

Getting By

An Examination of Low-Income Households with Children, 1992-2006

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in partial fulfillment of the requirements of the M.A. Degree

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ECO 7997

September 2009

Ottawa, Ontario

“The inevitable consequence of poverty is dependence.”
Samuel Johnson

To all of the professors, classmates, friends and family who have helped me through this process, I owe you a degree. Thank you Professor Ross Finnie, whose timely remarks have helped shape this paper. Thank you to Yan Zhang for all of her hard work in the lab. And of course, I would not have completed this without the unending love, support and editing of my beautiful fiancée, Anne Marie.

Abstract

Child poverty has lasting effects on governments because it demands large spending requirements years into the future. The LAD is a Canadian longitudinal dataset that is used to follow all households through time. This paper uses the LAD to assess low income among Canadian households with children between 1992 and 2006. This study uses mean and median income before and after tax to determine static and dynamic rates of low-income. Static approaches include distribution of households with children, mean and median incomes, as well as annual incidence of low-income. Dynamic approaches include incidence rates of low-income using income averaging, entrance and exit rates, as well as time in low-income. This paper showed that income averaging is a better approach to measure poverty. It showed that single parent households have very dependent spells. Single mothers fared the worst and since more children are increasingly living within single mother families, more must be done financially for that group. Results showed increases in the percentage of poor households after a reduction of Employment Insurance (EI) benefits by the Canadian government. This article prescribes that there should be more spending on EI, on industries to create value-added jobs and other programs that get single mothers into the labour force. By spending tax dollars in a smarter way, more can be spent in the short term versus the long term.

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1. Introduction

On November 24, 1989, all Canadian federal political parties unanimously pledged to eliminate child poverty in Canada by the year 2000. At the time, the national level of child poverty was 15.3%.¹ In 2006, six years after their Millennium deadline, the child poverty rate had declined to 11.7%², despite strong economic growth and low unemployment resulting in considerably higher incomes than in 1989. The Canadian government's strategies to tackle poverty among Canada's most vulnerable citizens simply amounted to stop-gap measures, such as the current government's Child Tax Credit, the Nobody's Perfect Program³ and an affordable housing strategy. Unfortunately, such approaches have done little to eradicate or even alleviate the majority of child-poverty as promised.

Contributing to the government's inaction were ill informed policies regarding the long-term consequences of poverty. In order to effectively reduce poverty, certain information is required regarding who is poor and the duration of poverty. This information can only be acquired through datasets that follow people through time. Although such longitudinal datasets have been available in Canada for twenty years, little research has been done in this area. The stop-gap measures and ineffective policies implemented by the government could have been avoided through using these robust datasets.

The government has traditionally used statics like the number of individuals and

¹ Available at Canadian Council on Social Development's website, <http://www.ccsd.ca/factsheets/fscphist.htm>. The statistics were constructed using data from Statistics Canada, Cat. 13-569-XBP

² Statistics Canada's *Income Trends in Canada, 1976 – 2006*, Table 802. Statistics were estimated using Low-income Cut-offs with 2006 constant dollars.

³ The program consists of parental education and support to parents of children five years old and younger. They are designed for parents who are young, single, socially or geographically isolated or who have low income or limited formal education.

households that are poor at each period in time to report low-income⁴, even though such approaches have provided little relevant information regarding the long term implications, the viability and the dependency of those who are poor. Still, static results provide a snapshot for agencies to measure how people are fairing at one point in time versus another. The problem is that static rates of low income do not address the need for policies to be focused on the long-term. Hence, longitudinal data is needed.

Until recently, there has been little use of longitudinal datasets focused on studying poverty in all OECD countries, including Canada. Prior to the Finnie and Sweetman (2003), who used the Longitudinal Administrative Databank (LAD) as a data source for their paper, “Poverty Dynamics: Empirical Evidence for Canada” there were virtually no studies published with a focus in low-income dynamics in Canada. The LAD has made it possible to study various aspects of income in Canada, allowing for greater publication in the area of longitudinal income distribution studies. Increased publications on the topic of poverty dynamics will hold important implications for policy given the insight they can provide regarding how child poverty can be addressed.

Dynamic poverty research seeks to answer the questions of why individuals become poor, who is the most poor, what is the depth of their poverty and for how long individuals remain poor. Dynamic study excels in the identification of short- and long-term spells of poverty and enhances understanding of underlying trends which would not be readily apparent otherwise. It improves overall knowledge of how poverty affects Canadians and it gives governments a better idea of where funds should be allocated. For example, a wide-spread incidence of short term poverty spells requires different policy prescriptions than does a very narrow band of long-term poverty spells. If the majority of those who slip into poverty do so continuously and for long

⁴ The words “poor” and “poverty” will be used interchangeably with low-income.

periods, the result is a greater amount of resources being spent on a small number of individuals.

Understanding the characteristics of households in low-income will have far reaching effects for those families with young children. S. K. Danziger and S. Danziger (1993) have written

extensively on the topic of long term effects of poverty on children and mothers. They noted that

by many measures of achievement and across several stages of childhood – behavioural and cognitive skills at school entrance, math and reading aptitude scores in elementary and middle schools, high school completing, college entrance – poor children are at greater risk of falling behind. (Danziger and Danziger 1993, p. 71)

Since the amount of time a child spends in poverty disproportionately affects their future earnings, the government of Canada should be keenly aware how society is benefited by lower child poverty rates.

The contemporary way to determine whether a household is in poverty is using annual income. Annual income shows whether a household has access to a enough goods to be considered relatively “well-off”. This paper will show that using income averaging is a better method for determining low-income status than using annual income. It will identify static and dynamic rates of low-income for three main types of households: single mothers, single fathers and couples with children, all between the ages of 25 – 65. This paper will express static measurements by establishing how many children live in each family type, the annual mean and median income before and after tax for each household, and the incidence of those households entering low-income using annual income. It will then examine dynamic measurements through establishing incidence rates of households entering low-income using income averaged over five years, annual and five year entrance and exit rates of entering low-income, as well as their time spent in poverty over all fifteen years. Finnie’s (1997) analysis, entitled “A dynamic analysis of low market incomes of Canadian Families with Children 1982-1993” has taken a similar

approach to poverty dynamics. This paper will update the time horizon and re-inforce the benefits of using the dynamic methodology suggested in that paper to examine poverty. It will introduce income averaging as a proxy for permanent income, which is novel to studies of low-income, although it has been pioneered by studies of high income earners. Income averaging and other dynamic methods explored in this paper will enable policy makers to prescribe appropriate policy solutions.

This paper will provide information that can be used to construct policy to ensure the future of Canadian children. Moreover, this paper will give a literature review, discuss the methodology, and provide an analytical overview which includes an explanation of the dataset, discussion of sample selection, and it will show the unit of analysis and measurement techniques. The analytical overview will be followed by the cross-sectional and dynamic results, the analysis of the results, an extension of this project and the conclusion. To begin, this paper will review academic papers that have been important in developing the background of poverty dynamics.

2. Literature review

In order to understand dynamic low income research, we must look to what has been previously published. We examine authors who have made an impact on poverty dynamics research because their work has laid the foundation for our research. The authors this paper has focused on have assessed how low income affects households. These authors tend to use the household as opposed to the individual as the base unit because there are a lot of unknown characteristics within a household that contribute to low income.

The seminal paper on poverty dynamics is “Slipping In and Out of Poverty: The Dynamics of Spells” by Bane and Ellwood (1986). Bane and Ellwood examine how ‘spells’ of poverty affect households. Bane and Ellwood use the term ‘spell’ to refer to the frequency and

duration of households entering low-income. A ‘spell’ is important in the analysis of poverty dynamics because it reflects the idea of a threshold by which poverty can be broken into a binary process. Households are either in or out of low-income. Using a binary process to determine low-income status makes it easier to examine households that experience spells which result in low-income dependence.⁵

The idea of spells and dependence were essential for Bane and Ellwood’s research. Their simple use of summations to establish entrance and exit rates of poverty established a new viewpoint for poverty study.⁶ Bane and Ellwood’s research, aimed at uncovering the root causes of poverty, concluded that the major events determining who enters poverty were, decreases in the earnings of the household’s head and life-cycle factors. Meanwhile, the major events determining who exits low-income were an increase in the head’s earnings and the female head becoming a wife. Bane and Ellwood acknowledge the importance familial ties have on the levels of low-income experienced, especially in the case of female led households and households with one parent. Bane and Ellwood remain relevant since contemporary authors, including A. H. Stevens, use their foundations to explore new areas of dynamic study.

Stevens (1994) extends the argument of Bane and Ellwood using the Panel Study of Income Dynamics (PSID) dataset.⁷ Her paper, “The Dynamics of Poverty spells: Updating Bane and Ellwood” diverges from Bane and Ellwood’s methodology by estimating hazard models for low-income families from the PSID through a logit regression. Stevens found a decline in

⁵ Their definition also notes that spell can also take on the mathematical form of a hazard function.

⁶ Summations used by Bane and Ellwood regard exit probabilities. Note, the first term is the exit probability and the second term is the fraction of those who are poor who survive until the year t-1.

$D(t) = p(t)[1 - \sum_{j=1}^{t-1} D(j)]$, For $T > t > 1$. From that initial equation two important equations are arrived, first the distribution of completed spells, $F(t) = tD(t) / \sum_{j=1}^T jD(j)$, and the distribution of uncompleted spells, $G(t) = [1 - \sum_{j=1}^{t-1} D(j) / \sum_{s=1}^T [1 - \sum_{k=1}^{s-1} D(k)]]$ which represents the fraction of the number of persons who began spells t years earlier who would still be on the program assuming a steady state.

⁷ The PSID is a longitudinal study of representative families in the US. Beginning in 1968, the PSID emphasized the dynamics of economic and demographic behaviors and it encompasses more than 7,000 families.

mobility out of poverty as time increased and that there was generally a strong pull back into poverty occurring within the five years following an exit. Again, Stevens acknowledged poverty's occurrence most notably among female-headed households of both white and black families alike. She does however note that a trend for households headed by white females to have repeated spells of low-income. Thus, the extension of Bane and Ellwood resulted in a newer, more econometric intense analysis, with the added knowledge that individuals have a pull back into poverty for years after entrance. This application was interesting because it was applied to the same dataset used by Bane and Ellwood.

Researchers in various countries rely on the same dynamic research established in the United States to examine their countries own poverty dynamics. As an extension of the work pioneered by Bane and Ellwood, S. Jenkins (1999) adds to the overall relevance of longitudinal analysis by incorporating data from England. Jenkins describes his work's aim as "[b]ringing income distribution analysis in from the cold" (Jenkins, p. 562), which is an homage to the economist A.B. Atkinson's (1997) famous lecture to the Royal Economic Society on improving economic long-term research and datasets. Jenkins adds to the argument by monitoring secondary labour market conditions and non-labour income for households that are susceptible to spells of low-income. He concludes that there must be more longitudinal datasets available to researchers so that their models can be structurally sound. Those sentiments have spilled into areas of research in all jurisdictions, spurring more researchers to ask questions about low-income and income distribution.

In Canada, R. Finnie and A. Sweetman (2003) approach the question of poverty dynamics using the LAD and a unique methodology. Their method assessed chances of being poor based on various factors, including: gender, family dynamics, number of children, age,

province, whether they were a minority, their language and region size. Finnie and Sweetman's regression analysis was used to establish entrance and exit rates for Canada between the years 1992 -1996 using both logit and hazard models. Their hazard model functions focused on the probability of leaving low-income at each point in time over a given spell, while their logit model examined exit rates for representative stocks of individuals who are in a state of low-income in a given year. As expected from the previous literature, Finnie and Sweetman gleaned that lone single mothers are at the highest risk of becoming low-income. However, in contrasting to Bane and Ellwood (1986), they conclude that changes in family status increased the risk of entering low-income for all groups.

The LAD has proven to be a useful tool for other researchers as well, especially for assessing income distributions of varying cohorts. Veall (2007), for instance, used the LAD and the Low-Income Measure⁸ (LIM) to determine levels of low-income in the Canadian elderly community. In his paper, "Which Canadian Seniors are below the Low-Income Measure" (2007), Veall estimates that the change in the incidence of low-income between the standard 50% median income threshold and a threshold between 40% and 60% is considerable. For the elderly, when the LIM threshold is altered from 50% to 40%, the incidence of poverty decreases from 6% to 1%. In the other direction, the proportion of seniors who fall under low-income when using a LIM threshold of 60% goes up to 17%. According to Veall, in order for policy makers to reduce this rate of senior poverty, a small transfer of income would be needed for seniors just below the 50% median income threshold.

In addition to his previous paper, Veall collaborated with Saez (Saez and Veall, 2007) adding to the body of research by "re-comput[ing] top income shares based on average income

⁸ The Low Income Measure will be discussed in greater detail later in this paper, but it represents a relative threshold for determining whether a household is in low-income. Its generally accepted level is 50% of median income.

over three or five years instead of a single year” (Saez, p.843). Averaging incomes over these various time periods explored whether or not these incomes were transitory. Saez and Veall suspected that if incomes were transitory, there would be less concentration of incomes around the higher quantiles. They used income averaging to gauge mobility within the group of top income earners. Their findings suggested that there is in fact very little mobility.

This paper will rely heavily on the idea put forward by Saez and Veall regarding using income averaging to gauge whether low-income incidence for households with children is transitory. It also relies on “A Dynamic Analysis of Low Market Incomes (“Market Poverty”) of Canadian families with children 1982 – 1993”, a working paper by R. Finnie and a report published by the OECD entitled “Poverty Dynamics in Six OECD Countries” by H. Oxley, T. T. Dang and P. Antolin (2000). These papers assess current dynamics of low-income earners and all pursue the goal of informing the public about how low-income affects low income earners. The Finnie paper is especially relevant because it focuses on households with children.

Examination of this literature on poverty has yielded important insights about how poverty should be measured and the merits of using longitudinal data compared to static annual data. Longitudinal assessments have been preferred to static because they have provided more robust results. Below we explore the impact income averaging can have on low-income rates by showing how households with similar losses of income have different low-income experiences.

In each figure, the duration of time spent in low-income is nearly identical. However, the consequences for entering low-income are completely different. Figure 1 shows a household whose income allows them to live just above the LIM. Over time they experience a spell of decreased income which is much lower than that they previously earned. Averaging their income over the whole period, we find that their drop in income during the spell of low-income

would have decreased their permanent income below the LIM.

Figure 1

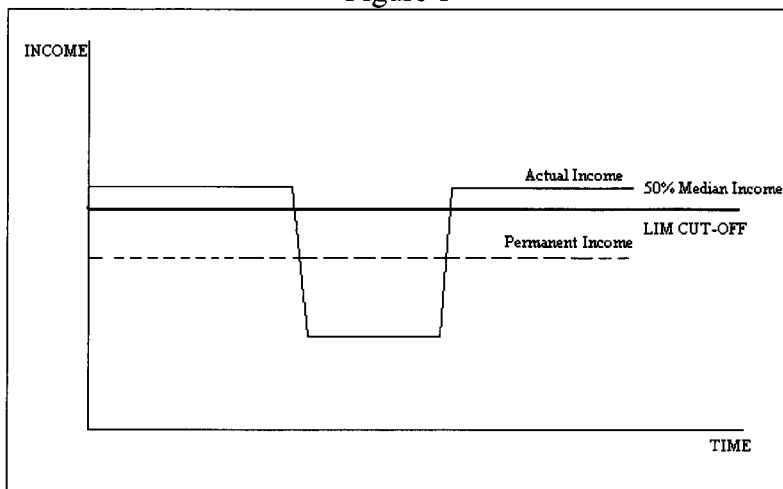


Figure 2

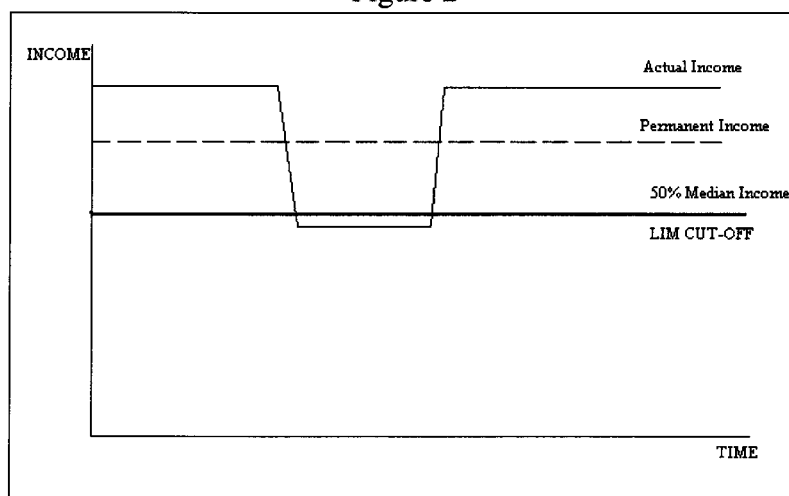


Figure 2 depicts a spell of income loss roughly equal to the same magnitude in figure 1. Low-income duration for the household in figure 2 corresponded to length and depth of time in poverty. Regardless, the household in figure 2 had income high enough in non-poor years to more than make up for a drop in income. Averaging their income over the duration means that the household would be considered out of low-income for the duration. This result is important for entrance and exit rates as well as time spent in low income because it properly categorizes those households that are poor. Depth and duration have such profound consequences for those

individuals within the income band around the 50% median threshold that improved analysis of those around the LIM is needed.

3. Methodology

This study will examine the years between and including 1992 – 2006. The benefits of this sample period are that it is sufficiently long to give results that are meaningful to policy makers and it encompasses two peaks of the business cycle. Of note is that the initial year corresponds to the inception of the inclusion of Social Assistance in tax reports. The income data being used has been compiled by Statistics Canada (StatCan) and contains two sets of income, before-tax and after-tax. Using before and after-tax income will show the impact taxes, tax breaks and credits have on rates of poverty.

As previously mentioned, there are three categories of families examined in this paper: couples with children, lone mothers and lone fathers. The discussion of poverty involving households with children is important because poverty among families with children can be long lasting. Income mobility of children is adversely affected when they spend prolonged periods in low income and there are concerns regarding the development of children who are raised in low-income. (Phipps 1999) Our analysis of child poverty assumes that children who are given an opportunity to succeed at improving their future economic outlook will enjoy economic dividends, and that it will pay in the long run for their families and for Canada.

The examination proceeds with these questions:

- What are the annual low-income rates of families with children using both before- and after-tax low-income between the years of 1992 – 2006?
- What are the entrance and exit rates in a given year and how did the exit rates change with the number of years families already spent being poor? Did the rate at which families left poverty change – increased or declined – the longer they spent in poverty?

- How long did people stay poor? On average, what was the total time spent in poverty, with regards to both pre- and post-tax income? What proportion of families were never poor, occasionally poor or persistently poor?
- Does income averaging over five years show overall effects on the annual poverty rates of the various sub-groups? Is there a change in how average income affects poverty in the beginning of the surveyed period versus the end of the period? Or does averaging show income stability over the various time periods?
- How do low-income patterns change according to pre- and post-tax income, family sub-group, economic cycles and time periods?

This paper will reflect the changing nature of how poverty is studied. Incorporating both pre- and post-tax income for families with children will reveal the role taxes play in reducing poverty. In addition, through the LAD this paper will demonstrate how effective a long term dataset can be for initiating pertinent income research. Structuring the study in this way will give this research an opportunity to assess how Canadians are fairing annually, but also over time. This paper will explain how the dataset was determined, how the sample selection was made, breakdown the unit of analysis and explain the measurement techniques that are going to be used to determine our results.

4. Analytical Overview

4.1 Dataset

The Longitudinal Administrative Databank (LAD) is the main dataset used in this study. Established in 1986 as a subset of the T1 Family File¹⁰ (T1FF), the LAD has collected information on the incomes and a wide variety of other characteristics of Canadians and their families. The LAD is derived from information provided to the Canadian Revenue Agency (CRA) through tax forms when filing personal income tax returns. Individuals are randomly selected into the LAD and are subsequently used to create census families from their tax returns.

¹⁰ "The T1FF is a yearly cross-sectional file of all tax filers and their families. Census families are created from information provided annually to the Canada Revenue Agency" P.6, LAD Dictionary 2006.

They are profiled using their Social Insurance Numbers (SIN), names, addresses, ages, sex and marital status. Spouses, both legal and common law, then are matched using this information (LAD Definitions 2006). Children are attached to their parents in a similar way, either using the tax information given by their parents/guardians, through the Family Allowance program or more recently (since 1993) through the Child Tax Benefit. Once these individuals and families are selected into the LAD they are then followed through time until they die or stop filing their taxes.

The LAD is appealing to researchers because of its size, rate of attrition and the accuracy of its data (LAD Definition 2006). Individuals who are selected into the LAD based are given a unique LAD identification number that allows individuals to be followed from year to year. As a subset of the T1 Family File, the LAD currently includes roughly 5 million individuals and has grown considerably in size since its inception, reflecting both the increased Canadian population and the increased number of tax filers. Low attrition is ascribed to the fact that it is required by law that high income earners file an income tax return and that there are financial incentives for low-income Canadians to file, which include refundable tax credits that are received and delivered throughout the year. The Canadian population files tax returns at a rate of 95% to 97%, thus researchers benefit and a more robust longitudinal analysis becomes possible. The LAD is the best tool at the disposal of policy makers to understand long-term earnings and income.

4.2 Sample Selection

As previously discussed, the sample group consists of single mothers, single fathers and couples with children. Given the wide net that the sample casts, this study places some restrictions on the data to ensure it is re-creatable and falsifiable. The study restricts the data so

as to exclude parents who fall outside the sample ages of 25-65 in order to exclude parents who are either too young to have ample experience in the labour market and/or to have exited university. It also excludes parents who are transitioning into retirement because these households would rely on wealth (investments and savings) instead of income. To establish stability in our sample set, this study also excludes families that transition through family types during our sample years. A caveat to this restriction is that it does not exclude families whose children are transitioning out of the family home by either entering the workforce or enrolling in a post-secondary education program. Initially, family groupings are determined using the LAD's family flag variable (FFLAG_I). These "family flag[s] [are] assigned to every record. It identifies where an individual was matched within the family system, under what conditions, and whether or not the individual in a given family is an adult" (LAD Dictionary, 2006, p.39).

Within family files we can determine marital status by using either the Marital Status (MSTCO_I) or Family Type variables (FCMP_I). This paper uses the Family Type variable since the marital status variable can be subjective according to who is filing the taxes.

Discretion must be shown when attaching children to households since the LIM is calculated for each household based on the number and ages of the children present. Attachment of children to families is done in the LAD using two variables. The TNKIND_I variable expresses the total number of children in a specific family, and the KID1(2/3/4/5/6/7)_I variable expresses the ages of the seven youngest children. The latter variable's importance is better understood through the lens of the LIM, which assigns different income needs to households depending on whether their children are over the age of 16 or not. Through these restrictions this study establishes our sample population for this study.

4.3 Selection of Families

The LAD uses a number of steps to tie children to their families. Since the base unit of the LAD is the individual, spouses and children are tied to the individual through information given on the individual's tax form. The family file found in the LAD corresponds to the definition of a "census" family and not defined as an "economic" family¹².

Finnie and Sweetman (2003) cites three major issues when determining family status. First, imputation errors are made where couples should be matched when they are not. Next, matches are made between two adults where no relationship exists. Finally, the identification and number of children found to be attached to families can be wrong (Finnie and Sweetman 2003, p. 4). We have tried to minimize these problems associated with longitudinal datasets by restricting our sample population carefully to ensure there is little chance of imputation error.

4.4 Unit of Analysis and the Low-Income Measure

As with the previous section, this section aims to indentify the benefits and drawbacks of using income as our measure of analysis. Market income is found in all years since the LAD's inception and is a particularly stable measure of income which lends itself to study. However, it does not incorporate information on the impact taxes have on low-income families. Therefore, before- and after-tax income are used to show how households are affected by shifts in tax exposure. This study begins in 1992 and a particular benefit of using income starting that year is that the LAD did not start capturing social assistance in a consistent way until 1992. Social assistance is a particularly important source of income for low-income families and its inclusion in this study entrenches a more overarching view of a households' disposable income.

The income variables we will be using are the income before tax, total (Small Area and

¹²The term census family indicates that there are a maximum of two generations of parents and children in that household. Economic families are also used in economic literature but they describe households which allow for two or more generations of parents and children within their household.

Administrative Data Definition [SAADD] definition, XTIRC_I,F,P,K) and income after tax, total (SAADD definition, AFTAX_I,F,P). Both constitute a better measure of income than that available in the Canadian Revenue Agency definition. A few tax components that are included in the SAADD definition but not the CRA definition are: Child Tax Benefit, GST and FST credits, Provincial Refundable Tax Credits. The SAADD definition also excludes RRSP income, Dividends, and Capital Gains/Losses, all of which are included in the CRA definition. For the most part the later are not going to play a major role for families living in low-income, although they might be what keeps them from entering low-income if a family member loses a job.

Studying low-income involves measuring income and determining what low-income threshold to use. Canada has two main measures of low-income, the Low-Income Cut-Off (LICO) and the Low-Income Measure (LIM).

The LICO is a measure that is used strictly in Canada. It uses a basket of goods approach to measuring well-being and is used as a threshold to determine whether a Canadian household should be considered low-income. According to Statistics Canada (2007), the LICO is “an income threshold below which a family will likely devote a larger share of its income on the necessities of food, shelter and clothing than the average family” (Statistics Canada, 2007; p. 7). Anyone who falls under the LICO spends at least 20 percentage points more than the average family on these goods. The LICO is then broken up into seven family sizes and five community sizes and looks at before tax and after tax income. It is very extensive in terms of determining the costs of goods for relative community and family sizes, and it is essential for Canadian study. However, the LICO’s extensiveness means that it is not a measure of low-income that is comparable to the relative low-income rates that are used internationally. Using the LIM in this paper will provide a comparator against other countries’ low-income experiences.

In contrast to the LICO, the LIM is the measure of choice internationally because it is easily comparable to other relative measures of low-income used in the OECD and by various national statistical agencies throughout Europe.¹³ The LIM is a relative measure of low-income which means that it encompasses a sliding threshold that moves from year to year based on changes in overall income distributions. The LIM threshold in Canada is set at 50% median income and is adjusted for family size.

The LIM uses the idea of a “family equivalence scale” to determine the level of income required for each household. The family equivalence scale is based on the economies of scale that exist within households. A family unit with one adult and one child will have relatively different income needs than a family with two parents and three children. Relatively, households can combine common goods such as housing, food and clothing among family members to decrease the overall cost of these goods. These commonalities translate into an equivalence scale for a given family size. The household equivalence scale used by the LIM is based on a one person household being counted as one. The second person in the household adds 0.4 to the scale regardless of whether it is an adult or child. The next addition to the scale is either 0.4 or 0.3 depending on whether the next person in the household is an adult/child over 16 or a child under 16. An example of the equivalence scale is as follows: in 2005, the LIM for one adult and no children was \$14,604; for one adult and one child it was \$20,446, the same amount as for two adults. Statistics Canada has computed LIMs using before- and after-tax incomes, as well as a LIM for market income.

The LIM’s applicability to other measures of poverty around the world is one of its major assets. It is comparable to other relative poverty lines, including those used by the Luxembourg Income Study (LIS), the Organization for Economic Co-operation and Development (OECD),

¹³ The United States uses an absolute poverty measure that has been adjusted for inflation.

the German statistical agency and Canadian Center for Social Development. The LIM is relatively easy to use, since it uses an equivalence scale rather than adjusting for population density or region. Unfortunately, unlike the LICO, the LIM does not incorporate the population size of the region in which the family unit lives. However, the benefits of the LIM's applicability and its ease of use outweigh its costs. Therefore the LIM is a better fit for this study.

4.5 Family characteristics

In order for this study to be effective, households must be tied together on a yearly basis. In a static sense, households' characteristics are joined together using the T1FF by placing individuals in census families through their Social Insurance Number. Every year a new group is formulated based on the characteristics of the individual's census family in that year. However, the dynamic study differs slightly in that once a base year is decided upon, any changes in that member's status will be accounted for and their longitudinal census family will be adjusted. Since this study focuses on households with children, the individual being followed must be placed within a family and then it is determined whether there are children present within the household. This analysis requires multiple iterations within the data to ascertain whether family status has changed and if so children need to be re-combined with the proper parent.

This paper uses the following method to develop the family unit. First, the representative person of each family must be established according to a base year. The representative person can be defined as:

- a) any adult member in a couple household if only one of the couple is in LAD
- b) the man in a couple household if both of the couple are in LAD, the older person if it is a same sex couple.
- c) the mother in a single-mother family and the father in a single-father family. Then, we simply follow the representative person to further restrict our sample.

To make the procedure simple we check the family status of each representative person. If the subject's family status has changed over a given period, then they are out of our sample.

At this stage, the base year must be decided upon for identifying the representative person. Any year can be chosen and this study selected three, depending on which period is being examining. The base year is 1992 for the fifteen year study but 1997 and 2002 are used as bases when the study assesses five year periods. In this sense, a tax filer has to be alive and have filed in all years in order to be part of the sample, so they have to be alive for a minimum of five years to be captured in our study.

4.6 Measurement Techniques

As previously discussed, defining low-income is difficult given the multitude of approaches. Each approach would give different results depending on which definition of income and what levels of income are used. This paper will include the techniques, datasets, income levels and thresholds that are particularly transferable to international studies of low-income. It is therefore additionally important to outline the types of measurement techniques and the reasoning behind their use. This section will outline the static and dynamic measurement techniques this study will use to arrive at an analysis of low-income for Canadians.

Our static measurements include: the distribution of families with children, mean and market incomes and annual incidence of low-market income. Dynamic measurements include incidences of low-market income using averaged income over five year periods and adjusted annually, annual and five year entrance and exit rates, and the total time in low-income both annually and over five year periods. Each technique will be addressed with regard to its relevance and how it is derived.

Statistics Canada's past approach to measuring poverty was a derivative of the

measurement techniques employed in this paper. Initially, it is important to describe the levels of income in Canadian households with children and then move forward to describe those who are considered to be falling below what has been established as low-income.

Mean and median statistics of before-tax (XTRIC_F) and after-tax income (AFTAX_F) are divided by family type using 2000 constant dollars. Constant dollars are continuously used to ensure that there are no discrepancies caused by incomes rising due to relative increases in earnings power and not inflation. Before- and after-tax total incomes are used because of the distinction being made between the benefits derived from a progressive tax system and what is accumulated before tax.

In constructing the LIM, it is important to consider the number and age of children in each household. Family members who are under the age of 19 contribute to the adjusted LIM equivalence scale for each family unit and impact the measurement of low-income for a specific household.

In a dynamic sense, this paper has set out to establish a more robust understanding of low-income that is based on permanent rather than transitory income. In order to estimate rates of low-income over various years, this paper will use the empirical measurement of low-income averaged over five years. This measure includes pre- and post-tax income, which is simply the summation of years divided by the number of years averaged then applied to a fixed LIM. The paper assumes that the five year windows would yield a more accurate result because they would smooth over business cycles and provide a proxy for a households' permanent income. This paper also incorporates low income rates, averaged over five years, but adjusted to report income averaged rates of low-income year to year. This is done to remain comparable with annual rates of low-income based on annual income. The threshold is then set to determine how often

households enter and exit a state of low-income.

Empirical low-market entry and exit rates are essential tools for the economist attempting to study ‘spells.’ At their core, entry and exit rates are simply a measurement of who enters low-income in any given year based on the premise that they had not been in low-income the year before. Alternatively, exit rates are established by determining who has exited low-income in a given year based on the fact that they were considered low-income in the previous year. These rates can be established for all years where there is an initial observation year.

The length of time in poverty is the final tool we use to establish a dynamic analysis of Canadian low-income households. Through time in low-income we establish how persistent poverty is for our three family types. We include annual length of time beginning with those households that have never been poor in a particular period, then including those households who have experienced low-income for one to fifteen years. Through this measure we concentrate on short and long persistence by addressing those households who have been poor for five years and under, considered a short spell, and those households who spend ten or more years in low-income, considered to be a long spell. Differentiating by five year periods establishes a different view of the data in that it shows the differences between each five year period, therefore creating a comparison of how each period either benefited or hindered each family type. By assessing those differences we can monitor systemic changes within the Canadian low-income households, whether through changes to wages, to transfer payments or EI. The next section comments on the cross-sectional results, followed by a more complete analytical overview.

5. Cross-sectional results

5.1 Sample Size and Composition

Table 1A & 1B indicate the change in composition of households with children annually and within five year blocks. Overall, the average sample size used in this study is 1,937,735 households and although the size varies from year to year, its magnitude ensures robust results. Generally, time-series analysis presents a problem for researchers due to too few data points to obtain the statistical significance required. However, sample sizes of thirty are considered large enough to derive a robust result that satisfies most researchers. Since the sample size is over a million, the results can be considered accurate. Examining the sample shows that, on average, households lead by couples comprised 78.49% of the sample, while lone mothers comprised 19.01% and lone fathers comprised 2.49% of overall sample size.

From 1993 to 2006 there was a rise in the percentage of children living in single parent households. Overall there was a decline of 3.1 percentage points in families headed by couples which accounts for almost the entire rise of 3.4 percentage points that is felt by those households lead by females. This statistic shows a slow but dramatic shift in the demographics of households with children. The result was that more children had direct access to only one parent's income and as we will see in the following sections, the level of income of single parent households is considerably less than that of households headed by couples.

Assessing family types who have remained unchanged during 5 year blocks, from 1992-1996, 1997-2001, and 2002-2006, we see a similar increase in the percentage and overall number of families headed by lone mothers compared to the decline of those households who are headed by couples. This exchange of family type between couples with children and lone mother represents roughly a 3 percentage point change. The increase in the share of lone male households 0.3% percentage points over the three five year blocks.

The changing compositions of households would not be noteworthy if there were not income differences between family types. The following section outlines total income for all family types by years and over five year blocks.

5.2 Before and After Tax Total Income

To address the well-being of our family types there needs to be a level of commonality between years and to do so, yearly income has been converted to constant dollars. Changes in the overall shape of the income distribution are also essential tools for comparing income of different years and to effectively do that, annual mean and median income are reported for both pre- and post-tax income.

5.2.1 Annual

Examining annual before and after tax income is important for comparing how households' income changes over time. For each household, the paper updates how income has changed before and after taxes by family type. The analysis indicates that incomes have been growing for some family types over the 15 year period but not for others. Tables 2A and 2B describe income on an annual basis for all family types and both median and mean incomes. Graphs of each are attached in figures 2A and 2B to visually represent changing incomes over time.

The income trend indicates that households that are led by single parents have incomes that are considerably lower than those of households led by couples for all income measures. Assessing mean income over all 15 years, single mothers generally earn less than half of the income couples earn pre- and post-tax, while single fathers generally earn a little less than two thirds of couples' income. The income of single mothers and fathers declined in relation to income earned by couples over the whole period. There was a decline in income of all family

types following our initial year, although incomes for couples rebounded more quickly and increased at a higher rate than those of both single mothers and fathers for the whole duration.

Overall, median income has a smoother trend over the entire period when compared to mean income. Increases and decreases in median income are more understated because median incomes are less affected by outliers on either end of the income distribution. Therefore, as mean incomes decrease, the individual in the middle feels less of a change.

As for losses of income over time, median income shows losses of income after the initial year. However, median income recovers for couples and single mothers but not for single fathers, whose income decreased substantially and failed to recover to its 1992 level by the end of the period.

A possible reason for this initial decline in incomes could be the severe recession Canada endured during the early 1990's. This recession steadily reduced the Gross Domestic Product (GDP) in Canada and was prolonged which impacted households in low-income because they characteristically have low levels of savings to rely on if they become unemployed. Low savings rates meant that households in a spell of low-income relied heavily on other family members or the government for support.

Examining before and after tax income gives some indication how the progressive tax system, which includes tax incentives and tax breaks, can alleviate some disparity between households. In comparing before- and after-tax income trends, we notice that all households have less disposable income after tax. Not surprisingly, income decreases from before-tax to after-tax income affect those households who had higher incomes the most, with after-tax income representing 80.0% of before-tax income for couples, 84.3% for single fathers and 90.1% for single mothers. This indicates that single mothers gain on couples and single father in terms

of absolute income, although that is insufficient to make much of a difference because their incomes are so low to begin with.

5.2.2 Five Year Intervals

This paper has examined annual income of all households with children and demonstrated that there is a tremendous stratification between all groups. The analysis continues its assessment of how incomes change over time by looking at average income over five year periods with the results being found in Figure 2C. Assessing income over five year blocks shows an overarching trend that is similar to those within the annual data. The averaging approach adjusts income to account for changes in the business cycle and allows for a better grasp of each household's capacity to earn. The steady growth of couples' pre- and post-tax income was expected and is especially evident during the period from 2002 to 2006, where their median after-tax income grew by 10% over the previous period. Surprisingly, single mothers' after-tax median income increases by 10% over the same period, may perhaps due to stronger labour force participation, or stronger wages because of the overall strength of the economy as a whole. Although single mothers' income did increase substantially from the second period to the third, their income did not rise as sharply as that of families headed by couples over the entire duration.

In contrast to couples and single mothers, single father households had median incomes that dropped from period one to period two. Examining after-tax income, single fathers' overall income in the last five year period did not recover to its first period levels. Even when looking at before-tax mean income, their income increased the least of the three groups in percentage and absolute terms. The same phenomenon that allowed single mother's income to rise obviously was not present for single fathers. Single mothers' income did not catch up to single fathers'

income over each five year block but it did show higher growth rates from the initial period.

This result indicates that single mothers had the opportunity to gain from a rising economic tide so that their incomes were improved to levels they had not previously reached. In each group, increases in mean income outstripped those of median income in all periods, indicating an overall shift of the income distribution. Since median income is at the heart of a relative low-income measure, increases in mean income relative to median income did not help alleviate overall low-income. The income increases during this period occurred within the group of earners above the 50% median line. That means that fewer people moved out of a low-income state because their income increases were not enough to push them above the LIM.

5.4 Annual Incidence of Low-Income

Incidence rates showing the percentage of households in a state of low-income is fundamental to poverty study in Canada. Although this paper seeks to prove that income averaging is the best way to determine how many households are really affected by low income, annual incidence is still relevant for comparing different eras. Given that poverty is still a relevant policy question, determining who is considered poor and whether certain strategies have been more effective than others is essential to further policy discussion. All poverty discussions need relevant poverty statistics and this paper provides a breakdown of Canada's annual incidence of low-income for all households' with children.

According to Table 3A and Figure 3A, annual incidence of low-income before tax and after tax follows an arc pattern. For all family types, the incidence of low-income increased for the first five to six years of the study, but then changed to a downward trend thereafter. This trend can be seen in both pre- and post-tax figures of low-income. For our purpose, we will separate pre- and post-tax income during this discussion because of the implications for relative

incomes and for families' overall well-being.

Pre-tax incidence of low-income gives three distinct results for each group. Although the trend is the same, their magnitudes are quite dissimilar. Households led by couples had the best result, experiencing relatively low rates of low-income throughout the entire period. Couples' incidence rates were at their lowest in 1993 at 11.7%, rising to their highest, 15.1%, in 2000 and decreasing to a low of 12.1% near the end of our study. Couples' experiences did not indicate that there were any serious structural issues and poverty among these households was minimal. Since couples with children comprised close to 80% of our sample, it was an important success to have such low rates of low-income among those households with children.

Single fathers' rates of being in a state of low-income were distinctly higher than that of couples. Their experience with low-income is intriguing due to the fact that their median post-tax income had decreased from 1997 to 2006. Single father's incidence increased sharply from 1992 to 1993 rising from 25.2% to 37.1%, which represents an increase of over 45%. The incidence rates were never as low as they were in 1992, but they were surprisingly moderate in the face of decreasing post-tax median income during the 1997-2001 period. Moreover, this group performed relatively well during the decade between 1996 and 2006 where their pre-tax income increased and their incidence of low-income decreased from 40.7% to 35.4%.

Of all three groups, single mothers experienced the highest levels of low-income throughout the whole period, averaging an incidence rate of 51.7%. This alarming incidence rate was bookended by their two "best" years, rates of 49.1% and 48% in 1992 and 2006. Their worst year came in 1996 when their incidence rate increased to 55%, the highest for any group at any time. Single mothers' needs have been shown to be aided least in the current labour market and their income has been shown to be insufficient to improve their overall economic well-being.

Post-tax incidence of low-income shows the benefits derived from tax incentives and tax breaks. Table 3A and Figure 3B show annual post-tax low-income rates. A similar trend as pre-tax emerges, namely an overall increase in the low-income rate for all family types over the duration. Table 3A shows both pre- and post-tax incidence by year but it also shows another interesting and telling statistic, the gap between pre- and post-tax incidence of low-income.

Over the period 1992 to 2006, the after-tax incidence of low-income among couples has increased from 9.2% to 12.9% then fell back down to 10% in 2005. The difference between pre- and post-tax remained fairly stable for the first five years, around 2.5 percentage points but decline to 2.1 percentage points by 2006.

Single fathers did better overall after taxes, with an incidence rate that ranged from a high of 35.1% to a low of 20.1%. Their difference between the incidence of pre- and post-tax low-income was averaged 5.52 percentage points from 1992 to 1996. Meanwhile by 2006, the difference in the low income rate between pre- and post-tax was only 4 percentage points.

Single mothers benefited the most from the tax system. For this group, the incidence of low-income declined on average 7.57% over our fifteen year period based on post-tax income. Although for this group low-income rates of 44% were still extremely high, the benefits delivered to households through low taxes and tax credits from the government has been shown to contribute, at least in part, to a decline in the incidence of low income. The first five years showed an average decline of 9.44 percentage points in the incidence rate based on the difference between pre- and post-tax. In the last five years of our study, the difference between the two incidence rates declined to 6.34 percentage points. The drop of three percentage points shows a tremendous shift in the effectiveness of government tax schemes, meaning that it has shown to be less effective at improving the situations of those households whose incomes are near the

LIM.

6. Dynamics Results

In this section, we examine low-income dynamics using income averaging, entry and exit rates and time spent in poverty. Of particular interest is the incidence of low-income using income averaging since this article shows that permanent income is a better basis for measuring the percentage of households who are considered poor. However, all measures are important to the overall picture of households' low-income rates and they contribute to assessing whether income averaging is a better measure of low-income.

6.1 Incidence of Low Income Using Income Averaging

Essential to our analysis is determining how incidence rates change when using income averaging. In this study, average income is used as a proxy to determine whether using permanent income improves the reporting of low-income rates. Essential to this is determining whether a household's income in a year where that household is considered non-poor could offset the level of income that a household earned in a year that they were considered poor. Income earned in non-poor years could increase a household's income to the point that if it was averaged over the whole period, their averaged income could be above the LIM. The idea is that higher income in non-poor years would offset years when there was little or no income available. Situations like this would mean that the incidence of low-income for a group of households would be much lower using income averaging than annual income. However, if low market income was more persistent, then we would see static low-income rates similar to average income rates. Higher rates of being in a state of low-income would mean that income in years where a household was not in a state of low-income would not offset the low-income years. The data presented show that both cases are present for households with children and they are

described in Table 3B. The data shows mixed results depending on family type.

Households with children headed by couples are more flexible in the face of changes in the labour market and they have shown rates of poverty that have been considerably lower than those of other family types. As one might suspect, incidence rates using income averaging showed a tremendous decline. Incidence rates for households with children headed by couples declined roughly 40% compared to annual rates averaged over the same time period. The same result was achieved regardless of whether pre- or post-tax income was assessed. For this family type, income averaging established that there are fewer households living in a state of low-income than would have been expressed through annual low-income rates. The income earned by these households in above LIM years has proven to be high enough to pull a considerable percentage of these households out of low-income. As positive as these results are, it is important to keep in mind that there still remains a small group of households headed by couples who could be exposed to long-term low-income. However, a large percentage of couples who are considered poor using annual incidence rates are not necessarily poor when considering their permanent income. This means that more couples are moving in and out of poverty than staying in poverty over a long period.

The results for single mothers and fathers show smaller effect than that of couples. Single parents' low-income rates declined by 3% to 4% using income averaging compared to using annual low-income rates. This small decline shows that even though low-income rates are high for these groups, not enough households earn above LIM incomes in non-poor years to overcome low-income. Single parent households' incidence rates over the long-term showed that annual low income rates reflected their long term experience and that low-income is a long term problem for these households. Incidence rates of 30% and 40% for single fathers and single

mothers, using after-tax median income, indicate there is a large group of persistently poor single parents. As a result, these family types use more funding from the government.

Although it is apparent that measuring low-income with a permanent income proxy has proven a more effective means to arrive at incidence rates of low-income when looking at long-term poverty, the other dynamic measures have to be examined to determine whether our initial assumption that income averaging is a better measure of poverty rates is correct. Exit and entry rates are used to reflect income averaging results because exit and entry reflect how often family types move through poverty.

6.2 Entry and Exit Rates, Annually and over five year periods

Entry and exit rates are essential to poverty study because of their relationship to low-income persistence. Entry and exit rates take the overall population and determine how many households in each family type enter poverty and exit poverty in a given year. Entry and exit rates have been further broken down by family type, pre- and post-tax, and between annual and five year periods. An examination of Table 4A shows that pre- and post-tax entry rates are very similar, with an average difference of 1 percentage point. Exit rates on the other hand have a 4% to 5% increase going from pre- to post-tax.

Evaluating each family type gives three different results regarding how they enter and exit low-income. Single mother households tend to have higher entry rates compared to the other two family groups. Using post-tax income, these households entered low-income at rates between 7.7% in 2005 to 16% in 1996. They left at rates that were reasonably high at 31.8%, although their rate of exit did decline by the middle of the 2000s. This trend is significant for our research, as it indicates that there are some single mothers who enter and then quickly exit after a short spell. Single fathers have a different mode of entry and exit, entering at lower rates than

single females. However, they also exit at much lower rates, exiting at around 20% throughout this studies duration. Couples with children exhibited the lowest levels of families entering low-income, and showed the highest rates of exit.

Turning our attention to entry and exit rates over five year periods using a fixed LIM and assessing whether they enter or exit based on the fact that each family has spent the whole previous period either in or out of low-income, we get a very different picture of how families enter and exit low-income. Over five years, entrance rates for couples with children dropped by over 60%. The chances of single mothers and fathers with children of entering low-income were even lower if they spent all five of the previous years out of poverty. The major change between annual and five year entrance rates was the rate at which single mothers and fathers exited low-income. Over those five years, single mothers and fathers exited at a much slower pace. Single mothers exited at 14.8% compared with an average of 25.18% using annual rates. Single fathers, on the other hand, exited at 9.65%, compared to 20.9% using annual rates. In each instance, the trend for single parents where income was averaged over five years was that they face high rates of entering low-income and fewer households exiting. The main source of this difference is re-entry rates. Re-entry rates have been discussed in other articles on poverty dynamics, most notably by Stevens (1994). Stevens noticed that single mothers are particularly susceptible to re-entry into low-income within the first five years after leaving. The group of single parents would have experienced a similar pull back into poverty since examining their entrance and exit rates over five years would have meant leaving then returning to poverty. Extending the income period to five years was a considerable asset in determining actual persistence because it accounted for those households who were persistently re-entering. As a result, using five year income gave a more informative result.

6.4 Total time in Low-income, Annually and over five year periods

As discussed in the previous two subsections, total time in low-income determines the length of time it would take someone, regardless of when they initially entered low-income, to exit. This paper has taken two different approaches to establish our measures of time in low-income, annual and broken into five year periods. Time in low-income is also differentiated by family type and pre-/post-tax income. Our approach, found in Table 5A, assesses the length of time it takes to exit over 15 years, including those households who never entered low-income.

Examining time spent in low-income reveals the simple fact that pre-tax low-income rates were higher than those using post-tax. The opposite is true for families who would have been considered never-poor, their rates were higher using for post-tax income. In each case, the bundle of tax breaks and tax incentives received increased the chances of never spending time in low-income by 3 percentage points. Using post-tax income increased the number of households spending time in low-income over the short-term (6 years and under), by decreasing their dependency over 7 to 15 years.

Extraordinarily, less than ten percent of couple led households spent five years and less in low-income. Their short durations in combination with those couple led households who spend no time in poverty, encompassed 91% of all households of that family type, leaving only 9% to exit poverty over the next 10 years.

In contrast to couples with children, single parents experienced very different poverty durations. Over all fifteen years, only 19.9% of all single mothers never experience poverty using after-tax income. That number is even lower using before tax income. Compared with couples who have been in poverty for five years or less, single mothers are half as likely to be limited to a spell of low-income of five years. Instead, 35.9% of single mother households

experienced spells 10 years or longer, and 11.1% spent all fifteen years in low-income.

Compared to single mothers, single fathers experience proportionally less time in low income considering both before- and after-tax income. For single father households, 51% spend five years or less in low-income using after-tax income, with 29% never entering. But of those who are in low-income, 25.2% spend 10 or more years there with 7.1% in low-income at the end of the study using after-tax income.

In terms of the impact of each five year interval in and of itself, it is important to compare each period against one another to assess changes through the course of the whole fifteen year period. Having established dependency through annual time in low-income we now direct our attention toward: the contrast of those still left in low-income in each time period, the initial endowment of those households that never entered low-income and any changes in the time spent in low-income between pre- and post-tax income.

7. Analysis

If Canada is to reach its goal of eradicating child poverty, an updated research methodology is of the utmost importance. As such, it is important to take stock of gaps in Canadian poverty research and update findings from previous research, thereby extending dynamic research through the use of income averaging. Construction of duration and income averaged incidence from longitudinal data holds significant policy relevance. Understanding the effect of long-term poverty on children is the best means to a long-term solution.

It is important to take into account how policies of the past have affected current policies. In this case, the outlook is grim. Currently, rising unemployment rates due to the 2008 recession will make it difficult for households with children to avoid low income. Our research has demonstrated that over the past 15 years as a recession is prolonged, low-income rates increase

and they remain high for years after the recession finished. Less generous Employment Insurance will increase the number of those households looking for income assistance (welfare) and they may eventually have to rely more heavily on private funding, like charity or loans from other family members, to get by. A dynamic approach to income averaging is therefore a timely and important tool for improving poverty policy.

Canada is undergoing a slow demographic shift that includes a decline in the proportion of children who are living in households led by couples. Instead, single mother households have increased more than proportionately to the loss of couple headed households. Although single mothers' income has increased relatively over the past fifteen years, its growth rate has been out-paced by that of couples with children. Single fathers, on the other hand, have seen a steeper decline in income. Their income stagnation is prevalent throughout 90% of our study, only recovering to 1992 levels in 2006. Further, based on an average of our three five year time periods, single fathers' after-tax income actually declined overall. The solution is to remedy issues related to the lack of Employment Insurance availability, lack of robust social security and too few high wage jobs that allow for single parents to afford day care instead of having to stay home and take care of their children.

Annual incidence of low-income reinforces the findings established through each household's income. Ranking each household type's incidence was predictable, where single mothers have the highest incidence of low-income, followed by single fathers and then distantly by couples with children. The shape of the time path of low-income reflected conventional theory in showing that increasing incomes did not alleviate poverty. This theory was touched on by Danziger and Gottschalk (1986). Danziger and Gottschalk found that "there are limits to the antipoverty effects of improved economic conditions" (Danziger and Gottschalk, 1986, p.410).

In our case, it can be assumed that median incomes were rising over the course of the economic expansion in the 2000's. However, total income was rising at a rate higher than those of households with children. In this case it showed that all rising tides do not lift all boats. In other words, rates of low income for households with children declined but were not declining as fast as total income was increasing. Over the period of study, the relative poverty rate of all households increased for a period of about six years and then declined to 1992 levels by the end of the period.

Income averaging provides policy makers with a more improved means to assess low-income among households, particularly since it expresses a truer poverty rate than that of annual low-income reporting. For the group of households studied, income averaging showed how incidence of low-income among single parent households was persistent. They did not have intermittent jumps in income that would have allowed them to exit low-income and although incidences declined from annual rates, income averaging showed that its decline was so small that it represented a very small subset of that family type. Even small decreases in incidence rates showed that incomes were too low to push households over the LIM. Through income averaging it is shown that there exists a tremendous difference between the ability of households headed by couples and single parent households to earn higher incomes to alleviate poverty. Thus, there is a truncation of single parent families' below the LIM and as a result a ceiling exists for incomes for most single parent families. Couples will therefore have better access to the labour force because they are able to put both parents to work, avoiding the lack of flexibility that is prevalent in single-income earning households. Regardless, when there are decreased labour force participation of one parent in a couple household the other parent can increase their hours to make up for the loss.

Exit and entrance rates provided another important tool for the dynamic study of poverty. In this research, exit and entrance rates showed that each family type experienced low-income in different ways. Single mothers entered low-income in droves and then exited in a reasonably steady fashion. Single fathers, in turn, entered more slowly but also exited more slowly. Couples entered poverty in low numbers and exited quickly. Higher entrance and exit rates indicate that there are easy methods to help stop single mothers from entering poverty. A large band of households could exist around the LIM, which could be easy to attain because a little extra income would push them above the LIM. The single fathers' figures show that their persistence is accentuated by having a lower percentage exiting. In both cases we have a lack of information regarding the shape of who is remaining in low income, although by examining income averaged over five years, we find that single fathers have low-income persistence.

Total time in low-income expresses the importance after-tax income plays for those at the lowest income levels. Households with children had long spells of poverty both in terms of pre- and post-tax income, although couples with children usually exited within 6 years of entering low-income. For single parents, the difference between pre- and post-tax income is great. Using post-tax income increased the proportion of households that exit within five years by roughly ten percentage points and decreased the number of single parent households that exit low-income after 10 years by over ten percentage points. The major concern becomes the fact that there are almost as many post-tax households who spend ten years or more in low-income as those who either never enter or exit with the first five years. This result reiterates our previous assertion that single parent households have long spells of low-income.

Long spells in poverty should be addressed, perhaps in a different manner. The resources aimed at addressing this problem are generally given to a small group of persistently poor

households in small doses and over a long period of time. Shorter durations of high government spending on these households might stimulate labour force participation or at the very least give the parent a chance to receive training during that period. Assessing the characteristics of this group are important to understanding the underlying factors that contributes to these households persistence, and thus essential to the future of this research.

The bottom line is that the state has to make a choice regarding how and where their efforts should be targeted. Starting in the late 1990s, the difference between pre- and post-tax poverty rates for all groups fell and the incidence of low-income was decreased due lower tax benefits. This trend corresponded with major cuts to and an overhaul of the Unemployment Insurance (currently Employment Insurance) program. After-tax income remained low throughout the period after 1997 and decreased to a period low in 2005. As well, the period characterized by increased incidence of low-income was one of overall economic expansion. Although 1997-2001 was the period with the highest poverty rates among these groups, a recession in 2001 would have dampened those figures. The years 2002-2006 saw high economic growth rates in Canada but examining total time in low-income revealed that the incidence rates of those who spent five years in low-income increased. Comparing 1992-1996 to 2002-2006, a systemic change exists where more people are never poor, but less are able to exit in short periods of time, leaving more who were poor for the whole period.

The findings of this research show the need for specific policy goals for each family type. For single parents especially, a robust Employment Insurance program in Canada is essential to ensuring that Canadians who lose their jobs will not fall below the LIM for long periods of time while they transition jobs. Further, social assistance needs to be targeted toward single mothers to ensure proper shelter, clothing and food for their families. Moreover, they require time to

build skills through training and find jobs that will deliver higher levels of income which requires investment in childcare programs. Overall, Canada must pursue a strategy that will bring value added jobs to its citizens because although rising tides do not lift all boats, relative increases in income are definite improvements.

8. Extensions

The results of this research indicate the need for further study into dynamic approaches to poverty. Depth, assessing how far under the LIM a household is, is a vital addition and can be achieved in a number of ways. One way to establish depth is to change the threshold of the LIM. Instead of using a 50% median threshold, apply 40% and 60% median income as thresholds. Any changes in the low-income rate will give an understanding of the number of households that hover within 10% in either direction of the current LIM. Those groups just below the LIM would represent the group requiring the least amount of income incentives to be pushed above the LIM. Conversely, those just above the LIM are the most at risk of falling below and would require assistance as well.

In addition, such an approach would establish the proportion of households that are the most poor. In combination with income averaging, more research will discover the group that needs the most attention. That group can be identified and it can be established whether they share characteristics or not, if so they can be addressed at the root of the problem, if not then a less targeted solution has to be determined.

In terms of other dynamic research, a simple extension would be introducing survivor rates and re-entry rates. Survivor rates would establish a mathematical formula of probabilities surrounding how long it would take a household from a given family type to exit low-income. These rates give a more precise description of dependence and it allows for study of parameters

that might change to give a different shape of dependence. In addition, re-entry rates and time before re-entry are essential tools to determine whether chronic low-income is disrupted by short periods out of low-income or whether individuals who exit low-income are free and clear of re-entry.

For future research, income averaging should be established for more than five years. It would consider shorter time periods as well as longer ones and assess whether changes in the levels of low-income incidence can be attributed to one measure of years being a better proxy for low-income than another. Five years was convenient for this study because of its total length, and the simplicity of using three five year periods.

Overall, there simply needs to be continued awareness that there still exist important groups of households in this country that need support. Further research in the field of income dynamics, poverty dynamics and income distribution is essential to overcoming inequality.

9. Conclusion

Children of single parents are facing a difficult future. This paper has shown that almost half of all single mother families and roughly one third of single father families are in low-income from year to year. These households' permanent income demonstrates that income increases in non-poor years are not high enough to pull them out of poverty. Their low-income dependence is persistent and post-tax benefits have been less and less able to pull these households out of low-income. All households with children, single parent especially, are in situations that are getting worse and there is no telling how the 2008-2009 recession will affect their overall low-income rates.

Single parents' long term incidence is alarming, with more than 10% of single mother households spending 15 years in poverty(never escaping) and over one third having spells that

last 10 years or more. This study has shown that current Employment Insurance and the current welfare state are failing children. As mentioned previously, low-income impacts children's development disproportionately and it leads to further low-income dependence in the future. Targeted low-income alleviation, requiring tax breaks and incentives for single parents to become educated and to transition into higher paying jobs are necessary. For Canada, increased investment in research and development is essential to have value added industries that will contribute to higher pay in the future. Regardless of whether entry into the labour force is encouraged through increased funding to day care credits or setting up spaces that are subsidized, labour force participation is a key to improving the long term conditions of women with children. Their challenges are exacerbated by a general loss of human capital the longer they are away from the labour market. Thus the option to work at a skilled job needs to be the end goal of this process. Overall, the dependency cycle needs to be broken.

There will always be a group of low-income earners given the fact that Canada uses a relative low-income measure to determine poverty and income is earned unequally. However, this does not necessitate the magnitudes of poverty shown in this research. Indeed, the extremes through which most single parent households are dependent should be transformed into more fleeting cases of low-income. Children in low-income households stand a much better chance of avoiding poverty dependence as they grow older if such spells are reduced in length. Children in our society should have a chance to succeed, and as of now, that chance is being hindered by the risk of poverty.

Poverty disrupts the lives of Canadians and places liabilities on the state to intervene

through financial transfers on behalf of citizens who are financially constrained.¹⁵ If there is to be any success, those transfers must be done effectively and with a goal in mind that reflects the reasons that those transfers are made in the first place. If that does not occur then there will continue to be an overwhelming problem with child poverty in this country.

¹⁵ An example of how important the disruption can be seen through the heated debates recently taking place in the House of Commons regarding Employment Insurance and the best approach to alleviating poverty of Canadians who have recently lost their jobs.

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10. Appendices

Table 1A

Yearly Distribution of families with children under 19

Percentage (%)	1992	1993	1994	1995	1996	1997	1998	1999
Couples with Children	80.9	80.1	80.1	79.7	79.7	79.4	79	78.1
Female Lone Parent	16.2	17.7	17.8	18.1	18.1	18.3	18.7	19.5
Male Lone Parent	2.9	2.1	2.1	2.1	2.2	2.3	2.3	2.4

	2000	2001	2002	2003	2004	2005	2006	15 Year Avg.
Couples with Children	78.1	77.2	77.6	76.6	76.9	76.2	77.8	78.49
Female Lone Parent	19.5	20.2	19.6	20.5	20.2	21.1	19.6	19.01
Male Lone Parent	2.5	2.6	2.8	2.9	2.9	2.7	2.6	2.49

Number of Households	1992	1993	1994	1995	1996	1997	1998	1999
Couples with Children	1,512,835	1,530,665	1,544,105	1,543,535	1,550,545	1,540,090	1,522,470	1,514,440
Female Lone Parent	302,725	339,050	344,095	350,770	351,365	354,375	360,505	378,405
Male Lone Parent	54,270	40,805	40,540	41,580	43,225	44,540	44,895	46,645
All	1,869,830	1,910,520	1,928,740	1,935,890	1,945,135	1,939,005	1,927,875	1,939,495

	2000	2001	2002	2003	2004	2005	2006
Couples with Children	1,513,085	1,490,230	1,511,625	1,496,340	1,509,845	1,497,300	1,534,120
Female Lone Parent	377,165	389,910	381,855	401,265	396,690	413,650	386,240
Male Lone Parent	47,955	50,765	53,995	56,025	56,525	52,755	52,185
All	1,938,210	1,930,905	1,947,475	1,953,625	1,963,065	1,963,705	1,972,550

Table 1B**Distribution of families with children under 19,
by family type constant over 5-year period**

Percentage (%)	1992 - 1996	1997 - 2001	2002 - 2006
Couples with Children	87.7	85.5	84.5
Female Lone Parent	11.2	13.3	14.1
Male Lone Parent	1.1	1.2	1.4
All	100	100	100

Number of Households	1992 - 1996	1997 - 2001	2002 - 2006
Couples with Children	1,093,535	1,078,165	1,044,890
Female Lone Parent	139,810	167,495	174,855
Male Lone Parent	13,285	15,385	17,140
All	1,246,625	1,261,045	1,236,885

Table 2A**Mean and median Annual adjusted family income before tax (2000 dollars)**

Mean Income (\$) w/SE	1992	1993	1994	1995	1996	1997	1998	1999
Couples w/ Children	33,200	32,700	34,900	32,500	33,000	34,000	35,000	36,000
Standard Error	50	50	50	40	60	70	70	70
Female Lone Parent	16,100	14,800	15,400	15,000	15,100	15,100	15,500	15,300
Standard Error	50	50	50	50	50	50	50	50
Male Lone Parent	25,600	20,400	21,900	20,400	20,500	20,900	21,300	21,200
Standard Error	220	230	250	210	260	260	270	250
All	30,200	29,300	31,200	29,100	29,500	30,200	31,100	31,600
Standard Error	40	40	40	40	50	60	60	60

Mean Income (\$) w/SE	2000	2001	2002	2003	2004	2005	2006
Couples w/ Children	37,500	38,400	38,000	38,100	39,000	41,200	42,400
Standard Error	100	80	70	100	80	90	90
Female Lone Parent	16,200	16,800	16,800	16,700	17,100	16,700	18,200
Standard Error	60	60	50	60	70	70	70
Male Lone Parent	22,400	22,800	22,300	22,200	23,600	25,200	25,900
Standard Error	620	350	340	280	1000	730	730
All	33,000	33,700	33,400	33,200	34,100	35,600	37,200
Standard Error	80	70	60	80	70	70	80

Median Income (\$)	1992	1993	1994	1995	1996	1997	1998	1999
Couples w/ Children	28,900	28,400	29,300	28,400	28,500	28,800	29,400	30,100
Female Lone Parent	12,900	12,100	12,400	12,000	11,400	11,300	12,000	12,100
Male Lone Parent	21,900	17,200	18,000	16,800	16,400	17,000	17,300	17,400
All	26,000	25,000	25,700	24,900	25,000	25,100	25,500	25,900

Median Income (\$)	2000	2001	2002	2003	2004	2005	2006
Couples w/ Children	30,500	31,400	31,400	31,500	32,000	33,500	34,100
Female Lone Parent	12,800	13,500	13,500	13,400	13,600	13,300	14,800
Male Lone Parent	17,800	18,400	18,300	18,100	18,200	19,600	20,200
All	26,300	27,000	27,100	26,900	27,400	28,400	29,300

Figure 2A

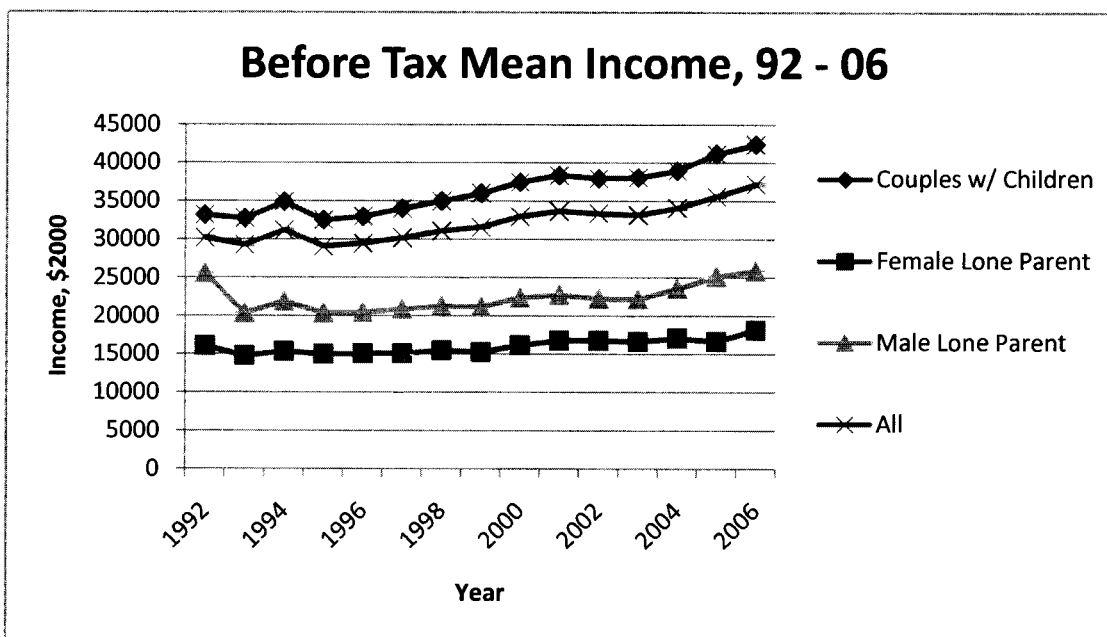


Figure 2B

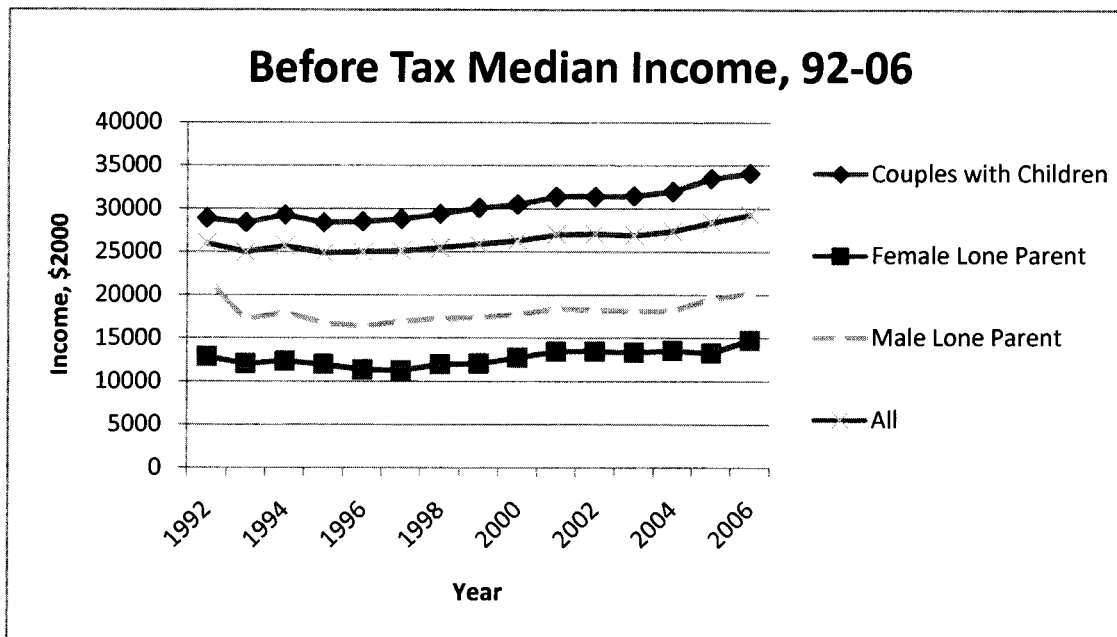


Table 2B**Mean and median Annual adjusted family income after tax (\$2000) by family type**

Mean Income (\$)	1992	1993	1994	1995	1996	1997	1998	1999
Couples w/ Children	26,500	26,100	28,200	25,700	26,000	26,600	27,600	28,400
<i>Standard Error</i>	30	30	40	30	40	40	50	40
Female Lone Parent	14,400	13,300	14,000	13,500	13,500	13,500	13,900	13,800
<i>Standard Error</i>	40	40	40	40	40	40	40	40
Male Lone Parent	21,100	17,200	18,700	17,200	17,200	17,500	17,800	17,900
<i>Standard Error</i>	170	170	190	150	160	180	170	160
All	24,400	23,600	25,500	23,300	23,600	24,000	24,800	25,300
<i>Standard Error</i>	30	30	30	30	30	40	40	40

	2000	2001	2002	2003	2004	2005	2006
Couples w/ Children	29,600	31,000	30,800	30,900	31,600	33,400	34,200
<i>Standard Error</i>	70	60	50	80	60	60	70
Female Lone Parent	14,600	15,200	15,200	15,100	15,400	15,100	16,500
<i>Standard Error</i>	40	50	40	50	60	50	50
Male Lone Parent	18,800	19,400	19,100	18,900	19,800	21,400	21,900
<i>Standard Error</i>	380	220	210	190	650	630	550
All	26,400	27,500	27,400	27,300	27,900	29,200	30,400
<i>Standard Error</i>	60	50	40	70	50	50	60

Median Income (\$)	1992	1993	1994	1995	1996	1997	1998	1999
Couples w/ Children	23,600	23,200	23,900	23,200	23,300	23,500	24,100	24,700
Female Lone Parent	12,700	12,000	12,200	11,900	11,300	11,200	11,800	12,000
Male Lone Parent	19,200	16,000	16,500	15,600	15,300	15,600	16,000	16,200
All	21,700	21,100	21,600	20,900	21,000	21,000	21,500	21,900

	2000	2001	2002	2003	2004	2005	2006
Couples w/ Children	25,200	26,500	26,600	26,700	27,100	28,300	28,900
Female Lone Parent	12,600	13,200	13,300	13,100	13,300	13,100	14,400
Male Lone Parent	16,500	17,100	17,100	16,900	16,800	17,900	18,400
All	22,300	23,300	23,500	23,300	23,700	24,600	25,400

Figure 2C

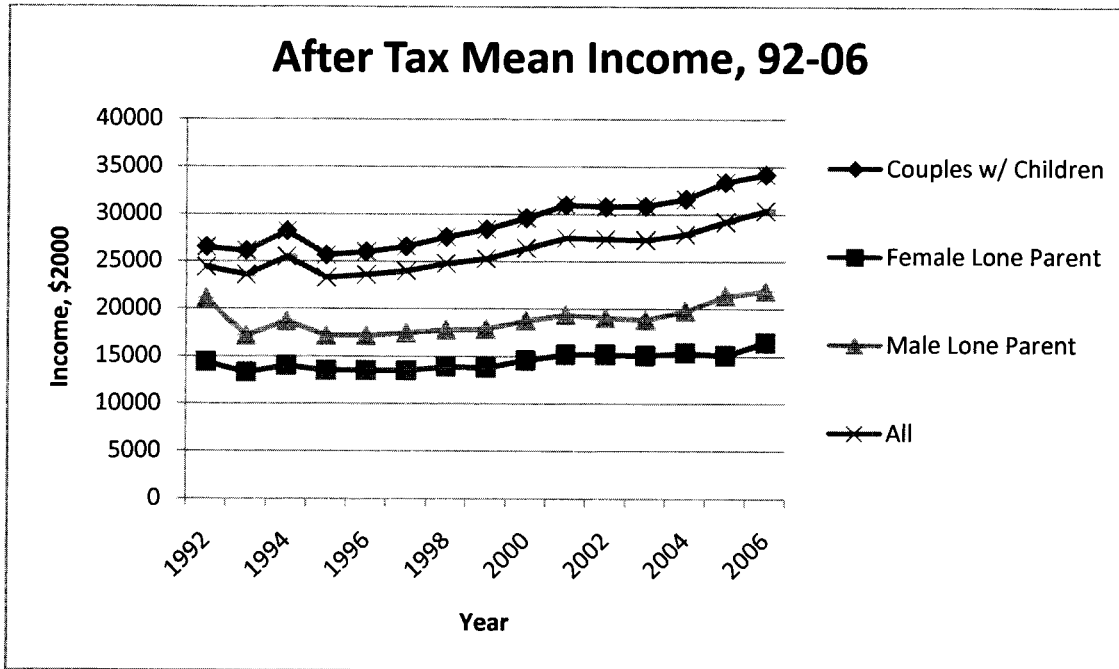


Figure 2D

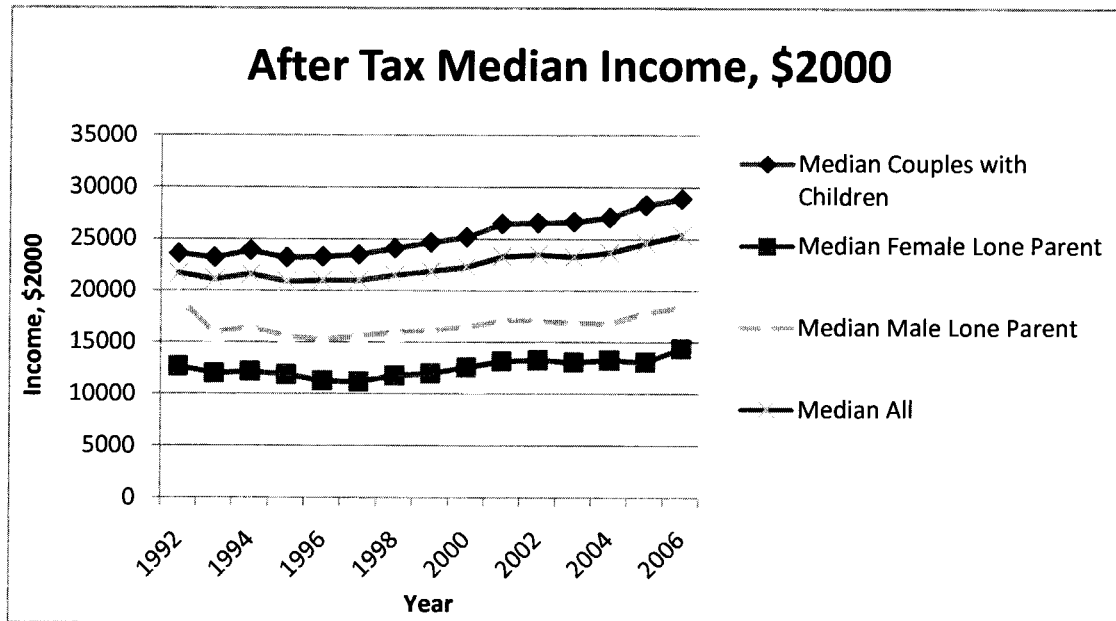


Table 2C

Mean and Median family income before tax (2000 dollars) by family type, averaged over five years

Mean Income (\$)	1992-1996	1997-2001	2002-2006
Couples w/ Children	34,500	37,900	41,500
<i>Standard Error</i>	50	70	90
Female Lone Parent	16,500	16,800	17,900
<i>Standard Error</i>	70	70	90
Male Lone Parent	21,700	21,100	22,100
<i>Standard Error</i>	270	430	450
All	32,300	34,900	37,900
<i>Standard Error</i>	40	70	80

Median Income (\$)	1992-1996	1997-2001	2002-2006
Couples w/ Children	29900	31300	34000
Female Lone Parent	12700	13100	14400
Male Lone Parent	19200	17200	18400
All	27900	28700	30800

Mean and Median family income after tax (2000 dollars) by family type, averaged over five years

Mean Income (\$)	1992-1996	1997-2001	2002-2006
Couples w/ Children	27,300	29,800	33,500
<i>Standard Error</i>	30	50	60
Female Lone Parent	14,800	15,100	16,200
<i>Standard Error</i>	50	50	70
Male Lone Parent	18,400	18,000	19,000
<i>Standard Error</i>	200	270	290
All	25,800	27,700	30,800
<i>Standard Error</i>	30	40	60

Median Income (\$)	1992-1996	1997-2001	2002-2006
Couples w/ Children	24,200	25,600	28,400
Female Lone Parent	12,500	12,700	14,000
Male Lone Parent	17,200	15,900	16,900
All	22,900	23,800	26,200

Table 3A**Annual Incidence of low income, by family type**

Incidence of Low-Income Before tax

Percentage (%)	1992	1993	1994	1995	1996	1997	1998	1999
Couples with Children	11.7	12.7	13.2	14.3	14.8	14.4	14.1	13.8
Female Lone Parent	49.1	51.2	50.5	52.9	55	54.4	53	53.5
Male Lone Parent	25.2	37.1	35.4	38.6	40.7	39.6	37.9	38.8
All	18.2	20.1	20.3	21.8	22.6	22.3	22	22.1

	2000	2001	2002	2003	2004	2005	2006
Couples with Children	15.1	13.4	13.8	13.9	14.5	12.1	13
Female Lone Parent	52	51.2	50.7	50.8	51.7	52.1	48.2
Male Lone Parent	38	37.2	37.4	38.1	39.1	36.2	35.4
All	22.9	21.6	21.7	22.2	22.7	21.2	20.5

Incidence of After Tax Low-Income

Percentage (%)	1992	1993	1994	1995	1996	1997	1998	1999
Couples with Children	9.2	10.3	10.8	11.8	12.4	12.2	11.8	11.5
Female Lone Parent	39.8	42.6	41.3	42.1	45.7	47.1	45.6	46.5
Male Lone Parent	20.1	32	30.1	32.2	35	35.1	33.7	34.3
All	14.5	16.5	16.6	17.7	18.9	19.1	18.7	18.9

	2000	2001	2002	2003	2004	2005	2006
Couples with Children	12.9	11.2	11.6	11.8	12.3	10	10.9
Female Lone Parent	45.3	45	44.1	44.5	45.3	46.3	41.6
Male Lone Parent	34	33	33.4	34	34.8	32.1	31.4
All	19.7	18.6	18.6	19.2	19.6	18.2	17.5

Diference between Before and After Tax Low-Income Rates

Percentage (%)	1992	1993	1994	1995	1996	1997	1998	1999
Couples with Children	2.5	2.4	2.4	2.5	2.4	2.2	2.3	2.3
Female Lone Parent	9.3	8.6	9.2	10.8	9.3	7.3	7.4	7
Male Lone Parent	5.1	5.1	5.3	6.4	5.7	4.5	4.2	4.5
All	3.7	3.6	3.7	4.1	3.7	3.2	3.3	3.2

	2000	2001	2002	2003	2004	2005	2006
Couples with Children	2.2	2.2	2.2	2.1	2.2	2.1	2.1
Female Lone Parent	6.7	6.2	6.6	6.3	6.4	5.8	6.6
Male Lone Parent	4	4.2	4	4.1	4.3	4.1	4
All	3.2	3	3.1	3	3.1	3	3

Table 3B
Incidence of Low Income by Family Type, using Income
Averaging

Incidence of Before Tax Low-Income

Percentage (%)	1992 - 1996	1997 - 2001	2002 - 2006
Couples with Children	8.8	9.2	8.9
Female Lone Parent	48.5	49.8	48.2
Male Lone Parent	31.3	37.3	36.7
All	13.5	14.9	14.8

Incidence of After Tax Low-Income

Percentage (%)	1992 - 1996	1997 - 2001	2002 - 2006
Couples with Children	6.7	7.3	6.9
Female Lone Parent	37	41.7	41.3
Male Lone Parent	24.5	32	32.3
All	10.3	12.2	12.1

Static incidence averaged over five years, before tax

Percentage (%)	1992-1996	1997 - 2001	2002 - 2006
Couples with Children	13.34	14.16	13.46
Female Lone Parent	51.74	52.82	50.7
Male Lone Parent	35.4	38.3	37.24
All	20.6	22.18	21.66

Static incidence averaged over five years, after tax

Percentage (%)	1992-1996	1997-2001	2002-2006
Couples with Children	10.9	11.92	11.32
Female Lone Parent	42.3	45.9	44.36
Male Lone Parent	29.88	34.02	33.14
All	16.84	19	18.62

Figure 3A

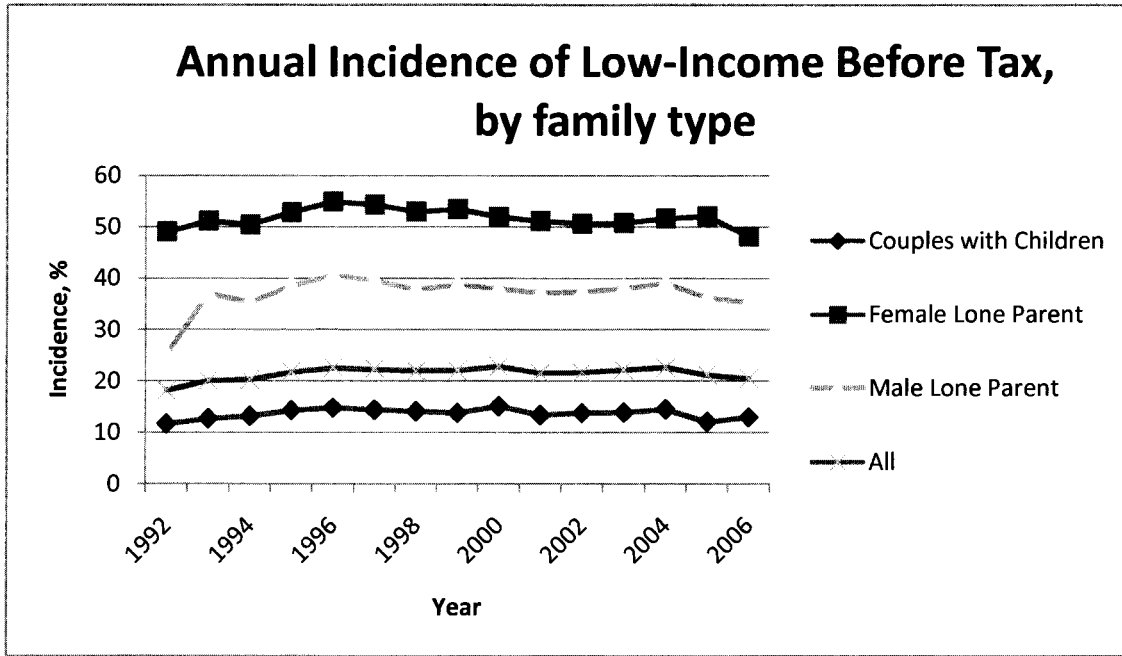


Figure 3B

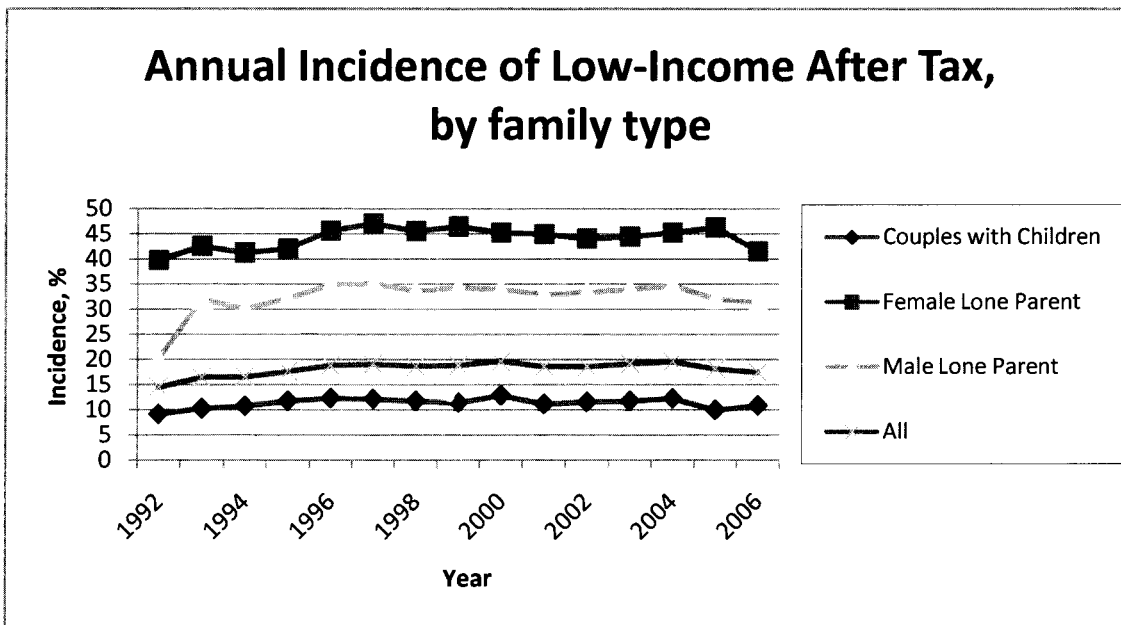


Table 4A**Annual Low Income Before Tax, Entry and Exit Rates by Family Type**

Entry Rates (%)	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Couples with Children	4.7	5.1	5.7	5.3	5.1	5.1	5	5.5	4.3	3.9	4.4	4.4	3.5	3.7
Female Lone Parent	9.1	11.1	14.2	14.9	10.8	10.2	10.4	10.9	10	9.2	9.3	9.6	7.7	9
Male Lone Parent	5.8	9.3	10.9	11.4	8.7	8	9	9.1	8.6	8.5	8.3	8.4	5.9	7.1
All	5.2	5.8	6.7	6.5	5.7	5.7	5.7	6.2	5.1	4.6	5	5.2	4.1	4.5

Exit Rates (%)	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Couples with Children	28.5	30.5	26.8	26.4	28	28.2	30.9	28.5	32.7	25.7	24.8	23.8	27.6	29.5
Female Lone Parent	26	22.1	20.6	20	20.5	21.6	22.4	20.6	21.9	19.2	20.6	19.9	22	20.4
Male Lone Parent	21.6	20.4	16.6	15.6	16.8	18.7	19.3	17.9	18.9	17.4	18.3	17	17.8	17.8
All	27.2	26.3	23.6	23.2	24.2	24.9	26.6	24.3	27.3	22.2	22.6	21.6	24.6	24.2

Annual Low Income After Tax Entry and Exit Rates by Family Type

Entry Rates (%)	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Couples with Children	4.3	4.6	5.2	5.1	4.8	4.7	4.6	5.1	4	3.6	4	4	3.2	3.4
Female Lone Parent	8.6	10.2	11.4	16	13.5	11.1	10.7	11.5	10	8.9	9.2	9.3	7.7	8.6
Male Lone Parent	5.6	9	10.1	11.9	10	8.6	8.7	9.1	8.1	8.5	7.9	7.9	5.9	7.1
All	4.8	5.4	6.1	6.7	6	5.5	5.5	6	4.9	4.4	4.8	4.9	3.9	4.2

Exit Rates (%)	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Couples with Children	33.1	34.8	30.9	30.2	31.4	32.3	35.3	32.1	36.3	29.3	27.6	27	30.6	34.1
Female Lone Parent	31.8	26.4	25.6	24.8	24.6	26.5	26.7	24	25	22.7	23.3	23	24.8	23.4
Male Lone Parent	25.9	23.2	20.5	18.7	19.2	21.9	22.7	19.9	21.6	19	20.2	18.6	20.4	20.8
All	32.2	30.4	28.2	27.4	28	29.2	30.8	27.7	30.6	25.6	25.2	24.7	27.4	27.7

Table 4B**Before Tax Low-Income Entry and Exit Rates,
Fixed over five years and by Family Type**

Entry Rates (%)	1997-2001	2002-2006
Couples with Children	2	1.6
Female Lone Parent	5.8	3.9
Male Lone Parent	2.5	2.9
All	2.3	1.8

Exit Rates (%)	1997-2001	2002-2006
Couples with Children	29.7	28.1
Female Lone Parent	12.3	13.3
Male Lone Parent	8.6	8.4
All	22.1	20.9

**After Tax Low-Income Entry and Exit Rates,
Fixed over five years and by Family Type**

Entry Rates (%)	1997-2001	2002-2006
Couples with Children	1.8	1.3
Female Lone Parent	7.3	4.2
Male Lone Parent	3.2	2.6
All	2.3	1.6

Exit Rates (%)	1997-2001	2002-2006
Couples with Children	32.2	29.9
Female Lone Parent	14.8	14.8
Male Lone Parent	10.6	8.7
All	24.6	22.3

Table 5A**Total Time in Low income before tax by Family Type, 1992-2006**

Percent (%)	Number of Years in Low Market Income															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Couples with Children	70.9	8.5	4.6	3.1	2.3	1.7	1.4	1.3	1.1	0.9	0.8	0.7	0.7	0.6	0.6	0.8
Female Lone Parent	16.5	5.7	4.1	3.3	3.6	3.4	3.9	4.2	4.3	3.8	4.8	4.7	5.2	6	7.1	19.4
Male Lone Parent	24.6	9.4	4.5	x	x	3.7	x	x	3.7	x	5.3	4.5	4.1	6.9	6.3	14.7
All	68.1	8.4	4.5	3.1	2.3	1.8	1.6	1.5	1.3	1.1	1	0.9	0.9	0.9	1	1.8

* Note that all rows sum to 100, with minor discrepancies for rounding errors

** x signifies a lack of data points to give a result

Total Time in Low income after tax by Family Type, 1992-2006

Percent (%)	Number of Years in Low Market Income															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Couples with Children	73.6	8.7	4.4	2.9	2.1	1.5	1.2	1.1	0.8	0.7	0.6	0.5	0.5	0.4	0.4	0.4
Female Lone Parent	19.9	7.1	5.1	4.4	4.6	4.5	4.8	5.1	4	4.7	4.7	5.1	4.7	4.7	5.6	11.1
Male Lone Parent	29	8.7	3.9	x	3.9	5.2	4	3.8	6.7	x	3.8	4.9	x	9.4	x	7.1
All	70.9	8.7	4.5	3	2.2	1.7	1.4	1.3	1	0.9	0.8	0.7	0.7	0.6	0.6	1

* Note that all rows sum to 100, with minor discrepancies for rounding errors

** x signifies a lack of data points to give a result