An Analysis of Differences in Labour Force Participation, Earnings and

Welfare Participation Among Canadian Lone Mothers Using Longitudinal Data

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Abstract

We use data from a large sample of linked income tax files to analyse the earnings, and labour force and welfare participation of Canadian lone mothers. Our data cover the first five years of a spell of lone parenthood and the year preceding the spell, and the calendar years 1982 through 1997. We focus on differences among lone mothers based on their family status prior to lone parenthood, the most important categories being married (registered) with children, living common law with children and single (and childless). We compare the outcomes of different types of lone mothers both within and across cohorts defined by calendar year of entry to lone motherhood while controlling for demographic characteristics. The most consistent finding is that of decreasing labour force participation (and earnings) and increasing welfare participation across cohorts of previously single lone mothers - both in absolute terms and relative to the participation of previously married lone mother. These changes are true of both the year prior to a spell of lone motherhood and the first five years of the spell.

1.0 Introduction

Lone mothers and their children are among the most vulnerable individuals in Canada and other countries. No other group save for the disabled is more at risk of poverty or welfare participation. Health problems tend to have an above-average incidence among both adults and children in such families even controlling for income. Few Canadian studies of such families, however, have been performed with longitudinal data. Those that exist use either the relatively small samples and short length of the Survey of Labour and Income Dynamics, or the quite narrowly focused administrative data from provincial social assistance programs. There have been more studies (see Section 2) with cross-sectional data and one of their most interesting findings concerns differences within the population of lone mothers. Specifically, never-married lone mothers have lower labour force participation and greater welfare participation than do previously-married lone mothers even when one controls for the age and education of the mother and the number and ages of her children. Hence, the status of "never-married" appears to be something more than just a proxy for youth, poor schooling and young children, but the nature of that "something more" is as yet poorly understood. Cross-sectional data typically provide no information concerning the length of time for which a woman has been a lone mother and very little information concerning the woman's characteristics and behaviour both prior to and subsequent to the spell of lone motherhood.

Our objective in this paper is to analyse the earnings, and labour force and welfare participation of Canadian lone mothers using the Longitudinal Administrative Database (LAD) which is a large sample of linked tax records that has already successfully been used to study the economic consequences of marital dissolution, low-income dynamics, and other topics. The LAD contains relatively few socioeconomic variables, but its longitudinal nature, accurate income information and large sample size provide substantial advantages for studying this topic. Of particular note is that this paper contains the first estimates, to our

knowledge, of the annual number of new spells of lone motherhood in Canada. Our sample of "new" lone mothers can be used to track earnings and social assistance income patterns during spells of lone-motherhood. We can also see if any differences between types of lone mothers existed prior to entering the state of lone-parenthood and persist when these women exit that status.

Our work on this topic, however, is in its early stages. This paper contains a first report on our efforts and, in particular, a check to see if the LAD provides results which appear to be consistent with findings from other data sources. Specifically we report on earnings and social assistance use during the first full five years of lone motherhood and during the last full year prior to the start of a spell of lone motherhood. We also employ several checks to test for the sensitivity our findings to unobserved heterogeneity. In a companion paper, we use the LAD data to estimate duration models for the length of lone motherhood spells.

Section 2 is a brief review of the literature. Section 3 introduces the LAD, describes the sample and variables used, and provides descriptive statistics. Multivariate estimates for the probability of earned income, the level of earnings among those with earned income, and the probability of social assistance income are presented in Section 4. The final section provides a summary and plans for future work.

2. Review of the Literature

There have been few Canadian studies of the topic of this paper. Virtually all of the existing studies of earnings and welfare rely on a single cross-section or a time series of cross-sections. Dooley used data from the Survey of Consumer Finances for various years from 1973 to 1991 and found that never-married lone mothers have lower levels of labour force participation (1994) and higher levels of welfare participation (1999) than do previously married lone mothers controlling for personal characteristics, labour

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market conditions and social assistance policy. Similar results were found with single cross-sections from the Labour Market Activity Survey and the 1986 census public use sample by Allen (1993), Charette and Meng (1994), and Christofides et al.(1997). None of these data sources indicate the length of time for which a woman has been a lone mother.

The principal Canadian studies of this topic with longitudinal data of which we are aware are Stewart and Dooley (1999) and Barrett (1996). These authors used administrative welfare data from Ontario and British Columbia respectively and found that never-married lone mothers tend to have longer welfare spells than do previously married lone mothers. Such administrative data, however, provide no information for lone mothers who never use welfare and very little information for welfare clients concerning periods prior to and subsequent to the welfare spell itself.

There have been a few studies using the Survey of Labour and Income Dynamics (SLID) which have demonstrated that a change in marital status is one of the most important correlates of a change in poverty status among families with children. Marital formation (dissolution) commonly accompanies the exit from (entry into) a period of low income. As yet, however, there have been no studies of the topic of this paper using the SLID, and future attempts may be very limited by both the relatively small number of lone mother spells which start in any given year of the SLID and the limited time frame over which SLID families are followed.

Longer panels have been available to study these questions in other countries especially the United States. The related studies which we have found thus far, however, focus on the length of welfare spell for lone mothers rather than the evolution of labour force and welfare participation during spells of lone motherhood. Of course, one key difference between the U.S. and Canada is that welfare has generally been limited to lone mothers in the former. Boisjoly, Harris, and Duncan (1998) use the Panel Study of Income Dynamics and find that never-married lone mother have lower exit rates (longer spells) from welfare spells

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than do previously-married lone mothers. Harris (1993) also uses the PSID and finds that never-married women are less likely to work their way off welfare by combining paid work and welfare than are previously-married women.   However, there is no such difference in the likelihood of leaving welfare by finding a job.

3. The Data

3.1 General Introduction to the LAD

The Longitudinal Administrative Database (LAD) is a ten-percent representative sample of Canadian tax filers who are followed as individuals over time and matched into family units on an annual basis. This provides longitudinal individual and family information on incomes, taxes, and basic demographic characteristics. The data available for this paper run from 1982 through 1997.   Individuals are selected from Revenue Canada tax files into the LAD according to randomly selected social insurance numbers. This same identifier is used to link records across years. In general, there is no imputation either for persons who never file or for individual years in which persons in the LAD do not file. Imputed records are created for non-filers if they are implicitly (or explicitly) identified by a filer, typically through tax deductions or credits claimed, but such imputed records are generally not used in this study. For an (unavoidable) exception, see the discussion of married and common-law couples in the next section.

The principal reasons for non-filing are low income (see below), absence from Canada, and death. New filers, mainly youth and immigrants, automatically refresh the database on the same one-in-ten basis.[1]

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[1] In some longitudinal databases, leavers are replaced on an exact one-to-one basis by replacement observations and there may even be an explicit character matching between leavers and replacements. This is not the case with the LAD in which all replacement is accomplished via the simple one-in-ten sampling scheme as it draws from the full, representative population of new tax filers who are then followed over time.

The rate of tax filing in Canada and, therefore, the LAD's coverage of the adult population are very high. Filing is, of course, mandatory for persons who owe tax. Low income individuals have strong incentives to file in order to recover income and payroll tax deductions, and to receive refundable tax credits, especially the federal sales tax credit which started in 1986. The LAD is drawn from files which are estimated to cover from 91 to 95 percent of the target (non-institutional, non-reserve) adult population. This is comparable to the Census and compares very favourably with survey data.

The representativeness and low attrition of the LAD are especially significant for a study of the income dynamics of a low income population such as lone mothers. Both cross-sectional and especially longitudinal surveys often have problems in locating and following low income individuals. An additional virtue of the LAD is that the income information is based on tax declarations which are generally thought to be superior to survey responses. Both Atkinson *et al* [1992] and OECD [1998] find that administrative databases, such as the LAD, provide better population coverage and income reporting than do surveys. The principal shortcoming of the LAD with regards to income, and a key one for this paper, is that social assistance ("welfare") income was not well reported before 1992.[2] The other principal drawback of the LAD is that few socioeconomic variables are available. We return below to both of these shortcomings..

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[2] Social assistance has been a separate item on individuals' general T-1 tax return forms (where it enters various calculations) and the corresponding "T-5 SA" forms have been sent out to individuals by the relevant province (social assistance is under provincial control) only since 1992. From 1986 to 1991, social assistance was included on T-1 forms (and affected tax credit calculations), but was itemised jointly with certain other non-taxable government transfers (including workers' compensation and GIS) and T-5 forms were not sent out, so that the coverage is not generally quite as good as over the post-1992 period. Before 1986, social assistance was not included in any manner on individuals' tax forms. The social assistance data on the LAD would appear to cover 80 to 90 percent of all such payments, thus comparing favourably with other Canadian survey databases in this regard.

3.2 The Identification of Family Status and Spells of Lone Motherhood

The basic unit of analysis in this paper is a spell of lone motherhood. In order to identify such spells, one must identify the type of family to which each woman belongs. Family composition is determined by matching individuals according to their tax file information. A family unit in the LAD corresponds to a "census family" in the terminology of Statistics Canada, namely, a family of at most two generations consisting only of one or two parents and their children. This concept is narrower than that of an "economic family", which includes all related persons residing jointly, and a "household", which includes all persons residing jointly. The women in our sample were placed in each year into one of the following family types: lone parent (LP), married with children (MC), common law with children (CLC), married or common law without children (MCLNC), unattached (U), and "filing child" (FC). In the foregoing definitions, "children" refers to children under 18 and a "filing child" is an unattached individual age 18 or more who lives with a parent.

A key issue is the identification of common-law unions. The definition of this family status is imprecise, both in administrative data and in survey data, and the identification of partners in the LAD can be problematic. The first step in our identification procedure is the declared marital status (DMS) on the tax form. This tax form item refers to the end of the tax year and, prior to 1992, offered five possible categories: married, widowed, divorced, separated and single. The Income Tax Guide prior to 1992 makes it clear that "married" refers to registered marriages and not common-law unions. For example, the deduction which may be claimed for a spouse with very low individual income is expressly prohibited for common law partners in 1991 and earlier years. Starting in 1992, the DMS category of "common-law" was added and all other category names remained unchanged. Statistics Canada's practice in assembling the

LAD is to find a partner, or to impute one if necessary, for all persons with a DMS of "married" or, since 1992, "common law". Such imputed records are not flagged and are the only source of imputed data in our sample.

The LAD uses a record matching process to identify persons in undeclared CL unions, both prior to and subsequent to 1992, and "filing children". The matching of couples and of parents with adult children is based on algorithms which have been developed at Statistics Canada over many years and which use address matches, individuals' names and ages, and the identification of other individuals resident at the same address (if any). Matching errors are a problem in any research context, but are especially important in longitudinal analysis, such as ours, in which the identification of changes in family status is crucial. For example, if a common-law couple with children were correctly matched in year t, erroneously missed in year t+1, and correctly matched in year t+2, then one of the parents, most likely the wife, would be judged (erroneously) to have experienced a one-year spell of lone-parenthood.

The LAD algorithms appear to be quite successful based on the inspection of micro records and checks of totals with other data sources. However, Type I and Type II errors are inevitable. Some true matches of spouses with each other and/or with their children are missed, and some erroneous matches are made. In particular, the LAD has more lone-parent families than do other official estimates, especially in the early years of our sample.[3] Of course, the problem of identifying common law unions (which also plagues the identification of those who are "separated") is not confined to the LAD or administrative data more generally. The LAD errors in this regard likely differ in kind from the identification errors encountered in survey data but it is not obvious that they differ in severity.

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[3] The coverage of husband-wife families (with or without children) in the LAD ranges from 94 to 99 percent of the official population estimates, while the coverage of single-parent families varies between 102 and 110 percent.

Our goal was to identify all spells of lone motherhood in which the woman was age 18 through 54 in the first year of the spell. These age limits reflect the fact that in survey data, such as the Survey of Consumer Finances, there are very few lone mothers with children who under age 18 or over age 54. In general, we deem a spell of lone motherhood to have started when a woman is a lone parent (LP) in year t but not in year t-1. We will use "t" to refer to the "transition" year, that is, the year in which the woman changes family status from non-LP to LP. Hence, t+1 is the first full year in which we observe the woman as a lone mother. Some spells, of course, do not last until the end of year t+1. We shall use T to refer to the last year of a LP spell. A spell of lone motherhood is deemed to end, therefore, when a woman is a LP in year T but not in year T+1.

We have imposed the following additional rules in order to limit the impact on our results of the inevitable errors in the identification of family status. The basis for these rules is a 5-year data-window centered on the transition year (t). The spell is rejected if any of the following was true during this 5-year window.

1. The woman did NOT file taxes in any year (t-2 through t+2).

2. The family type of the woman changed more than three times.

3. The woman changed spouses more than two times.

4. The woman separated from and then reunited with the same spouse during the window AND failed to declare a marital status of "separated" or "divorced" in the interim.

5. The woman was a LP in year t-2 (but not so, of course, in t-1).

6. The woman was not a LP in t+1 but was a LP in t+2.

7. The woman was in a common-law union in either t-1 or t-2 but not both.

8. The woman has children age 18 + and only children age 18+ in year t-1. This applies regardless of her marital status in year t-1.

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9. The woman was childless in year t-1 AND had a child over age 2 in year t.

10. The woman was childless in year t-1 AND had a child (of any age) in year t-2.

We impose Rule 1 because of our focus on earnings and social assistance income. Rules 2 through 7 reflect our skepticism concerning the accuracy of information for individuals with very frequent changes in family status. Rules 8 through 10 reflect the same skepticism for individuals with seemingly unusual changes in child status. The adoption of these rules reflects the substantial experience which one of the authors (Finnie 1999) has had in working with these data and with the issue of family status in particular. In the future, we will conduct tests to see how sensitive our results are to the above rules and to the length of the data-window itself. We currently allow a woman to have multiples spells of lone motherhood (but do not use this information in our analysis) and we will also test for sensitivity to this practice.

We also imposed the following series of censoring rules for our analysis of spell durations.

1. A spell is censored at the end of year t if the woman is in a common-law union in year t+1 AND is unattached or filing child in year t+2.

2. A record is censored at the end of year t+1 if the woman is in a common-law union in year t+2 AND is unattached or filing child in year t+3 (which we check under these circumstances).

3. A record is censored at the end of year t+1 if the woman is NOT a LP in year t+2 AND is a LP in year t+3.

These rules also reflect our skepticism concerning the accuracy of family status information and our particular concern with the identification of common-law unions.

3.3 Variables Included in the Multivariate Analysis

We use the information on family status both to indicate the start (and termination) of lone mother

spells and to identify the "type of lone mother" which each woman is. There are five types of lone mother

each of which refers to the woman's family type in t-1 :   married with children (MC), common law with

children (CLC), married (or common law) with no children (MCLNC), unattached (U), and filing child

(FC).[4]   The dependent variables are indicators of annual labour force and welfare participation, namely,

dummy variables for positive values of earned income and social assistance income respectively. We also

analyze the level of earnings given positive earnings. Several other control variables are also included in

our multivariate analysis. These include the mother's age; number of children under 18; age of youngest

child; province; size of area of residence (identified by postal code); calendar year; and language (as

indicated by the tax form used) which we use to create a "minority language" indicator (anglophones in

Québec, francophones in the rest of Canada).

The foregoing list of control variables is brief which reflects a major shortcoming of the LAD.

Missing is even the most common indicator of human capital, the level of schooling. The LAD also contains

no information on detailed job characteristics such as wage rates, hours of work, occupation and industry.

Offsetting these nontrivial shortcomings are the LAD's distinct advantages of providing a very large

longitudinal sample of lone mother spells with accurate income data.

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[4] Previous studies using Canadian survey data can typically distinguish only between "never-married" versus "previously married" lone mothers. This distinction is difficult to make for older lone mothers in the LAD because the tax records go back only to 1982.

3.4 Descriptive Statistics

Table 1-A in the Appendix contains the number of new lone mother spells in each year of our sample. As indicated in the Introduction, these are, to the best of our knowledge, the first estimates of the annual number of new lone mother spells in Canada. The LAD data are available for 1982 through 1997. Given the five-year data-window which we use to construct these spells, 1984 is the earliest year and 1995 is the latest year in which we can observe the start of a spell. The annual number of new spells increases from 9,370 to 16,540 over our sample period. What rate of entry into lone motherhood is implied by these figures? The LAD is a one-in-ten sample which implies that there were about 141,200 new spells in 1992. According to the Survey of Consumer Finances (SCF), there were approximately 6,225,000 woman age 20 through 54 who were not lone mothers in 1992 which means that a little over 2% of the eligible women started a spell of lone motherhood in that year. Table 1-A also makes clear the sample size advantages of the LAD. We observe 14,120 new spells of lone motherhood in 1992 whereas the 1992 SCF contains a total of only 2,000 lone mothers with children under 18 regardless of spell length.

Table 1 provides the relative frequencies of starting spells in our sample. The first panel shows the distribution by type of lone mother in each year. Three-fifths to three-quarters of our spells were started by women who are MC and this proportion is decreasing over time. The proportion of new lone mothers who were CLC rose markedly from 10% to over 20%. The proportions of lone mothers who were U or FC rose somewhat in the late 1980's but had similar values of 9% and 4% respectively at the start and end of our sample period. A constant and very small fraction (1-2%) of our sample are women who were MCLNC just prior to the spell of lone motherhood.

The lower panel of Table 1 shows the age distribution of our sample. The median age is in the early thirties and has a slight upwards trend which confirms that lone mothers are aging just like the rest of

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Canadian society. In 1984, only 36% of new lone mothers were age 35 to 54 but this fraction had increased to 44% by 1995. The age distribution does vary considerably however by type of lone mother. As one would expect, the previously childless lone mothers are much younger. The U and FC constitute 62% of new lone mothers under age 25 but less than 1% of new lone mothers age 35 and over.

Table 2 provides trends in earnings and income by type of lone mother and year. All of these figures refer to spell year t+1 which is the first year in which we observe the woman as a lone mother for a full calendar year. For example, the 1985 earnings and income figures are for women who started a spell of lone motherhood in 1984. Lone mothers who do not spend at least one full calendar year in lone motherhood are excluded from Table 2 and, indeed, from all the analyses of earnings and income in this paper. The top two panels of Table 2 provide the proportion of lone mothers with positive earned income and mean earned income ($1997) among those with positive earnings. The trends in most rows reflect the recovery of the late 1980's and the recession of the early 1990's for all types of lone mothers.

Differences in non-cyclical trends are also apparent. Among the MC, both the proportion with positive earnings and mean earnings among paid workers are higher at the end of the sample period than at the start. This is consistent with the upward trends in labour force participation and earnings among married women with children which has been found in the Survey of Consumer Finances (Dooley 1994). For lone mothers who were CLC, U or FC, the non-cyclical trends appears to be negative for both the proportion with earnings and mean earnings among those with earnings. The situation for the MCLNC is less easy to interpret. The big jumps for this group at the start and end of the sample period may reflect its relatively small sample size. The trends in mean total income in the third panel of Table 2 are generally upwards. The strongest increases, however, are for the MC which likely reflects this group's increases in earnings.

The panel at the bottom of Table 2 provides both the proportion with social assistance income and mean social assistance income among those with such income. As indicated above, these data are only available and reliable starting in the 1992. Previously unmarried lone mothers (U and FC) are more likely to be have welfare income than the previously married ones (MC, CLC and MCLNC) which may reflect many factors. The U and FC all have very young children, are younger themselves, and are less likely to have support payments from the father of the children. Among welfare income recipients, the MC mothers generally have the highest mean welfare income which likely reflects the fact that they have largest number of children. It could also reflect longer welfare spells among the MC but recall from Section 2 that research with administrative welfare data has not supported this hypothesis. It is difficult to discern non-cyclical trends over a five year period of economic recovery. However, welfare participation would appear to be falling a bit among the MC and FC, and rising slightly among the CLC and U. Mean welfare income among clients is quite stable except for the drop in 1996 which may reflect the benefit cuts instituted at that time in Ontario.

4.0 Multivariate Analysis

4.1 Introductory Comments

We have analyzed the earnings and social assistance income of the lone mothers in our sample during the first (full) five years of the lone motherhood spell (t+1 through t+5) and during the last full year prior to the start of the spell (year t-1). Our approach was to estimate a logit model for the conditional probability of any earned income, a linear regression for the level of earned income among those with paid work, and a logit model for the conditional probability of any welfare income. The purpose of the logits is to provide

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an indicator of the extent of labour force and welfare participation. It is common in labour economics to focus separately on labour supply (hours or weeks worked) and earnings capacity (hourly wage or weekly earnings among full-time workers). The LAD only provides total earnings which constrains us in this regard.

The large sample size permits us to estimate separate models for each of these six spell years (t-1 and t+1 through t+5) and to interact the type of lone mother (previous family type) with the calendar year of the earnings. This has resulted in a very large number of estimated parameters. Below, we first provide the full set of regression and logit estimates for spell years t-1 and t+1. Our subsequent presentation relies on graphical presentation of the predicted probabilities of earned and welfare income, and predicted earnings (given some earnings) by lone mother, spell year and calendar year. A complete set of regression and logit estimates is, of course, available upon request.

Our initial estimates were obtaining using the full sample of lone mothers available in each year of the lone mother spell (t+1 through t+5). We did restrict the sample in spell year t-1 to those women whom we observed in t+1, namely, those who were lone mothers for at least one full calendar year. One implication of this strategy is that our regression and logit estimates may change over spell years t+1 through t+5 due to changes in the composition of the lone mother sample. We undertook several steps to check this possibility. One check was to estimate our models for each spell year up through t+3 using the sample of lone mothers that survived until at least the end of t+4. A second check was to estimate the model for spell year t-1 using the sample of all women who become lone mothers in year t and not just those who survived until the end of year t+1. Our final check was to estimate the models of year t-1 and t+1 including dummy variables for eventual lone mother spell duration for each observation. As we discuss in more detail below, these checks changed our coefficient estimates very little and all of the dummy coefficients for spell duration were (highly) non-significant.

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4.2 Logit Estimates for the Presence of Earned Income

Table 3 contains the sample proportions in 1985 and 1996 for our control variables, all of which are in dummy variable form. Table 4 contains the logit estimates for the presence (or not) of any earnings which we take as an indication of (annual) labour force participation.[5]   In this logit and in the earnings regression in Table 5, the estimates for the unattached (U) and filing children (FC) were so similar that we combined these into one lone mother type which we label "single" (S). The logit for spell year t-1 on the left hand side uses earnings from the last full calendar year prior to the start of a spell of lone motherhood. The logit for spell year t+1 on the right hand side uses earnings from the first full year in which we observe the woman as a lone mother.

We use the same sample in both logits, namely, all women who "survived" at least until the end of year t+1 of lone motherhood. The estimates for t-1 change little, however, if we use the somewhat larger sample of all women who started a spell of lone motherhood. For spell year t-1, the omitted category is a previously married lone mother, age 30 to 34, with one child age 6 or more who lives in a city of 500,00 or more in Ontario in 1984. She also does not belong to either of the two "minority language" categories which are Francophone outside of Quebec and Anglophone in Quebec. The same is true spell year t+1 except that the calendar year is 1986. Note that the labels for the calendar year dummies refer to spell year t+1 and, hence, two years should be subtracted to get the correct calendar year for spell year t-1.

 The final column of results for each logit contains the predicted probability of earned income for the constant followed by the change in this probability as each successive control variable takes on a value of

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[5] In the Survey of Consumer Finances, the few lone mothers with negative earnings have high weeks of work. Hence, we combined the LAD mothers with either positive or negative earnings into the non-zero group. Some of the SCF mothers with zero earnings also have positive weeks worked but the levels tend to be quite low. In any event, the LAD contains no information on weeks or hours worked.

one (as opposed to zero). The probability of paid work for the constant case (MC in 1984) in spell year t-1 is 80%. In the earliest year of our sample (1984), the CLC women have a very similar likelihood of earned income, but the childless women, the S and MCLNC groups, have probabilities which are 16 and 11 percentage points higher respectively. We will first review the results for the various demographic control variables and then return to the time trends and interaction terms.

Labour force participation is strongly and positively correlated with age with one exception. The oldest category which has a (non-significant) negative coefficient that likely reflects the impact of early retirement. Younger children and more children are associated with a lower likelihood of paid work . Minority language status has very weak effects. Provincial differences tend to be small except in the case of the positive coefficient for Prince Edward Island and the negative coefficient for Manitoba. Differences by size of area of residence are modest save for the noticeably lower probability of paid work in rural areas.

The calendar year dummies indicate an increase in the probability of earned income for the MC group from 80% to 84% by the end of the sample period. For the S group, the interactions terms are all statistically significant and have large marginal effects. The marginal probability effect for each interaction term in Table 4 is calculated in the same fashion as all the other marginal effects in this table, namely, it is the change in the probability of earned income, relative to the omitted case, if one assigns a value of one to each dummy variable alone. This probability does not represent the actual predicted probability for, say, previously single lone mothers in 1996 which requires one to use four coefficient estimates: "Constant", "Single", "1996", and "Single*1996". We have calculated the actual predicted probability of earned income in spell year t-1 for each type of lone mother and calendar year. These probabilities are presented in Figure 1.1 and Table 2-A in the Appendix and assume that all other control variables are set to the values characterizing the omitted case in Table 4. Figure 1.1 shows that the probability of earned income for previously single lone

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mothers in spell year t-1 declined from 97% to 89% and converged with the probability for the MC group. This pattern will be repeated throughout the paper and constitutes our most consistent finding.

The interaction terms for the small MCLNC group (previously married or common law with no children) groups are generally small and not statistically significant. This pattern of non-significant coefficients was also quite consistently found in our efforts. The predicted probabilities for the MCLNC group are in Table 2-A but we have omitted them from our figures in order to improve legibility, and due to the small size and somewhat unusual nature of this type of lone mother.

The interaction terms for the CLC group (previously common law with children) show a mixed pattern of statistical significance and greater year-to-year volatility than the other types. This may represent the actual behaviour of this group but we are also concerned that this may reflect the difficulty in accurately and consistently identifying the lone mothers of this type. We have already done some work to test the sensitivity of our findings to the definition of common law (mainly for how many years must one be identified as common law in order to enter our sample). Our work thus far indicates quite robust findings. Regardless, Figure 1.1 shows that the predicted likelihood of earned income for the CLC group in t-1 finished the sample period at the same level as at the start.

The right hand side of Table 4 present the logit estimates for the probability of earned income in spell year t+1. The initial probability for the MC group is the same (80%-81%) in spell years t-1 to t+1. The previously single, however, exhibit a substantial decline from 97% to 88%. A smaller drop is true of the CLC lone mothers.

As with spell year t-1, the time trend for t+1 follows a cyclical pattern but the probability for the MC group does not change on balance over the sample period (see Figure 1.2 and the second panel of Table 2-A). The interaction terms for the S group are all negative, and of the same order of magnitude and statistical significance as in spell year t-1. By 1996 indeed, the previously single lone mothers have a lower

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probability of earned income in spell year t+1 than do the previously married with children. The CLC end up only slightly below where they started out and generally have non-significant interaction terms. Most of the remaining coefficients in the logit for t+1 are quite similar to those for t-1. One exception is that the differences by age of mother appear to be somewhat larger in t+1.

We have also estimated logit models for the likelihood of earned income is spell year t+2 through t+5. In each of these cases, the pattern of results does not change dramatically from those in Table 4 and complete set of coefficient estimates are available upon request. The coefficient estimates for the demographic control variables are significant, of the expected sign and of similar magnitude. Time trends for the MCLNC group are quite non-significant. The most consistent and significant finding across spell years is the decline in the likelihood of paid work for the previously single lone mothers and, to a much more modest and less certain extent, for the lone mothers who were previously common law with children. This is shown in Figures 1.1 through 1.6 and the left hand side of Table 2-A which contain the predicted probabilities of earned income in each spell year by lone mother type and calendar year

Figures 2.1 through 2.3 and Table 3-A present these same probabilities for each type of lone mother by spell year and selected cohorts. We identify cohorts by the calendar year of spell year t+1. Each line Figures 2.1 through 2.3 and each row in the left side of Table 3-A refers to a different cohort of lone mothers. All cohorts are included in Table 3-A but only a representative set were included in the Figures 2.1 - 2.3 for legibility purposes. For both the MC and CLC groups, there is a downward trend during the lone mother spell in the likelihood of paid work and this is more pronounced for those previously living common law. A pattern of change across cohorts is less obvious for the MC and CLC.

For the previously single, the is a sharp drop in the likelihood of earned income between t-1 and t+1 which is quite understandable given that these women have moved from being childless to being lone mothers. The trends for the S group during the lone motherhood spell also indicate a fairly steady downward

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trend with one troubling exception. Spell year t+2 is a year of either increase or no decline in the probability of earned income for the previously single. Our strong sense is that this represents a data or programming problem rather than a behavioural change but we have as yet to find the source. This feature will reappear in the results presented below. Figure 2.2 does indicate a downward trend across cohorts for this S group.

An important feature of the logit results thus far is that we use the full sample available in each spell year. The only exception is that the logit for spell year t-1 was estimated with those women who survived as lone mothers until the end of t+1. Hence, the estimation sample is declining across spell years and in ways which may influence the coefficient estimates. We undertook several steps to check on this possibility. The first was to estimate the logit for each spell year (including t-1) using the sample of women who remained lone mothers until at least the end of t+4. The level of statistical significance for some estimates declined as one would expect from using a smaller sample. Overall, however, this had very little impact on the major conclusions which we drew above. The same was true when we estimated the logit for spell year t-1 using the full sample of women who became lone mothers in spell year t, that is, including those who did not remain lone mothers until the end of spell year t+1. Our second check was to estimate the models for spell years t-1 and t+1 including dummy variables for eventual lone mother spell duration for each observation. We included dummies for spell lengths up to eleven years. All of the dummy coefficients for spell duration were highly non-significant and the remaining coefficient estimates changed very little with. Both of these checks, therefore, imply that the pattern of results presented in the text thus far are not sensitive to changes in the composition of the sample (unobserved heterogeneity).

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4.3 Earnings Regressions

Table 5 contains the regression estimates for annual earnings ($1997) among women with earned income in spell years t-1 and t+1. Note that the sample sizes from these two sample years are not the same unlike the case in Table 4. The reason for this is that the samples for Table 5 include all women, chosen from among those who were lone mothers for at least one ful calendar year, who had positive earnings in t-1 and t+1 respectively. The estimates in Table 5 are not corrected for selection bias though we plan to do so in future work. Predicted earnings for each spell year by type of lone mother and calendar year are presented in Figures 3.1 through 3.6 and the right side of Table 2-A. Predicted earnings for each type of lone mother by spell year and cohort (calendar year in t+1) are presented in Figures 4.1 through 4.3 and the right side of Table 3-A.

The pattern of results is generally very similar to that which we observe for the probability of any earned income. The coefficient estimates for the demographic control variables are generally significant and of the expected sign. One exception is that the minority language variables are not significant. A second is that a preschool age child is associated with some what higher earnings given positive earnings.   One possible reason for this finding, especially in spell year t+1, is that fixed costs of day care self-selects for higher earners (hours or wages) among mothers of preschoolers. We note however that larger numbers of children are associated with lower earnings and recall from Table 4 that a preschool age child is associated with some what lower probability of any earnings.

Our most consistent finding across spell years is the increase in predicted earnings among the previously married with children and the decrease among the previously single. Figures 3.1 through 3.6 indicate that in each spell year, the S groups has higher earnings at the start of our sample period. Over calendar time, however, the predicted earnings for the MC group converge with and often surpass those of

the S group. The coefficients for the CLC group indicate a downward trend over the sample period but are statistically non-significant. As Table 2-A indicates, the trends for the MCLNC group are less clear and the coefficients for this groups are often non-significant in the later spell years.

Figures 4.1 through 4.3 and the right side of Table 3.A show predicted earnings over the spell of lone motherhood by each type of lone mother and cohort. Figure 4.1 shows that annual earnings among the MC group increase substantially during the transition from married motherhood to lone motherhood in response to a reduction in income from a partner. These earnings increases continue during the spell of lone motherhood but at a slower rate. These earnings increases from t+1 on may signal an adaptation to the status of lone motherhood along with increasing labour force experience, the aging of children and perhaps weakening of child support. Figure 4.1 also indicates some increase in earnings across cohorts of MC group.

Figure 4.2 for the S group indicates that the previously single decrease their earnings between t-1 and t+1 indicating most likely an decrease in hours of paid work due to the arrival of a dependent child. Figure 4.2 also shows clearly the puzzling nature of our estimates for the earnings of the S group in t+2. As indicated above, we believe this t+2 earnings blip to be a data problem rather than a true reflection of behaviour but have yet to identify the source of the problem. Absent this t+2 blip, Figure 4.2 implies that earnings increase at a moderate pace during lone motherhood for S group. Figure 4.2 also indicates, however, that earnings are declining across more recent cohorts of the previously single mothers.

Figure 4.3 for the CLC group indicates that the transition from common law motherhood to lone motherhood is accompanied by an increase in earned income just as for the M group in Figure 4.1 and for likely the same reasons. Subsequent to spell year t+1, however, there is no clear and consistent trend in earnings for the lone mothers previously living common law. The most recent cohort has the lowest earnings profile but there does not appear to be any clear trend across all cohorts .

For our regression results, we conducted the same set of informal checks for the effect of changes in the sample composition (unobserved heterogeneity) that were described at the end of the previous section. Our findings were also the same, that is, there is little evidence to indicate that the earnings regressions results are influenced by changes in the composition of the sample across spell years.

4.4 Logit Estimates for the Presence of Social Assistance Income

In this section, we present logit estimates for the presence of any social assistance income which we use as an indication of welfare participation. Table 6 contains the logit estimates for the likelihood of receiving any social assistance income in spell years t-1 and t+1. As in Table 4, the final column of each side of the table begins with the probability corresponding to the constant term followed by the change in this "base probability" if each successive a control variable takes on a value of one. The predicted probabilities of welfare income for each spell year by type of lone mother and calendar year are presented in Figures 5.1 through 5.6 and Table 4-A. The predicted probabilities of welfare income for each type of lone mother by spell year and cohort are presented in Figures 6.1 through 6.3 and Table 5-A. In the case of welfare income, unlike earned income, we found quite different trends for the previously unattached (U) and previously filing children (FC) and, hence, report separate estimates for these two groups. Finally, recall that these data are only available from 1992 on and there are correspondingly fewer time dummies and interactions.

The initial (1992) likelihood of welfare use in spell year t-1 is, despite the recession, quite low for the women who previously had a partner - the married with children (7%), the common law with children (10%), and the married or common law without children (6%). This likelihood is over twice as high for both the unattached (22%) and filing children (26%). We have only three years (92-94) of welfare data for

spell year t-1.[6]   The only statistically significant trend is the increase to 30% for the U group as shown in Figure 5.1 and Table 4-A.

Figure 5.2 and Table 4-A show that the probability of welfare income rises for all groups, but especially the unattached, between 1992 and 1993. Beyond 1993, the trend for spell year t+1 is downward save for the CLC group but Table 6 shows that the interaction terms are not statistically significant for the MCLNC and FC groups. The most clear result is that the recession witnessed either the widening (in t-1) and/or the creation (in t+1) of a gap between the probabilities for the married with children and both the previously unattached and the previously common law with children, a gap that persisted in the recovery of the mid-90's. Figures 5.3 through 5.6 and Table 4-A show that this same conclusion is true of spell years t+2 and t+3.   An inspection of the logit results reveals that most of the interaction coefficients for the MCLNC and FC groups are not statistically significant regardless of spell year.   Furthermore, most of the interaction coefficients are not statistically significant in spell years t+4 and t+5 regardless of lone mother type.

Figures 6.1 through 6.3 and Table 5-A show the sharp increase in welfare use between spell year t-1 and t+1. Beyond t+1, there appears to be some modest increase in welfare use for most types of lone mothers. This is consistent with Figures 2.1 through 2.3 which indicate a modest decline in the probability of earned income for all types of lone mothers during the spell of lone motherhood. However, given that we have at five years of welfare data for only two cohorts, this conclusion must be correspondingly tentative. The same is true with regard to assessing trends across cohorts. For those welfare logits, we plan to conduct the same set of checks for the effect of changes in the sample composition (unobserved heterogeneity) that we used in the earnings logits and regressions. As of this writing, unfortunately, these results are not yet available.

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[6] The reason for this is that LAD data stop at 1997 and we have imposed the condition for sample inclusion that we observe the individual from spell year t-2 through t+2.

Let us now consider the other control variables. Given the low incidence of social assistance income among women with partners, it is not surprising to find a weaker relationship between the demographic variables and welfare participation in spell year t-1 than in spell year t+1. Welfare participation is very strongly related to age especially with the onset of lone motherhood when the conditional probability among the MC group ranges from 80% for those less than age 20 to 19% for those age 34-54. Mothers of infants (age 0 to 2) are 9 percentage points more likely to be on welfare than those with school age children. There is a difference of 24 percentage points between mothers of one child and mothers of three or more. Minority language status is not related to welfare income. The provincial estimates show the conditional likelihood of welfare use is (or was) most likely in Ontario and is least likely, conditional on the other control variables, in both a low income province, New Brunswick, and a high income province, Alberta. T h e likelihood of welfare income in t+1 is related to size of area of residence though not in a monotonic fashion. Social assistance income is only 3 percentage points more likely in rural areas, when compared to the largest cities, but is 7 to 9 percentage points more likely in medium-sized cities of 30,000 to 500,000 inhabitants.

5. Conclusion and Plans for Future Work

We use the Longitudinal Administrative Database (LAD) to provide the first analysis with longitudinal data of the earnings, and labour force and welfare participation of Canadian lone mothers - both within and across cohorts of lone mothers. In doing so, we also provide the first estimates of the annual number of new spells of lone motherhood in Canada. It has been found with cross-sectional data in Canada and elsewhere that never-married lone mothers have lower labour force participation and greater welfare participation than do previously-married lone mothers even when one controls for the age and education of

the mother and the number and ages of her children. A major goal is to investigate this finding with longitudinal data. This paper contains a first report on our efforts and, in particular, a check to see if the LAD provides results which appear to be consistent with findings from other data sources. Specifically we report on earnings and social assistance use during the first full five years of lone motherhood and during the last full year prior to the start of a spell of lone motherhood. We also employ several checks to test for the sensitivity our findings to unobserved heterogeneity.

We find that earned and welfare income are generally related to age of mother, age of youngest child, and number of children as one would expect. Net of controls for these demographic factors, for size of area of residence and for province, the LAD data reveal a portrait of earned and welfare income, both within and across cohorts of lone mothers, that is both more complex and informative than that which cross-sectional data can provide.

The transition to lone motherhood involves a decline in the probability of any earned income both for those who were previously single (and childless) and for those who were living common law with children but not for those who were previously married with children. During the first five years of lone motherhood, the likelihood of earned income declines moderately for all groups, a bit more so for the previously single and common law. The most noticeable feature of our findings is the change across cohorts. In all spell years and in the year prior to lone motherhood, the likelihood of earned income for the previously single declined over our sample period both in real dollars and relative to that for the previously married with children. There is some but weaker evidence of a decline for those previously living common law with children.

Among persons with earned income, the transition to lone motherhood involves a decline in annual earnings both for those who were previously single (and childless) and those who were living common law with children but not for those who were previously married with children. During the first five years of lone motherhood, earnings among those with earned income increases among both lone mothers who were who

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were previously single (and childless) and those who were married with children. Across cohorts, predicted earnings are rising for the previously married and falling for the previously single. The pattern both within and across cohorts is less clear for the previously common law.

Our data for social assistance income date only since 1992 and our estimates for this outcome are correspondingly less precise. Women without partners, either married or common law, are much more likely to report welfare income in the year prior to the spell of lone motherhood. The transition to lone motherhood entails a sharp increase in welfare use for all types. There appears to be some modest increase in welfare use for most types of lone mothers during the spell of lone motherhood. The only clear change across cohorts is that, in the recession of the early 90's, lone mothers who were previously unattached or previously common law became more likely to use welfare relative to the previously married - and this change persisted through the ensuing recovery.

The clearest picture painted in this paper is that of a deterioration across cohorts of previously single lone mothers in terms of their reliance on earned income and welfare income - and the apparent improvement among the previously married with children. Using a time-series of cross-sections, Dooley (1999) had shown that an age-related gap had opened up in Canada with older (over age 34) lone mothers becoming more reliant on earned income and less reliant on welfare with the opposite being true for those under age 35. The current paper shows that at least part of this age-related finding is due to the relationship of age to the previous marital status of lone mothers but we also show more. We show that this phenomenon is apparent well into the recovery of 1990's and with good controls for length of the lone motherhood spell. We also show that this change is just as true of the period prior to the start of the spell of lone motherhood. Hence, it appears to not be due to some modification of the transition process between these demographic states.

We have extensive plans for future research. All of the foregoing results for earned income were quite robust in the face of checks for unobserved heterogeneity. We plan further work in this regard including application of such checks to the logit results for social assistance income. The current paper is very informative but we clearly need to devote more attention to the interpretation and implications of our findings. Another task is to conduct more tests of how sensitive our results are to variation in the rules used to select our sample and define the different types of lone mother families. We also plan to track the earnings and welfare income of lone mothers after their spell of lone motherhood. In a companion paper, we will use the LAD data to estimate duration models for the length of lone motherhood spells.

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Table 1

Relative Frequencies of Starting Spells by Type and Age of Lone Mother

	84	85	86	87	88	89	90	91	92	93	94	95	Total
Married, Children	0.78	0.70	0.68	0.73	0.72	0.67	0.68	0.65	0.68	0.65	0.61	0.61	0.67
Common Law, Children	0.09	0.10	0.10	0.05	0.06	0.11	0.11	0.13	0.13	0.17	0.22	0.24	0.14
Unattached	0.09	0.13	0.14	0.14	0.14	0.13	0.13	0.13	0.12	0.12	0.11	0.09	0.12
Filing Child	0.04	0.05	0.06	0.06	0.07	0.07	0.07	0.07	0.06	0.05	0.04	0.04	0.05
Married or CL, No Children	0.01	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02
<20	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
20-24	0.18	0.18	0.17	0.17	0.17	0.16	0.16	0.16	0.14	0.14	0.14	0.13	0.16
25-29	0.22	0.25	0.24	0.24	0.23	0.23	0.22	0.21	0.20	0.19	0.18	0.18	0.21
30-34	0.22	0.22	0.22	0.22	0.23	0.23	0.23	0.24	0.24	0.24	0.25	0.24	0.23
35-39	0.19	0.18	0.18	0.18	0.19	0.19	0.20	0.19	0.21	0.22	0.22	0.22	0.20
40-44	0.10	0.10	0.11	0.12	0.11	0.12	0.12	0.12	0.13	0.14	0.13	0.15	0.12
45-54	0.07	0.05	0.06	0.06	0.05	0.05	0.05	0.06	0.06	0.07	0.07	0.07	0.06

Table 2

Earnings, Total Income and Social Assistance Income in Spell Year t+1 ($1997)

Proportion with Earnings	85	86	87	88	89	90	91	92	93	94	95	96
Married, Children	68	71	74	73	76	77	72	70	70	71	72	73
Common Law, Children	66	74	82	83	76	75	70	66	65	62	59	61
Unattached	66	69	73	70	66	67	62	54	50	48	51	54
Filing Child	71	72	74	71	64	60	53	52	47	55	57	61
Married or CL, No Children	68	78	84	76	75	76	61	66	56	60	73	60

Mean Earnings Among Mothers With Earned Income

Married, Children	18900	19600	19900	20000	21400	21400	20900	21800	21800	21700	22300	22200
Common Law, Children	21100	19800	22700	21600	20500	19300	20100	21200	21400	20500	19300	19200
Unattached	15000	16400	16000	16000	15300	15800	15700	16000	14400	14700	14200	14400
Filing Child	12500	11400	12500	11000	11700	10100	10700	10700	10900	10000	9300	10400
Married or CL, No Children	12100	17400	17900	18400	17900	16800	17900	18100	18800	18400	21100	16700

Mean Total Income

Married, Children	19300	24100	23900	24800	26700	26700	26300	27000	27000	26900	27300	26800
Common Law, Children	18100	22000	24500	24400	23100	22300	23000	23700	24200	23000	21700	21200
Unattached	12800	17700	17200	17700	16900	17700	18000	18300	17800	17700	17300	17000
Filing Child	11400	14100	14100	14300	13900	13600	13800	14900	14800	14400	13800	14000
Married or CL, No Children	11500	19900	20900	21200	21000	20900	20000	21300	21000	20300	22700	18600

	Proportion with Welfare Income					Mean Welfare Income Among Mothers on Welfare				
Year	92	93	94	95	96	92	93	94	95	96
Married, Children	41	42	40	38	35	10000	10000	9800	9200	8200
Common Law, Children	43	44	47	53	48	9800	10100	10000	9600	8700
Unattached	58	68	67	66	63	9600	9600	9900	9600	8400
Filing Child	62	68	60	59	56	8700	8800	8700	8400	7100
Married or CL, No Children	49	55	50	43	48	9800	9500	9700	8100	8700

Table 3

Relative Frequencies for Regression and Logit Control Variables

	1985	1996
Youngest Child Age 0-2	0.28	0.28
Youngest Child Age 3-5	0.24	0.25
Youngest Child Age 6 plus	0.48	0.47
One Child	0.42	0.44
Two Children	0.39	0.38
Three or More Children	0.20	0.18
Newfoundland	0.02	0.02
Prince Edward Island	0.00	0.00
Nova Scotia	0.04	0.04
New Brunswick	0.03	0.03
Quebec	0.29	0.26
Ontario	0.32	0.36
Manitoba	0.05	0.04
Saskatchewan	0.03	0.03
Alberta	0.10	0.09
British Columbia	0.12	0.13
Population 500,000 plus	0.46	0.47
Population 100,000-499,999	0.16	0.18
Population 30,000-99,999	0.12	0.11
Population 15,000-29,999	0.03	0.03
Population <15,000	0.13	0.11
Rural	0.10	0.09

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Table 4

Logits for Presence of Earned Income

	Spell Year t-1 Last Year Before Lone Motherhood				Spell Year t+1 First Full Year as Lone Mother			
	Coeff	St Error	p-value	Probability	Coeff	St Error	p-value	Probability
Constant	1.41	0.04	0.00	0.80	1.44	0.04	0.00	0.81
Single	1.99	0.12	0.00	0.17	0.58	0.08	0.00	0.07
Married - No Children	0.93	0.32	0.00	0.11	0.53	0.25	0.04	0.07
Common Law	0.04	0.08	0.61	0.01	-0.23	0.09	0.01	-0.04
Age Less than 20	-0.67	0.04	0.00	-0.13	-1.20	0.10	0.00	-0.25
Age 20-24	-0.60	0.02	0.00	-0.11	-0.81	0.02	0.00	-0.16
Age 25-29	-0.22	0.02	0.00	-0.04	-0.35	0.02	0.00	-0.06
Age 35-39	0.13	0.02	0.00	0.02	0.28	0.02	0.00	0.04
Age 40-44	0.13	0.03	0.00	0.02	0.36	0.02	0.00	0.05
Age 45-54	-0.40	0.04	0.00	-0.07	-0.06	0.03	0.04	-0.01
Youngest Child Age 0-2	-0.45	0.02	0.00	-0.08	-0.59	0.02	0.00	-0.11
Youngest Child Age 3-5	-0.26	0.02	0.00	-0.04	-0.21	0.02	0.00	-0.04
Two Children	-0.27	0.02	0.00	-0.05	-0.40	0.02	0.00	-0.07
Three or More Children	-0.76	0.02	0.00	-0.15	-1.04	0.02	0.00	-0.21
English in Quebec	-0.08	0.04	0.08	-0.01	-0.12	0.04	0.00	-0.02
French Outside Quebec	-0.04	0.07	0.54	-0.01	-0.17	0.07	0.01	-0.03
Newfoundland	-0.22	0.05	0.00	-0.04	-0.03	0.05	0.55	-0.00
Prince Edward Island	0.61	0.11	0.00	0.08	0.57	0.09	0.00	0.07
Nova Scotia	-0.14	0.04	0.00	-0.02	-0.04	0.03	0.29	-0.01
New Brunswick	-0.10	0.04	0.02	-0.02	0.15	0.04	0.00	0.02
Quebec	-0.22	0.02	0.00	-0.04	-0.11	0.02	0.00	-0.02
Manitoba	-0.39	0.03	0.00	-0.07	0.04	0.03	0.26	0.01
Saskatchewan	-0.04	0.04	0.24	-0.01	0.34	0.04	0.00	0.05
Alberta	0.05	0.03	0.04	0.01	0.49	0.03	0.00	0.07
British Columbia	-0.21	0.02	0.00	-0.03	0.02	0.02	0.29	0.00
Population 100,000-499,999	-0.11	0.02	0.00	-0.02	-0.15	0.02	0.00	-0.02
Population 30,000-99,999	-0.12	0.02	0.00	-0.02	-0.09	0.02	0.00	-0.01
Population 15,000-29,999	-0.16	0.04	0.00	-0.03	0.03	0.04	0.36	0.01
Population <15,000	-0.13	0.02	0.00	-0.02	-0.00	0.02	0.96	-0.00
Rural	-0.37	0.02	0.00	-0.07	-0.26	0.02	0.00	-0.04
1986 (For spell year t+1)	0.16	0.04	0.00	0.02	0.15	0.04	0.00	0.02
1987 (Subtract 2 years for t-1)	0.27	0.04	0.00	0.04	0.24	0.04	0.00	0.04
1988	0.37	0.04	0.00	0.05	0.26	0.04	0.00	0.04
1989	0.53	0.04	0.00	0.07	0.41	0.04	0.00	0.06
1990	0.62	0.04	0.00	0.08	0.42	0.04	0.00	0.06
1991	0.62	0.04	0.00	0.08	0.19	0.04	0.00	0.03
1992	0.59	0.04	0.00	0.08	0.06	0.04	0.10	0.01
1993	0.48	0.04	0.00	0.06	-0.01	0.04	0.77	-0.00
1994	0.43	0.04	0.00	0.06	0.02	0.04	0.67	0.00
1995	0.34	0.04	0.00	0.05	0.09	0.04	0.02	0.01
1996	0.21	0.04	0.00	0.03	0.14	0.04	0.00	0.02
Single*1986	-0.58	0.15	0.00	-0.11	-0.22	0.10	0.03	-0.04
Single*1987	-0.17	0.16	0.29	-0.03	-0.10	0.10	0.32	-0.02

Single*1988   -0.34   0.16   0.04   -0.06   -0.28   0.10   0.01   -0.05

Table 4 (continued)

	Spell Year t-1				Spell Year t+1			
	Coeff	St Error	p-value	Prob	Coeff	St Error	p-value	Prob
Single*1989	-1.01	0.15	0.00	-0.20	-0.61	0.10	0.00	-0.11
Single*1990	-0.73	0.15	0.00	-0.14	-0.65	0.10	0.00	-0.12
Single*1991	-0.82	0.15	0.00	-0.16	-0.67	0.09	0.00	-0.12
Single*1992	-0.91	0.15	0.00	-0.18	-0.78	0.09	0.00	-0.15
Single*1993	-1.56	0.14	0.00	-0.34	-0.89	0.09	0.00	-0.17
Single*1994	-1.69	0.14	0.00	-0.37	-0.91	0.09	0.00	-0.18
Single*1995	-1.75	0.14	0.00	-0.39	-0.89	0.09	0.00	-0.17
Single*1996	-1.56	0.14	0.00	-0.34	-0.80	0.09	0.00	-0.15
Married No Children*1986	0.13	0.42	0.75	0.02	0.20	0.33	0.54	0.03
Married No Children*1987	-0.02	0.42	0.97	-0.00	0.56	0.36	0.12	0.07
Married No Children*1988	-0.02	0.44	0.96	-0.00	-0.13	0.34	0.70	-0.02
Married No Children*1989	0.12	0.45	0.79	0.02	-0.21	0.32	0.52	-0.03
Married No Children*1990	0.19	0.43	0.66	0.03	-0.16	0.31	0.61	-0.03
Married No Children*1991	-0.44	0.39	0.26	-0.08	-0.72	0.29	0.01	-0.14
Married No Children*1992	-0.24	0.39	0.54	-0.04	-0.37	0.29	0.21	-0.06
Married No Children*1993	-0.51	0.38	0.18	-0.09	-0.71	0.29	0.01	-0.13
Married No Children*1994	-0.60	0.37	0.11	-0.11	-0.64	0.29	0.03	-0.12
Married No Children*1995	-0.42	0.36	0.25	-0.07	-0.12	0.29	0.69	-0.02
Married No Children*1996	-0.73	0.36	0.04	-0.14	-0.67	0.29	0.02	-0.12
Common Law*1986	0.02	0.11	0.85	0.00	0.29	0.12	0.01	0.04
Common Law*1987	0.58	0.12	0.00	0.08	0.55	0.13	0.00	0.07
Common Law*1988	0.70	0.16	0.00	0.09	0.70	0.16	0.00	0.09
Common Law*1989	-0.04	0.13	0.78	-0.01	0.15	0.13	0.27	0.02
Common Law*1990	-0.13	0.11	0.27	-0.02	0.13	0.12	0.25	0.02
Common Law*1991	-0.13	0.11	0.26	-0.02	0.09	0.11	0.41	0.01
Common Law*1992	-0.19	0.11	0.07	-0.03	-0.01	0.10	0.92	-0.00
Common Law*1993	-0.26	0.10	0.01	-0.04	-0.01	0.10	0.92	-0.00
Common Law*1994	-0.24	0.10	0.02	-0.04	-0.07	0.10	0.46	-0.01
Common Law*1995	-0.50	0.10	0.00	-0.09	-0.29	0.10	0.00	-0.05
Common Law*1996	-0.30	0.10	0.00	-0.05	-0.20	0.10	0.04	-0.03

Sample size: 124,560

Omitted category: Previously married lone mother, age 30 to 34, with one child age 6 or more who does not belong to a minority language group and does lives in a city of 500,00 or more in Ontario in 1985 in spell year t+1.

Table 5

Annual Earnings Regression Among Persons with Positive Earnings ($1997)

	Spell Year t-1 Last Year Before Lone Motherhood			Spell Year t+1 First Full Year as Lone Mother		
	Coefficient	St Error	p-value	Coefficient	St Error	p-value
Constant	21060	290	0.00	23014	309	0.00
Single	5529	559	0.00	2776	689	0.00
Married - No Children	3949	1811	0.03	228	2208	0.92
Common Law	1311	697	0.06	1724	765	0.02
Age Less than 20	-14931	287	0.00	-14514	1117	0.00
Age 20-24	-11071	175	0.00	-11424	232	0.00
Age 25-29	-5019	147	0.00	-5555	174	0.00
Age 35-39	3926	150	0.00	3835	162	0.00
Age 40-44	6864	185	0.00	6651	186	0.00
Age 45-54	6812	272	0.00	7444	239	0.00
Youngest Child Age 0-2	624	154	0.00	1413	205	0.00
Youngest Child Age 3-5	1702	150	0.00	2609	157	0.00
Two Children	-1683	116	0.00	-2044	131	0.00
Three or More Children	-4599	139	0.00	-5652	171	0.00
English in Quebec	307	323	0.34	268	379	0.48
French Outside Quebec	303	490	0.54	579	595	0.33
Newfoundland	-3146	353	0.00	-4696	410	0.00
Prince Edward Island	-2872	622	0.00	-3528	714	0.00
Nova Scotia	-2708	260	0.00	-3701	302	0.00
New Brunswick	-3277	297	0.00	-4575	335	0.00
Quebec	-1851	128	0.00	-2391	147	0.00
Manitoba	-1238	250	0.00	-2385	284	0.00
Saskatchewan	-634	276	0.02	-1814	309	0.00
Alberta	-1240	172	0.00	-2054	193	0.00
British Columbia	-1794	162	0.00	-2138	182	0.00
Population 100,000-499,999	-2033	149	0.00	-2654	167	0.00
Population 30,000-99,999	-3158	157	0.00	-3925	176	0.00
Population 15,000-29,999	-2688	280	0.00	-4123	309	0.00
Population <15,000	-3673	151	0.00	-4667	173	0.00
Rural	-4590	175	0.00	-6154	212	0.00
1986 (spell year t+1)	781	329	0.02	653	347	0.06
1987 (Subtract 2 years for t-1)	692	333	0.04	474	353	0.18
1988	187	332	0.57	807	355	0.02
1989	795	319	0.01	1826	341	0.00
1990	1440	316	0.00	1787	339	0.00
1991	1035	310	0.00	1307	337	0.00
1992	1014	305	0.00	1778	333	0.00
1993	1367	305	0.00	1462	331	0.00
1994	1508	305	0.00	1040	330	0.00

	Spell Year t-1			Spell Year t+1		
1995	1928	307	0.00	1686	330	0.00
1996	1982	306	0.00	1353	325	0.00

Table 5 (continued)

	Spell Year t-1			Spell Year t+1		
	Coefficient	St Error	p-value	Coefficient	St Error	p-value
Single*1986	-1373	691	0.05	-2135	-2135	0.01
Single*1987	-1235	689	0.07	-1726	-1726	0.04
Single*1988	-1568	696	0.02	-2380	-2380	0.01
Single*1989	-2061	681	0.00	-3926	-3926	0.00
Single*1990	-2108	666	0.00	-3872	-3872	0.00
Single*1991	-1578	659	0.02	-3707	-3707	0.00
Single*1992	-2044	664	0.00	-4355	-4355	0.00
Single*1993	-3499	669	0.00	-4907	-4907	0.00
Single*1994	-3862	668	0.00	-5069	-5069	0.00
Single*1995	-4303	679	0.00	-5792	-5792	0.00
Single*1996	-3954	681	0.00	-5301	-5301	0.00
Married No Children*1986	-374	903	0.68	-2210	-2210	0.02
Married No Children*1987	939	893	0.29	-47	-47	0.96
Married No Children*1988	929	1043	0.37	-481	-481	0.68
Married No Children*1989	-246	982	0.80	-2194	-2194	0.04
Married No Children*1990	-1354	872	0.12	-3302	-3302	0.00
Married No Children*1991	-781	869	0.37	-2246	-2246	0.02
Married No Children*1992	-1050	827	0.20	-1821	-1821	0.05
Married No Children*1993	-1605	835	0.05	-1821	-1821	0.05
Married No Children*1994	-2066	811	0.01	-2164	-2164	0.02
Married No Children*1995	-2589	798	0.00	-3580	-3580	0.00
Married No Children*1996	-2586	786	0.00	-3012	-3012	0.00
Common Law*1986	1842	2216	0.41	1211	1211	0.65
Common Law*1987	3287	2263	0.15	1701	1701	0.53
Common Law*1988	1442	2319	0.53	1156	1156	0.68
Common Law*1989	2126	2217	0.34	749	749	0.78
Common Law*1990	1927	2120	0.36	-1152	-1152	0.66
Common Law*1991	1199	2121	0.57	-96	-96	0.97
Common Law*1992	275	2073	0.89	-672	-672	0.79
Common Law*1993	-815	2102	0.70	-371	-371	0.89
Common Law*1994	-1138	2105	0.59	-1402	-1402	0.59
Common Law*1995	1446	2035	0.48	991	991	0.69
Common Law*1996	-2189	2140	0.31	-2884	-2884	0.27

Sample size: 92,660 for t-1 and 86,240 for t+1.
Omitted category: Previously married lone mother, age 30 to 34, with one child age 6 or more who does not belong to a minority language group and does lives in a city of 500,00 or more in Ontario in 1984. Earnings in 1997 dollars.

Table 6

Logits for Presence of Welfare Income

	Spell Year t-1 Last Year Before Lone Motherhood				Spell Year t+1 First Full Year as Lone Mother			
	Coeff	St Error	p-value	Probability	Coeff	St Error	p-value	Probability
Constant	-2.62	0.06	0.00	0.07	-0.55	0.04	0.00	0.37
Unattached	1.32	0.09	0.00	0.15	-0.10	0.07	0.19	-0.02
Married - No Children	-0.13	0.26	0.63	-0.01	-0.35	0.15	0.02	-0.08
Common Law	0.34	0.12	0.01	0.03	0.11	0.06	0.06	0.03
Filing Child	1.58	0.06	0.00	0.19	-0.24	0.09	0.01	-0.05
Age Less than 20	0.81	0.08	0.00	0.07	1.92	0.16	0.00	0.43
Age 20-24	0.86	0.05	0.00	0.08	1.42	0.04	0.00	0.34
Age 25-29	0.37	0.04	0.00	0.03	0.59	0.03	0.00	0.14
Age 35-39	-0.14	0.05	0.00	-0.01	-0.49	0.03	0.00	-0.10
Age 40-44	-0.30	0.05	0.00	-0.02	-0.85	0.03	0.00	-0.17
Age 45-54	-0.26	0.09	0.00	-0.01	-0.93	0.04	0.00	-0.18
Youngest Child Age 0-2	0.02	0.05	0.74	0.00	0.39	0.03	0.00	0.09
Youngest Child Age 3-5	0.08	0.05	0.09	0.01	0.12	0.02	0.00	0.03
Two Children	0.23	0.04	0.00	0.02	0.35	0.02	0.00	0.08
Three or More Children	0.78	0.04	0.00	0.07	0.98	0.03	0.00	0.24
English in Quebec	0.13	0.10	0.16	0.01	-0.04	0.06	0.54	-0.01
French Outside Quebec	-0.48	0.16	0.00	-0.02	-0.09	0.09	0.33	-0.02
Newfoundland	-0.23	0.11	0.03	-0.01	-0.35	0.07	0.00	-0.08
Prince Edward Island	-0.52	0.21	0.01	-0.03	-0.56	0.12	0.00	-0.12
Nova Scotia	-0.66	0.09	0.00	-0.03	-0.36	0.05	0.00	-0.08
New Brunswick	-0.32	0.10	0.00	-0.04	-0.56	0.06	0.00	-0.12
Quebec	-0.33	0.04	0.00	-0.02	-0.48	0.02	0.00	-0.10
Manitoba	-0.57	0.08	0.00	-0.03	-0.77	0.05	0.00	-0.15
Saskatchewan	-0.39	0.09	0.00	-0.02	-0.71	0.05	0.00	-0.15
Alberta	-0.71	0.06	0.00	-0.03	-0.87	0.03	0.00	-0.17
British Columbia	0.01	0.05	0.88	0.00	-0.16	0.03	0.00	-0.04
Population 100,000-499,999	0.03	0.04	0.43	0.00	0.31	0.03	0.00	0.07
Population 30,000-99,999	-0.00	0.05	0.98	-0.00	0.35	0.03	0.00	0.09
Population 15,000-29,999	-0.10	0.09	0.23	-0.01	0.13	0.05	0.01	0.03
Population <15,000	-0.20	0.05	0.00	-0.01	0.26	0.03	0.00	0.06
Rural	-0.12	0.05	0.02	-0.01	0.13	0.03	0.00	0.03
1993 (spell year t+1)	0.05	0.06	0.42	0.00	0.12	0.04	0.00	0.03
1994	0.08	0.06	0.16	0.01	0.06	0.04	0.07	0.01
1995					-0.01	0.04	0.70	0.00
1996					-0.17	0.04	0.00	-0.04
Unattached*1993	0.41	0.10	0.00	0.03	0.39	0.09	0.00	0.09
Unattached*1994	0.38	0.10	0.00	0.03	0.44	0.09	0.00	0.11
Unattached*1995					0.47	0.09	0.00	0.11
Unattached*1996					0.46	0.09	0.00	0.11
Married No Children*1993	0.52	0.32	0.10	0.04	0.15	0.21	0.46	0.04
Married No Children*1994	0.95	0.32	0.00	0.09	0.10	0.20	0.62	0.02
Married No Children*1995					-0.11	0.19	0.57	-0.02
Married No Children*1996					0.18	0.21	0.38	0.04

Table 6 (continued)

	Spell Year t-1				Spell Year t+1			
	Coeff	St Error	p-value	Prob	Coeff	St Error	p-value	
Common Law*1993	0.08	0.09	0.35	0.01	0.03	0.08	0.75	0.01
Common Law*1994	-0.05	0.08	0.53	-0.00	0.15	0.08	0.05	0.04
Common Law*1995					0.44	0.08	0.00	0.11
Common Law*1996					0.33	0.07	0.00	0.08
Filing Child*1993	0.21	0.16	0.19	0.01	0.16	0.12	0.20	0.04
Filing Child*1994	0.24	0.16	0.13	0.02	-0.13	0.12	0.29	-0.03
Filing Child*1995					-0.12	0.13	0.34	-0.03
Filing Child*1996					-0.07	0.13	0.60	-0.02

Sample size: 39,440 for spell year t-1 and 62,880 for spell year t+1.

Omitted category: Previously married lone mother, age 30 to 34, with one child age 6 or more who does not belong to a minority language group and does lives in a city of 500,00 or more in Ontario in 1985 in spell year t+1.

Figure 1.1
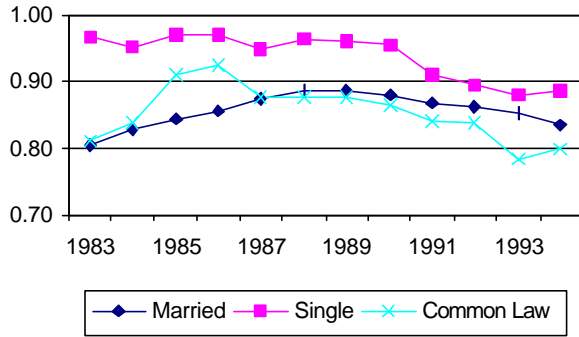**Predicted Probability of Earned Income**
Spell Year t-1

Figure 1.2
Predicted Probability of Earned Income
Spell Year t+1
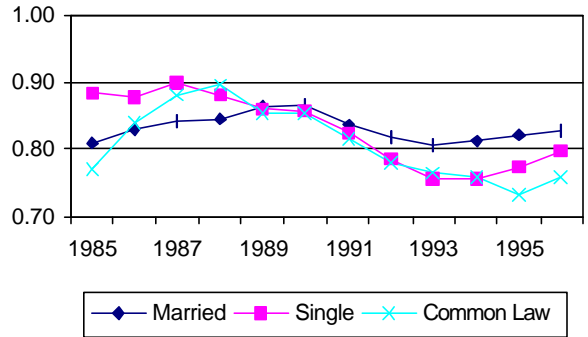
Figure 1.3
Predicted Probability of Earned Income
Spell Year t+2

Figure 1.4
Predicted Probability of Earned Income
Spell Year t+3

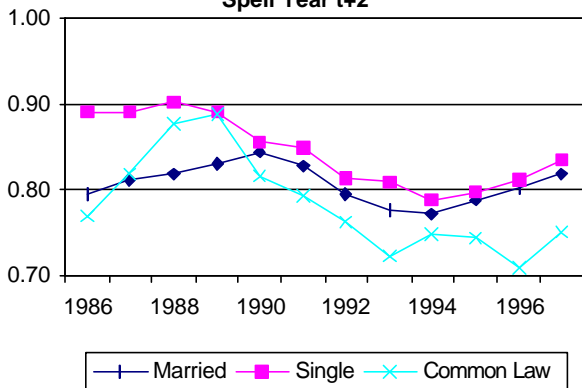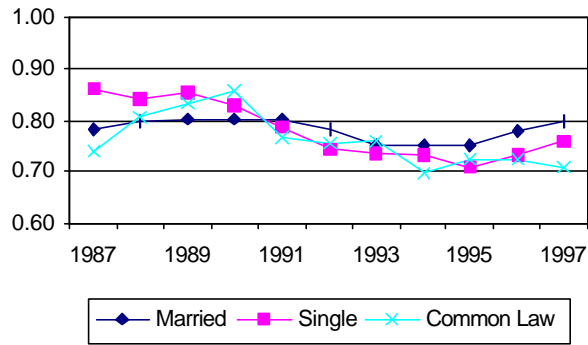**Figure 1.5**
Predicted Probability of Earned Income
Spell Year t+4
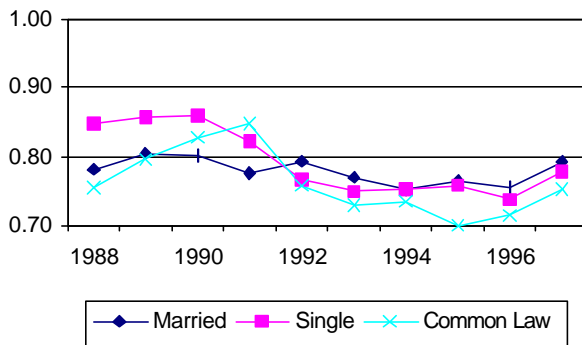
Figure 1.6
Predicted Probability of Earned Income
Spell Year t+5
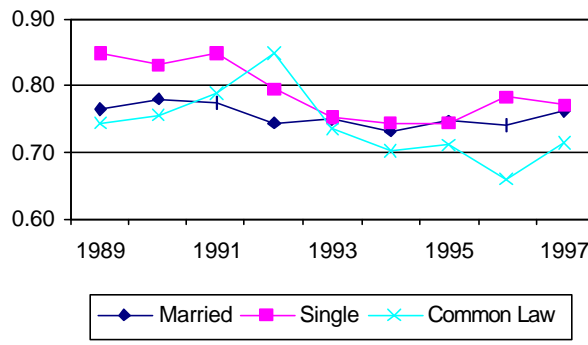
Figure 2.1
Predicted Probability of Earned Income
Previously Married With Children

	t-1	t+1	t+2	t+3	t+4	t+5

Legend: 1985, 1989, 1991, 1993, 1995
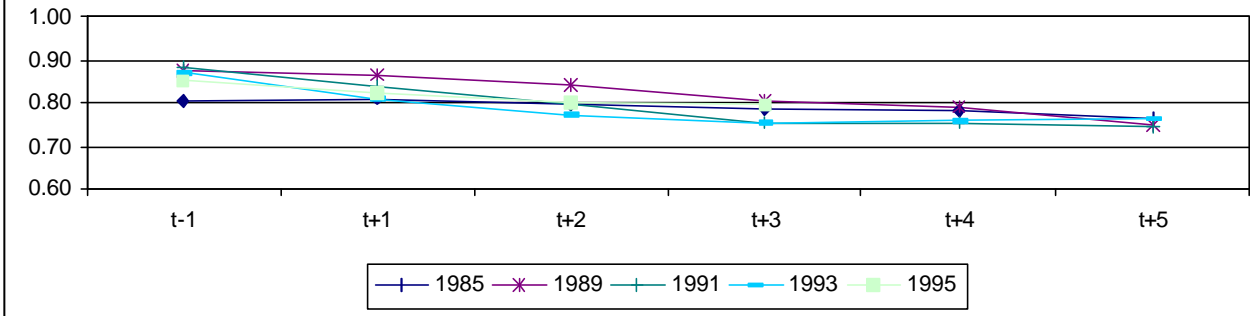
Figure 2.2
Predicted Probability of Earned Income
Previously Single and Childless

	t-1	t+1	t+2	t+3	t+4	t+5

Legend: 1985, 1989, 1991, 1993, 1995
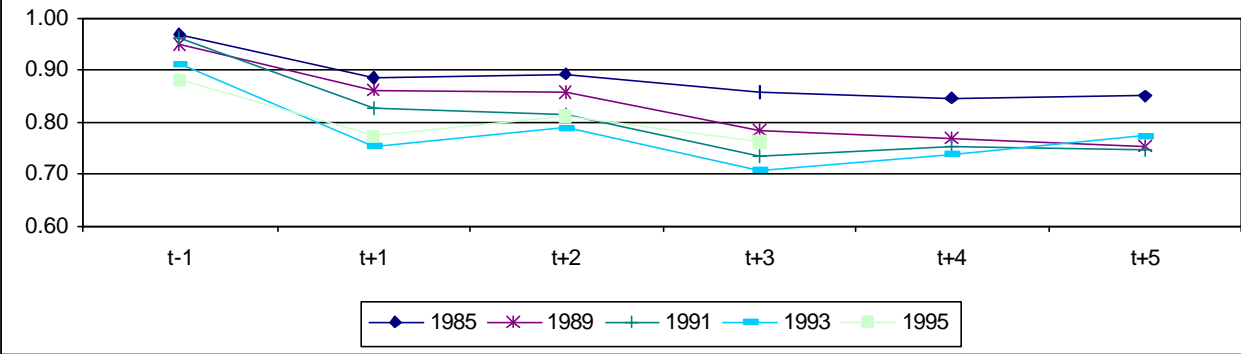
Figure 2.3
Predicted Probability of Earned Income
Previously Common Law With Children

	t-1	t+1	t+2	t+3	t+4	t+5

Legend: 1985, 1989, 1991, 1993, 1995
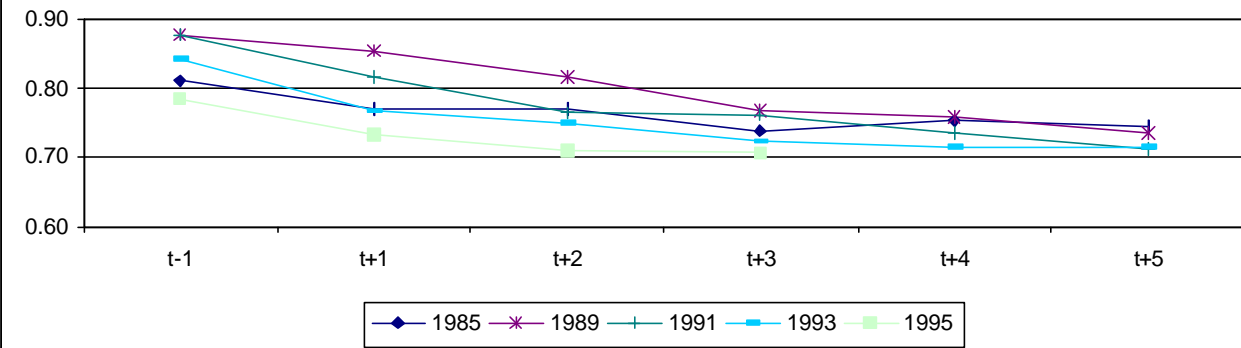
Figure 3.1
Predicted Annual Earnings Among
Positive Earners - Spell Year t-1

Figure 3.2
Predicted Annual Earnings Among
Positive Earners - Spell Year t+1
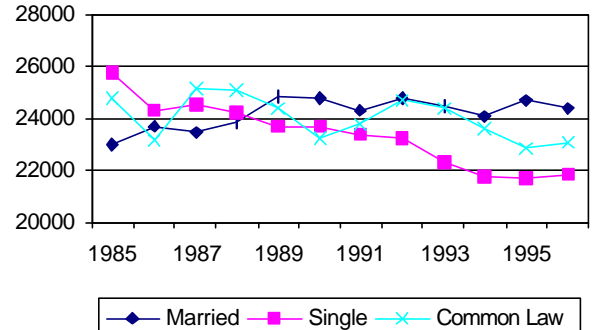
Figure 3.3
Predicted Annual Earnings Among
Positive Earners - Spell Year t+2
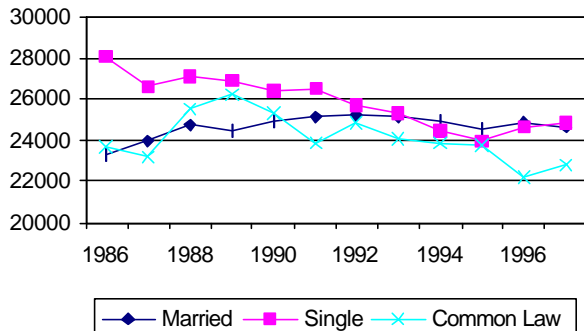
Figure 3.4
Predicted Annual Earnings Among
Positive Earners - Spell Year t+3
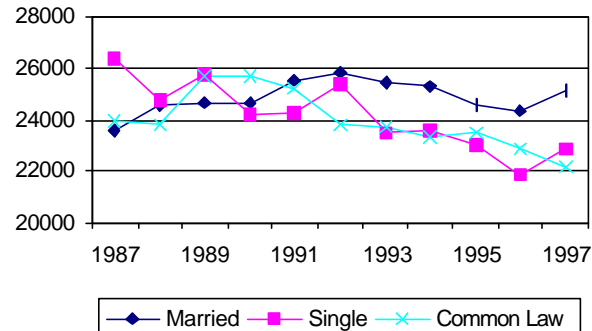
Figure 3.5
Predicted Annual Earnings Among
Positive Earners - Spell Year t+4
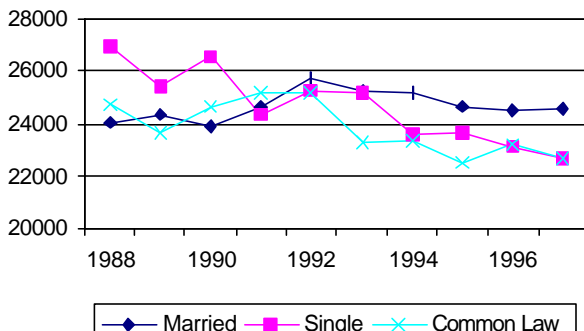
Figure 3.6
Predicted Annual Earnings Among
Positive Earners - Spell Year t+5

Figure 4.1
Predicted Annual Earnings Among Positive Earners
Previously Married With Children

Figure 4.2
Predicted Annual Earnings Among Positive Earners
Previously Single And Childless

Figure 4.3
Predicted Annual Earnings Among Positive Earners
Previously Common Law With Children
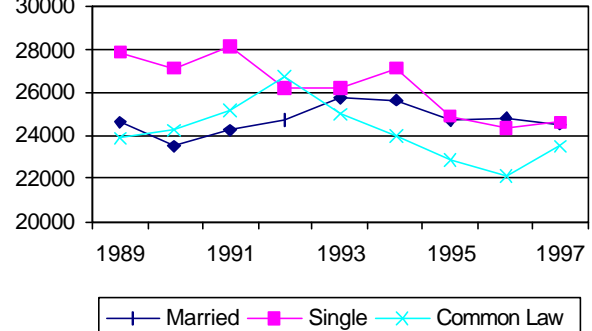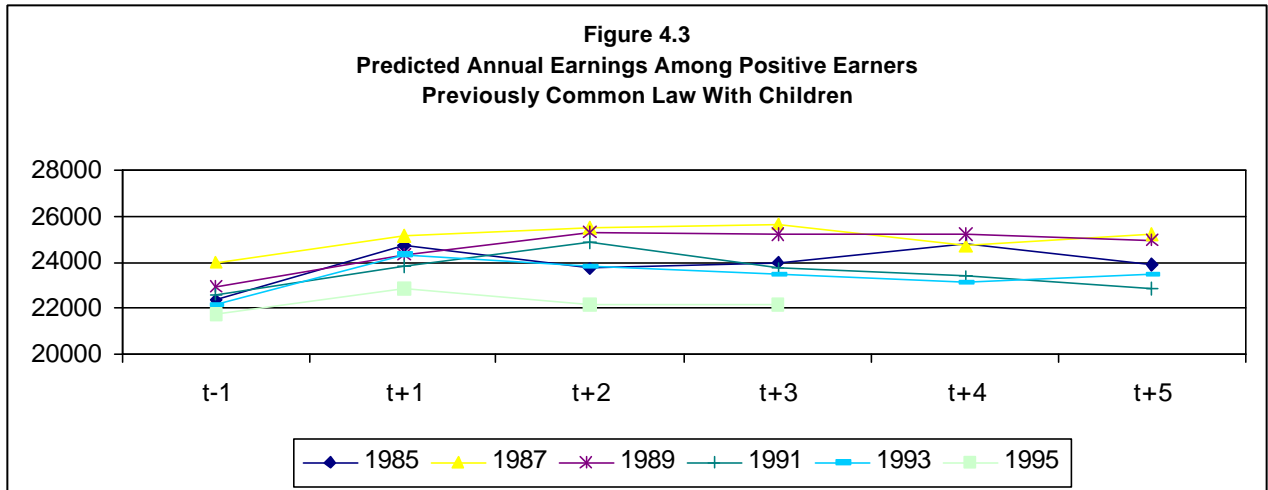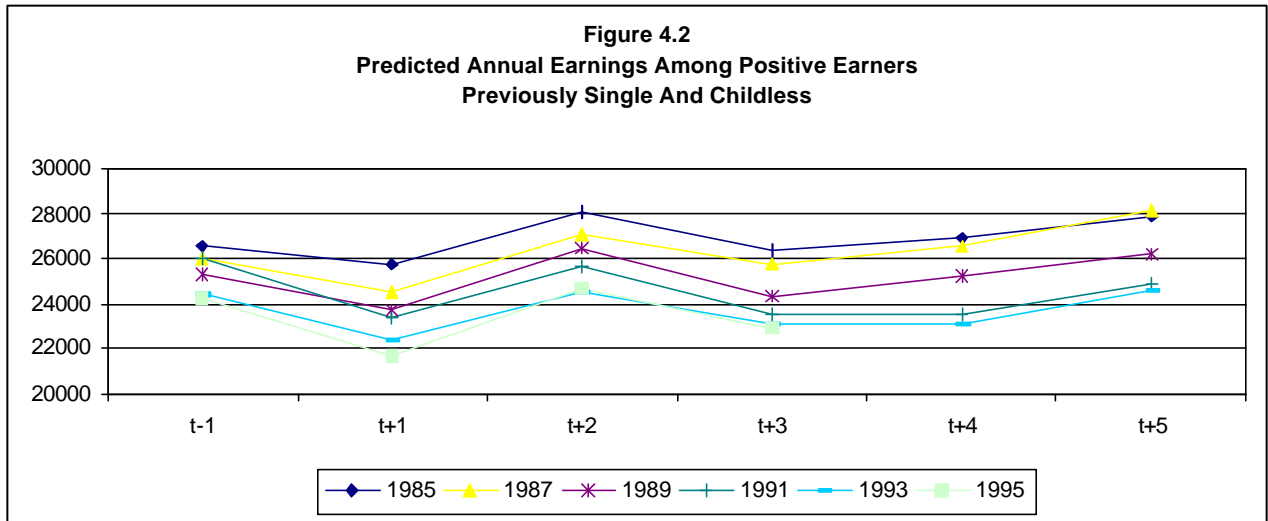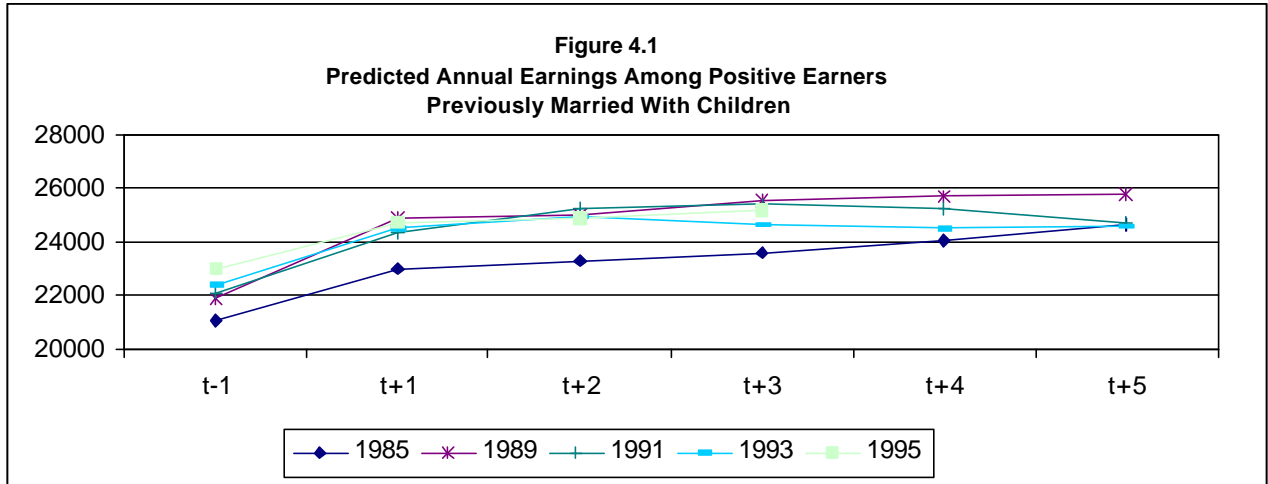
Figure 5.1
Predicted Probability of Welfare Income
Spell Year t-1

	Married	Unattached
	Filing Child	Common Law
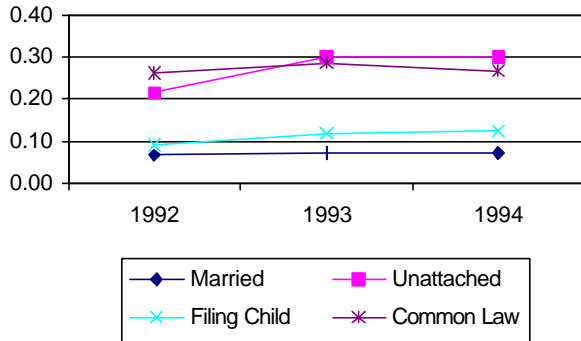
Figure 5.2
Predicted Probability of Welfare Income
Spell Year t+1

	Married	Unattached
	Filing Child	Common Law
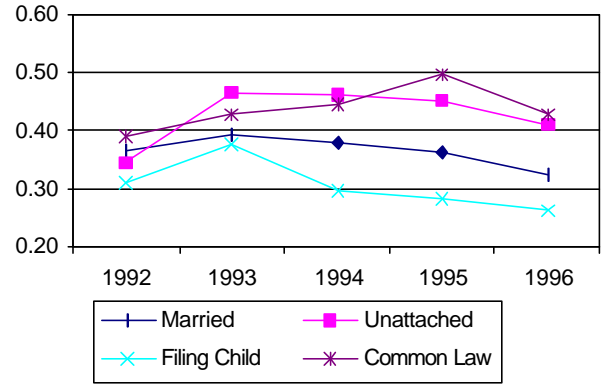
Figure 5.3
Predicted Probability of Welfare Income
Spell Year t+2

	Married	Unattached
	Filing Child	Common Law
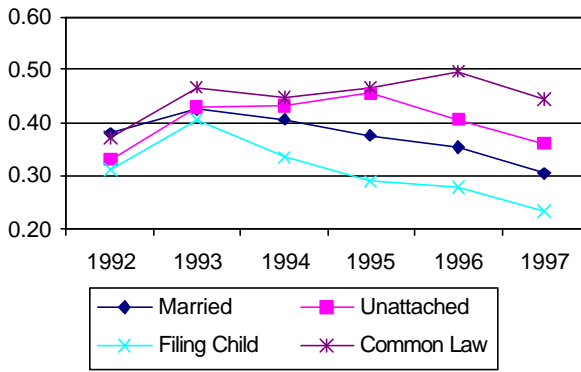
Figure 5.4
Predicted Probability of Welfare Income
Spell Year t+3

	Married	Unattached
	Filing Child	Common Law
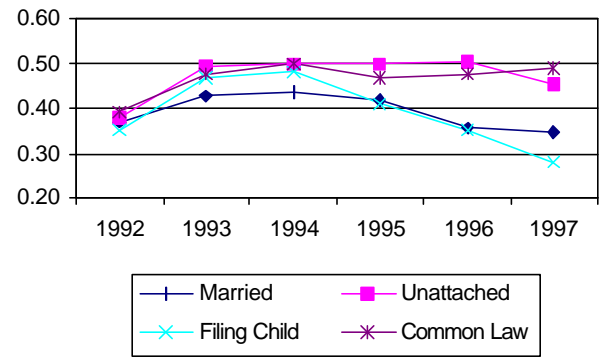
Figure 5.5
Predicted Probability of Welfare Income
Spell Year t+4

	Married	Unattached
	Filing Child	Common Law
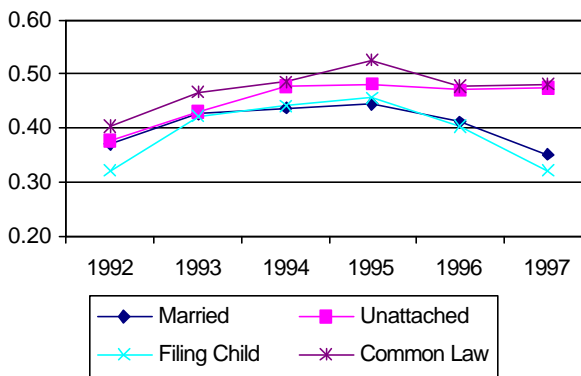
Figure 5.6
Predicted Probability of Welfare Income
Spell Year t+5

	Married	Unattached
	Filing Child	Common Law

Figure 6.1
Predicted Probability of Welfare Income
Previously Married With Children

Legend: 1990, 1992, 1994, 1996
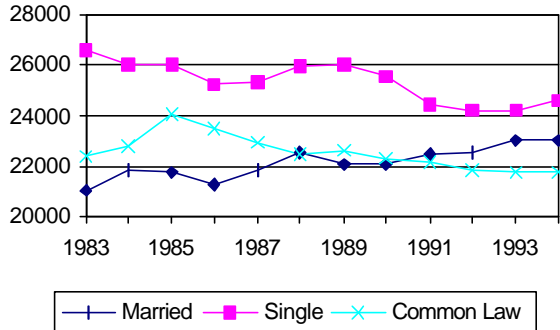
Figure 6.2
Predicted Probability of Welfare Income
Previously Unattached

Legend: 1990, 1992, 1994, 1996

Figure 6.3
Predicted Probability of Welfare Income
Previously Filing Child

Legend: 1990, 1992, 1994, 1996

Figure 6.4
Predicted Probability of Welfare Income
Previously Common Law With Children

Legend: 1990, 1992, 1994, 1996

Table 1-A

Frequencies of Starting Spells by Type and Age of Lone Mother

	84	85	86	87	88	89	90	91	92	93	94	95	Total
Married, Children	7280	7920	7520	7390	7980	7910	8350	9440	9570	9590	9390	10070	102410
Common Law, Children	800	1160	1090	500	710	1310	1330	1930	1810	2540	3470	4050	20700
Unattached	800	1510	1590	1450	1510	1580	1600	1840	1710	1740	1660	1560	18550
Filing Child	400	550	610	590	730	790	840	990	780	680	620	620	8200
Married or Common Law, No Children	90	170	170	150	160	200	230	290	250	250	330	240	2530
Total	9370	11310	10980	10080	11090	11790	12350	14490	14120	14800	15470	16540	152390
<20	140	140	110	130	150	230	220	260	210	200	210	210	2210
20-24	1700	2040	1880	1690	1900	1890	1970	2390	2020	2000	2100	2220	23800
25-29	2070	2820	2600	2370	2570	2690	2750	3010	2790	2760	2850	2960	32240
30-34	2090	2510	2430	2240	2530	2750	2880	3500	3390	3590	3820	3990	35720
35-39	1800	2040	2010	1840	2080	2230	2460	2750	3000	3180	3370	3600	30360
40-44	930	1140	1260	1190	1270	1400	1470	1780	1850	2040	2070	2400	18800
45-54	650	620	680	620	600	600	610	810	860	1020	1040	1160	9270

Table 2-A

Predicted Probability of Positive Earnings and Predicted
Earnings Among Positive Earners By Spell Year* ($1997)

Predicted Probability of Positive Earnings					Predicted Earnings (Given Positive Earnings)			
	Married	Single	Married - Childless	Common Law		Married	Single	Married - Childless	Common Law
Spell Year t-1									
1983	0.80	0.97	0.91	0.81	1983	21060	26589	25009	22371
1984	0.83	0.95	0.93	0.84	1984	21841	25998	27632	22778
1985	0.84	0.97	0.93	0.91	1985	21752	26046	28987	24002
1986	0.86	0.97	0.94	0.93	1986	21247	25208	26638	23488
1987	0.87	0.95	0.95	0.88	1987	21855	25323	27930	22920
1988	0.88	0.96	0.96	0.88	1988	22500	25921	28376	22457
1989	0.88	0.96	0.93	0.88	1989	22095	26046	27243	22625
1990	0.88	0.96	0.94	0.86	1990	22074	25558	26298	22335
1991	0.87	0.91	0.91	0.84	1991	22427	24457	25561	22133
1992	0.86	0.90	0.90	0.84	1992	22568	24235	25378	21813
1993	0.85	0.88	0.91	0.78	1993	22988	24214	28383	21710
1994	0.84	0.89	0.86	0.80	1994	23042	24618	24802	21768
Spell Year t+1									
1985	0.81	0.88	0.88	0.77	1985	23014	25790	23242	24738
1986	0.83	0.88	0.91	0.84	1986	23667	24309	25106	23182
1987	0.84	0.90	0.94	0.88	1987	23488	24538	25417	25165
1988	0.85	0.88	0.89	0.90	1988	23821	24218	25205	25064
1989	0.86	0.86	0.90	0.85	1989	24840	23690	25817	24370
1990	0.87	0.86	0.90	0.85	1990	24801	23705	23877	23223
1991	0.84	0.83	0.81	0.82	1991	24321	23390	24453	23799
1992	0.82	0.79	0.84	0.78	1992	24792	23213	24348	24695
1993	0.81	0.76	0.78	0.77	1993	24476	22345	24333	24379
1994	0.81	0.76	0.79	0.76	1994	24054	21761	22880	23614
1995	0.82	0.77	0.88	0.73	1995	24700	21685	25919	22844
1996	0.83	0.80	0.81	0.76	1996	24367	21842	21712	23080
Spell Year t+2									
1986	0.79	0.89	0.88	0.77	1986	23320	28077	23788	23738
1987	0.81	0.89	0.93	0.82	1987	23989	26594	29129	23233
1988	0.82	0.90	0.93	0.88	1988	24731	27097	28145	25492
1989	0.83	0.89	0.87	0.89	1989	24512	26932	29188	26175
1990	0.84	0.86	0.90	0.82	1990	24990	26427	29289	25347
1991	0.83	0.85	0.88	0.79	1991	25176	26536	27424	23894
1992	0.79	0.81	0.83	0.76	1992	25199	25694	26576	24861

1993	0.78	0.81	0.85	0.72	1993	25186	25321	25503	24113
1994	0.77	0.79	0.81	0.75	1994	24915	24477	25725	23851
1995	0.79	0.80	0.81	0.74	1995	24528	23985	24620	23761
1996	0.80	0.81	0.86	0.71	1996	24886	24697	27892	22206
1997	0.82	0.83	0.82	0.75	1997	24687	24859	25997	22843

Spell Year t+3

1987	0.78	0.86	0.79	0.74	1987	23565	26403	23909	23998
1988	0.80	0.84	0.89	0.81	1988	24611	24755	27984	23792
1989	0.80	0.85	0.85	0.83	1989	24686	25734	33309	25662
1990	0.80	0.83	0.81	0.86	1990	24633	24225	29036	25638
1991	0.80	0.78	0.84	0.77	1991	25527	24303	26100	25241
1992	0.78	0.74	0.81	0.76	1992	25796	25333	25101	23812
1993	0.75	0.73	0.71	0.76	1993	25417	23506	25445	23741
1994	0.75	0.73	0.76	0.70	1994	25244	23585	23072	23378
1995	0.75	0.71	0.75	0.73	1995	24609	23055	26070	23469
1996	0.78	0.73	0.78	0.72	1996	24337	21873	21929	22863
1997	0.80	0.76	0.83	0.71	1997	25130	22905	28580	22176

Spell Year t+4

1988	0.78	0.85	0.82	0.75	1988	24020	26911	21666	24749
1989	0.80	0.86	0.89	0.80	1989	24362	25392	26589	23636
1990	0.80	0.86	0.94	0.83	1990	23861	26540	30003	24685
1991	0.78	0.82	0.74	0.85	1991	24662	24339	29108	25171
1992	0.79	0.77	0.76	0.76	1992	25695	25257	28282	25185
1993	0.77	0.75	0.79	0.73	1993	25251	25184	24941	23295
1994	0.75	0.75	0.79	0.74	1994	25199	23582	23620	23376
1995	0.76	0.76	0.78	0.70	1995	24679	23687	23546	22543
1996	0.76	0.74	0.81	0.71	1996	24521	23120	27214	23165
1997	0.79	0.78	0.78	0.75	1997	24551	22688	22365	22636

Spell Year t+5

1989	0.77	0.85	0.89	0.75	1989	24664	27839	23949	23884
1990	0.78	0.83	0.86	0.75	1990	23541	27104	28905	24281
1991	0.77	0.85	0.83	0.79	1991	24239	28151	32005	25228
1992	0.74	0.79	0.71	0.85	1992	24735	26216	30453	26804
1993	0.75	0.75	0.77	0.73	1993	25727	26182	27422	24970
1994	0.73	0.74	0.77	0.70	1994	25637	27139	28266	23988
1995	0.75	0.75	0.79	0.71	1995	24729	24865	23963	22902
1996	0.74	0.78	0.77	0.66	1996	24831	24375	23819	22086
1997	0.76	0.77	0.89	0.71	1997	24564	24608	29536	23479

*The prediction assumes that lone mother is age 30 to 34, with one child age 6 or more who does not belong to a minority language group and does lives in a city of 500,00 or more in Ontario.

Table 3-A

**Predicted Probability of Positive Earnings and Predicted Earnings
Among Positive Earners By Type of Lone Mother* ($1997)**

	Predicted Probability of Positive Earnings						Predicted Earnings (Given Positive Earnings)					
Year of						Married						
t+1	t-1	t+1	t+2	t+3	t+4	t+5	t-1	t+1	t+2	t+3	t+4	t+5
1985	0.80	0.81	0.79	0.78	0.78	0.77	21060	23014	23320	23565	24020	24664
1986	0.83	0.83	0.81	0.80	0.80	0.78	21841	23667	23989	24611	24362	23541
1987	0.84	0.84	0.82	0.80	0.80	0.77	21752	23488	24731	24686	23861	24239
1988	0.86	0.85	0.83	0.80	0.78	0.74	21247	23821	24512	24633	24662	24735
1989	0.87	0.86	0.84	0.80	0.79	0.75	21855	24840	24990	25527	25695	25727
1990	0.88	0.87	0.83	0.78	0.77	0.73	22500	24801	25176	25796	25251	25637
1991	0.88	0.84	0.79	0.75	0.75	0.75	22095	24321	25199	25417	25199	24729
1992	0.88	0.82	0.78	0.75	0.76	0.74	22074	24792	25186	25244	24679	24831
1993	0.87	0.81	0.77	0.75	0.76	0.76	22427	24476	24915	24609	24521	24564
1994	0.86	0.81	0.79	0.78	0.79		22568	24054	24528	24337	24551	
1995	0.85	0.82	0.80	0.80			22988	24700	24886	25130		
1996	0.84	0.83	0.82				23042	24367	24687			
Year of						Single						
t+1	t-1	t+1	t+2	t+3	t+4	t+5	t-1	t+1	t+2	t+3	t+4	t+5
1985	0.97	0.88	0.89	0.86	0.85	0.85	26589	25790	28077	26403	26911	27839
1986	0.95	0.88	0.89	0.84	0.86	0.83	25998	24309	26594	24755	25392	27104
1987	0.97	0.90	0.90	0.85	0.86	0.85	26046	24538	27097	25734	26540	28151
1988	0.97	0.88	0.89	0.83	0.82	0.79	25208	24218	26932	24225	24339	26216
1989	0.95	0.86	0.86	0.78	0.77	0.75	25323	23690	26427	24303	25257	26182
1990	0.96	0.86	0.85	0.74	0.75	0.74	25921	23705	26536	25333	25184	27139
1991	0.96	0.83	0.81	0.73	0.75	0.75	26046	23390	25694	23506	23582	24865
1992	0.96	0.79	0.81	0.73	0.76	0.78	25558	23213	25321	23585	23687	24375
1993	0.91	0.76	0.79	0.71	0.74	0.77	24457	22345	24477	23055	23120	24608
1994	0.90	0.76	0.80	0.73	0.78		24235	21761	23985	21873	22688	
1995	0.88	0.77	0.81	0.76			24214	21685	24697	22905		
1996	0.89	0.80	0.83				24618	21842	24859			

Year of t+1	t-1	t+1	t+2	t+3	t+4	t+5	Common Law t-1	t+1	t+2	t+3	t+4	t+5
1985	0.81	0.77	0.77	0.74	0.75	0.75	22371	24738	23738	23998	24749	23884
1986	0.84	0.84	0.82	0.81	0.80	0.75	22778	23182	23233	23792	23636	24281
1987	0.91	0.88	0.88	0.83	0.83	0.79	24002	25165	25492	25662	24685	25228
1988	0.93	0.90	0.89	0.86	0.85	0.85	23488	25064	26175	25638	25171	26804
1989	0.88	0.85	0.82	0.77	0.76	0.73	22920	24370	25347	25241	25185	24970
1990	0.88	0.85	0.79	0.76	0.73	0.70	22457	23223	23894	23812	23295	23988
1991	0.88	0.82	0.76	0.76	0.74	0.71	22625	23799	24861	23741	23376	22902
1992	0.86	0.78	0.72	0.70	0.70	0.66	22335	24695	24113	23378	22543	22086
1993	0.84	0.77	0.75	0.73	0.71	0.71	22133	24379	23851	23469	23165	23479
1994	0.84	0.76	0.74	0.72	0.75		21813	23614	23761	22863	22636	
1995	0.78	0.73	0.71	0.71			21710	22844	22206	22176		
1996	0.80	0.76	0.75				21768	23080	22843			

*The prediction assumes that lone mother is age 30 to 34, with one child age 6 or more who does not belong to a minority language group and does lives in a city of 500,00 or more in Ontario.

Table 4-A

Predicted Probability of Welfare Income By Spell Year*

	Married	Unattached	Married-Childless	Filing Child	Common Law
			Spell Year t-1		
1992	0.07	0.21	0.06	0.09	0.26
1993	0.07	0.30	0.10	0.12	0.29
1994	0.07	0.30	0.15	0.12	0.27
			Spell Year t+1		
1992	0.37	0.34	0.29	0.31	0.39
1993	0.39	0.47	0.35	0.37	0.43
1994	0.38	0.46	0.32	0.30	0.44
1995	0.36	0.45	0.26	0.28	0.50
1996	0.33	0.41	0.29	0.26	0.43
			Spell Year t+2		
1992	0.38	0.33	0.33	0.31	0.37
1993	0.43	0.43	0.35	0.41	0.47
1994	0.41	0.43	0.33	0.34	0.45
1995	0.38	0.46	0.33	0.29	0.47
1996	0.35	0.41	0.25	0.28	0.50
1997	0.31	0.36	0.24	0.23	0.45
			Spell Year t+3		
1992	0.37	0.38	0.31	0.35	0.39
1993	0.43	0.49	0.49	0.47	0.47
1994	0.43	0.50	0.45	0.48	0.50
1995	0.42	0.50	0.33	0.41	0.47
1996	0.36	0.50	0.38	0.35	0.48
1997	0.35	0.45	0.28	0.28	0.49
			Spell Year t+4		
1992	0.37	0.38	0.36	0.32	0.40
1993	0.43	0.43	0.34	0.42	0.47
1994	0.44	0.48	0.46	0.44	0.49
1995	0.44	0.48	0.43	0.46	0.53
1996	0.41	0.47	0.34	0.40	0.48

| 1997 | 0.35 | 0.47 | 0.37 | 0.32 | 0.48 |

Spell Year t+5

Year					
1992	0.42	0.35	0.42	0.34	0.33
1993	0.43	0.46	0.37	0.38	0.47
1994	0.46	0.42	0.35	0.38	0.49
1995	0.46	0.48	0.51	0.47	0.52
1996	0.45	0.42	0.41	0.42	0.55
1997	0.40	0.42	0.29	0.34	0.51

*The prediction assumes that lone mother is age 30 to 34, with one child age 6 or more who does not belong to a minority language group and does lives in a city of 500,00 or more in Ontario.

Table 5-A

Predicted Probability of Welfare Income By Lone Mother Type*

Year of t+1	t-1	t+1	Married t+2	t+3	t+4	t+5
1988						0.42
1989					0.37	0.43
1990				0.37	0.43	0.46
1991			0.38	0.43	0.44	0.46
1992		0.37	0.43	0.43	0.44	0.45
1993		0.39	0.41	0.42	0.41	0.40
1994	0.07	0.38	0.38	0.36	0.35	
1995	0.07	0.36	0.35	0.35		
1996	0.07	0.33	0.31			

Year of t+1	t-1	t+1	Unattached t+2	t+3	t+4	t+5
1988						0.35
1989					0.38	0.46
1990				0.38	0.43	0.42
1991			0.33	0.49	0.48	0.48
1992		0.34	0.43	0.50	0.48	0.42
1993		0.47	0.43	0.50	0.47	0.42
1994	0.21	0.46	0.46	0.50	0.47	
1995	0.30	0.45	0.41	0.45		
1996	0.30	0.41	0.36			

Year of t+1	t-1	t+1	Filing Child t+2	t+3	t+4	t+5
1988						0.34
1989					0.32	0.38
1990				0.35	0.42	0.38
1991			0.31	0.47	0.44	0.47
1992		0.31	0.41	0.48	0.46	0.42
1993		0.37	0.34	0.41	0.40	0.34
1994	0.09	0.30	0.29	0.35	0.32	
1995	0.12	0.28	0.28	0.28		
1996	0.12	0.26	0.23			

Year of		Common Law				
t+1	t-1	t+1	t+2	t+3	t+4	t+5
1988						0.33
1989					0.40	0.47
1990				0.39	0.47	0.49
1991			0.37	0.47	0.49	0.52
1992		0.39	0.47	0.50	0.53	0.55
1993		0.43	0.45	0.47	0.48	0.51
1994	0.26	0.44	0.47	0.48	0.48	
1995	0.29	0.50	0.50	0.49		
1996	0.27	0.43	0.45			

*The prediction assumes that lone mother is age 30 to 34, with one child age 6 or more who does not belong to a minority language group and does lives in a city of 500,00 or more in Ontario.