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# Progress on Child Poverty?
# Recent changes in Canadian Policies and Outcomes.

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and

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PRELIMINARY

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**Abstract:**

In 1989 all-party motion of federal parliament called for the elimination of child poverty in Canada by the year 2000. Despite a series of policy initiatives, recent reports suggest that this goal has not been met, and in fact the child poverty rate may now be comparable to that in 1989. This failure stands in stark contrast to the success of other targets in Canada's anti-poverty agenda's, in particular the drastic reduction in poverty among the senior population that has been achieved. There are several classes of explanation for the persistence of child poverty in Canada. It might reflect a measurement issue, socioeconomic developments, or a failure of policy design or implementation. Despite the priority accorded to eliminating child poverty, and the apparent puzzle of its resilience, there is little microdata analysis of child poverty, particularly covering the period after the 1993 reform of national child policy. This paper aims to partially fill that gap.

We examine the Canadian Family Expenditure Surveys covering the years 1986 to 1996. One notable feature of our approach is that we take the child as the unit of primary interest and thus focus on the population of children rather than families. Poverty definitions focus on a particular feature of the distribution of resources and the evolution of poverty rates through time may reflect a complicated convolution of level and dispersion effects. In contrast to much of the previous literature, we attempt to characterize the entire distribution of resources and how it changes through time. Like some previous authors, we examine the income package at different points in the distribution. In a departure from previous research on child poverty we go beyond income and attempt to use expenditure data to assess issues of intertemporal and intrahousehold allocation. Finally, decompositions by province/region and family type are presented.

Our preliminary findings are that neither the measurement nor the socioeconomic change classes of explanations adequately explain the "puzzle" of persistent child policy. While we find some interesting differences across different ways of measuring (LICO versus relative, Income versus Consumption, etc.) and some demographic shifts, none of this explains the persistence of child poverty (child poverty is not much improved no matter how we measure it). This leaves explanations based on the design and magnitude of policy reforms. We have also uncovered a second empirical "puzzle": the increasing inequality in children's clothing expenditures.

# 1. Introduction.

The well being of children was highlighted as a national priority in Canada in 1989 when an all-party motion of parliament called for the elimination of child poverty in Canada by the year 2000. And indeed, the decade since has seen a number of changes to changes to policies that affect families with children. In 1990 parental benefits were added to unemployment insurance (UI) benefits, the child tax benefit and the earned income supplement (EIS)[1] were introduced in 1993, 1997 saw taxation changes on child support payments (the recipient no longer pays tax on support and the payer no longer receives a deduction for support), and the EIS was increased. The National Child Benefit was established in 1998, increased in 1999 and again in 2000. (Kamerman and Khan, 1997; Wiggins, 1997; Jenson and Stoick, 1999).

Despite these initiatives, the Canadian Centre for Policy Alternatives (CCPA, 1995) claimed that Canada provided the lowest basic child benefits among major OECD countries, including the US.[2] Aggregate trends suggest that the goal of improving the well being of less fortunate children has remained elusive (Phipps, 1999; Myles and Picot, 2000). Phipps (1999) reports that poverty intensity among children aged 0 to 18 was actually higher in 1996 than in 1989; children from 0 to 6 were worse off than they had been in 1976. The failure to meet this national priority poses something of a puzzle, particularly in light of the success of other targeted anti poverty agenda, such as drastic reduction in poverty among the senior population that had previously been achieved.

There are several potential classes of explanation for the persistence of child poverty. First, it may simply reflect something about the way child poverty is measured in Canada. Measurement issues have loomed large in debates of the success of the US "war on poverty" (see the exchange between Jorgensen (1998) and Triest (1998) for example.) Second, it might be that socioeconomic shifts, such as rising numbers of lone parent families or increases in wage dispersion are responsible. Finally, it may be a problem of policy design or implementation. Canadian child policy initiatives

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[1]Some documentation refers to the Earned Income Supplement (EIS) as the Working Income Supplement (WIS). For continuity we will always refer to it as the Earned Income Supplement (EIS)

[2] For a median family with two children.

over the decade may have been poorly targeted, of inadequate scale, or offset by other, coincident, policy developments. In fact, a number economists reacted sceptically to the policy changes of the early to mid 1990s (Kesselman, 1993; Phipps, 1995, Woolley et al., 1996). This scepticism was typically based on theoretical arguments or simulations.

In view of the mixed reaction from policy analysts, and the subsequent failure to achieve stated policy objectives on a macro level, specific ex poste evaluation of the policy changes with micro data would seem to be called for. Surprisingly, very little has been done. The purpose of this paper is to take a very detailed look at changes in the resources available to children, particularly less fortunate children, over the decade 1986-1996 using the Canadian Family Expenditure Surveys. This decade captures the date of the all party motion of parliament, and of the 1993 introduction of the Child Tax Benefit. By characterizing the distribution of resources both pre and post that reform, and by considering a range of resource measures we assess the role of measurement issues in the apparent persistence of child poverty. By decomposing poverty and inequality across different population subgroups, and by examining changes in the income package across the distribution, we evaluate the role of socioeconomic shifts. This brings us a step closer to the potential attribution of outcomes to policy changes. We also aim to provide a detailed baseline for the subsequent consideration of the National Child Benefit, and other policy initiatives of the late 1990s.

We find that measured by consumption the distribution of resources available to children is very stable. Unsurprisingly, poverty and inequality is lower when measured with consumption than when measured with income. Poverty doesn't seem to have worsened if measured with net income and a relative (half - median) poverty definition. To get rising child poverty one need to use gross income (a dubious measurement choice) or LICOs, which appear to be rising faster than half medians.

Nevertheless (and importantly) by no measure do we see real improvements in child poverty. Thus we still have the "puzzle" given the stated policy priority. We also find that socioeconomic shifts, like measurement errors, are unable to explain this puzzle. This points to a need for more specific ex poste micro data evaluation of the policy initiatives in this period. We have uncovered a second "puzzle" of increasing inequality and poverty in children's clothing.

The outline of the paper is as follows. In the next section a variety of background material,

pertinent to the consideration of Canadian child policy and child poverty is presented. We review national poverty statistics particularly child poverty. A short history of Canadian family policy is presented and changes in child policy in the early 1990s are highlighted. In Section 3 we take up the question of why the stated policy target of goal of reducing child poverty has not been met. We discuss explanations based on measurement, and on socioeconomic shifts. The existing literature on policy initiatives over the decade are reviewed.

The second half of the paper comprises our empirical analysis, using microdata from household surveys. In Section 4, we discuss the data and methods of our analysis. Section 5 presents our results. Finally, Section 6 offers some conclusions and directions for further work.

# 2. Background Information.

## 2.1 Child Poverty in Canada

Low income or poverty are associated with a plethora of adverse childhood outcomes (for example see Dooley et al. 1998; Curtis et al. 1999; Phipps, 1999; Mayer, 1997). The improvement of child well-being has been high on the policy agenda in Canada for at least a decade; in 1989 all-party motion of parliament called for the elimination of child poverty in Canada by the year 2000. Juxtaposed to this statement are rising child poverty rates; evidence indicates the objective will not be met. Coinciding with the increases in child poverty rates is the substantial reduction in poverty rates for senior citizens (see figure one) (Phipps, 1999). Major changes to Canada's social programs, between 1979 and 1994, have not benefited families with dependent children, particularly one-parent families, as much as the elderly who have realized major improvements in economic status as a result of the Old Age Pension and the Guaranteed Income Supplement (Baker, 1994).

Osberg and Xu (1999) note that overall poverty intensity (a measure that combines incidence and depth of poverty) in Canada declined sharply in the 1970s. A continuation of the downward trend, driven mainly by declines in Ontario, was experienced in the late 1980s and early 1990s. However, they note that there were significant cutbacks in transfer payments beginning in 1994 and poverty intensity increased significantly between 1994 and 1996. Poverty intensity among children aged 0 to 18 was actually higher in 1996 than in 1989; children from 0 to 6 were worse off than they

had been in 1976 (Phipps, 1999). Family and child poverty rates for 1989 through 1996 and child poverty rates by province for selected years are presented in tables one and two, respectively.

## 2.2 Canadian Family Policy in

As stated previously, many policies, claimed to be directed at child poverty, have been implemented recently and in the near and not so near past. General goals associated with family policy may include horizontal and vertical equity, gender equity, increased fertility rates, alleviation of child poverty, income smoothing and finally, social responsibility (Woolley et al., 1995). Vertical equity is enhanced by providing benefits to families with children because they have less discretionary income than families without children. Horizontal equity is promoted by providing benefits to all families with children. Gender equity is improved by providing females with children, who may (or may not) forgo entering the labour market, a source of income independent of the spouse's income. Better support (in terms of income and labour force activities) for families with young children may increase fertility rates. Income smoothing is achieved by taxing individuals before and after child-rearing and providing benefits while children are in the household. Raising family incomes of families with children aids in the alleviation of child poverty and finally, child benefit policies recognize that raising the next generation is the responsibility of the entire society and therefore, spread the costs across all individuals.

Policies directed at aiding families with children may take several forms; tax policies (e.g.,tax exemptions for dependent children, tax credits, deductions for child care), family or child benefits, social assistance, subsidized or publically provided child care, child support payments, lone-parent benefits, education, and health care. International comparisons of family policy conducted by Phipps (1999) and O'Hara (1999) indicate that Canada, the United States, the United Kingdom and the Netherlands favour minimal interference in the family by the state; children are treated as private, not public goods. Conversely, Sweden, France, Germany and Norway exhibit high levels of government involvement in the support of families. While Canada and the US attempt to minimize labour force participation disincentives when providing support for families with children, Norway aims to support labour force participation of females (for reasons of gender equality) and the Netherlands promotes mothers staying at home and caring for their children. Public education is

common across the aforementioned countries and all but the US provide health care for children; the US provides health care for the poor. North Americans, particularly the US, tend to view children as the responsibility of their families while Europeans see children as social responsibility (Baker, 1995; Woolley, 1996; Phipps, 1999). As a result most European countries offer universal benefits to assist families with children . Historically, Canada offered universal family allowances but moved to a targeted program as of 1993 (Rowe and Woolley (1999) argue that the move away from universality came much earlier, in 1974, when the allowance was taxed).

Presently Canada offers few programs which directly support families with children . There are no longer tax deductions or credits for dependent children, child care deductions are allowed if all parents are working. Canada does not support a national child care program even though the majority of females of child-bearing age work for pay (Baker, 1994). Lone-parent benefits are non-existent, however, an equivalent to married tax-credit is available to lone-parents. As mentioned previously, education and health care are universal programs but the universality is threatened by continued federal and provincial cutbacks.

## 2.3 A Brief History of Child (Family) Benefits in Canada.

Recently family policy has undergone substantive revisions but change is not new in this arena. Several excellent reviews are available on the history of family policy in Canada, including the major changes which took place in 1993 (see for example Baker, 1995; Bevilacqua, 1999; Boadway and Kitchen, 1984, 1999; Kamerman and Khan, 1997; Kesselman, 1993). The following is a brief summary and overview of the policies introduced specifically to assist families with raising their children. The first assistance plan was established in 1918. The federal government, to offset the costs of raising a family, introduced an income tax exemption of $200.00 per child under 18 years of age. The exemption was meant to alleviate the responsibility of paying taxes on income used to provide the basic necessities for one's children and wife (typically). Irrespective of the fact that the value of the income tax exemptions never approached the actual costs of children's basic needs or the fact that the benefit was greatest for the wealthy (those in the highest tax brackets), tax exemptions remained the major benefit for families with children until 1945, when the family allowance was introduced. In 1947, a child tax exemption of $100.00 per dependent child under16

years old and $300.00 for dependent children from 16 to 18 years of age was introduced. Beginning in 1972, families with child care expenses related to labour force participation were entitled to child care deductions of $2000.00 per child to a maximum of $8,000.00 per family, in 1993 the limits were increased to $5000.00 per child under 7 and $3000.00 for children between 7 and 14 and in 1998 the limits were again raised to $7,000.00 and $4,000.00 respectively. A non-refundable child tax credit of $50.00 limited to families with incomes of less than $26,000.00 was brought into effect in 1977 to offset the larger benefits of tax exemptions to higher income families, however, as the credit was non-refundable it did little for the very-low income families with no taxable income (typically the very poor).

Post WWII concerns about social welfare, economic stabilization and labour unrest were important factors in bringing about the unanimous support of the bill which introduced the universal Family Allowance Program in August 1944. Beginning in 1945 the program, under the administration of the National Department of Health and Welfare, delivered a monthly cheque to the caregiver, usually the mother, in every family with children under the age of 16. The value of the payment was dependent upon the number and ages of dependent children; initially lower payments were received for the fifth and subsequent children but this stipulation was removed in 1949 and in 1964 children under 18 years of age in attendance at school became eligible.

The family allowance program underwent its first major alteration in 1974 with the passing of the Family Allowance Act. Monthly benefits were tripled and no longer dependent upon the age of the child(children), indexation to the Consumer Price Index (CPI) was introduced and the benefit became taxable. Eligibility requirements were relaxed with the removal of the school attendance restriction and the elimination of the one year waiting period for children with legal immigrant status. Provinces were given additional powers in formulating family allowance policy. Alberta, for example, varied the amount by the child's age, offering more for older children, whereas Quebec provided additional amounts for older children and larger families.

Major innovations to the Family Allowance Program occurred, once again, five years later. In 1979 benefits were cut by 23% and the $50.00 non-refundable tax credit was replaced by a $200.00 income-tested refundable child tax credit (RCTC) in an effort to achieve distributive goals. The maximum RCTC was available to households with family income of $18,000.00 ($1979) or

less; the credit was clawed back at a rate of 5% thereafter. The deduction in the monthly family allowance payment for a yearly cash payment presented a hardship for many low-income families. As well, the recipient of the RCTC, usually the mother, was now required, for the first time in many cases, to file an income tax form.

Initially family benefit payments were approximately 4.7 percent of average family income, by 1971 the payments represented only 1.8 percent of average family income. Over the next fifteen years changes in benefit levels and indexation resulted in the payments equalling approximately 3.2% of family income by 1986. However, the National Council of Welfare suggested that the poorest families were no better off in 1991 than in 1984 due to de-indexation of benefits in 1985 and that families in the highest income quintile were receiving 50% of the tax savings from child related exemptions. Concern regarding vertical inequity was justification for replacing child tax exemptions with a non-refundable child tax credit in 1988 and in 1989 families with incomes over $51,765 ($1991) saw a proportion of their family allowance benefits clawed back; those with net incomes over $57,192 were required to repay all of the benefits received.

For qualified parents, who owed income tax, the 1992 flat-rate, partially-indexed credit equalled $71.00 per year for each of the first two children under 18 years of age and twice that for each subsequent child. The RCTC maximum was $601 per child annually with a family income threshold of $25,921.00 and all Canadian families received $419.00 per child per year (although, as stated previously, higher-income families suffered clawbacks). A supplement of $213. per child under 6 was offered if no child care expenses were claimed. The realized child benefits for a low-income family with one child under 6, paying at least $71.00 taxes, was $1,233. if they did not claim child care deductions.

In February, 1992 the federal government proposed a restructuring of the three programs, the family allowance benefit, the refundable tax credit and the non-refundable tax credit, into a single, income-tested child tax benefit. The child tax benefit was to offer “greater financial resources to children, especially to improve the situation for those in lower-income working families.” As well, an increase in the deduction limit for child care expenses was introduced as an additional measure to “give children a stronger start in life.”(Honourable Benoit Bouchard, pp i, Canada, 1992).

Three main objectives were put forth for the new child tax benefit. First the approach would increase and target benefits. Low and middle-income families would see an increase in benefits while high-income families' benefits would fall. Second the earnings of low-income working parents would be supplemented with the inclusion of an earned income supplement (EIS). The introduction of a single benefit paid monthly was aimed at the third objective of simplifying the existing system of multiple programs and making it more responsive to family needs.

Beginning January 1993 the new child tax benefit, paid monthly to the mother (usually), included a basic monthly payment of $85.00 ($1,020.00/year) per child for up to two children and $91.25 ($1,095.00/year) for the third and subsequent children. The basic benefit was taxed back at 5 percent (2.5 percent) of net family income over $25,921 for families with two or more (one) children. In addition an EIS of 8 percent (per year) of annual earnings over $3,750 to a maximum of $41.67/month ($500.00/year) was included for families with net-income up to $20,921.00/year after which the EIS would be clawed back at 10% of net family income. An additional $17.75 per month was paid to families who did not claim child care expense deductions. For a family with no earned income the benefit was $1,020 (+ $213.00 if claiming no child care expense deductions). Except for the additional $71.00 in non-refundable child tax credit which was offset (for those who would have received it) by the fact that the child tax benefit was not taxed, the benefits paid pre and post the 1993 changes were equal for low-income families with no earned income.

The introduction of the National Child Benefit in July 1997 increased the EIS from $500.00/family to $605.00 for the first child, $1,010.00 for the second, $1,340.00 for the third and an additional $330.00 for each subsequent child. As before, benefits were phased in based on family earned income over $3,750.00 and began to be reduced on net family income over $20,921.00 disappearing at 25,921.00 (Jenson and Stroick, 1999).

The Canada Child Tax Benefit (CCTB), under the framework of the National Child Benefit, introduced July 1998, combined the Child Tax Benefit and the Earned Income Supplement (the Supplement will be absorbed in the new Benefit). The Canada Child Tax Benefit will provide a maximum annual amount of $1,625.00 for the first child, $1,425.00 for the second child, and $1,425.00 for each additional child. The EIS was replaced by a supplement for low-income families. As before the maximums applied to all families with net family income up to $20,921. The Child

## 2.4 Provincial Variation in the Child Tax Benefit and Children's Benefit

Tax Benefit Supplement of $213.00 per child under seven will be retained for families not claiming child care expenses on their income tax returns. Families receiving the maximum EIS in 1997 will be no better off, however, low-income families not receiving maximum EIS may be. Families with incomes above $25,921 will receive the same benefits as they did under the CCTB. Provinces are able to reduce families' social assistance payments by the amount of the CCTB low-income supplement or tax it with the requirement that the provinces redirect their savings on social assistance payments towards improving children's services and support for low-income working families (Canada, 1997). Only New Brunswick and Newfoundland have not reduced social assistance benefits (Jenson and Stroick, 1999), table 3 summarizes the maximum federal benefits available between 1983 and 1998.

The provinces can request the federal government vary the benefit rate, by age or number of children, as long as the total child tax benefits (CTB) paid within the province remain unchanged. In 1993 the Canadian norm was $1,020.00 per child with a $213.00 supplement for children 6 and under if no child care deductions were claimed and a $75 supplement for 3rd and subsequent children. Alberta varied the CTB by age of the children in the family. Families received $935 for a child under 7 years of age, $1,004.00 for children 7 to 11, $1,133.00 for children 12 to 15 and $1,205.00 for those aged 16-17. Quebec varies its payments by number of children as well as age. Quebec recipients received $869.00 for the first child, $1,000.00 for the second and $1,597.00 for each additional child. Families are also entitled to an extra $103.00 for each child aged 12 to 17 (Long, 1994). Quebec offers a Parental Wage Assistance Programme (PWA). The average monthly benefit was $188.00 in 1993 (Kamerman and Kahn, 1997). As well, Quebec retains Quebec provincial family assistance allowance administered by Regie des rentes du Quebec. The Québec family allowance has been offered, tax free since 1988, to families with one or more children under the age of 18. There is also an allowance for families with young children and an allowance for newborn children which offer more substantial assistance to families with young children (see table 4).

Although substantially smaller Saskatchewan and Manitoba also offer additional assistance

for low-income families with children. Saskatchewan's Family Income Plan (FIP), introduced in 1974, offers a monthly supplement for low-income families with dependent children, under the age of 18, to help meet the costs of necessities. The maximum payment, in 1993, was $105 for each of the first three children and $95 for each subsequent child; in 1999/2000 the maximum payment provided is $120/month per child. The maximum payment is received by families with an income $850/month or less; tax of 40 percent is in place for each additional dollar of income. Additionally, all children receiving FIP benefits receive full supplementary health coverage; the costs associated with drugs, dental and optometric services for children are covered (Saskatchewan, 2000). Manitoba's Child Related Income support programme (CRISP) was introduced in 1981. The benefit remains $30/month/child in families with incomes of less than $14,187 (one child family) and assets valued under $200,000. Persons who receive income assistance are not eligible for CRISP benefits, however, those who receive only the health care benefits portion of income assistance may be (Manitoba, 2000).

## 3. Why Has Child Poverty Been So Persistent?

There are several potential classes of explanation for the persistence of child policy. First, it may simply reflect something about the way child poverty is measured in Canada. Measurement issues have loomed large in debates of the success of the US "war on poverty" (see the exchange between Jorgensen (1998) and Triest (1998) for example.) Second, it might be that socioeconomic shifts, such as rising numbers of lone parent families or increases in wage dispersion are responsible. Finally, it may be a problem of policy design or implementation. Canadian child policy initiatives over the decade may have been poorly targeted, of inadequate scale, or offset by other, coincident, policy developments.

### 3.1 Measurement Issues.

First, some researchers argue that consumption (or expenditure) may be a better indication of household, or individual, well-being. Income steams may exhibit transitory fluctuations over time. Individuals, or households, may be able to smooth those fluctuations, thus maintaining household welfare, by saving or borrowing. If we are interested in household, or individual welfare

then it is more appropriate to examine the distribution of consumption (expenditure) and thus we examine household expenditures, as well as income. Thus we explore poverty and inequality using both income and expenditure measures.

To ascertain poverty rates a poverty line must be calculated. Several 'poverty lines' have been used in the literature; common is 0.5*equivalent median income, a relative measure. Statistics Canada does not provide an official 'poverty line' but do publish the Low Income Cut Off (LICO). The LICO takes into consideration the amount of income necessary to purchase a basket of necessities. The basket changes over time and thus the LICO is recalculated periodically. Area of residence (urban vs rural and size of urban area) and the size of the family are taken into consideration. Figure 3 illustrates four 'poverty lines', the lowest line is 0.5*equivalent median expenditure, the next line represents 0.5*equivalent median net income and finally, the top two lines are LICOs (1986 and 1996 (top line) base).

The LICO is not available in this data, therefore we cannot preform sensitivity analysis over LICOs and median measures. We do do some investigations of the median measures over time. However, the illustration indicates that there is a rising trend in the LICO, over the time frame, that is not seen in the median measures.

## 3.2 Socioeconomic Changes

Although the statistics on child poverty in Canada indicate that child poverty did not diminish, over the period in question, the situation may have been worse. Poverty trends, according to some researchers, have been ameliorated by recent demographic shifts. The majority of poor children have young parents (under 35 years of age) (Sharif and Phipps 1994). The declining labour force participation rates of young adults, particularly males, would have resulted in considerably higher child poverty rates had families not altered fertility patterns and work habits. Families postponed childbearing, had smaller families, had more members working, and worked more hours (Dooley, 1994; Picot and Myles 1996).

However, Zyblock (1996) alleges that family demographic shifts have actually exacerbated

the problem. Eighteen percent of children under the age of 18 lived in poverty in 1992[3] , virtually the same rate as 1975 (for children under 7, the rate was higher than in 1975). The rates of poverty within lone- and two-parent families fell during the period but the number of lone-parent families increased. Given the rate of poverty within lone-parent families was 4.9 and 5.1 times that of two-parent families in 1975 and 1992, respectively (see figure 2) the lower risk of living in poverty within a given family type was offset by the increase in the proportion of children living in lone-parent families (see also Dooley, 1994; Hatfield, 1996).

In sum, while recorded poverty rates for seniors fell dramatically, in Canada, over the last 2 decades, the overall poverty rate has crept up slowly. The upward trend has been driven by an increase in child poverty as a result of the high incidence of poverty in young families and lone-parent families. Transfer payments had, to some degree, cushioned the downward pressure of labour market changes. However, recent cuts to transfer payments have resulted in significant increases in poverty.

## 3.3 Policy Problems.

If the persistence of child poverty in Canada cannot be attributed to measurement or to socioeconomic developments, then the third class of explanations are those to do with policy. Policies may be poorly designed, poorly targeted, of inadequate scale, or have their impact mitigated by coincident offsetting changes in other policies. In this subsection we first review what assessments are available of Child benefits in Canada, over the period of our study. We then consider the developments in the principal areas of policy where changes might have undermined child benefit initiatives.

### 3.3.1 Assessments of Child Benefits.

The dearth of research on the evolving child benefits is surprising. Although the Child Tax Benefit (Canada Child Tax Benefit, National Child Benefit) is the only federal program which specifically addresses the needs of families with children and marked changes have occurred since

[3] based on Statistics Canada's Low-income Cutoff, 1986 base.

1993 there are few studies in the economic literature on the topic (exceptions are Kesselman, 1993; Long, 1994; Phipps, 1995; Woolley et al., 1996 and Rowe and Woolley, 1997). To our knowledge this is the only study that attempts to evaluate the 1993 changes to family benefits utilizing individual microdata. As well, most of the research to date is concerned with family well-being; we address child well-being. We present a brief review of the available literature.

The 1993 changes to the child tax credit system were put forward in an endeavour to increase fairness and effectiveness by targeting payments to low-income families, enhance efficiency through positive labour market incentives, simplify family benefits by amalgamating programs, increase responsiveness via monthly payments and reduce child poverty (Kesselman, 1993; Long, 1994; Phipps, 1995; Woolley et al., 1996). The available literature assess the changes in the 1993 family benefits on the criteria set out by the federal government as well as general goals of family policy. Overwhelmingly, the studies conclude that the 1993 changes to the child benefit programs fail to achieve the goals set out and do little to combat rising child poverty in Canada. The authors were almost unanimous in recognizing that replacing the universal family allowance by a targeted program indicates that Canada no longer recognizes a social responsibility towards raising children but has moved to assisting only families with the highest needs.

The 1993 Child Tax Benefit was meant to target payments at low-income individuals and alleviate child poverty. A review of payments for single- and two-parent (one-earner and two-earner) families with two children indicated that families earning $10,000.00 to $20,000.00 would see the largest gains, not the poorest families (Kesselman, 1993). Using a microsimulation model which took into account changes in taxes, child benefits, and other government transfers resulting from the introduction of the CTB, Woolley et al., (1996) found that the highest average family benefits went to families earning $20,000.00 to $30,000.00 followed by those with incomes of $10,000.00 to $20,000.00. Surprisingly, they found that lowest income group actually suffered losses in benefits, between 1992 and 1993, primarily due to partial indexation and that families earning $40,000.00 to $50,000.00 actually realized the greatest gains. Lone-parent families achieved higher gains than two-parent families as a result of the retention of the equivalent-to-married amount benefit. Families with incomes at the top of the income distribution suffered reductions in child benefits. Losses for dual-parent families were about double that of single-parent families ( Kesselman, 1993; Woolley,

1996). The clawback rate of 5% for families with two or more children, as opposed to 2.5% for one child, increases benefits for the third child, relative to one or two children, substantially at middle and upper income brackets. For example, a family earning $60,000.00/year receives a credit of $168.00 for one child, $336.00 for two, double that of one child, and $1,431.00 for the three, more than eight times that of a single child family (Kesselman, 1993). Kesselman concluded that although there would be more winners than losers the distributional changes would result mainly from the introduction of the EIS at the low end of the income scale and the loss of child credits at the upper end. The CTB shifts benefits away from high income families to poor and middle class leaving the very poor no better off (Kesselman, 1993; Long, 1994; Woolley et al., 1996). If the government was aiming to help children in the poorest families it missed the target.

Phipps (1995) finds that Canadian family benefits provide less than 6 percent of the cost of raising children while many European countries offer between 10 to 20 percent. The UK, the Netherlands and Sweden manage to move 23, 37 and 29 percent of children, respectively, out of poverty with child benefits while Canada raises only 16% of its poor children out of poverty with the CTB. Long (1994) claims that for the working poor with incomes under $11,000.00 (in each countries currency), a family with children is better off in the US than in Canada; the CTB does not fare well on its attempt to alleviate child poverty.

The Earned Income Supplement (EIS) portion of the CTB was promoted as a tool to increase (or at least not deter) work incentives of low-income parents. The supplement was intended to lower low-income families' marginal tax rates and thus raise the wage rates of parents. When family earned incomes lie between $3,750.00 and $10,000.00 the family receives an extra an extra $0.08 for every dollar earned in the labour market; an 8 percent raise. For families with earned income between $10,001.00 and $20,920.00 the EIS is constant at $500 and then clawed backed at a rate of 10 percent for incomes higher than $20,920.00. Both Phipps (1995) and Woolley et al., (1996) find that the EIS is flawed.

On theoretical grounds Phipps argues that it is unlikely that the EIS would entice anyone working 0 hours to enter the labour market; hours worked would have to be increased from 0 to 500 (at $7.50/hr) before any supplement would be earned. Due to the pure income effect families earning between $10,001.00/year and $20,920.00/year would probably decrease hours worked if leisure is

a normal good and for those whose incomes are over, but close to, $20,920.00/year the incentive would be to decrease hours worked as the EIS represents a 10 percent tax on wages. Individuals, with family incomes between $3,750.00 and $10,000.00 might be enticed to increase hours worked. However, quoting available econometric studies which find labour supply elasticities in the range of 0.018, Phipps finds that the increase in labour supply is likely to be in the area of one hour per year for a single-mom working 500 hours at $7.50/hr. The long lag between increase in hours worked and the realization of an increase in income would likely also dampen the minuscule work incentives (Woolley et al., 1996). Woolley et al. and Phipps conclude that increases in labour supply are likely to be dominated by decreases because more individuals will realize a decrease due to the higher proportion of individuals have family incomes in the decreasing (>$20,920.00) range than in the

increasing (< $10,000.00) range of the EIS and the rate of decrease (10%) is greater than the rate of increase (8 percent).

Several other inconsistencies regarding the EIS have been noted. Limited hours of labour supply may not be the choice of the individuals concerned; there may be insufficient demand in the labour market (Phipps, 1995). The individuals experiencing positive work incentives are most likely employed either part-time or part-year; Woolley et a. (1996) questions whether we should be promoting this type of work. Is it credible that a "child" benefit, received by the mother, is going to have effects on father's labour supply and finally, it was pointed out that the supposed goal of increasing labour supply might only be rhetoric (Woolley et al., 1996; and Kesselman, 1993). Federal supplements delivered to families on social assistance, a program with provincial jurisdiction, may simply lead to a decrease in social assistance payments and a windfall for the provinces. Thus providing payments only to those with substantial (relative to the very poor) employment income circumvents this.

The evidence presented to date indicates the 1993 policy changes were poorly designed and poorly targeted. Some middle and low-income families may be better off. The poor, however, are likely to be worse off. The desire to limit work disincentives has likely failed and in fact the EIS may promote more decreases in labour supply than increases. Even if positive work incentives are realized the effects on individual labour supply are likely to be minuscule. Canada has moved from

recognizing a social responsibility towards children to an American model of assisting families in the greatest need but the changes have done little to address child poverty and in implementing the changes.

### 3.3.2 Changes to S

Changes to programs that support families with children have not been limited to the CTB. Many province have cut their social assistance programs in an effort to balance budgets and promote positive work incentives. Although not alone, Ontario comes quickly to the forefront with the introduction of workfare and the unilateral 20% decrease in social assistance payments in 1995. Table 5 summarizes social assistance entitlements of families, by family type, in 1986, 1995 and 1996. The percentage change over the final year and 10 year period are presented. Note that for every province except PEI there have were declines in social assistance payments offered to families between 1995 and 1996. In most provinces families were worse than they had been in 1986. Social assistance is designed to assist low-income families meet their basic needs. Table 6 indicates how social assistance incomes compare to poverty lines in each province in 1986, 1992 and 1996. Social assistance incomes provided the best standard of living (relative to poverty lines) in Ontario in 1992 but the payment was only 73 and 80 percent of the poverty line for two-parent families with two children and lone-parent families with one child respectively. Relative to the poverty line most families were worse off in 1996 than they were in 1992 and the majority are no better off then they had been in 1986. Finally, particularly relevant for this study, table 7 summarizes the changes in social assistance programs across the provinces between 1993 and 1996.

Although there have been substantial changes to the social safety net recently, Canadians have been somewhat insulated from significant changes in economic conditions by that safety net. The recession of the early 90's resulted in high unemployment rates and growing pre-transfer low-income[4] intensity; an increase of 50 percent. At the same time transfer payments also grew by about 20 percent. Thus, after-transfer/tax low-income intensity grew by about half the pre-transfer/tax rate (28%). Employment opportunities rebounded slowly after 1993 resulting in a slight decline in the pre-transfer/tax low-income intensity. However, low-income intensity was 20% higher in 1996 than it had been in 1993 as a result of a decrease in transfer payments which more than offset the gains in employment earnings (Myles and Picot 2000).

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[4] Myles and Picot do not use the term “poverty” but instead use “low-income,” in this paper we use the terms interchangeably.

# 4. Data and methods

## 4.1 Data

The data employed in this study come from Statistics Canada's Family Expenditure Survey (FAMEX). The FAMEX is a nationally representative sample of households. It is conducted less frequently than the Survey of Consumer Finances[5] and the income information reported is considerably less dis-aggregated. The principal advantage of the FAMEX is that it contains expenditure information, derived from annual budgets and believed to be of good quality. We believe that expenditure data allow us to deal with issues of intertemporal allocation, and, to a lesser extent, intrahousehold allocation. We return to theses points below.

## 4.2 Sample Definition and Weighting

Our current analysis focuses on the 1986,1992 and 1996 editions of the FAMEX. The 1986 survey treats the "spending unit" as the unit of analysis, while the later two surveys foucs on the "household". To ensure comparability, we limit the sample in all years to spending units and households that consist of a single "economic family".

Through out the analysis we restrict the sample to households with children. Further, we weight the data in all calculations by the product of the population weight provided by Statistics Canada and the number of children in the household. The combination of restricting the sample to households with children and then re-weighting each household by the number of children it contains results in a data set which is representative of the population of children, which is appropriate given that children themselves (and not their parents or the households they live in) are the focus of our analysis.

Sensitivity analysis is also preformed on the population and population weights used in the study. We present selected results using three alternative population/weighting combinations. First,

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[5]In future work, we will incorporate data from the Survey of Consumer Finances (SCF) as well. The SCF is an nationally representative sample of Canadian households conducted (almost) annually over the period with which we are concerned. The SCF provides very detailed information on family income and income sources; in particular child benefits and social assistance payments are identified.

we include the entire population, weighted by the product of the population weights provided by Statistics Canada and household size, resulting in a data set representative of the population of individuals. Second, we include all households, weighted by Statistics Canada's population weights resulting in a data set representative of households. Finally, we restrict the sample to households with children and weight by Statistics Canada's population weights resulting in a data set representative of households with children.

## 4.3 Resource Measures and Equivalence Scales

The approach followed in this paper is to focus on measures of the resources available to children. This choice is in part driven by data availability but also reflects a notion that a sensible place to begin the analysis of redistributional policies is to ask whether they delivered resources to the intended targets. The question of whether resources increments (if any) were effective in changing outcomes represents a second stage of evaluation, to be pursued in subsequent papers.

We begin by looking at income measures: market income (labour and capital earnings) received by childrens' households and the net income, after taxes and transfers, of those households. Through out, we deflate resources by simple equivalence scales. This reflects the notion that there are some returns to scale in consumption. Our benchmark is the square root of household size, a standard, midrange, equivalent scale commonly used in the literature. We investigate the sensitivity of our results to other choices: the OECD equivalency scale[6], household size[7] and 1.0[8] . We also deflate each nominally valued resource measures by the CPI. We are shooting for real, individual level resources, though our adjustments are somewhat crude (we return to this issue below).

After a preliminary investigation of incomes we turn to expenditure as a measure of resources. We do this for two reasons.

First, as previously noted, consumption (or expenditure) may be a better indication of

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[6] 1+0.7*(adults-1)+0.5*(# of children)

[7] per capita expenditure indicating no returns to scale,

[8] corresponds to assumption of pure public goods.

household, or individual, well-being. Individuals, or households, may be able to smooth the transitory fluctuations in income over time, thus maintaining household welfare, by saving or borrowing. If we area interested in household, or individual welfare then it is more appropriate to examine the distribution of consumption (expenditure) and thus we examine total household expenditure[9], as well as expenditure on food (at home and in restaurants).

The second issues that we hope to address with expenditure data is that of intrahousehold allocation. Dividing income or expenditure by the number of persons in a household, or by some function of that number that allows for increasing returns to scale in consumption (such as our benchmark equivalence scale, the square root of household size) implicitly attributes to each member of the household and equal share of resources. There is no particular reason to think this is the case, though with household expenditure data it is difficult to do otherwise.[10] The one avenue open to us is to attempt to identify and examine goods that are solely consumed by particular members of the household. In the case of children the best candidate for The expenditures, we believe, which are 'most directed' at children are expenditures on food and particularly, expenditures on children's clothing.[11] Our equivalence scales for children's clothing are somewhat different than for other resources measures. For example, with children's clothing we divide by the square root of the number of children in the household, rather than by the square root of the total number of persons.

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[9] includes expenditure on all food (at home and in restaurants), shelter (rented, owned, other accommodation, including water charges, heat, and hydro), household operations (communication, child care, laundry, cleaning, pet care, and household supplies), household furnishings and equipment (including services related to furnishings and equipment), transportation (operating expenses, rental vehicles, local commuter expenses, intercity transportation services), clothing, health care expenses, personal care supplies, equipment and services, recreational expenses (less recreational vehicles and outboard motors), home entertainment equipment and services, reading materials and other printed matter, and education (tuition, textbooks, supplies and services).

[10]The polar opposite assumption, that each member of the household has access to the resources (income) that she brings into the household is even less sensible; clearly some sharing of resources occurs. This is particularly the case when we are concerned with children, many of home bring no resources into the household.

[11]There is a measure of expenditures on toys but this includes any (possibly adult) toys, games or hobby equipment purchased by the family, not just those purchased for children.

It does not make sense to include adults in this measure as they do not consume the good.

It is worth emphasizing again that the measures we present are resource measures and not direct measures of "well being" (or welfare or utility). As noted about, intertemporal reallocation possibilities uncouple current income from current wellbeing. Furthermore, in the standard economic (utility) approach, individuals have an indirect utility function defined on expenditures *and* prices. That indirect function can only be written as a function of expenditures deflated by a price index if preferences are homothetic (Engel curves are linear) a condition that is universally rejected by data. Similarly, we employ simple, price independent equivalence scales, which also implies restrictive preferences. To integrate prices and demographics into the analysis in a way that does not require strong restrictions on preferences, and thus to credibly move from expenditures to welfare, requires the estimation of a complete demand system (see for example, Pendakur, 1999). We do not pursue that approach in this paper.

That reason we do not is that there are convincing arguments, summarized for example by Phipps (1999), that the standard utility maximization approach is inappropriate in the case of children. Principal among these arguments are the very reasonable suggestions that children's preferences are in the process of being formed and so can in no sense be taken as "given", and that children do exercise choice over the allocation of resources in the way that standard theory conceives. Thus to estimate a household demand system would seem to be incongruous with our objective of keeping children as the unit of analysis (as opposed to the parents of children or households containing children).

Some authors who are critical of the standard utility approach to welfare in the case of children advocate an alternative "functionings" approach, derived in part from the work of Sen (1992). We do not pursue this approach here either, though in this case the reason is largely data limitations. Data sets from which children's "functionings" might be inferred (such as the National Longitudinal Study of Children and Youth - NLSCY) do not have sufficient history to allow us to do a pre- and post analysis of policy changes in 1993. (We do note however, that when the later waves of the NLSCY become widely available it will be possible to make comparisons across cohorts at the same age, and in particular to compare at the same age cohorts whose earliest years were before and after the policy change).

For reasons of both theory and data then, this paper pursues the more modest goal of characterizing the distribution of resources across children, where resource values are crudely deflated by an income-independent price index and a price-independent equivalence scale. Given the difficulty of dealing with intra-household allocation issues empirically we assume that all resources are shared equally by household members or by all children in the case of children's clothing.

## 4.4

Although there are a plethora of poverty and inequality measures available to researchers, for tractability, we have reported only a selected few. We first capture the entire distribution by reporting the $10^{th}$, $25^{th}$, $50^{th}$, $75^{th}$ and $90^{th}$ percentiles. As well illustrations of the 1992 and 1996 distributions, relative to 1986, are presented in figures 4 through 8. Subsequently we report inequality measures, commonly found in the literature. First we report the ratios of the $90^{th}$ to the $10^{th}$ percentile (90/10), a measure of how the bottom of the distribution is faring relative to the top, and the $75^{th}$ to the $25^{th}$ (75/25), a closer look at the middle of the distribution. However, these measures each utilize information at only two distinct points in the distribution. As well, neither satisfies the information

'principle of transfers' (transferring income from a richer to a poorer person will increase social welfare; as long as the transfer is not large enough to reverse the individuals relative standings (Deaton, 1997)).

Two additional measures of inequality are presented, the Gini coefficient and the Atkinson index. These measures are consistent with social welfare functions, satisfy the 'principle of transfers' (transferring income from a richer to a poorer person will increase social welfare; as long as the transfer is not large enough to reverse the individuals relative standings (Deaton, 1997)), and are commonly cited in the literature. In addition, the Atkinson index is decomposable by subgroups which is necessary for our final section. Three Atkinson indexes A(e) are reported; A(0.5), A(1), and A(2). The more positive 'e' , the 'inequality aversion parameter' the more sensitive A(e) is to differences at the bottom of the distribution. The Gini coefficient is most sensitive to differences in the middle of the distribution.

Lorenz curves were also estimated. Lorenz curves illustrate the cumulative share of the total income (expenditure) going to the poorest x percent of the population. However, as is often the case, differences in the Lorenz curves were difficult to observe. Thus, transformed Lorenz curves, the difference between the line of equality and the Lorenz curve (Deaton, 1997) are illustrated.

The poverty measures selected present measures of the Foster, Greer and Thorbecke (1984) class, FGT(1) is the average normalised poverty gap, an indication of the depth of poverty, and the percentage of individuals below half the median (equivalent to FGT(0), the headcount ratio or proportion poor). We report these measures using a constant poverty line through time (0.5*1986 median income) and a poverty line calculated using 0.5*median income for the year under question. The FGT(a) measures are also decomposable.

Poverty and inequality measures are presented for each resource measure; private income, net income, total expenditure, expenditure on food and expenditure on children's clothing. They are presented for three time periods, 1986, 1992 and 1996. 1992 and 1996 give us indications of the circumstances immediately prior to and post (respectively) policy changes we are interested in (ie. child tax benefit). We include 1986 as common base for evaluating changes over time. As well, 1986 and 1996 marked similar points in the business cycle.

### 3.5 Poverty and inequality

In the next iteration of this paper we will provide boot-strapped confidence intervals to allow for statistical inference (following Barrett, Crossley and Worswick, 1999).

## 4. Analysis

### 4.1 Results

As discussed previously, we present several measures of resources available to the family and, in particular, the child. In the first section 'Income' we present the results for equivalent private income (per tax/transfer), a measure of the household member's labour market resources, and equivalent net income (post tax/transfer), a measure of resources available to members of household from both the labour market and social transfers. The second section 'Beyond Income' includes our analysis of expenditure patterns. Total expenditure is postulated to be a

better measure of long-term resource availability, while we believe expenditures on food and children's clothing are resources directed at children.

### 4.1.1 Income

Table 8 presents the results for private income, columns 2 - 4, and net income, columns 5 - 7. The top section reports the distributional analysis, the middle sets out the inequality analysis and the final section displays the poverty results. Figures 4 and 5 display the entire 1992 and 1996 distributions, relative to 1986. Note that the equivalence scale is the square root of household size and the data has been weighted by Statistics Canada's survey weights*number of children in household.

First we focus on the distribution of private income. Individuals at or above the median of the distribution experienced continual growth from 1986 to 1996. However, children in families with private incomes below the 25$^{th}$ percentile saw a reduction in private incomes between 1986 and 1992, the bottom decile experienced a 75% decrease, and a rebound into 1996. Those at the 25$^{th}$ percentile in 1996 were earning slightly more than those at the same position in 1986 while those at the 10$^{th}$ percentile were earning 41% of their counterparts in 1986.

The inequality measures indicate increasing inequality between 1986 and 1992 and diminishing inequality between 1992 and 1996. However, on all measures inequality was worse in 1996 than in 1986. The Atkinson indexes are not reported due to the presence of individuals with zero private income. The poverty measures present the same pattern, increasing poverty between 1986 and 1992 and diminishing through to 1996. The proportion of individuals living in poverty was higher in 1996 than in 1986 relative to both poverty lines, one using the constant 1986 median and the other the current year median). The FGT(1), the normalized poverty gap, shows a slight improvement between 1986 and 1996.

The results indicate that between 1986 and 1996 there was a substantial collapse of private incomes at the bottom of the distribution. Incomes were fairly stable at higher levels of the distribution. As a result, based on measures of private income, the proportion of those in poverty grew by about 10% over the period but the gap diminished slightly.

We now turn to the distribution of net income, columns 5 through 7, top section. The

consistent increase in net incomes across the time period for those individuals at or above the median is similar to that seen in the private income distribution. But unlike private income, net income grew at the bottom end of the distribution as well. However, the value of net income at the 10th percentile grew between 1992 and, although levels remained higher than 1986 levels, they fell between 1992 and 1996. The picture for inequality in net income is one of stability or slight growth between 1986 and 1996.

The poverty results indicate an improvement between 1986 and 1992 and a subsequent worsening from 1992 and 1996, except for the proportion poor using 0.5*1986 median net income, matching the movement of net income at the 10th percentile. However, the FGT(1) and the proportion below the 0.5*median indicate there are more children living in poverty, at a greater depth, in 1996 than in either 1992 or 1986. The income inequality measures also indicate a slight growth in income inequality over the period. A(0.5) and the Gini coefficient, measures weighting inequality at the middle and top of the distribution more heavily, grew, in absolute terms, more between 1986 and 1992 than between 1992 and 1996, the opposite is true for A(1) and A(2), measures emphasizing inequality at the bottom end of the distribution.

Figure 4 illustrates, more dramatically, the collapse in the private income distribution, relative to 1986, at the bottom end of the distribution. However, over the entire distribution children were better off in 1986 than in 1992. The transformed Lorenze curve indicates that inequality in private incomes grew between 1986 and 1992 and decreased slightly between 1992 and 1996 but did not approach the 1986 levels.

The net income picture is quite different, the ratios to 1986 net incomes are stable across the entire distribution. Children fared better in 1996 than in 1992 those with equivalent incomes below the 12th percentile (approximately). Inequality of net income increased from 1986 to 1992. The 1992 and 1996 levels are indistinguishable.

In sum, the income measures indicate a substantial drop in private incomes over the period leading to increased poverty and inequality, measure on private incomes. However, the tax/transfer systems seems to have offset the fall in private incomes as, although there is slight growth in child poverty and inequality over the period, the increase in child poverty and inequality, as measured by net income, grew much less over the period. There is some indication

of relatively more increase in income inequality at the bottom end of the distribution over later period of the study.

### 4.1.2

The final three (and 2nd to 4th) columns of table 8 (9) present the statistics for equivalent total expenditure. Most notable is the constancy of total expenditure across time. There is a slight increase in total expenditure between the first two periods and a rebounding in the third. Figure 8 displays the 1992/1986 and 1996/1986 ratios of equivalent total expenditure. Total expenditure was basically identical between 1992 and 1996, and slightly above 1986 from approximately the 27th percentile. Children, at or below this point, fare slightly better in 1992 than either 1986 or 1996.

The proportion of children with equivalent expenditures below 50% of the median diminishes between 1986 and 1992 and then recoils however, fewer children are 'in poverty' in 1996 than in 1982 and the average normalized depth is smaller. The inequality measures are relatively stable across the time period. A(2) shows the biggest changes, with inequality decreasing between 1986 and 1992 and then recoiling into 1996. Figure 9 illustrates the persistence in inequality over the period.

For ease of comparison across expenditures equivalent total expenditure figures are repeated in columns 2 to 4 of table 9. The next three columns contain equivalent expenditures on food and the final three equivalent expenditures on children's clothing; the measures of resources we believed most were 'most directed' at children. A gradual decline of expenditures across the time period is experienced by all children. Children at the bottom of the distribution saw a 15% drop in food expenditures over the 10 year period, children at the top of the distribution experienced a 10% decline. This can be seen in figure 11, although the ratios are amazingly stable across the distribution the 1996/1986 equivalent expenditure ratio lies above the 1992/1986 ratio at all points on the food expenditure distribution.

Inequality in equivalent food expenditures can be described in the opposite manner; a slight increase can be seen over the time frame. All three Atkinson indices experience about 10% increase between 1986 and 1996. The transformed Lorenz (figure 11) illustrates a barely

discernible increase across the period. Poverty, described as having equivalent food expenditures below 50% of the relevant years median equivalent food expenditure, increases slightly. If we look at poverty, described as having equivalent food expenditures below 50% of the 1986 median equivalent food expenditure, the proportion of children living in poverty almost doubles. The depth of poverty scarcely grows.

Finally, the numbers for equivalent expenditure on children's clothing are listed in the last three columns. Equivalent expenditures on children's clothing fell over the 10 years. Expenditure levels were 35%, 24%, 21%, 18%, and 14% lower for the $10^{th}$, $25^{th}$, $50^{th}$, $75^{th}$ and $90^{th}$ percentiles, respectively. Figure 12 demonstrates the differences between the years across the distribution. The Gini coefficient grew by 5% over the period and the 90/10 ratio increased dramatically between 1986 and 1992. The Atkinson indices cannot be calculated due to the presence of expenditures of zero. The transformed Lorenze curve illustrates a negligible increase in inequality between 1986 and 1992 and substantial worsening from 1992 to 1996. Not surprisingly, given the other statistics, poverty and the depth of poverty increased.

Summarizing, equivalent total expenditure was almost constant across the period of analysis, expenditure on food was also fairly stable but less so than total expenditure. However, equivalent expenditure on children's clothing indicates a substantial rise in poverty and inequality between 1986 and 1996; a substantial portion of the increase was experienced between 1992 and 1996.

## 4.2. Sensitivity Analysis

Weights and equivalence scales were used extensively throughout our analysis. To ensure the weights or equivalence scales were not driving the results we repeated the total expenditure analyses using different samples, weights and equivalence scales. All sensitivity analysis was preformed using total expenditure. When investigating the sensitivity of the results to the weights we use the equivalence scale used throughout the paper, the square root of household size. In testing the sensitivity to the equivalence scales we utilized the weighted sample of children used in the main analyses.

Table 10 presents the sensitivity analysis for sampling and weighting. The $2^{nd}$ through $4^{th}$

columns include the entire population and household weights multiplied by household size. This gives us a representative sample of individuals in the population. Columns 5 to 7 consists of all households multiplied by household weights constituting a sample of households. The next three columns contain analysis preformed using only households with children weighted by household weights, producing a representative sample of households with children. Finally, the last three columns present our original findings using a representative sample of children (households with children, weighted by household weights*number of children in the household).

Although the figures are not exact across the different sample/weight combinations there are certainly no discrepancies worthy of mention. Similar to our original findings there is amazing consistency across the years for total expenditure. Therefore our results do not seem to be driven by sampling or weighting.

The results incorporating a variety of equivalence scales are in Table 11. Columns 2 to 4 review the main analysis on total expenditure (total expenditure/(# in household)$^{0.5}$). The 5$^{th}$ to 7$^{th}$ column utilize a per capita equivalence (total expenditure/(# in household)). The penultimate set of columns utilizes the OECD equivalence scale (total expenditure/(1.0 + 0.7*(# adults-1) + 0.5(# of children)) and finally, columns 10 through 12 present results on total expenditure (no equivalence scale used).

In the top section of the table we see substantial differences in the levels, expected when using different denominators. However, the inequality results, in the middle of the table, are almost identical. Poverty rates are somewhat larger when using the OECD, and substantially so when using the per capita scale, than with the square root of household size. However, poverty rates are smaller when no equivalence scale is used. Again the patterns are similar across scales. Thus, although the scales do not produce identical results we do not believe they change the primary results of the study.

## 4.3 Decompositional Analysis

Decompositional analysis is done by 3 characteristics of the population. The choice of characteristics analyzed is driven by previous discussions of poverty differences between the subgroups found in the literature. Rates of poverty are very different across marital status, age of

head of the household and province of residence. We first present the decomposition of poverty rates across the time frame, table 12, and then the inequality decompositions, table 13.

### 4.3.1 Poverty

The top section of table 12 presents the decompositions across family types, children living two-parent households, children living in lone-parent households and children living in other types of households are represented in the first, second and third row, respectively. The other category includes families with more than two adults living in a household with children. This could entail parents living in households with older children (>16 years old) or households with more than one generation, or other relatives living together. The middle section presents the analyses of differences in the ages of parents (the head of the household); statistics for children with very young parents (head <= 25 years), young (26-35) and middle age and older parents (>36 years) are presented in rows 1, 2, and 3 of this section, consecutively. Finally, the bottom section characterizes the regions. Row 1 presents the Atlantic region (all provinces east of Quebec), Quebec is shown in the 2nd row, Ontario in the 3rd, Prairies (Manitoba, Saskatchewan, Alberta) in the 4th and BC in the 5th row of the section. The final row presents the poverty rates for the year in question. The results are presented by year. For each year the first column indicates the percentage of children in the population living in the particular group. The percentage of children in the group who live in poverty (<0.5*median equivalent total expenditure) is reported in the second column and the percentage of the poor population made up by the particular group is presented in third. The final column, in each year, indicates the mean poverty gap for the group.

The decomposition of marital status indicates a decrease in the number of children living in two-parent families, fewer of these children living in poverty, and thus children living in two-parent families making up a smaller proportion of the poor population over time. An increase in the percentage of children living with lone parents or in other arrangements is apparent. The percent of children living in single-parent families is highest in 1992, at 15.7%, and falls somewhat in 1996, to 13.6%, however it is our hypothesis that the doubling in the percentage of families living in ‘other’ households is, at least in part, single-parent families living with

relatives; the data does not allow us to tease this out.

In 1986 children living in one-parent families made up a smaller proportion of the children living in poverty than did children in two-parent families, by about 17 percentage points. However, by 1996 they made up a larger proportion of those in poverty, by 3 percentage points. The drop, between 1986 and 1992, in the percent of children living in lone-parent families who were poor was offset by the increase in children living in the situation. The reverse is true for the period from 1992 to 1996, a decrease in the percentage of children living in single-parent families offset by an increase in the poverty rate of the group. The poverty gaps are smaller for all groups between 1986 and 1992 but increase significantly for children of lone-parents and those living in other arrangements between 1992 and 1996.

Age of head of household decomposition confirms what has been reported in the literature. There has been a slight decline of the percentage of children living in households with very young parents but the poverty rates in this group have increased by almost 40% over the 10 year period. At the same time there has been a slight increase in the percentage of children living in older families (> 36 years) and a drop in this groups poverty rates. The regional analysis shows the east to west gradient in poverty rates. Over the period the poverty rates decrease slightly in the Atlantic and increase slightly in the West, however, there do not seem to be any substantive trends in the data.

The decompositional analysis indicates an increase in poverty rate of children living in lone-parent families but a slight decrease in the proportion of children living in this type of family (a question regarding the substantial increase in the 'other category' does arise). As well the increase in the proportion of very young families living in poverty is offset by a slight decrease in this type of family.

### 4.3.2 Inequality

The inequality decompositions are displayed in table 13. By year, the A(0.5), A(1.0) and A(2.0) indices calculated separately for each group are presented (in the first rows of each section). The last three rows (under 'Decomposition') of each subgroup report the total inequality in the population of children, the amount of inequality explained by inequality

occurring within the group and the inequality explained by that existing between the groups. For all groups the inequality between groups, is far outweighed by inequality within groups. The indices appear to be fairly stable across time. And indeed except for family type by marital status, are not so different across groups.

Children of lone parents do experience substantially more inequality within their group than do children living in alternative family arrangements. There is a slight increase in the between group inequality for different living arrangements (and thus a decrease in within inequality as within and between inequalities sum to the total inequality) between 1986 and 1996. There is a small decline in between inequality from 1986 to 1992 but it rebounds into 1996. The opposite is true of the regional decomposition; the between inequality increases somewhat into 1992 and then declines again in 1996 to levels less than those recorded in 1986. Between inequality grows slowly across the entire time period for families of different ages. Although there are differences across the time frame they appear to be small for all the groups. There do not seem to be any radical shifts between groups or across time.

## 5.1. 5. Discussion, Conclusions and Future Directions.

Despite the priority of child poverty in Canada the recent literature indicates child poverty has been increasing over time. The failure to meet this national priority poses something of a puzzle, particularly in light of the success of other targeted anti-poverty agenda, such as drastic reduction in poverty among the senior population that had previously been achieved.

The goal of this paper was to take a very detailed look at changes in the resources available to children, particularly less fortunate children, over the decade 1986-1996 using the Canadian Family Expenditure Surveys. This decade captures the date of the all party motion of parliament, and of the 1993 introduction of the Child Tax Benefit. By characterizing the distribution of resources both pre and post that reform, and by considering a range of resource measures we assess the role of measurement issues in the apparent persistence of child poverty. By decomposing poverty and inequality across different population subgroups, and by examining changes in the income package across the distribution, we evaluate the role of socioeconomic

We find that measured by consumption the distribution of resources available to children is very stable. Unsurprisingly, poverty and inequality are lower when measured with consumption than when measured with income. Poverty doesn't seem to have worsened if measured with net income and a relative (half - median) poverty definition. Rising child poverty is found if one uses gross income (a dubious measurement choice) or LICOs, which appear to be rising faster than half medians. However, if we use expenditure on children's clothing, a resource we believe is targeted at the child, we do find increasing inequality and poverty, a finding worthy of further investigation.

The results of the decompositional analysis, indicate offsetting demographic and socioeconomic shifts. A slowing of the increase in the proportion of children living in lone-parent families is offset by and increase in poverty rates for this group. Increases in the poverty rates for very young families is offset by a decrease in the numbers of such families. Thus socio-demographic changes do not seem to account for the lack of decline in poverty rates.

Importantly, by no measure do we see real improvements in child poverty. Thus we still have the "puzzle" given the stated policy priority. We find that socioeconomic shifts, like measurement errors, are unable to explain this puzzle. This points to a need for more specific ex poste micro data evaluation of the policy initiatives in this period. We have uncovered a second "puzzle" of increasing inequality and poverty in children's clothing.

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| TABLE 1:Poverty Rates in Canada by Family Types. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
| All Persons | 14.1 | 15.4 | 16.5 | 17 | 18 | 17.1 | 17.8 | 17.9 |
| All Families | 11.1 | 12.3 | 13 | 13.5 | 14.6 | 13.5 | 14.2 | 14.5 |
| Young Families[1] | 27.9 | 37.1 | 36.5 | 41.4 | 41.1 | 44.4 | 43.5 | 42.1 |
| Female Single-Parent Families[2] | 52.9 | 59.5 | 60.3 | 56.9 | 59 | 56.4 | 56.8 | 60.8 |
| Child Poverty[3] | 15.3 | 178 | 18.9 | 19.2 | 21.3 | 19.5 | 21 | 21.1 |

[1] Head of family is under 25 years of age.
[2] Head of family under 65 years of age and children under 18 years of age.
[3] Under the age of 18 years
Source: The National Anti-Poverty Organization; Statistics Canada (1997) Income Distributions by Size in Canada 1996, Ottawa (Cat. No. 13-207) (http://www.napo-onap.ca/nf-glanc.htm)

| TABLE 2: Percentage of Children Under 18 years of age living in poverty[1] | | | | |
|---|---|---|---|---|
| | 1989 | 1992 | 1993 | 1996 |
| Newfoundland | 19.8 | 26.8 | 21.8 | 20.2 |
| Prince Edward Island | 12.7 | 12.7 | 11.4 | 18.5 |
| Nova Scotia | 16.5 | 19.4 | 23.4 | 23.5 |
| New Brunswick | 18 | 15.9 | 18 | 19.8 |
| Quebec | 16.3 | 19.3 | 21.4 | 22 |
| Ontario | 11.6 | 16.3 | 20.8 | 20.3 |
| Manitoba | 22.7 | 24.2 | 26.1 | 26.6 |
| Saskatchewan | 22 | 24 | 24.8 | 22.3 |
| Alberta | 19.1 | 24.5 | 20.6 | 20.7 |
| British Columbia | 14.7 | 19.3 | 21.5 | 20.2 |
| Canada | 15.3 | 19.2 | 21.3 | 21.1 |

[1] based on Statistics Canada's Low Income Cut-offs
Source: The National Anti-Poverty Organization Web page (http://www.napo-onap/nf-und18.htm) using Statistics Canada, Survey of Consumer Finances data

| TABLE 3: Comparison of Maximum Federal Benefits | | | | |
|---|---|---|---|---|
| | July 1993 - July 1997 | | July 1997 CTB with EIS[1, 2,3] | July 1998 Canada Child Tax Benefit[1, 4, 5] |
| | Base Child Tax Benefit [1, 2] | With EIS | | |
| 1 child | 1020 | 1520 | 1625 | 1805 |
| 2 children | 2040 | 2540 | 3050 | 3410 |
| 3 children | 3135 | 3635 | 4475 | 5015 |
| 4 children | 4230 | 4730 | 5900 | 6620 |

1.Plus $213 for each child under seven when no child care expenses are claimed.
2.Provinces/territories may request the federal government to vary the amount of base CTB payable to families in their jurisdiction. Alberta and Quebec maximum amounts depend on the age of the children, as well as the number (Quebec).
3.EIS was restructured and increased in 1997 - base child tax benefit remained unchanged.
4.There are no longer any additional benefits for low-income working families but provinces may reduce social assistance payments in equivalent amounts to the increases in benefit payments providing they shift the resources into programs to assist low-income children and low-income working parents.
5. In July 2000, the supplement will increase by another $170 per child per year. In addition to increasing the amount paid, the benefit will also be paid to more families. Currently, the National Child Benefit Supplement is paid to families with incomes of up to $25,921 (for families with up to three children). In July 1999, the National Child Benefit Supplement will be paid to families with incomes up to $27,750 and in July 2000, the income level will be extended further to $29,590.

| TABLE 4: Quebec Allowances (additional to the Child Tax Credit) | | | | |
|---|---|---|---|---|
| Year<br><br>1986 | | Family (Monthly) | Young Child (since 1989) (Monthly) | Newborn (since 1988) (single*) |
| | 1st Child | 8.22 | 8.34 (1989) | 500 (1988) |
| | 2nd Child | 10.97 | 16.67 (1989) | 500 (1988) |
| | 3rd Child | 13.71 | 41.67 (1989) | 3000 (1988) |
| | 4th Child + | 16.43 | 41.67 (1989) | 3000 (1988) |
| 1992 | 1st Child | 10.7 | 9.58 | 500 |
| | 2nd Child | 14.25 | 19.15 | 1000 |
| | 3rd Child | 17.82 | 47.87 | 8000 |
| | 4th Child + | 41.35 | 47.87 | 8000 |
| 1993 | 1st Child | 10.91 | 9.77 | 500 |
| | 2nd Child | 14.54 | 19.53 | 1000 |
| | 3rd Child | 18.18 | 48.83 | 8000 |
| | 4th Child + | 21.78 | 48.83 | 8000 |
| 1996 | 1st Child | 10.91 | 9.77 | 500 |
| | 2nd Child | 14.54 | 19.53 | 1000 |
| | 3rd Child | 18.18 | 48.83 | 8000 |
| | 4th Child + | 21.78 | 48.83 | 8000 |

*The payment for first child is made after birth, 2nd is made at half at birth and half and one year old. 3rd and subsequent are quarterly payments until the child is five.

TABLE 5: Social Assistance Entitlements, 1986 and 1996, by Province.

| | Single Parent, one child | | | | | Couple, two children | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1986 | 1995 | 1996 | % change | | 1986 | 1995 | 1996 | % change | |
| | | | | 1995 -1996 | 1986 -1996 | | | | 1995 -1996 | 1986 -1996 |
| Nfld | 11521 | 11442 | 11262 | -1.6 | -2.2 | 13327 | 12381 | 12186 | -1.6 | -8.6 |
| PEI | 11765 | 10733 | 10242 | -4.6 | -12.9 | 17240 | 16117 | 14873 | -7.7 | -13.7 |
| NS | 10863 | 10729 | 10560 | -1.6 | -2.8 | 13076 | 12672 | 13602 | 7.3 | 4 |
| NB | 9286 | 9628 | 9573 | -0.6 | 3.1 | 10045 | 10778 | 10711 | -0.6 | 6.6 |
| Que | 10951 | 11713 | 11528 | -1.6 | 5.3 | 14154 | 13741 | 13524 | -1.6 | -4.5 |
| Ont | 12456 | 14535 | 11940 | -17.9 | -4.1 | 15505 | 18716 | 15428 | -17.6 | -0.5 |
| Man | 10661 | 9790 | 9636 | -1.6 | -9.6 | 16153 | 17042 | 15273 | -10.4 | -5.4 |
| Sask | 11853 | 10548 | 10381 | -1.6 | -12.4 | 16627 | 15040 | 14803 | -1.6 | -11 |
| Alta | 12036 | 9339 | 9192 | -1.6 | -23.6 | 17895 | 14856 | 14622 | -1.6 | -18.3 |
| BC | 10574 | 12155 | 11964 | -1.6 | 13.1 | 14443 | 15502 | 15258 | -1.6 | 5.6 |

In constant $1996
Source - Information obtained from Canadian Council on Social Development Web site (http://www.ccsd.ca/98/fs_96wel.htm) Table prepared by Centre for International Statistics at the Canadian Council on Social Development, using National Council of Welfare Data, *Welfare Incomes 1996*, Winter 1997-98.

| Table 6: Welfare Income as a Percent of the Poverty Line over Time | | | | | | | |
|---|---|---|---|---|---|---|---|
| Province | | 1986 | 1992 | 1996 | % change | | |
| | | | | | 86-92 | 92-96 | 86-96 |
| Nfld | Single Parent one child | 68 | 71 | 68 | 4.4 | -4.4 | 0 |
| | Couple Two children | 58 | 56 | 53 | -3.4 | -5.7 | -8.6 |
| PEI | Single Parent one child | 71 | 71 | 64 | 0 | -9.9 | -9.9 |
| | Couple Two children | 74 | 73 | 64 | -1.4 | -12.3 | -13.5 |
| NS | Single Parent one child | 64 | 67 | 64 | 4.7 | -4.7 | 0 |
| | Couple Two children | 57 | 57 | 58 | 0 | 1.8 | 1.8 |
| NB | Single Parent one child | 56 | 55 | 59 | -1.8 | 7.3 | 5.4 |
| | Couple Two children | 46 | 45 | 48 | -2.2 | 6.7 | 4.3 |
| Quebec | Single Parent one child | 57 | 59 | 60 | 3.5 | 1.7 | 5.2 |
| | Couple Two children | 54 | 52 | 51 | -3.7 | -1.9 | -5.6 |
| Ontario | Single Parent one child | 64 | 80 | 63 | 25 | -21 | -1.6 |
| | Couple Two children | 58 | 73 | 57 | 25.9 | -21.9 | -1.7 |
| Manitoba | Single Parent one child | 56 | 60 | 52 | 7.1 | -13.3 | -7.1 |
| | Couple Two children | 60 | 68 | 56 | 13.3 | -17.6 | -6.7 |
| Saskatchewan | Single Parent one child | 70 | 66 | 63 | -5.7 | -4.5 | -10 |
| | Couple Two children | 70 | 65 | 62 | -7.1 | -4.6 | -11.4 |
| Alberta | Single Parent one child | 61 | 57 | 50 | -6.6 | -12.3 | -18 |
| | Couple Two children | 66 | 61 | 55 | -7.6 | -9.8 | 16.7 |
| BC | Single Parent one child | 55 | 64 | 63 | 16.4 | -1.6 | 14.5 |
| | Couple Two children | 54 | 56 | 56 | 3.7 | 0 | 3.7 |
| from National Council of Welfare (Winter 1999-2000) “Welfare Incomes 1997 and 1998" table 6 page 56-57 | | | | | | | |

| TABLE 7: Social Assistance Changes between 1993 and 1996 | |
|---|---|
| Newfoundland | Rate Changes: No Significant Changes<br><br>Other Changes: 1996 - Changes to health care subsidies &<br>Income tax rebate clawbacks introduced |
| PEI | Rate Changes: Shelter rates reduced by approximately 37% (May, 1994).<br><br>Other Changes:1994-GST rebate included in income calculation |
| Nova Scotia | Rate Changes: Shelter rates reduced by approximately 36% (April 1, 1996).<br><br>Other Changes:1996 -$3/prescription(max $150/year for drugs) |
| New Brunswick | Rate Changes: No Significant Changes - Rates remain the lowest in Canada.<br><br>Other Changes: |
| Quebec | Rate Changes: Rate reduced by $50 ($30)/month if available but not participating (participating) in work program; Increase in penalty for refusing to search for or take work or quitting a job; increase of $50 to $150/month for first refusal or quit and a maximum of $300/month for second refusal or quit (April 1, 1996).<br><br>Other Changes: 1994-pay 25% prescription drug (max $200/yr) |
| Ontario | Rate Changes: Rates reduced by 21.6% except for disabled and seniors (Oct. 1, 1995).<br><br>Other Changes: 1995 - $2/prescription fee |
| Manitoba | Rate Changes: 10% cut for employable singles and families without children. 2% decrease to overall budget for single-parent families (May 1, 1996).<br><br>Other Changes:1994- special needs category cancelled (was $150 for winter clothes, furniture etc) 1996- ineligible for provincial property and cost-of-living tax credits. |
| Saskatchewan | Rate Changes: No Changes.<br><br>Other Changes: |
| Alberta | Rate Changes: Basic Rates cut 13% for single employable and families (1993)<br><br>Other Changes:1993 - drug coverage limited to life sustaining drugs, No last months rent or utility hook-up. |
| British Columbia | Rate Changes: Basic Rates for employable youth and adults reduced by 8-10%; Non-shelter portion of benefits cut by 20% (1995)<br><br>Other Changes: natal allowances increased from $25 to $40/month (til 7 mon). Health Care service supplements decreased. |
| Source: NAPO “Monitoring the Impacts on Social Assistance Recipients of Welfare Cuts and Changes: An Overview, Ottawa, October 1996 | |

| TABLE 8: Poverty and Inequality Measures - Income[1] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Private Income[2] | | | Net Income[3] | | | Total Expenditure[4] | | |
| | 1986 | 1992 | 1996 | 1986 | 1992 | 1996 | 1986 | 1992 | 1996 |
| 10% | 351 | 86 | 145 | 759 | 796 | 777 | 766 | 795 | 770 |
| 25% | 1058 | 954 | 1062 | 1142 | 1150 | 1220 | 1013 | 1037 | 1007 |
| Median | 1707 | 1788 | 1866 | 1556 | 1605 | 1692 | 1290 | 1318 | 1322 |
| Mean | 1763 | 1836 | 1931 | 1627 | 1702 | 1768 | 1346 | 1393 | 1379 |
| 75% | 2435 | 2571 | 2715 | 2047 | 2125 | 2203 | 1641 | 1704 | 1673 |
| 90% | 3099 | 3500 | 3545 | 2543 | 2717 | 2817 | 1985 | 2095 | 2066 |
| Inequality | | | | | | | | | |
| 90/10 | 8.84 | 40.87 | 24.38 | 3.35 | 3.41 | 3.66 | 2.59 | 2.63 | 2.68 |
| 75/25 | 2.30 | 2.70 | 2.56 | 1.79 | 1.85 | 1.81 | 1.62 | 1.64 | 1.66 |
| Gini | 0.330 | 0.372 | 0.361 | 0.234 | 0.242 | 0.245 | 0.199 | 0.199 | 0.202 |
| A(0.5) | -- | -- | -- | 0.044 | 0.047 | 0.049 | 0.032 | 0.031 | 0.032 |
| A(1) | -- | -- | -- | 0.090 | 0.094 | 0.100 | 0.064 | 0.063 | 0.065 |
| A(2) | -- | -- | -- | 0.184 | 0.188 | 0.205 | 0.131 | 0.126 | 0.130 |
| Poverty | | | | | | | | | |
| FGT(1) | 0.123 | 0.155 | 0.120 | 0.031 | 0.026 | 0.333 | 0.011 | 0.007 | 0.008 |
| %<0.5*median[5] | 20.6 | 23.8 | 22.3 | 13.3 | 12.6 | 13.6 | 6.8 | 5.4 | 6.1 |
| %<0.5*1986 median[5] | 20.6 | 23.8 | 21.7 | 13.3 | 12.3 | 12.1 | 6.8 | 5.1 | 6.0 |
| 0.5*median Income Measures[5] | 905.1 | 904 | 925 | 858 | 867 | 905 | 688 | 692 | 691 |

1 Monthly 1992 dollars. Equivalence scale - square root of household size. Reweighted by (households weights * # of children in household).
2 Equivalent Earned Income.
3 Equivalent Income after taxes and transfers.
4 Equivalent Total household expenditure
5 In all cases we compare to the median of the *complete* population, weighted by household weights.

| TABLE 9: Poverty and Inequality Measures - Expenditure[1] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total Expenditure | | | Expenditure on Food | | | Expenditure on Children's Clothing | | |
| | 1986 | 1992 | 1996 | 1986 | 1992 | 1996 | 1986 | 1992 | 1996 |
| 10% | 766 | 795 | 770 | 182 | 168 | 154 | 6.79 | 6.67 | 4.41 |
| 25% | 1013 | 1037 | 1007 | 229 | 213 | 202 | 21.2 | 19.1 | 16.1 |
| Median | 1290 | 1318 | 1322 | 293 | 272 | 268 | 39.7 | 36.8 | 31.3 |
| Mean | 1346 | 1393 | 1379 | 306 | 285 | 276 | 44.8 | 41.8 | 36.7 |
| 75% | 1641 | 1704 | 1673 | 369 | 345 | 338 | 63.6 | 60 | 52.3 |
| 90% | 1985 | 2095 | 2066 | 452 | 423 | 405 | 89.1 | 83.1 | 76.7 |
| Inequality | | | | | | | | | |
| 90/10 | 2.59 | 2.63 | 2.68 | 2.49 | 2.52 | 2.63 | 13.11 | 12.46 | 17.41 |
| 75/25 | 1.62 | 1.64 | 1.66 | 1.61 | 1.62 | 1.67 | 3.00 | 3.14 | 3.24 |
| Gini | 0.199 | 0.199 | 0.202 | 0.193 | 0.197 | 0.203 | 0.394 | 0.396 | 0.415 |
| A(0.5) | 0.032 | 0.031 | 0.032 | 0.030 | 0.031 | 0.033 | -- | -- | -- |
| A(1) | 0.064 | 0.063 | 0.065 | 0.061 | 0.063 | 0.068 | -- | -- | -- |
| A(2) | 0.131 | 0.126 | 0.130 | 0.128 | 0.129 | 0.142 | -- | -- | -- |
| Poverty | | | | | | | | | |
| FGT(1) | 0.011 | 0.007 | 0.008 | 0.011 | 0.010 | 0.013 | 0.128 | 0.131 | 0.141 |
| %<0.5*median[2] | 6.8 | 5.4 | 6.1 | 5.2 | 5.2 | 6.5 | 21.4 | 22.9 | 23.9 |
| %<0.5*1986 median[2] | 6.8 | 5.1 | 6.0 | 5.2 | 7.1 | 9.9 | 21.4 | 24.4 | 30.1 |
| 0.5*median[2] | 688 | 692 | 690 | 154 | 141 | 139 | 18.6 | 17.5 | 15.3 |

1 Monthly 1992 dollars divided by square root of household size., Households with children only, weighted by (households weights * # of children in household)

2 In all cases we compare to the median of the *complete* population, weighted by household weights.

| TABLE 10: Equivalent Total Expenditure[1] | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Individual[2] | | | Household[3] | | | Family[4] | | | Children [5] | | |
| | 1986 | 1992 | 1996 | 1986 | 1992 | 1996 | 1986 | 1992 | 1996 | 1986 | 1992 | 1996 |
| 10% | 786 | 802 | 699 | 748 | 766 | 774 | 774 | 807 | 770 | 766 | 795 | 770 |
| 25% | 1042 | 1052 | 1058 | 997 | 1007 | 1010 | 1041 | 1048 | 1021 | 1013 | 1037 | 1007 |
| Median | 1376 | 1385 | 1382 | 1345 | 1359 | 1354 | 1341 | 1345 | 1345 | 1290 | 1318 | 1322 |
| Mean | 1447 | 1473 | 1462 | 1441 | 1462 | 1449 | 1393 | 1417 | 1400 | 1346 | 1393 | 1379 |
| 75% | 1777 | 1805 | 1781 | 1788 | 1804 | 1777 | 1699 | 1724 | 1715 | 1641 | 1704 | 1673 |
| 90% | 2179 | 2239 | 2500 | 2224 | 2269 | 2248 | 2063 | 2107 | 2096 | 1985 | 2095 | 2066 |
| Inequality | | | | | | | | | | | | |
| 90/10 | 2.77 | 2.79 | 2.76 | 2.98 | 2.96 | 2.91 | 2.67 | 2.61 | 2.72 | 2.59 | 2.63 | 2.68 |
| 75/25 | 1.71 | 1.72 | 1.68 | 1.79 | 1.79 | 1.76 | 1.63 | 1.65 | 1.68 | 1.62 | 1.64 | 1.66 |
| Gini | 0.214 | 0.215 | 0.211 | 0.229 | 0.230 | 0.224 | 0.201 | 0.200 | 0.205 | 0.199 | 0.199 | 0.202 |
| A(0.5) | 0.036 | 0.037 | 0.035 | 0.041 | 0.041 | 0.039 | 0.032 | 0.032 | 0.033 | 0.032 | 0.031 | 0.032 |
| A(1) | 0.072 | 0.073 | 0.070 | 0.081 | 0.082 | 0.078 | 0.067 | 0.063 | 0.067 | 0.064 | 0.063 | 0.065 |
| A(2) | 0.144 | 0.143 | 0.138 | 0.159 | 0.157 | 0.151 | 0.133 | 0.127 | 0.134 | 0.131 | 0.126 | 0.130 |
| Poverty | | | | | | | | | | | | |
| FGT(1) | 0.008 | 0.006 | 0.006 | 0.009 | 0.007 | 0.008 | 0.010 | 0.007 | 0.009 | 0.011 | 0.007 | 0.008 |
| %<0.5* median[6] | 5.7 | 5.2 | 4.7 | 7.0 | 6.4 | 5.7 | 6.4 | 5.2 | 6.2 | 6.8 | 5.4 | 6.1 |
| %<0.5* 1986 median[6] | 5.7 | 5.0 | 4.6 | 7.0 | 6.2 | 5.6 | 6.4 | 5.1 | 6.1 | 6.8 | 5.1 | 6.0 |
| 0.5* median[6] | 688 | 692 | 691 | 688 | 692 | 691 | 688 | 692 | 691 | 688 | 692 | 691 |

1 Monthly 1992 dollars divided by square root of household size.
2 Complete population, weighted by (household weights * hhsize).
3 All households weighted by household weights.
4 Households with children only, weighted by household weights.
5 Households with children only, weighted by (households weights * # of children in household)
6 In all cases we compare to the median of the *complete* population, weighted by household weights.

| TABLE 11: Equivalent Total Expenditure[1] - Different Equivalent Scales | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | /(Household size)$^{0.5}$ [2] | | | /Household size[3] | | | /OECD scale[4] | | | /1 [5] | | |
| | 1986 | 1992 | 1996 | 1986 | 1992 | 1996 | 1986 | 1992 | 1996 | 1986 | 1992 | 1996 |
| 10% | 766 | 795 | 770 | 365 | 392 | 383 | 560 | 610 | 576 | 1536 | 1540 | 1503 |
| 25% | 1013 | 1037 | 1007 | 468 | 504 | 491 | 725 | 763 | 743 | 2096 | 2077 | 2034 |
| Median | 1290 | 1318 | 1322 | 624 | 652 | 652 | 941 | 974 | 971 | 2696 | 2677 | 2701 |
| Mean | 1346 | 1393 | 1379 | 660 | 699 | 689 | 982 | 1039 | 1020 | 2787 | 2811 | 2804 |
| 75% | 1641 | 1704 | 1673 | 811 | 858 | 833 | 1200 | 1262 | 1230 | 3420 | 3436 | 3428 |
| 90% | 1985 | 2095 | 2066 | 988 | 1058 | 1179 | 1441 | 1557 | 1527 | 4138 | 4256 | 4321 |
| Inequality | | | | | | | | | | | | |
| 90/10 | 2.59 | 2.63 | 2.68 | 2.71 | 2.70 | 2.70 | 2.57 | 2.55 | 2.65 | 2.69 | 2.76 | 2.82 |
| 75/25 | 1.62 | 1.64 | 1.66 | 1.73 | 1.70 | 1.70 | 1.66 | 1.65 | 1.66 | 1.63 | 1.65 | 1.69 |
| Gini | 0.199 | 0.199 | 0.202 | 0.217 | 0.210 | 0.212 | 0.204 | 0.200 | 0.203 | 0.201 | 0.208 | 0.213 |
| A(0.5) | 0.032 | 0.031 | 0.032 | 0.038 | 0.035 | 0.035 | 0.033 | 0.032 | 0.032 | 0.033 | 0.034 | 0.036 |
| A(1) | 0.064 | 0.063 | 0.065 | 0.075 | 0.069 | 0.070 | 0.067 | 0.063 | 0.065 | 0.067 | 0.069 | 0.074 |
| A(2) | 0.131 | 0.126 | 0.130 | 0.150 | 0.136 | 0.137 | 0.135 | 0.125 | 0.128 | 0.134 | 0.141 | 0.152 |
| Poverty | | | | | | | | | | | | |
| FGT(1) | 0.011 | 0.007 | 0.008 | 0.022 | 0.016 | 0.017 | 0.015 | 0.010 | 0.011 | 0.010 | 0.007 | 0.008 |
| %<0.5* median[6] | 6.8 | 5.4 | 6.1 | 11.9 | 10.1 | 11.3 | 8.5 | 7.2 | 7.7 | 5.2 | 4.5 | 5.3 |
| %<0.5* 1986 median[6] | 6.8 | 5.1 | 6.0 | 11.9 | 8.6 | 9.5 | 8.5 | 5.7 | 6.6 | 5.2 | 4.8 | 5.7 |
| 0.5* median | 688 | 692 | 691 | 377 | 395 | 393 | 537 | 553 | 559 | 1263 | 1239 | 1229 |

1 Monthly 1992 dollars divided by alternative equivalence scales. Reweighted by (households weights * # of children in household)
2 total expenditure/(# in household)$^{0.5}$ .
3 total expenditure/(# in household).
4 total expenditure/(1.0 + 0.7*(# adults-1) + 0.5(# of children).
5 total expenditure.
6 In all cases we compare to the median of the *complete* population, weighted by household weights.

| Table 12: Decompositions of Equivalent Total Expenditure | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Group | 1986 | | | | 1992 | | | | 1996 | | | |
| | % Pop | % Poor Group | % Total Poor | Mean Gap | % Pop | % Poor Group | % Total Poor | Mean Gap | % Pop | % Poor Group | % Total Poor | Mean Gap |
| Family Type | | | | | | | | | | | | |
| Married | 86.9 | 4.5 | 57.5 | 124.1 | 80.6 | 3.3 | 49.3 | 108.0 | 79.1 | 3.5 | 45.4 | 83.3 |
| Lone Parent | 10.3 | 27.0 | 40.9 | 99.9 | 15.7 | 16.6 | 48.3 | 73.2 | 13.6 | 21.8 | 48.6 | 93.1 |
| Other | 3.8 | 5.3 | 3.0 | 83.8 | 3.7 | 2.9 | 2.0 | 43.0 | 7.3 | 3.6 | 4.3 | 148.6 |
| Age of Head of Household | | | | | | | | | | | | |
| <=25 | 4.4 | 15.3 | 9.9 | 123.2 | 3.6 | 17.2 | 11.5 | 62.7 | 3.8 | 24.9 | 15.5 | 104.0 |
| 26-35 | 41.5 | 7.6 | 46.4 | 105.5 | 39.9 | 6.3 | 46.6 | 103.8 | 36.8 | 7.5 | 45.2 | 96.3 |
| >36 | 54.1 | 5.6 | 44.6 | 118.7 | 56.5 | 4.0 | 41.9 | 81.8 | 59.4 | 3.9 | 38.0 | 79.4 |
| Region | | | | | | | | | | | | |
| Atlantic | 10.1 | 12.7 | 18.9 | 126.4 | 9.0 | 10.9 | 18.2 | 98.7 | 7.6 | 9.4 | 11.7 | 114.4 |
| Quebec | 25.6 | 8.4 | 31.6 | 85.0 | 24.9 | 6.9 | 31.8 | 81.7 | 24.1 | 6.9 | 27.3 | 92.1 |
| Ontario | 34.7 | 6.5 | 33.2 | 128.3 | 36.9 | 3.6 | 24.6 | 93.5 | 37.5 | 5.8 | 35.7 | 69.0 |
| Prairies | 18.8 | 4.6 | 12.7 | 132.4 | 17.7 | 6.0 | 19.7 | 91.0 | 18.3 | 5.8 | 17.4 | 109.4 |
| BC | 10.7 | 2.7 | 4.2 | 88.6 | 11.6 | 2.6 | 5.6 | 88.2 | 12.5 | 3.6 | 7.4 | 111.6 |
| Poverty Rate | 6.8 | | | | 5.4 | | | | 6.1 | | | |

| Table 13: Inequality by Subgroup and Decompositions - Total Expenditure | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Group | 1986 | | | 1992 | | | 1996 | | |
| | A(0.5) | A(1.0) | A(1.5) | A(0.5) | A(1.0) | A(1.5) | A(0.5) | A(1.0) | A(1.5) |
| Family Type | | | | | | | | | |
| Married | 0.0288 | 0.0583 | 0.1194 | 0.0276 | 0.0555 | 0.1129 | 0.0281 | 0.0563 | 0.1129 |
| Lone Parent | 0.0413 | 0.0800 | 0.1488 | 0.0420 | 0.0804 | 0.1463 | 0.0425 | 0.0816 | 0.1496 |
| Other | 0.0260 | 0.0520 | 0.1036 | 0.0283 | 0.0573 | 0.1151 | 0.0310 | 0.0624 | 0.1261 |
| Decomposition | | | | | | | | | |
| Total | 0.0318 | 0.0641 | 0.1305 | 0.0313 | 0.0628 | 0.1260 | 0.0324 | 0.0650 | 0.1299 |
| Within | 0.0297 | 0.0598 | 0.1212 | 0.0295 | 0.0588 | 0.1173 | 0.0299 | 0.0595 | 0.1177 |
| Between | 0.0021 | 0.0044 | 0.0094 | 0.0018 | 0.0040 | 0.0087 | 0.0025 | 0.0055 | 0.0122 |
| Age of Head of Household | | | | | | | | | |
| <=25 | 0.0327 | 0.0650 | 0.1286 | 0.0364 | 0.0705 | 0.1307 | 0.0450 | 0.0872 | 0.1623 |
| 26-35 | 0.0319 | 0.0642 | 0.1292 | 0.0305 | 0.0611 | 0.1239 | 0.0328 | 0.0656 | 0.1302 |
| >36 | 0.0300 | 0.0608 | 0.1252 | 0.0299 | 0.0599 | 0.1200 | 0.0295 | 0.0591 | 0.1184 |
| Decomposition | | | | | | | | | |
| Total | 0.0318 | 0.0641 | 0.1305 | 0.0313 | 0.0628 | 0.1260 | 0.0324 | 0.0650 | 0.1299 |
| Within | 0.0308 | 0.0623 | 0.1270 | 0.0303 | 0.0607 | 0.1218 | 0.0311 | 0.0622 | 0.1238 |
| Between | 0.0010 | 0.0018 | 0.0035 | 0.0011 | 0.0021 | 0.0042 | 0.0013 | 0.0028 | 0.0061 |
| Region | | | | | | | | | |
| Atlantic | 0.0339 | 0.0677 | 0.1348 | 0.0317 | 0.0630 | 0.1243 | 0.0342 | 0.0680 | 0.1345 |
| Quebec | 0.0338 | 0.0676 | 0.1338 | 0.0322 | 0.0639 | 0.1254 | 0.0297 | 0.0595 | 0.1189 |
| Ontario | 0.0301 | 0.0616 | 0.1297 | 0.0293 | 0.0592 | 0.1219 | 0.0324 | 0.0652 | 0.1308 |
| Prairies | 0.0307 | 0.0620 | 0.1258 | 0.0314 | 0.0628 | 0.1246 | 0.0319 | 0.0637 | 0.1270 |
| BC | 0.0250 | 0.0499 | 0.0987 | 0.0260 | 0.0522 | 0.1045 | 0.0316 | 0.0639 | 0.1303 |
| Decomposition | | | | | | | | | |
| Total | 0.0318 | 0.0641 | 0.1305 | 0.0313 | 0.0628 | 0.1260 | 0.0324 | 0.0650 | 0.1299 |
| Within | 0.0309 | 0.0624 | 0.1270 | 0.0301 | 0.0603 | 0.1212 | 0.0317 | 0.0636 | 0.1275 |
| Between | 0.0009 | 0.0017 | 0.0035 | 0.0012 | 0.0025 | 0.0047 | 0.0007 | 0.0013 | 0.0023 |

**Figure 1 Poverty Rates (Total, Seniors, and Families with Children)**

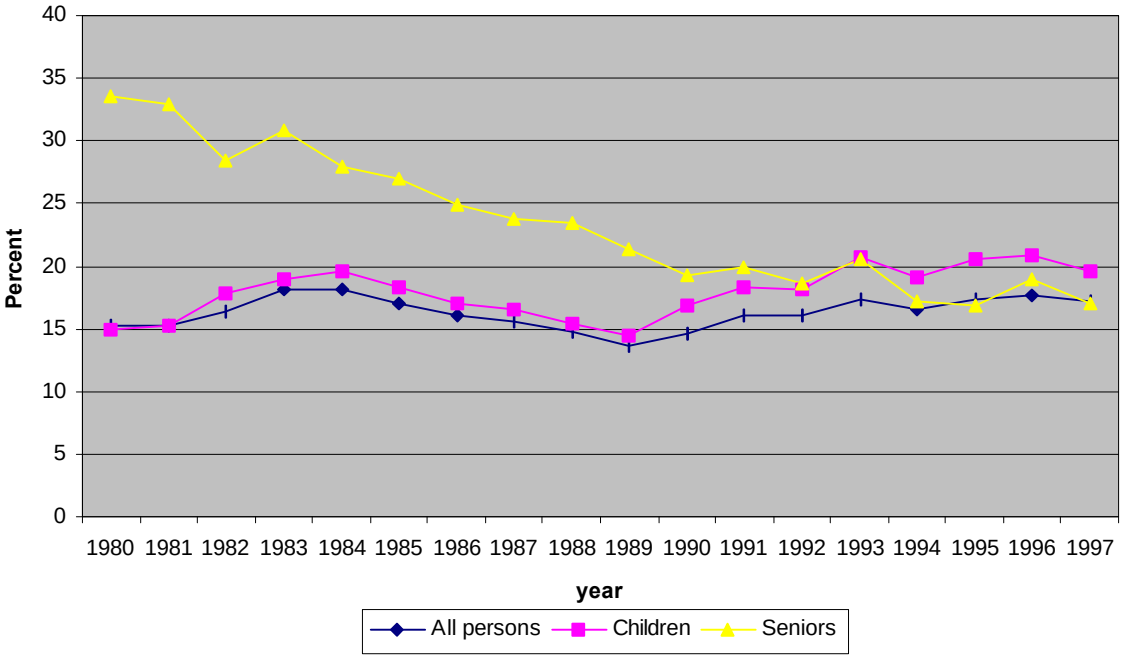
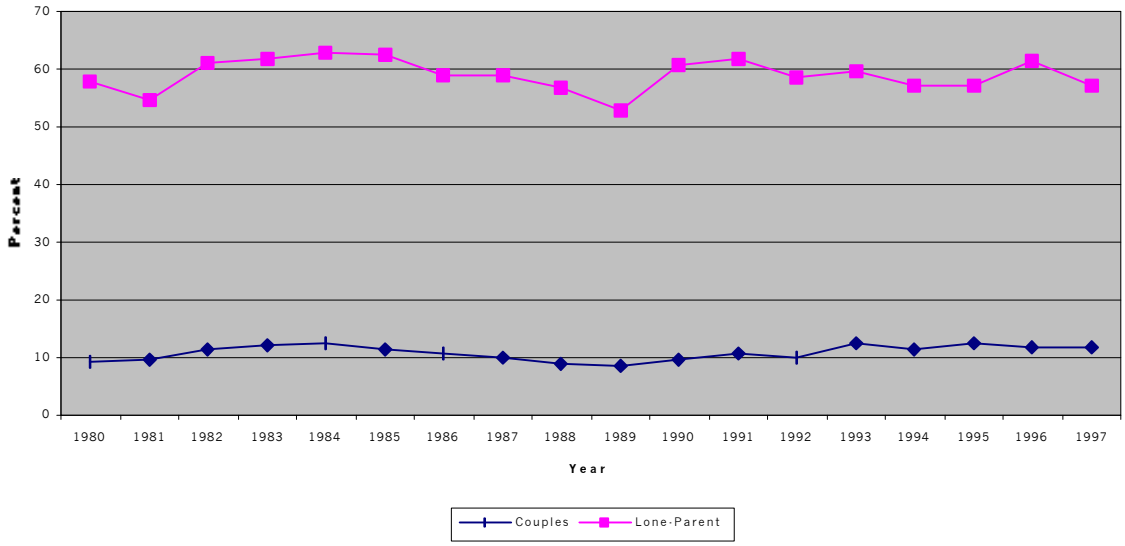



**Figure 2 Families in Poverty (Parents <65 with Children <18)**




Source: Phipps (1999).

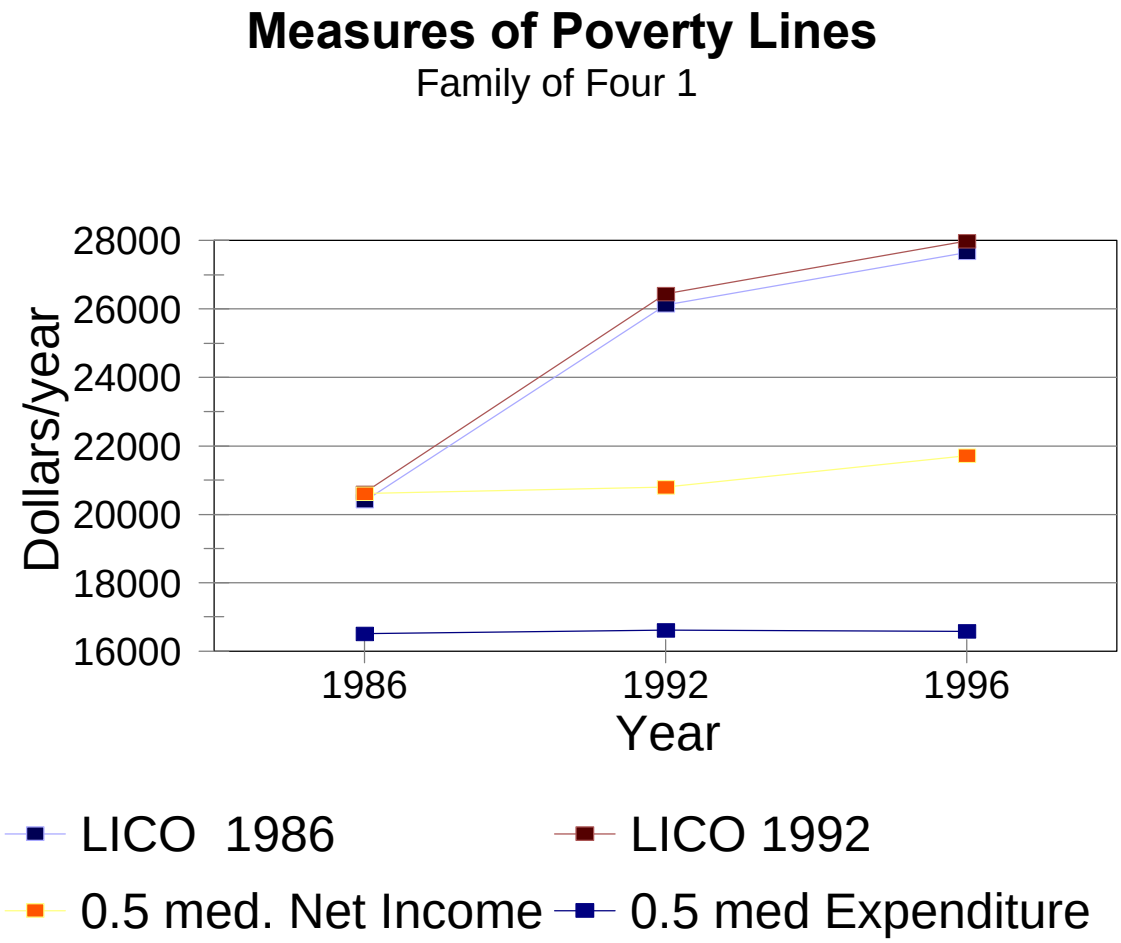



Figure 3

source - Licos - Statistics Canada - Lico for Family of Four living in Urban Area of size 100k-500k
Median Income and Expenditures - Calculated from Famex

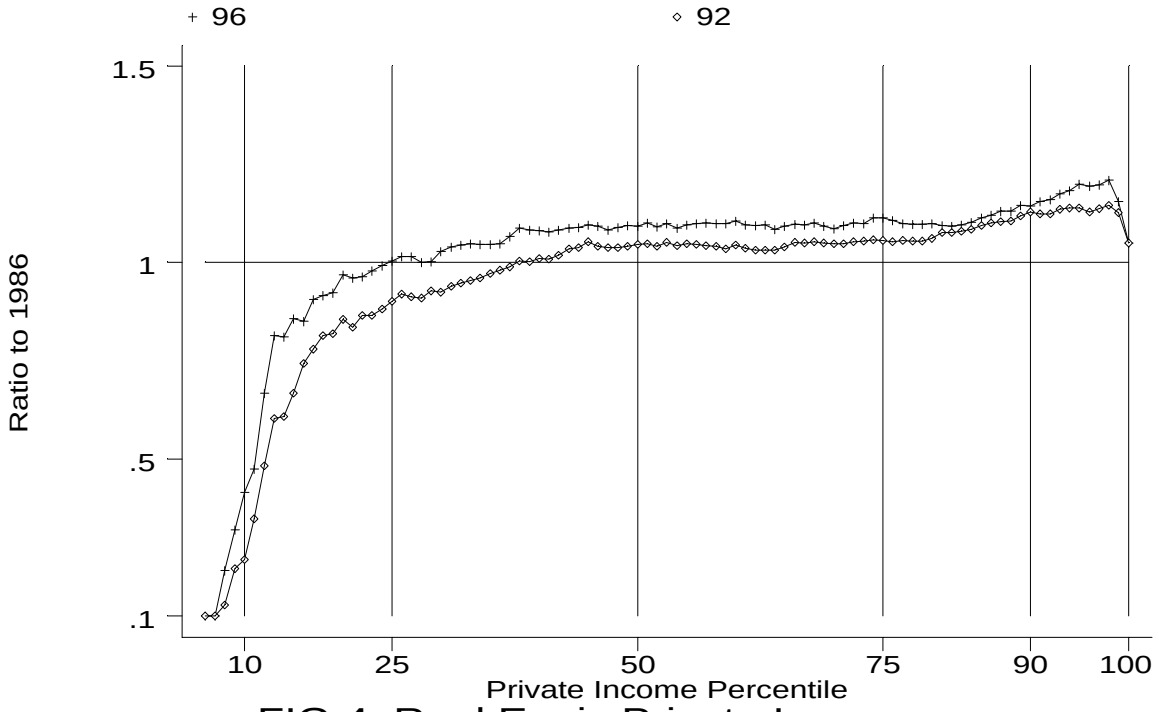



FIG 4: Real Equiv Private Income

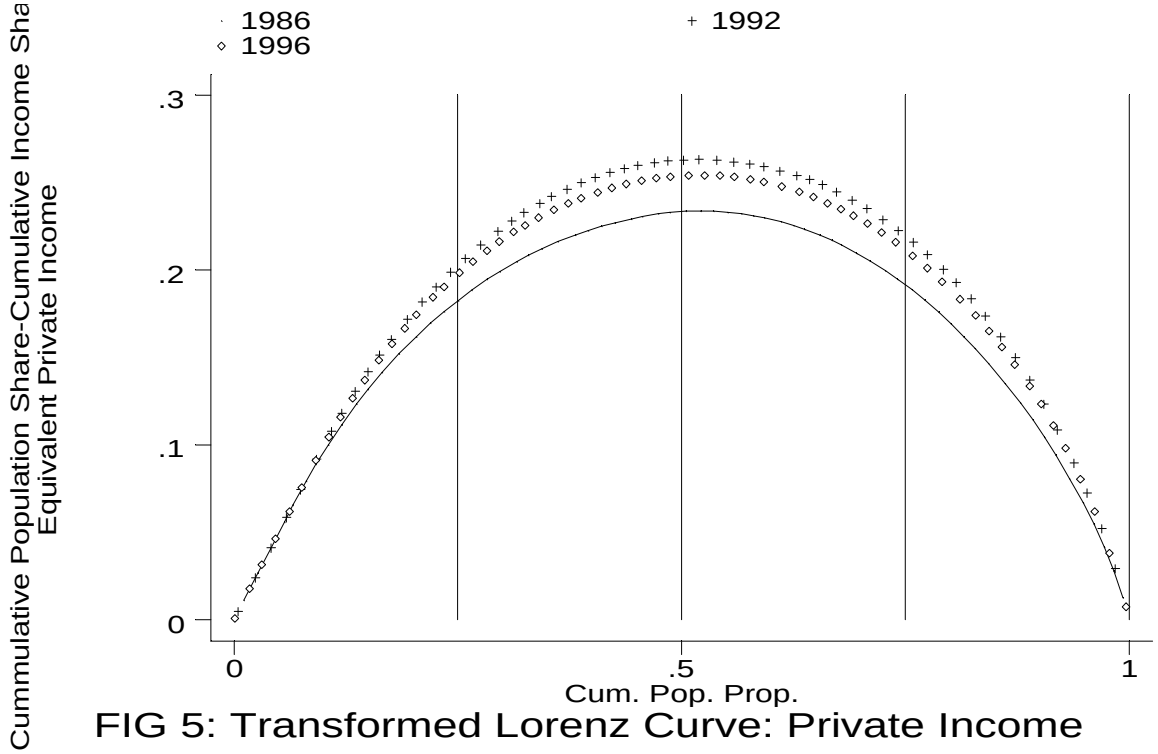



FIG 5: Transformed Lorenz Curve: Private Income

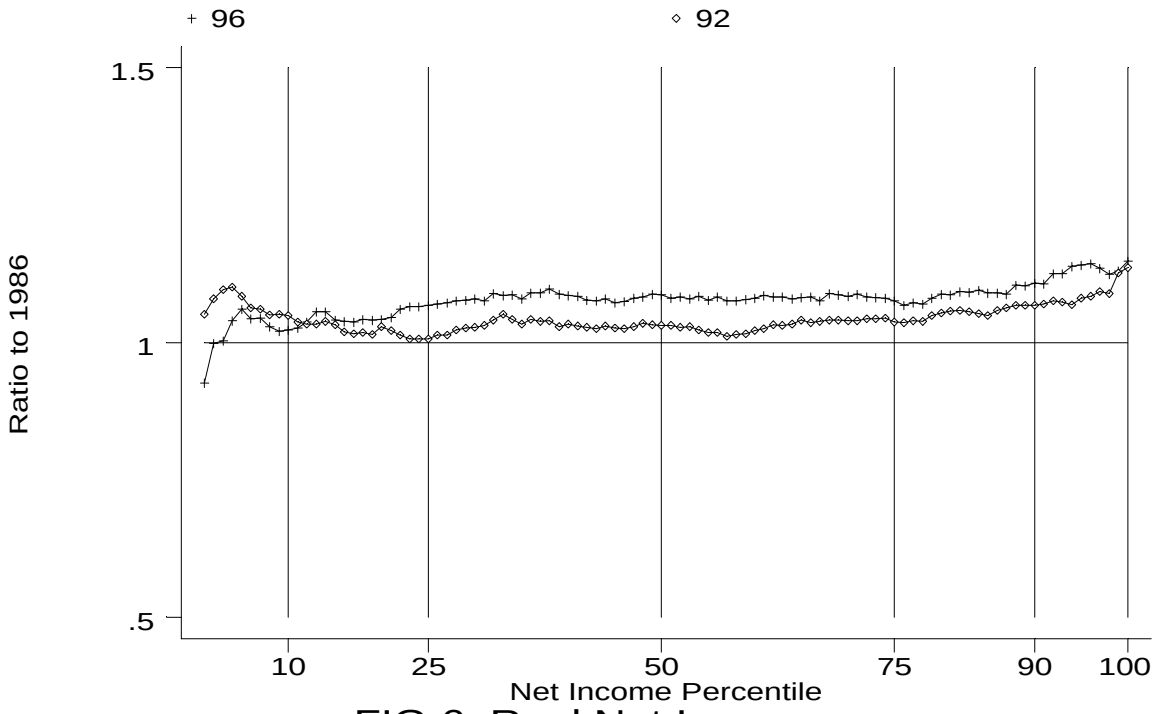



FIG 6: Real Net Income

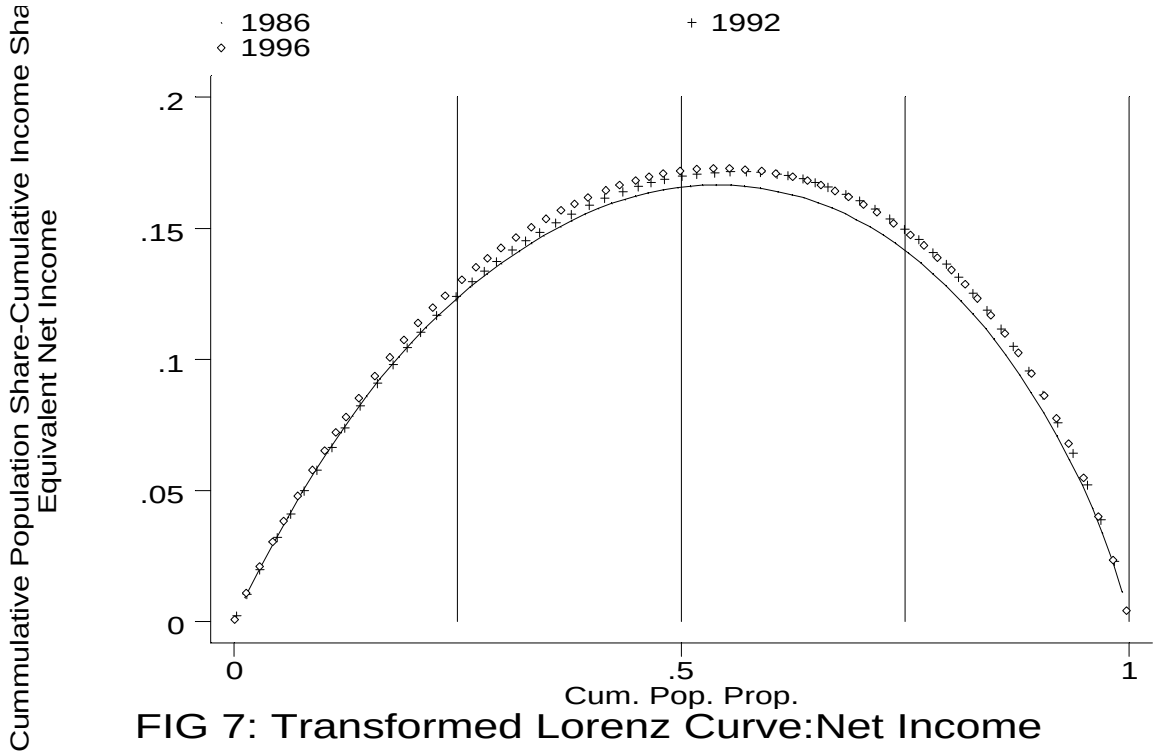



FIG 7: Transformed Lorenz Curve:Net Income

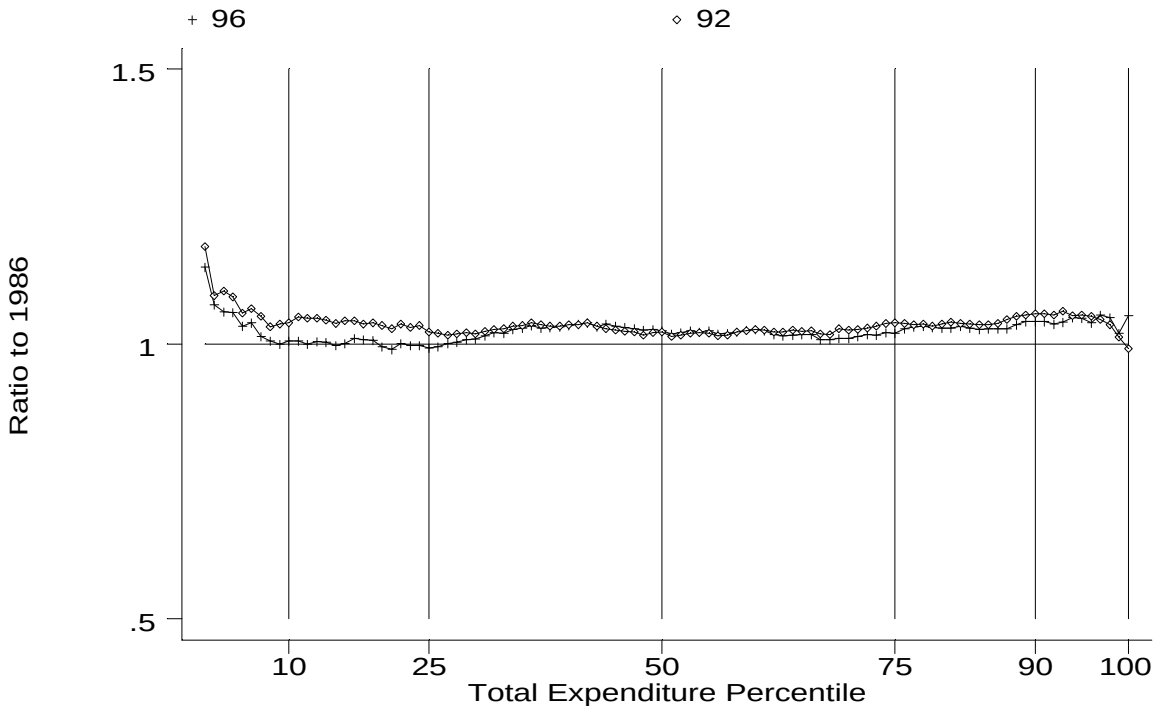



FIG 8: Real Equiv Total Expend Growth

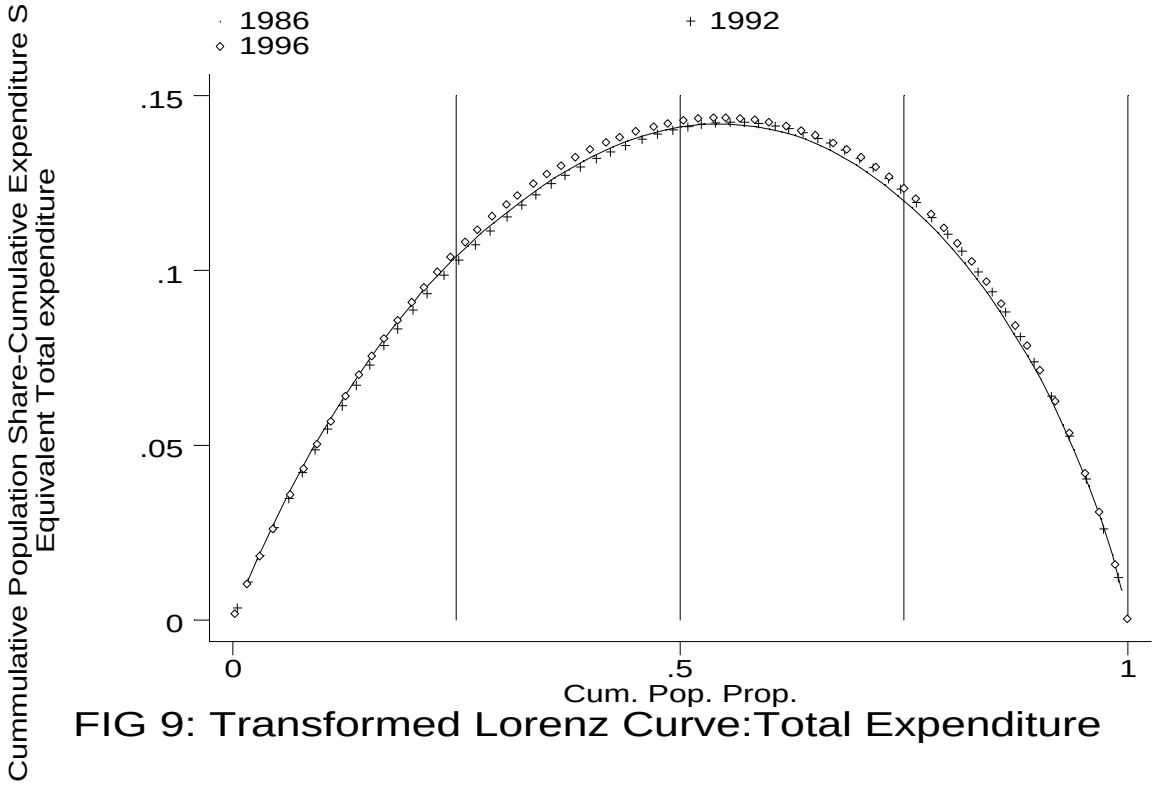



FIG 9: Transformed Lorenz Curve:Total Expenditure

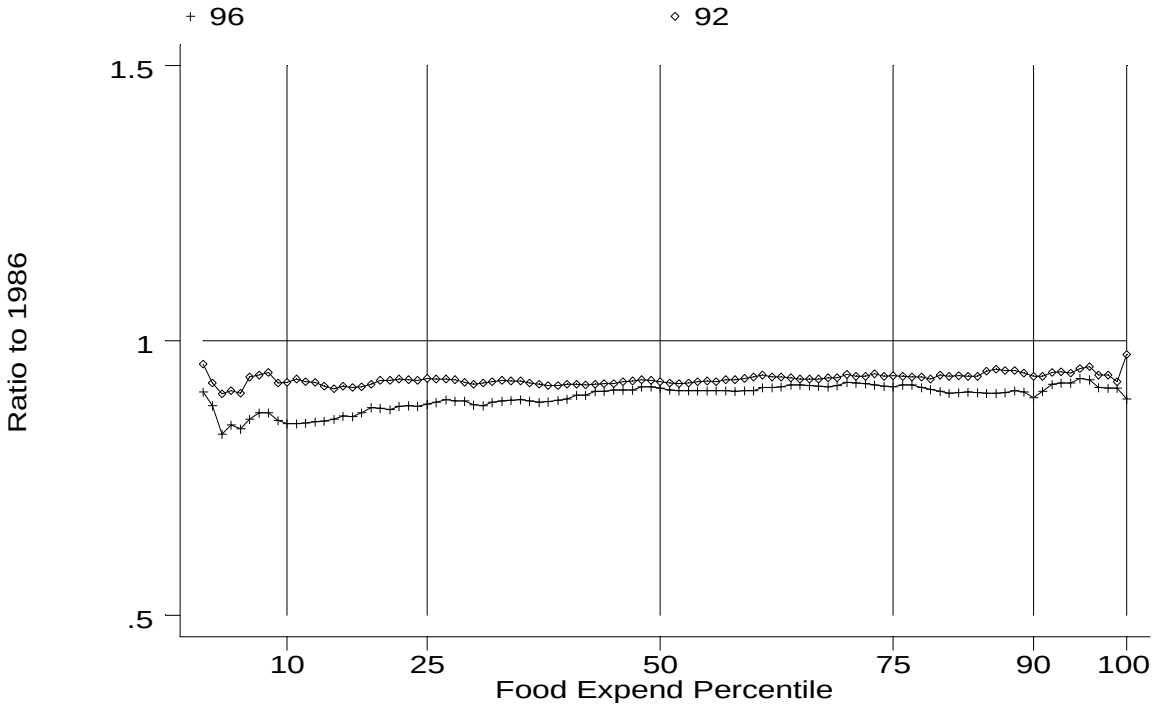



FIG 10: Real Equiv FOOD Expend Growth

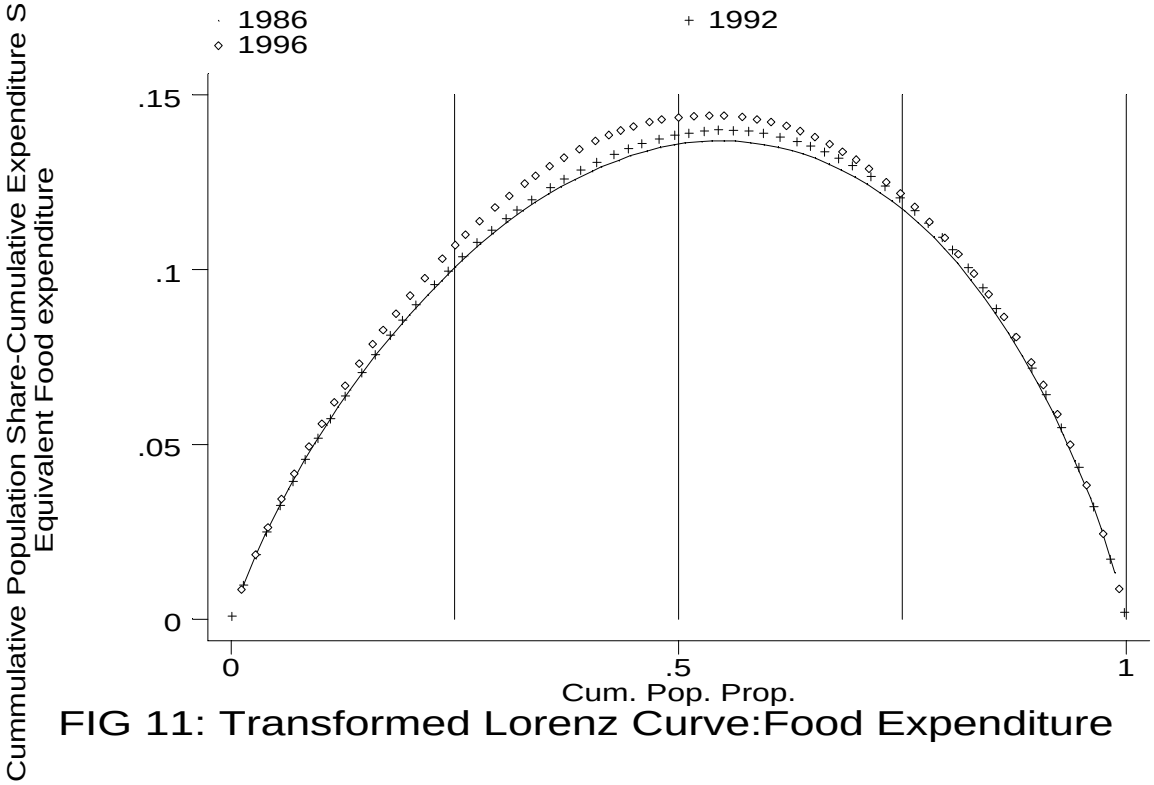



FIG 11: Transformed Lorenz Curve:Food Expenditure

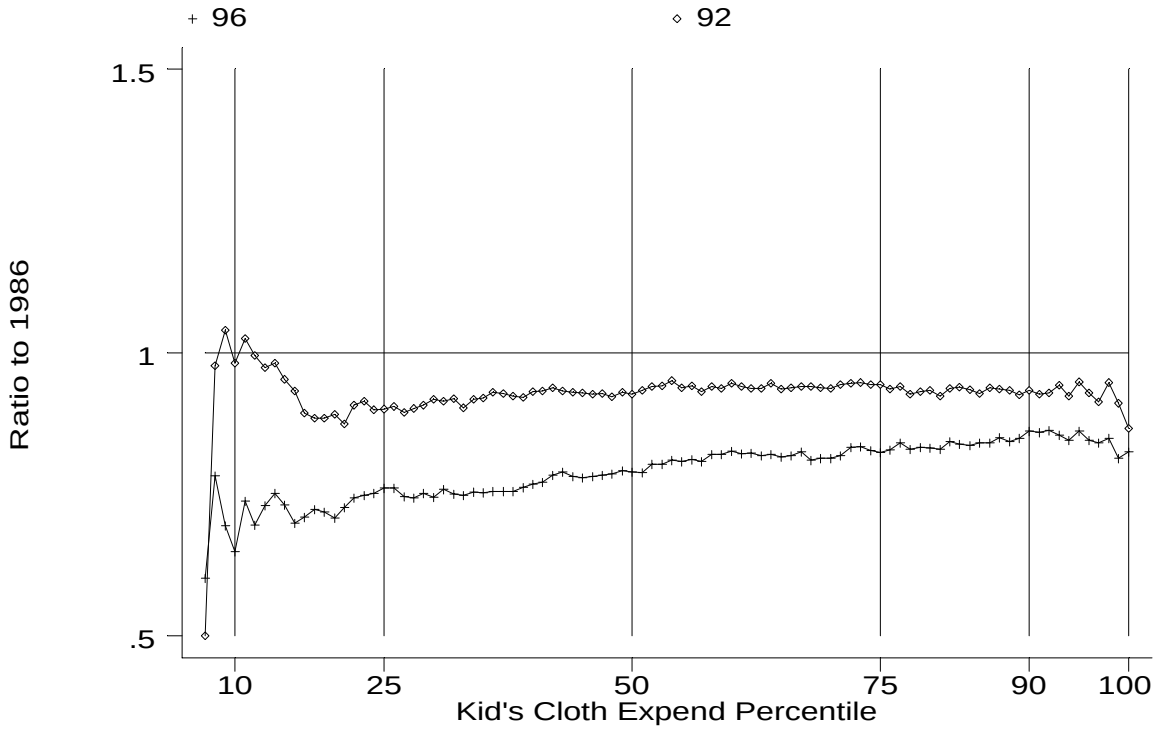



FIG 12: Real Equiv Cloth Expend Growth

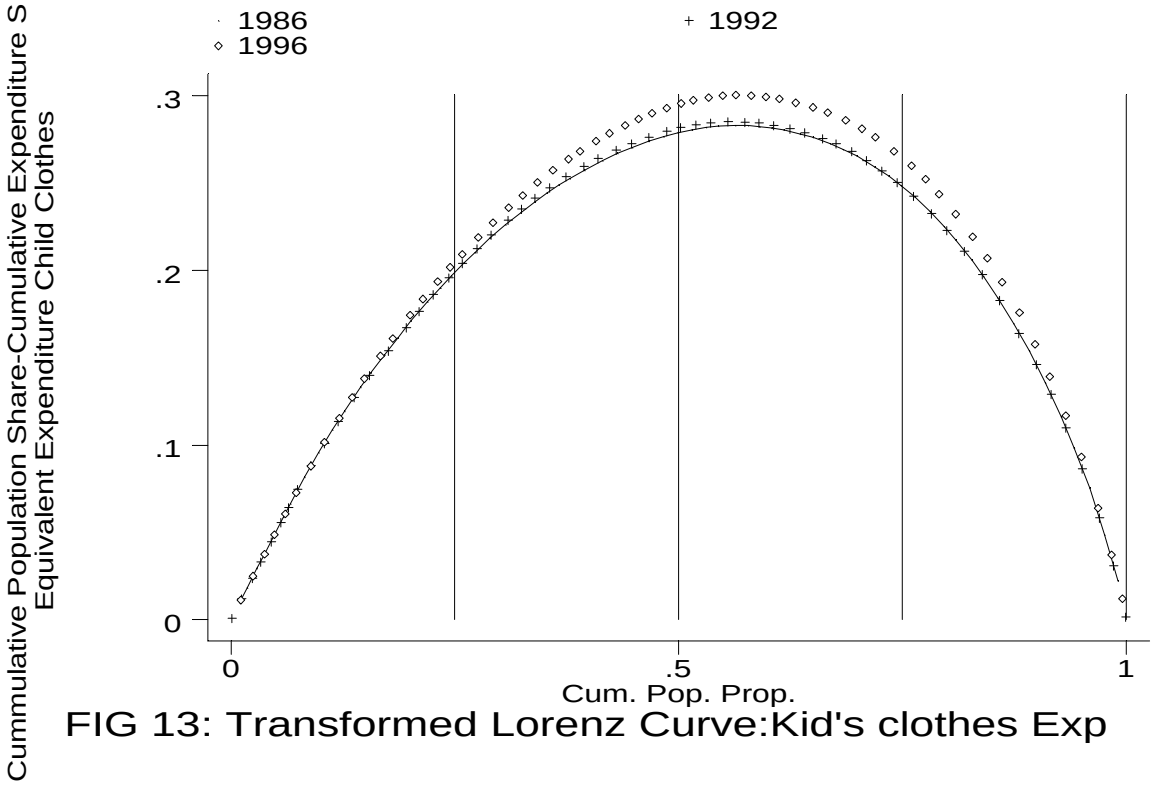



FIG 13: Transformed Lorenz Curve:Kid's clothes Exp