38	0.89 **	1.81 **	-2.56 **
Year (1992)								
1994	5.01 **	1.18	2.78 **	2.72	4.65 **	1.42 **	1.81	2.92 **
1995	0.16	1.29	1.15	-2.21	0.19	1.21 *	0.03	-2.69 *
1996	2.95 **	0.15	0.56	-0.91	3.49 **	-0.45	1.37	-1.62
1997	1.09	-0.57	0.74	-0.18	1.78	-1.16 *	1.29	-5.84 **
1998	0.00	-0.31	0.27	-0.51	-0.24	-1.51 **	-0.21	-6.29 **
1999	-0.89	-0.87	-0.45	-4.02	-1.19	-2.27 **	-0.68	-7.84 **
Economic-policy Variables								
ER Unemployment Rate	0.32 **	0.27 **	0.43 **	0.33	0.41 **	0.28 **	0.35 **	0.18
SA Benefits	0.20	0.97 **	0.53 **	1.00	1.29 **	0.72 **	1.37 **	1.30 **
EI Index	1.51 **	1.06 **	1.03 **	2.55	0.75	1.13 **	0.64	1.34 **
Duration (One Year)								
Two Years	-7.56 **	-5.99 **	-5.17 **	-10.79 **	-7.14 **	-5.65 **	-6.62 **	-10.59 **
Three Years	-10.17 **	-8.28 **	-6.92 **	-16.26 **	-9.37 **	-7.73 **	-8.81 **	-15.03 **
Four Years	-11.54 **	-9.85 **	-8.37 **	-18.56 **	-10.23 **	-8.95 **	-10.23 **	-17.93 **
Five Years	-11.96 **	-10.28 **	-9.12 **	-19.50 **	-10.56 **	-9.70 **	-10.70 **	-19.34 **
Six Years	-12.58 **	-11.16 **	-9.14 **	-20.30 **	-11.31 **	-10.28 **	-11.22 **	-19.98 **
Seven Years	-13.68 **	-11.00 **	-9.15 **	-19.93 **	-11.25 **	-10.49 **	-11.27 **	-18.76 **

One asterisk indicates significance at the 0.5 level, two asterisks at the 0.1 level.

Table A1: Logit Model Results for the Probability of Receiving SA

	Men				Women			
	Single	Attached with Child.	Attached no Child.	Lone Parent	Single	Attached with Child.	Attached no Child.	Lone Parent
Intercept	-3.1826 **	-4.0643 **	-4.4173 **	-2.6493 **	-3.4632 **	-4.1701 **	-4.8002 **	-1.4964 **
	(.031)	(.033)	(.053)	(.119)	(.037)	(.032)	(.057)	(.037)
Age Group (25-39)								
18-24	0.0445 **	2.063 **	0.9539 **	0.7162 **	0.1497 **	1.8378 **	1.0117 **	1.3502 **
	(.004)	(.007)	(.008)	(.039)	(.006)	(.006)	(.008)	(.007)
40-54	0.1805 **	-0.6993 **	-0.5273 **	-0.6006 **	0.3987 **	-0.7311 **	-0.375 **	-0.8234 **
	(.003)	(.004)	(.006)	(.013)	(.004)	(.004)	(.006)	(.004)
55-64	0.3041 **	-0.0511 **	-0.6323 **	-0.1854 **	0.4128 **	0.3721 **	-0.4352 **	-0.2024 **
	(.005)	(.010)	(.006)	(.030)	(.005)	(.016)	(.007)	(.017)
Number of Children (One)								
Two		-0.1345 **		-0.0134		-0.0622 **		0.193 **
		(.004)		(.014)		(.004)		(.004)
Three		0.2587 **		0.2539 **		0.347 **		0.5976 **
		(.005)		(.021)		(.005)		(.006)
Four		0.7837 **		0.5806 **		0.8668 **		0.9983 **
		(.007)		(.040)		(.007)		(.011)
Five or more		(1.479) **		(1.018) **		(1.556) **		(1.395) **
		(.009)		(.063)		(.009)		(.016)
Province (Ont.)								
NFLD	0.0401	-0.2569 **	-0.1331 **	-0.6537 **	-0.0991 **	-0.1521 **	-0.0186	-0.351 **
	(.022)	(.017)	(.031)	(.062)	(.026)	(.016)	(.033)	(.018)
PEI	-0.7966 **	-0.8849 **	-1.0454 **	-0.5371 **	-0.7234 **	-0.7271 **	-0.9481 **	-0.5645 **
	(.027)	(.028)	(.047)	(.102)	(.030)	(.027)	(.048)	(.029)
NS	-0.3545 **	-0.3477 **	-0.3435 **	-0.3112 **	-0.1561 **	-0.2877 **	-0.3915 **	0.0223
	(.013)	(.013)	(.018)	(.045)	(.014)	(.013)	(.020)	(.013)
NB	0.2423 **	-0.074 **	0.1147 **	-0.1938 **	0.1323 **	-0.0291	0.1524 **	-0.1275 **
	(.019)	(.016)	(.026)	(.050)	(.021)	(.016)	(.028)	(.016)
QUE	0.2171 **	-0.0843 **	0.1487 **	-0.2248 **	0.2196 **	-0.029 **	0.1672 **	-0.2513 **
	(.007)	(.008)	(.010)	(.024)	(.008)	(.008)	(.010)	(.008)
MAN	0.0428 **	-0.286 **	-0.4634 **	-0.0177	-0.1309 **	-0.2681 **	-0.5691 **	-0.1453 **
	(.010)	(.011)	(.018)	(.044)	(.012)	(.011)	(.020)	(.014)
SASK	0.0887 **	-0.0586 **	-0.29 **	-0.0293	-0.0162	-0.00136	-0.2581 **	-0.0871 **
	(.012)	(.011)	(.020)	(.041)	(.014)	(.011)	(.020)	(.013)
ALTA	-0.4 **	-0.4695 **	-0.3278 **	-0.4805 **	-0.2698 **	-0.4704 **	0.0818 **	-0.5761 **
	(.011)	(.008)	(.016)	(.038)	(.013)	(.008)	(.016)	(.011)
BC	0.1092 **	-0.106 **	-0.1304 **	0.0736 **	-0.1362 **	-0.0597 **	-0.0939 **	-0.0749 **
	(.006)	(.007)	(.009)	(.022)	(.007)	(.007)	(.010)	(.007)
Area Size (Large-Urban)								
Small-Urban	0.1326 **	0.1055 **	0.1044 **	0.0743 **	0.3501 **	0.1046 **	0.1074 **	0.2109 **
	(.005)	(.005)	(.007)	(.018)	(.005)	(.005)	(.008)	(.006)
Town-Rural	-0.1386 **	-0.1073 **	0.029 **	-0.1459 **	0.1819 **	-0.1375 **	0.0106	-0.0724 **
	(.004)	(.004)	(.006)	(.016)	(.005)	(.004)	(.007)	(.005)
Year (1992)								
1993	0.3811 **	0.1942 **	0.4812 **	0.5814 **	0.3489 **	0.1645 **	0.5158 **	0.0693 **
	(.006)	(.007)	(.015)	(.026)	(.007)	(.007)	(.016)	(.008)
1994	0.415 **	0.3275 **	0.5557 **	0.6712 **	0.4401 **	0.2686 **	0.5901 **	0.1528 **
	(.007)	(.007)	(.015)	(.028)	(.008)	(.007)	(.017)	(.009)
1995	0.4513 **	0.4114 **	0.574 **	0.793 **	0.5583 **	0.3842 **	0.6476 **	0.2921 **
	(.008)	(.009)	(.018)	(.032)	(.010)	(.009)	(.019)	(.010)
1996	0.4386 **	0.4182 **	0.542 **	0.8182 **	0.5606 **	0.3985 **	0.6455 **	0.2562 **
	(.009)	(.010)	(.021)	(.036)	(.011)	(.010)	(.023)	(.012)
1997	0.4351 **	0.3924 **	0.5396 **	0.8165 **	0.5789 **	0.3652 **	0.6646 **	0.221 **
	(.010)	(.010)	(.022)	(.037)	(.011)	(.010)	(.023)	(.012)
1998	0.4235 **	0.3843 **	0.5141 **	0.7847 **	0.5829 **	0.3511 **	0.6527 **	0.1315 **
	(.010)	(.011)	(.022)	(.038)	(.012)	(.011)	(.024)	(.012)
1999	0.3988 **	0.3687 **	0.5032 **	0.7755 **	0.5732 **	0.3345 **	0.6488 **	-0.0182
	(.010)	(.012)	(.022)	(.040)	(.012)	(.012)	(.024)	(.013)
2000	0.3608 **	0.3706 **	0.5517 **	0.6614 **	0.5377 **	0.2874 **	0.6837 **	-0.1096 **
	(.010)	(.012)	(.022)	(.041)	(.012)	(.012)	(.024)	(.013)
Economic-policy Variables								
ER Unemployment Rate	0.0585 **	0.0715 **	0.0723 **	0.0675 **	0.0477 **	0.0676 **	0.0672 **	0.0528 **
	(.001)	(.001)	(.001)	(.004)	(.001)	(.001)	(.002)	(.001)
SA Benefits	0.000105 **	0.000044 **	0.000054 **	0.000072 **	0.000067 **	0.000046 **	0.000061 **	0.000059 **
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
EI Index	-0.00027 **	0.000932 **	0.000359 **	-0.00174 **	0.00126 **	0.000577 **	0.000309 *	-0.00033 **
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
Sample Size	3,132,935	4,987,420	4,256,535	151,875	2,467,850	5,132,825	4,115,990	1,286,245

Standard errors enclosed in brackets.
One asterisk indicates significance at the 0.5 level, two asterisks at the 0.1 level.

Table A2: Logit Model Results for the Probability of Entering SA

	Men				Women			
	Single	Attached with Child.	Attached no Child.	Lone Parent	Single	Attached with Child.	Attached no Child.	Lone Parent
Intercept	-4.3268 **	-7.1416 **	-6.36 **	-4.0003 **	-5.0775 **	-6.6139 **	-6.9973 **	-3.4177 **
	(.061)	(.105)	(.118)	(.293)	(.085)	(.082)	(.122)	(.104)
Change in Family Type								
To Single		1.8926 **	1.5375 **	-0.1435		3.1779 **	2.0596 **	0.0928
		(.051)	(.040)	(.122)		(.068)	(.037)	(.050)
To Att. with Child.	2.0699 **		1.2923 **	0.9022 **	1.0022 **		0.8176 **	-0.053
	(.048)		(.049)	(.076)	(.079)		(.054)	(.029)
To Att. without Child.	0.5026 **	0.537 **		0.6935 **	0.5683 **	0.3696 **		0.5745 **
	(.023)	(.044)		(.153)	(.031)	(.040)		(.090)
To Lone Parent	0.9054 **	2.2923 **	2.8417 **		2.4911 **	3.233 **	3.675 **	
	(.053)	(.072)	(.232)		(.049)	(.017)	(.058)	
Age Group (25-39)								
18-24	0.2792 **	1.6163 **	0.9983 **	0.7312 **	0.6249 **	1.5331 **	0.9922 **	1.2942 **
	(.012)	(.027)	(.026)	(.112)	(.015)	(.016)	(.023)	(.019)
40-54	-0.1407 **	-0.6156 **	-0.2224 **	-0.5982 **	0.2005 **	-0.6975 **	-0.0683 **	-0.807 **
	(.012)	(.013)	(.021)	(.040)	(.016)	(.012)	(.022)	(.015)
55-64	-0.2867 **	-0.131 **	-0.2992 **	-0.5287 **	-0.0119	0.4807 **	0.1875 **	-0.3557 **
	(.021)	(.037)	(.024)	(.118)	(.020)	(.048)	(.024)	(.063)
Number of Children (One)								
Two		-0.1539 **		-0.2276 **		-0.0107		0.0283 *
		(.014)		(.044)		(.012)		(.014)
Three		0.147 **		-0.1273		0.3102 **		0.3125 **
		(.017)		(.072)		(.014)		(.020)
Four		0.5576 **		0.184		0.6732 **		0.6451 **
		(.025)		(.127)		(.020)		(.033)
Five or more		(1.093) **		(.317)		(1.200) **		(1.052) **
		(.032)		(.215)		(.026)		(.045)
Province (Ont.)								
NFLD	-0.0379	0.4827 **	0.122	-0.2556	0.1623 **	0.3404 **	0.4463 **	-0.0684
	(.046)	(.048)	(.076)	(.170)	(.062)	(.039)	(.079)	(.054)
PEI	-0.5912 **	-0.4096 **	-0.6753 **	-0.2161	-0.8236 **	-0.2973 **	-0.2706 *	-0.1319
	(.070)	(.077)	(.129)	(.264)	(.104)	(.061)	(.114)	(.079)
NS	-0.2347 **	0.1972 **	-0.1909 **	-0.1866	-0.0905 *	0.2155 **	-0.0532	-0.0578
	(.031)	(.040)	(.054)	(.134)	(.041)	(.030)	(.055)	(.041)
NB	0.1145 **	0.4951 **	0.2433 **	0.4143 **	0.1471 **	0.4055 **	0.2704 **	0.1093 *
	(.037)	(.047)	(.066)	(.127)	(.053)	(.036)	(.070)	(.045)
QUE	0.0584 **	0.1421 **	0.0968 **	-0.0972	0.2215 **	0.0736 **	0.1228 **	-0.00276
	(.017)	(.026)	(.030)	(.072)	(.021)	(.020)	(.029)	(.024)
MAN	-0.0873 **	-0.0111	-0.4475 **	0.0813	-0.0885 *	-0.0546 *	-0.3708 **	-0.1095 **
	(.028)	(.035)	(.057)	(.115)	(.037)	(.028)	(.055)	(.039)
SASK	0.0212	0.4744 **	-0.2445 **	0.452 **	0.1084 **	0.3072 **	0.0824	0.4779 **
	(.031)	(.033)	(.062)	(.105)	(.042)	(.027)	(.053)	(.034)
ALTA	-0.3821 **	0.1154 **	-0.1563 **	0.0422	0.0282	0.076 **	0.628 **	0.148 **
	(.024)	(.026)	(.041)	(.091)	(.032)	(.021)	(.037)	(.030)
BC	0.0322	0.2812 **	0.023	0.3933 **	0.0779 **	0.2632 **	0.1218 **	0.2908 **
	(.021)	(.027)	(.035)	(.079)	(.026)	(.020)	(.033)	(.025)
Area Size (Large-Urban)								
Small-Urban	0.1835 **	0.0735 **	0.0367	0.0367	0.3014 **	0.1765 **	0.0547 *	0.1242 **
	(.015)	(.019)	(.026)	(.059)	(.018)	(.015)	(.025)	(.019)
Town-Rural	0.0152	0.1342 **	0.0943 **	-0.0955 *	0.1634 **	0.1876 **	0.1996 **	0.0147
	(.013)	(.014)	(.021)	(.048)	(.016)	(.012)	(.020)	(.017)
Year (1992)								
1993	-0.342 **	-0.2382 **	-0.2059 **	-0.1967 *	-0.3236 **	-0.2262 **	-0.1434 **	-0.4629 **
	(.019)	(.022)	(.031)	(.078)	(.023)	(.018)	(.031)	(.025)
1994	-0.1767 **	-0.0369	-0.0857 *	-0.1058	-0.2402 **	-0.1098 **	-0.0464	-0.3662 **
	(.023)	(.027)	(.039)	(.092)	(.029)	(.022)	(.039)	(.030)
1995	-0.3123 **	0.0198	-0.1509 **	-0.0594	-0.3747 **	-0.0651 **	-0.00308	-0.5345 **
	(.025)	(.030)	(.043)	(.099)	(.032)	(.024)	(.043)	(.033)
1996	-0.2423 **	-0.0399	-0.1486 **	-0.1515	-0.2476 **	-0.1644 **	0.0613	-0.4519 **
	(.025)	(.032)	(.045)	(.102)	(.033)	(.025)	(.044)	(.033)
1997	-0.4067 **	-0.0624	-0.3277 **	-0.1342	-0.4734 **	-0.2041 **	-0.1254 **	-0.5469 **
	(.027)	(.034)	(.048)	(.106)	(.035)	(.027)	(.047)	(.035)
1998	-0.4583 **	-0.0873 *	-0.4456 **	-0.0296	-0.5779 **	-0.2838 **	-0.2877 **	-0.5669 **
	(.027)	(.036)	(.048)	(.106)	(.036)	(.028)	(.048)	(.036)
1999	-0.6028 **	-0.19 **	-0.6281 **	-0.1326	-0.7291 **	-0.3416 **	-0.3581 **	-0.6367 **
	(.030)	(.038)	(.052)	(.111)	(.038)	(.030)	(.050)	(.037)
Economic-policy Variables								
ER Unemployment Rate	0.0484 **	0.0525 **	0.0721 **	0.0589 **	0.0473 **	0.0465 **	0.0482 **	0.0321 **
	(.003)	(.003)	(.004)	(.011)	(.003)	(.003)	(.005)	(.004)
SA Benefits	0.000045 **	0.00009 **	0.000047 **	0.000069 **	0.00009 **	0.000075 **	0.000079 **	0.000061 **
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
EI Index	0.00244 **	0.00502 **	0.00222 **	0.000161	0.00111 **	0.00367 **	0.003 **	0.00169 **
	(.000)	(.000)	(.000)	(.001)	(.000)	(.000)	(.000)	(.000)
Sample Size	1,385,540	3,105,180	2,397,035	56,765	1,297,265	3,469,430	2,508,860	437,400

Standard errors enclosed in brackets.
One asterisk indicates significance at the 0.5 level, two asterisks at the 0.1 level.

Table A3: Hazard Model Results for the Probability of Exiting SA

	Men				Women			
	Single	Attached with Child.	Attached no Child.	Lone Parent	Single	Attached with Child.	Attached no Child.	Lone Parent
Intercept	-1.1072 **	0.2322	0.4801 *	1.5297 **	-0.544 **	0.147	0.0823	0.0514
	(.078)	(.156)	(.203)	(.497)	(.113)	(.134)	(.217)	(.157)
Change in Family Type								
To Single		-0.336 **	-0.6665 **	-0.5084 *		-0.9843 **	-0.7158 **	-0.3198 **
		(.081)	(.077)	(.202)		(.144)	(.073)	(.076)
To Att. with Child.	-0.5298 **		-0.0719	1.218 **	0.1768		-0.8015 **	1.4598 **
	(.069)		(.086)	(.132)	(.123)		(.097)	(.041)
To Att. without Child.	0.4238 **	-0.0682		0.8731 **	0.7201 **	-0.138 *		0.7659 **
	(.031)	(.066)		(.295)	(.039)	(.063)		(.165)
To Lone Parent	-0.7962 **	-0.879 **	-1.6546 **		-1.4377 **	-1.4008 **	-2.2441 **	
	(.085)	(.140)	(.626)		(.067)	(.033)	(.153)	
Age Group (25-39)								
18-24	0.0745 **	-0.0361	0.138 **	-0.4314 *	0.0051	-0.1934 **	0.068	-0.3445 **
	(.023)	(.036)	(.048)	(.181)	(.031)	(.024)	(.044)	(.025)
40-54	-0.4061 **	-0.2145 **	-0.4069 **	-0.0617	-0.4598 **	-0.1294 **	-0.5601 **	-0.00422
	(.020)	(.019)	(.034)	(.064)	(.027)	(.019)	(.036)	(.022)
55-64	-0.9429 **	-0.8259 **	-0.9041 **	-0.4994 **	-0.9341 **	-0.9502 **	-1.0691 **	-0.4921 **
	(.039)	(.057)	(.039)	(.178)	(.036)	(.079)	(.044)	(.097)
Number of Children (One)								
Two		0.0209		0.077		0.0459 *		0.00304
		(.021)		(.069)		(.018)		(.020)
Three		-0.1022 **		0.1602		-0.0624 **		-0.1096 **
		(.025)		(.107)		(.022)		(.027)
Four		-0.2766 **		-0.0105		-0.2652 **		-0.1636 **
		(.035)		(.205)		(.031)		(.044)
Five or more		-(.405) **		(.496)		-(.436) **		-(.229) **
		(.046)		(.286)		(.040)		(.061)
Province (Ont.)								
NFLD	0.1047	-0.4751 **	-0.1894	-0.3235	-0.0951	-0.3412 **	-0.0281	-0.4668 **
	(.068)	(.068)	(.132)	(.279)	(.098)	(.061)	(.138)	(.073)
PEI	0.3571 **	0.2093	0.6422 **	0.022	0.4779 **	0.2975 **	0.7009 **	0.1115
	(.126)	(.119)	(.237)	(.453)	(.179)	(.100)	(.229)	(.107)
NS	0.2975 **	-0.1935 **	0.1679	-0.2196	0.0846	0.0229	0.052	-0.4384 **
	(.050)	(.056)	(.092)	(.199)	(.068)	(.048)	(.095)	(.053)
NB	0.3301 **	-0.3093 **	-0.1851	-0.5748 **	0.0301	-0.128 *	0.115	-0.3813 **
	(.050)	(.067)	(.113)	(.195)	(.078)	(.058)	(.122)	(.061)
QUE	-0.1881 **	-0.4077 **	-0.2684 **	-0.4887 **	-0.2864 **	-0.2945 **	-0.0831	-0.4087 **
	(.026)	(.037)	(.050)	(.110)	(.033)	(.032)	(.053)	(.032)
MAN	0.142 **	-0.0784	0.1038	-0.7292 **	0.158 *	-0.0778	0.402 **	-0.1517 **
	(.052)	(.058)	(.106)	(.198)	(.069)	(.048)	(.106)	(.058)
SASK	0.0275	-0.1819 **	-0.1269	-0.4222 *	0.1595 *	-0.1209 **	0.1622	-0.2025 **
	(.055)	(.052)	(.112)	(.172)	(.075)	(.044)	(.098)	(.049)
ALTA	0.4482 **	0.3973 **	0.223 **	0.0324	0.2852 **	0.3046 **	-0.1563 *	0.2451 **
	(.040)	(.042)	(.077)	(.159)	(.050)	(.035)	(.072)	(.045)
BC	0.1846 **	0.1418 **	0.1711 **	-0.0968	0.2528 **	0.1435 **	0.408 **	-0.0238
	(.029)	(.033)	(.051)	(.104)	(.036)	(.027)	(.050)	(.028)

Standard errors enclosed in brackets.
One asterisk indicates significance at the 0.5 level, two asterisks at the 0.1 level.

Table A3: Hazard Model Results for the Probability of Exiting SA - concluded

	Men				Women			
	Single	Attached with Child.	Attached no Child.	Lone Parent	Single	Attached with Child.	Attached no Child.	Lone Parent
Area Size (Large-Urban)								
Small-Urban	-0.0116	0.1078 **	0.0747	0.0765	-0.0252	0.0979 **	-0.0451	0.0583 *
	(.026)	(.028)	(.042)	(.092)	(.033)	(.023)	(.044)	(.026)
Town-Rural	0.1411 **	0.2019 **	0.1125 **	0.3069 **	0.0952 **	0.2013 **	-0.00513	0.2278 **
	(.022)	(.022)	(.036)	(.077)	(.030)	(.019)	(.036)	(.023)
Year (1992)								
1993	0.1182 **	0.1217 **	0.1987 **	-0.2092	0.0254	0.1539 **	0.1439 *	0.1362 **
	(.035)	(.038)	(.055)	(.135)	(.045)	(.032)	(.057)	(.046)
1994	0.3614 **	0.242 **	0.2774 **	-0.0092	0.2658 **	0.1601 **	0.1888 **	0.3368 **
	(.041)	(.044)	(.068)	(.153)	(.053)	(.037)	(.070)	(.050)
1995	0.413 **	0.2561 **	0.1842 *	-0.2524	0.1799 **	0.2387 **	0.1189	0.3569 **
	(.043)	(.049)	(.075)	(.168)	(.057)	(.041)	(.078)	(.054)
1996	0.5062 **	0.3874 **	0.2877 **	-0.0864	0.2471 **	0.3783 **	0.2347 **	0.4499 **
	(.044)	(.051)	(.079)	(.172)	(.059)	(.043)	(.082)	(.055)
1997	0.5545 **	0.5074 **	0.3527 **	0.0147	0.3452 **	0.477 **	0.1663	0.5788 **
	(.047)	(.054)	(.083)	(.179)	(.063)	(.045)	(.085)	(.058)
1998	0.5241 **	0.507 **	0.3046 **	-0.0304	0.3354 **	0.4231 **	0.1536	0.5626 **
	(.048)	(.057)	(.084)	(.182)	(.063)	(.048)	(.086)	(.059)
Economic-policy Variables								
ER Unemployment Rate	-0.0133 **	-0.017 **	-0.0261 **	-0.00328	-0.00308	-0.0211 **	-0.0106	-0.00885
	(.005)	(.005)	(.008)	(.018)	(.006)	(.004)	(.008)	(.005)
SA Benefits	0.000063 **	-0.00002 *	-0.00003 *	-0.00013 **	0.000011	-0.00001 *	0.000011	-0.00009 **
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
EI Index	-0.00028	-8.95E-07	0.000474	-0.00301	-0.00145 *	-0.00056	-0.00009	-0.00034
	(.000)	(.000)	(.001)	(.002)	(.001)	(.000)	(.001)	(.001)
Duration (One Year)								
Two Years	-0.3506 **	-0.3482 **	-0.4213 **	-0.4135 **	-0.3429 **	-0.3758 **	-0.3878 **	-0.3688 **
	(.023)	(.022)	(.033)	(.085)	(.028)	(.020)	(.034)	(.024)
Three Years	-0.8484 **	-0.7376 **	-0.8456 **	-0.8731 **	-0.8027 **	-0.7381 **	-0.7456 **	-0.6255 **
	(.030)	(.028)	(.046)	(.101)	(.037)	(.025)	(.048)	(.027)
Four Years	-1.1598 **	-1.037 **	-1.2127 **	-0.7471 **	-1.1033 **	-0.8946 **	-1.1036 **	-0.8522 **
	(.040)	(.036)	(.063)	(.114)	(.048)	(.031)	(.065)	(.032)
Five Years	-1.4056 **	-1.0902 **	-1.5487 **	-1.2391 **	-1.3905 **	-1.0766 **	-1.3421 **	-0.9183 **
	(.052)	(.044)	(.084)	(.150)	(.061)	(.039)	(.084)	(.037)
Six Years	-1.5977 **	-1.3632 **	-1.7689 **	-1.1191 **	-1.686 **	-1.1172 **	-1.3165 **	-0.8807 **
	(.069)	(.060)	(.115)	(.177)	(.081)	(.051)	(.105)	(.045)
Seven Years	-1.9861 **	-1.489 **	-1.7413 **	-1.2576 **	-1.7258 **	-1.2448 **	-1.4943 **	-1.0593 **
	(.105)	(.088)	(.158)	(.270)	(.107)	(.076)	(.151)	(.065)
Sample Size	78,145	66,860	31,020	6,180	57,315	93,420	39,955	85,155

Standard errors enclosed in brackets.
One asterisk indicates significance at the 0.5 level, two asterisks at the 0.1 level.

Table A4: Hazard Model Results for the Probability of Re-entering SA

	Men				Women			
	Single	Attached with Child.	Attached no Child.	Lone Parent	Single	Attached with Child.	Attached no Child.	Lone Parent
Intercept	-2.5846 **	-4.3637 **	-4.1119 **	-2.7218 **	-3.2876 **	-4.0573 **	-4.5707 **	-2.4098 **
	(.161)	(.232)	(.291)	(.686)	(.246)	(.178)	(.317)	(.211)
Change in Family Type								
To Single		0.9484 **	0.7101 **	0.4296		2.2369 **	1.2954 **	0.3628 **
		(.113)	(.099)	(.275)		(.155)	(.095)	(.096)
To Att. with Child.	1.9991 **		0.8435 **	0.8538 **	0.3889		0.1031	-0.1349 *
	(.142)		(.123)	(.177)	(.251)		(.149)	(.058)
To Att. without Child.	0.4884 **	0.4162 **		1.5947 **	0.1807	0.4008 **		0.5131 **
	(.066)	(.098)		(.425)	(.095)	(.082)		(.177)
To Lone Parent	0.6225 **	1.4457 **	0.8166		1.4367 **	2.4082 **	2.2406 **	
	(.127)	(.136)	(.659)		(.163)	(.038)	(.191)	
Age Group (25-39)								
18-24	0.0287	0.3743 **	0.0283	0.1762	0.087	0.4179 **	0.0751	0.6631 **
	(.034)	(.053)	(.075)	(.255)	(.049)	(.029)	(.068)	(.035)
40-54	0.2618 **	0.0178	0.3951 **	-0.0726	0.2706 **	-0.0421	0.5372 **	-0.2522 **
	(.025)	(.026)	(.046)	(.078)	(.035)	(.024)	(.050)	(.027)
55-64	0.3319 **	0.4166 **	0.7232 **	0.0337	0.1431 **	0.8803 **	0.8161 **	-0.1486
	(.045)	(.073)	(.054)	(.219)	(.045)	(.092)	(.061)	(.115)
Number of Children (One)								
Two		0.0503		-0.1153		0.1489 **		0.0439
		(.029)		(.084)		(.023)		(.025)
Three		0.1844 **		-0.1895		0.3518 **		0.1657 **
		(.034)		(.137)		(.026)		(.034)
Four		0.3184 **		0.0236		0.5274 **		0.3782 **
		(.046)		(.213)		(.036)		(.054)
Five or more		0.4215 **		-0.0194		0.6372 **		0.6006 **
		(.059)		(.359)		(.046)		(.070)
Province (Ont.)								
NFLD	0.2765 *	0.9084 **	0.7332 **	0.3542	0.6639 **	0.6112 **	1.1429 **	0.445 **
	(.119)	(.093)	(.194)	(.360)	(.172)	(.074)	(.205)	(.097)
PEI	-0.0594	0.2066	-0.7113	0.5387	0.1521	0.1586	0.5915 *	0.2668
	(.161)	(.147)	(.384)	(.442)	(.218)	(.116)	(.265)	(.137)
NS	-0.0453	0.6748 **	0.1983	0.3596	0.2472 *	0.4482 **	0.4557 **	0.224 **
	(.078)	(.073)	(.129)	(.262)	(.105)	(.056)	(.136)	(.071)
NB	0.2494 **	0.9058 **	0.6078 **	0.807 **	0.3799 **	0.6497 **	0.7011 **	0.4066 **
	(.090)	(.087)	(.153)	(.241)	(.138)	(.067)	(.169)	(.074)
QUE	0.2694 **	0.477 **	0.2201 **	0.4324 **	0.396 **	0.3363 **	0.3025 **	0.3237 **
	(.038)	(.050)	(.066)	(.136)	(.051)	(.038)	(.069)	(.041)
MAN	0.2784 **	0.5492 **	0.4657 **	0.578 *	0.2252 *	0.472 **	0.5048 **	0.3867 **
	(.069)	(.073)	(.146)	(.236)	(.103)	(.055)	(.140)	(.072)
SASK	0.3894 **	0.9232 **	0.2309	0.4747 *	0.4152 **	0.5841 **	0.7754 **	0.6142 **
	(.073)	(.061)	(.158)	(.203)	(.105)	(.049)	(.131)	(.059)
ALTA	-0.0645	0.4914 **	0.3009 **	0.4448 *	0.4796 **	0.3352 **	0.937 **	0.35 **
	(.059)	(.047)	(.102)	(.179)	(.084)	(.036)	(.098)	(.053)
BC	0.1189 **	0.4349 **	0.2402 **	0.6123 **	0.1575 **	0.3934 **	0.3893 **	0.3469 **
	(.039)	(.042)	(.066)	(.118)	(.052)	(.030)	(.065)	(.035)

Standard errors enclosed in brackets.
One asterisk indicates significance at the 0.5 level, two asterisks at the 0.1 level.

Table A4: Hazard Model Results for the Probability of Re-entering SA - concluded

	Men				Women			
	Single	Attached with Child.	Attached no Child.	Lone Parent	Single	Attached with Child.	Attached no Child.	Lone Parent
Area Size (Large-Urban)								
Small-Urban	0.0933 **	0.1208 **	-0.00048	-0.0352	0.0623	0.1101 **	0.1082	0.0569
	(.034)	(.037)	(.061)	(.113)	(.045)	(.028)	(.061)	(.034)
Town-Rural	-0.018	0.1475 **	0.0482	-0.2512 *	0.0298	0.0782 **	0.15 **	-0.1314 **
	(.030)	(.030)	(.051)	(.098)	(.041)	(.023)	(.050)	(.030)
Year (1993)								
1994	0.3363 **	0.1001	0.2633 **	0.1382	0.3299 **	0.123 **	0.1499	0.141 **
	(.052)	(.052)	(.084)	(.175)	(.068)	(.041)	(.087)	(.052)
1995	0.0118	0.1089	0.116	-0.1197	0.0149	0.1054 *	0.0029	-0.1383 *
	(.057)	(.058)	(.094)	(.192)	(.077)	(.045)	(.100)	(.057)
1996	0.2062 **	0.013	0.0577	-0.0484	0.2538 **	-0.0412	0.1154	-0.0823
	(.057)	(.060)	(.099)	(.192)	(.078)	(.047)	(.103)	(.057)
1997	0.0795	-0.0512	0.0751	-0.00961	0.1346	-0.1096 *	0.1089	-0.3137 **
	(.061)	(.065)	(.104)	(.203)	(.083)	(.050)	(.107)	(.061)
1998	-0.00005	-0.0278	0.0276	-0.0269	-0.0193	-0.145 **	-0.0183	-0.3397 **
	(.062)	(.070)	(.106)	(.212)	(.085)	(.054)	(.109)	(.064)
1999	-0.0682	-0.0786	-0.0478	-0.2232	-0.0981	-0.2242 **	-0.0611	-0.4345 **
	(.065)	(.072)	(.110)	(.216)	(.087)	(.056)	(.111)	(.065)
Economic-policy Variables								
ER Unemployment Rate	0.0237 **	0.0239 **	0.0445 **	0.0173	0.0325 **	0.0253 **	0.0305 **	0.00879
	(.006)	(.006)	(.010)	(.023)	(.008)	(.005)	(.011)	(.007)
SA Benefits	0.000015	0.000083 **	0.000055 **	0.000052	0.000099 **	0.000064 **	0.000115 **	0.000064 **
	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)
EI Index	0.00336 **	0.00278 **	0.0032 **	0.00401	0.00179	0.00305 **	0.00169	0.00203 **
	(.001)	(.001)	(.001)	(.002)	(.001)	(.001)	(.001)	(.001)
Duration (One Year)								
Two Years	-0.7345 **	-0.6779 **	-0.7216 **	-0.682 **	-0.7406 **	-0.6566 **	-0.7738 **	-0.6165 **
	(.027)	(.029)	(.047)	(.093)	(.036)	(.023)	(.049)	(.028)
Three Years	-1.1408 **	-1.0898 **	-1.1256 **	-1.2036 **	-1.1099 **	-1.0351 **	-1.2072 **	-0.9665 **
	(.037)	(.039)	(.062)	(.130)	(.050)	(.030)	(.065)	(.039)
Four Years	-1.4327 **	-1.5002 **	-1.631 **	-1.5102 **	-1.2922 **	-1.3361 **	-1.6171 **	-1.2572 **
	(.049)	(.054)	(.088)	(.172)	(.063)	(.039)	(.086)	(.054)
Five Years	-1.5396 **	-1.6467 **	-2.0403 **	-1.6635 **	-1.3715 **	-1.5717 **	-1.8012 **	-1.427 **
	(.065)	(.070)	(.127)	(.219)	(.083)	(.053)	(.111)	(.077)
Six Years	-1.7221 **	-2.0318 **	-2.0565 **	-1.8129 **	-1.5759 **	-1.7986 **	-2.0451 **	-1.5114 **
	(.093)	(.108)	(.168)	(.308)	(.123)	(.076)	(.159)	(.107)
Seven Years	-2.1446 **	-1.9494 **	-2.0584 **	-1.7411 **	-1.5579 **	-1.8963 **	-2.074 **	-1.3539 **
	(.187)	(.161)	(.260)	(.465)	(.195)	(.124)	(.244)	(.161)
Sample Size	87,955	143,875	58,640	7,040	57,805	197,700	67,040	74,425

Standard errors enclosed in brackets.
One asterisk indicates significance at the 0.5 level, two asterisks at the 0.1 level.

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