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## Poverty and Parenthood across Modern Nations: Findings from the Luxembourg Income Study

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Luxembourg Income Study**

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**March 1999**

**FIRST DRAFT**  
**NOT FOR QUOTATION WITHOUT PERMISSION**

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Findings from the Luxembourg Income Study**

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## Introduction

All modern societies face the issue of how to best support its children when labor and capital markets fail to produce adequate levels of income for their parents. Public and private means of economic and social support are mixed in rich nations to provide for both a minimally adequate level of economic and social support for families with children, and an equal opportunity for economic and social success amongst all children in the society. If we accept these goals, we might then measure failure to achieve the first outcome (adequacy) by the child poverty rate, and progress toward the second goal (equal opportunity) by the narrowness of the spread in incomes between the rich and poor in any a society. However, not all nations equally achieve these goals. If we create such measures as this, previous research has established that the United States has both the highest child poverty rate (20 percent or more) **and** the widest economic distance from poor to rich children of any modern (OECD) society (Bradshaw and Chen, 1996; Smeeding 1997; Rainwater and Smeeding 1995).

Others have published repeatedly on the high economic and social costs of child poverty in the United States and its social consequences (e.g. Sherman, 1998; Duncan and Brooks-Gunn, 1997; Duncan et al. 1998). In fact, this disturbing outcome has provoked us to begin a set of wider and more complete studies designed to isolate the factors which produce poor child outcomes in the United States in comparison to those found in other nations. This paper is the second in a series of three related papers which try to examine why we find this outcome. The general rubric under which we are operating is termed “the cost of children.” The rest of this introductory section of the paper discusses this project, the findings of our first paper on differences in poverty amongst men and women, and subsequent papers to follow.<sup>1</sup> The second part of the paper presents our thoughts on the piece of the puzzle which we address here: the economic situation of parents and the poverty cost

of parenthood. Next we discuss our definitions, data and methods (section III), results (section IV) and finally a summary discussion and conclusions (section V).

## **Costs of Children**

Faced with high levels of child poverty and moved by its steep economic and social costs (e.g., Duncan and Brooks-Gunn 1997; Duncan et al 1998; Sherman 1998; Haveman and Wolfe 1995) we believe that there is a greater need to examine the sources of this problem from a cross-national perspective. We are attracted by cross-national analysis because all societies face the challenge of keeping children from poverty and providing them with an equal opportunity of future success. Starting from this perspective, we argue that there are three key elements in determining cross-national differences in the economic status of families and children: private economic support; demographic differences; and national income support policies. Children's economic well-being is primarily determined by the income of their parents, subject to the time pressures of work and childrearing. Children in very large families and in single parent families often stretch the limits of economic resources lending a demographic element to our study. And governments to a varying degree level the playing field by providing direct and indirect income support to children and their parents, allowing them to better mix work and income support to create an adequate "income package" and to provide a safety net should all other sources of support fail.

Our approach to this problem is two fold. First, we have begun to explore the well-being of women in comparison to men (and here parents compared to nonparents) in a multivariate framework trying to tease out the separate effects of economic, demographic, and income support policy to explain these differences (England et al. 1998). This paper explicitly addresses the poverty costs of parenthood. Our future work will include a third separate paper on the costs of motherhood (and fatherhood) in terms of poverty and inequality outcomes for children. A second series of efforts will

elaborate on these findings to include broader measures of social support for children and the economic benefits of children in a cross-national framework. Both of these efforts are described below.

Our initial instincts are that women bear most of the private economic costs of childrearing, particularly female single parents (Folbre 1994). But all of society, including even childless adults, benefit from the investments that mothers (and fathers) make in their children. If this is true, there is a strong case for society to provide a sufficiently large share of the costs of children to warrant these benefits.

**First Paper.** So far, we find that women aged 30 to 60 in general, and mothers in particular, have done worse than men in general (and fathers in particular) in terms of poverty outcomes across eight modern nations: United States, Australia, Canada, France, West Germany, The Netherlands, Sweden, and the United Kingdom.<sup>2</sup> In most of the Anglo-Saxon nations, single parenthood is a strong explanatory factor for high levels of poverty. However, high poverty rates amongst single parents can be overcome by greater gender equality in wages and earnings or by sufficient support from the welfare state. We find that the gender gap in earnings is high in most nations studied here, but that the gender bias in transfers to women (as opposed to men) helps offset some of these differences. However, social policy is generally not strong enough to overcome the effect of single parenthood in women's poverty, particularly in the Anglo-Saxon countries.

Our final paper in the series will approach this question from the perspective of motherhood (not gender or parenthood) and children status using similar techniques. This paper is scheduled for a conference presentation in September 1999.<sup>3</sup>

**Broader Approach.** The larger approach we are taking to this issue is to comprehensively assess the costs and benefits of children and their distribution across several nations

(see Chart 1). This chart presents the elements of a broad brush overview of a project to comprehensively assess the costs and benefits of childrearing in a set of modern societies. In the first column of Panel I, the costs of children are split into direct private costs and public costs via transfer programs and subsidies, both cash and in-kind, for consumption (e.g., Food Stamps) and for investment (e.g., education expenses). The second column adds up the other less obvious “indirect” costs (and benefits) of childrearing including time spent in childrearing and caregiving; lower earnings due to absence from the labor market for childrearing reasons; and finally, how the presence of children affects the intrahousehold distribution of income and command over divisible resources (e.g., expenditures on children versus adults).

We have added a second parenthetical entry in both columns for single parents (90 or more percent of them single women) to highlight their higher levels of indirect costs and the importance of child support in meeting their children’s direct consumption needs. For single parents, time costs are likely to be higher (thus a “time crunch”); earnings losses may be greater (due to longer time out of the labor market and less “absent” parent time and money support). And issues of interhousehold bargaining among custodial and noncustodial parents take the place of intrahousehold bargaining.

Public direct costs include income transfers via the transfer and tax system, including child allowances, earned income tax credits, social assistance, and children’s support from social insurance (unemployment benefits, survivors benefits, etc.). Most of these benefits affect children’s consumption needs. These benefits may be in cash or in-kind (e.g., Food Stamps, housing allowances, medical benefits). Direct public support also affects children’s investment needs by means of education and training subsidies. Some of these supports show up in the incomes of parents, most go directly to children. Public indirect costs of children include tax expenditures for children; enforcement costs for child support collection; and all types of work support: family leave,

sickness pay policy, and child care, each of which can lower the direct costs of childrearing for families and make labor markets more hospitable for childrearing families.

The second panel of the chart presents the potential benefits of childrearing to society, both those which effect the family, e.g., elder care received from a daughter (Wolf 1998) and the wider “fiscal externalities” which are the society-wide indirect benefits from having a productive and healthy set of children to raise national income and to help pay for intergenerational social contracts such as unfunded social retirement and health care programs. England and Folbre (1998) and England (1998) have argued persuasively that while most of the costs of parenting accrue to private families, the benefit spillover to others and one thrust of the project is to attempt to quantify these effects across nations.<sup>4</sup>

The bottom panel of the chart (Panel III) suggests a few of the research issues which we intend to address, for instance, the effects of the mix of social and private support on poverty and inequality; the beneficial effects of more equal and more equitable public support of children’s education; and the role of social values in the determination of level and type of social support for children.

While the regression based papers in this series, including this paper, can help us tease apart some of the interactions among forces determining the well-being of children, they cannot account for all of the forces in Chart I. They can tell us most of the effects of supporting the cost of children as these forces work through family incomes. These analyses can even tell us some of the earnings costs of parenthood (e.g., the indirect costs of earnings loss to mothers from childrearing) and it can help tell us how public funds (taxes and transfers) directly provide (or take away) money that is available to be spent to meet the needs of families with children. However, our current microdatabased regression approach does not fully capture the affects of benefits in-kind (e.g.,



education, health care subsidies), the time costs of childrearing, or the dynamics of intra (and inter) household bargaining once children enter the equation. And neither of these go about estimating the private and public benefits from societies which provide adequate minimal levels of income support and a more level playing field for all children.

While these are ambitious goals, we feel that a complete assessment of child well-being and the costs and benefits of children requires that we use such an approach. We also believe that cross-national comparisons afford the opportunity to assess how well (poorly) various nations do in terms of supporting children, and hence that cross-national research can help us to better recognize how societies cope with the issues of adequate support for children and providing equal opportunity amongst them.

## **II. Parents and Poverty**

There are at least two ways to think about the poverty costs of parenthood. In particular, how much income does a couple need to be able to adequately support a child? And, second what is the “parenting price” to adults for having children?

The first, or *a priori* approach is to ask how many potential parents earn enough to produce a nonpoverty income level for a family of three: mother, father, and one child?<sup>5</sup> In low wage or high unemployment societies, labor markets alone may be unable to generate large enough incomes to produce a level of market income sufficient to support children at a nonpoverty status. This calls into question whether low income families can or ought to be able to afford to bear children (Jencks and Edin 1995). And if they cannot, how should income support policy be deployed to allow them to afford children?

A different way to look at this issue is to answer the second question “*a posteriori*” by examining the economic well-being of families with children compared to those without, and asking is there a poverty cost to adults who choose parenthood? This is the approach we take in this paper.

Within this second approach there arises a set of related issues concerning the effects of marriage and cohabitation or poverty in addition to the presence or absence of children in the relationship. Clearly cohabitation (and marriage) produces economies of scale which create cost savings for individuals who can share living arrangements and hence avoid poverty, with or without children. Further, long term partnership, particularly marriage, may produce lasting economic and social benefits (Waite 1995) with or without children. Hence, partnership is a first consideration. It may also be that partners are a self-selected set of more productive persons, e.g., those who can afford children *a priori*, or those which form an “efficient” team for raising children or for the childless—a team which simply improves the overall productivity and happiness of both parties. However, there may also be costs to partnerships which need be taken into account.<sup>6</sup>

The addition of children to a partnership both enriches and complicates matters. Children are costly and may create issues of conflict and stress over work, spending and parenting arrangements. Such conflicts can lead to dissolution (or even lack of formation) of a cohabitating partnership, i.e., divorce in the case of marriage, or dissolution of cohabitation, and hence, result in single parenthood. Here one parent is left to both nurture children and economically support them producing a time bind and an income bind (e.g., see Heymann 1998; Schorr 1998). Payment of child support by absent parents often determines whether the single parent can produce a high enough income to keep the unit from poverty (McLanahan and Garfinkel 1993; Garfinkel, McLanahan, and Robins 1994).

Finally, public income support policy plays a key role in situations where the labor market, single parenthood, and lack of child support would otherwise leave a family in poverty. Social

insurance to protect the unemployed, earnings support policy when wages are low, and all types of income insurance against divorce will directly determine whether a parent can support herself or himself and their children.<sup>7</sup> (McLanahan and Garfinkel 1995; Bergmann 1996; Casper, McLanahan, and Garfinkel 1994).

The success or lack thereof in packaging together earnings with a set of income support policies will determine whether a parent can avoid poverty. Some authors, e.g. Overbye (1997) suggest that parenthood is one of the “new risks” which all modern societies face, and that some societies have responded more favorably than others. This paper addresses this issue as well.

### **III. Concepts, Definitions, and Data: Measuring Poverty and Parenthood in a Cross-National Context**

#### **Poverty Concepts**

Poverty measurement began as an Anglo-American notion. In fact, “official” measures of poverty (or their kin “low income”) exist in very few nations. Only the United States (U.S. Bureau of the Census 1998) and the United Kingdom have “official” series. Statistics Canada publishes the number of households with incomes below a “low income cutoff” on an irregular basis, as does Australia.

While international bodies such as the OECD (Förster 1993, 1994), Eurostat (Hagenaars et al. 1994) and the Luxembourg Income Study (Smeeding, Rainwater, and O’Higgins 1990) publish such figures, there is no general international agreement among affluent nations on how to conceptualize or measure poverty. One reason for the absence of such measurement and record keeping in most European nations is that policy makers know that their social programs are producing a very low poverty rate by any reasonable measure (Bjorklund and Freeman 1994).

The conceptualization of economic poverty is seen in terms of comparing material resources to needs. The resources a household has, relative to needs, is seen as affecting economic well-being. The concern with these resources is not only with material consumption itself but rather with the capabilities that items bought with money give household members to participate in their societies (Sen 1992). These capabilities are inputs to social activities and participation in these activities is seen to affect well-being (Rainwater 1990; Coleman and Rainwater 1978).

All affluent societies feature substantial inequality of resources between households and individuals. The opportunities for social participation are vitally affected by the resources that household members have access to, relative to other members of their society. Particularly in nations like the United States, there is heavier reliance on the market to purchase such social goods as health care, higher education, transportation, and child care services (Rainwater 1994). In many European nations, where there is much more substantial in-kind public provision of these services. But even in societies with more public provision than the United States, money income is the central resource used to obtain consumption goods and services and as an entry to a number of kinds of social participation. This is not to say that money is everything—there are other important kinds of resources such as social capital (Coleman 1988), noncash benefits, education, and access to basic health care, all of which add to human capabilities as well. There are also many forces in rich societies which reduce well-being by limiting capabilities to participate fully in society: for instance, violent, geographically, and socially isolated neighborhoods, poor quality public education, and earnings and job instability increases economic insecurity in many rich countries, particularly in the United States (Massey 1996; Hobcroft 1998). Thus, income does not capture all inputs to participation and well-being.

In-kind benefits can be as important to (or more important than) cash benefits in providing assistance to low income families, particularly those with children. Education benefits and health care coverage benefit most children in every nation. While some work has been completed on the effects of in-kind benefits or income distribution, very little has been done on their effect on poverty in a cross-national context (Smeeding et al. 1993). Part of the problem is that standards for measuring poverty do not include minimum bundles for health care or education in monetary terms. And, in fact, a case can be made that low-income children (and parents) need higher, not lower levels of each type of benefit than do middle class children (and parents).<sup>8</sup>

Finally, money income does not account for the time costs of children and the way in which earning income conflicts with time pressures forced by society, in particular single mothers. Since the early work by Brown (1977) and updates of this work by Douthitt (1994), there has been little systematic effort to account for the time crunch forced by all parents in general, and low-income single parents in particular. The opportunity costs of parents' time in childrearing deserves much additional research (Heyman 1998).<sup>9</sup>

Another limitation of our analysis is that we use cross-sectional data and assess whether households are in poverty at one point in time. Social isolation and the ability to permanently escape poverty are notions which are better measured using panel datasets. Longer term measures of income can help us differentiate those units which are only temporarily poor from those which are longer term or "permanently" poor. While comparative studies of social exclusion might therefore be better captured by such datasets, they are even more sparse, as are studies of long-term poverty. The only good cross-national exemplars we can point to at this time are by Duncan et al. (1993, 1995.) They suggest that social exclusion due to long-term poverty, joblessness, or dependence on social assistance may be a widespread feature of life only in the United States and possibly the United

Kingdom. Nonetheless, there is growing concern about social exclusion in Europe and its effect on family life and children (Bergmann 1996; Hobcraft 1998).

Nonetheless, in affluent societies, we argue that income is the key measure of individual's ability to consume resources and participate in society. While income—consumption plus change in net worth—brings with it some issues of period of measurement and life cycle considerations, it is a more appropriate and much more easily measured index of well-being for rich nations than is consumption (Johnson and Smeeding 1997).

Finally, poverty is measured at the household level on the assumption that households pool income. To give all members of a household the same poverty score, as we do, assumes perfect pooling between household members, and ignores the possibility that the individual who brings money into the household to share may not share perfectly, but may retain disproportionate power over how the money is spent, and may actually consume more than other family members, e.g., children (Lundberg, Pollak, and Wales 1997). There is a strong theoretical and an inconclusive but suggestive empirical literature suggesting that women may be especially disadvantaged in decision-making power over how money is to be spent and in bargaining over other issues when they are dependent on their husbands for money. (For reviews, see England 1997; England and Kilbourne 1990; Lundberg and Pollak 1996.) The measure of poverty, based at the household level, ignores this kind of gender inequality, the fact that a woman may, in essence, be poorer than her higher earning husband in the same household.<sup>10</sup> On the other hand, it is clear that to assume no pooling, which would suggest comparing men's and women's earnings to understand their standard of living, would be a greater distortion of standard of living and ability to consume and participate in society in ways that requires money.<sup>11</sup>

## Data, Nations, and Sample

The data used to carry out this analysis is the Luxembourg Income Study (LIS) database which now contains information on household income for over 25 nations in 90 databases covering the period 1967 to 1995 (LIS User Guide 1998).<sup>12</sup> Because of the recent addition of the 1990s data to LIS, and the addition of several new nations, we are now able to analyze both the level and trend in poverty and low incomes for a considerable period. (Our analysis, however, will use only the most recent data for eight nations at this time.) The LIS consists of a set of household income surveys which represent the civilian non-institutionalized population of each nation. The **United States** database is the March 1995 Current Population Survey with annual income information for 1994. Similar databases are entered into LIS for **Australia** 1994 (Housing and Income Survey), **Canada** 1994 (Survey of Consumer Finances), **France** 1989 (“Enquête Bourgeois,” or Budget Survey), **West Germany** 1994 (German Social and Economic Panel), **The Netherlands** 1991 (Income Distribution Survey), **Sweden** 1992 (Household Income Distribution Survey), and the **United Kingdom** 1995 (Family Expenditure Survey).<sup>13</sup> These are the nations and datasets which we use in this paper. They represent a broad range and set of nations. Adding other Scandinavian LIS datasets (e.g. Finland, Norway) or Northern European datasets (e.g. Denmark, Belgium, Luxembourg), would only more strongly reinforce the findings on poverty of parenthood found here.

Each national database is sent to LIS in its cleaned and edited form.<sup>14</sup> At LIS, the data are harmonized by reclassifying the income and demographic variables into homogenous types of income and family/household characteristics. These consistently defined income and household types allow the researcher to carry out analysis of a particular research question in several countries on a comparable basis.<sup>15</sup>

Our sample includes all persons aged 25 to 54 in general, and particularly household heads and spouses aged 25 to 54 classified by their partner and parenting status. Our comparison group is all individuals aged 25 to 54 regardless of household status. Hence, the comparison presented here are to the overall poverty rate of all persons age 25-54, of whom parents and nonparents are the focus of our investigation. Married and cohabiting individuals are coded as a couple. Both couples and single adults may have other adults living in the household. Parenting status is inferred from the presence of children (under age 18) in the household.<sup>16</sup>

Although some of our variables are defined at the household level, these individual men and women who are the heads of households and the parents of children are the primary units of analysis. We only include individuals who are either heads of households or spouses or cohabitants of heads in our primary analyses. Single adults living alone or with children are always classified as heads. In couple households, some countries follow the sexist convention of classifying the male as the head, while others have varying criteria (see Appendix Table A1). This inconsistency doesn't adversely affect our analysis, however, since we include all individuals who are *either* heads or their different-sex spouses or cohabitants in our comparisons and do not categorize people in our analysis by headship status. Individuals who are omitted from our analysis are adults who are neither a head nor part of a couple,<sup>17</sup> but rather an adult living with a household that contains a head or couple. We do, however, create a variable for whether the individual head or partner lives in a household containing "other adults," since they generally add to both the income and needs of a household as discussed further below.

## **Variables and Measurement**

**Poverty.** Poverty is generally measured in one of two ways, with an absolute definition or a relative definition. Relative poverty involves deciding on the income concept for relativity



(generally median or mean household income) and on the fraction of this which signifies poverty. Absolute poverty measurement means locating the “absolute” poverty line and, if there are international comparisons to be made, converting between nations’ currency using purchasing parity data. Here we rely on a relative concept of poverty,<sup>18</sup> the percent of persons living with incomes below 40 percent of the median income of households in that nation.<sup>19</sup> A few studies using a relative definition of poverty have used a poverty line based on the mean rather than median income, but most use median, and we follow this convention.<sup>20</sup> And while many studies use half (50 percent of median income), we use a lower 40 percent line in this paper because of the proximity of this line to the United States poverty line in recent years (Smeeding 1992, 1997).<sup>21</sup>

What forms of income go into the determination of whether a household is in poverty? Poverty is based on cash and near-cash disposable income. This includes all forms of cash income, including government transfer payments, net of income and payroll taxes paid. LIS datasets contain variables for earnings, pensions, many types of government transfers, other income (such as property income). These were added to form total household income. We then estimated taxes, and subtracted them, as explained below. Near-cash transfers such as food stamps<sup>22</sup> and cash denominated housing allowances are also included, as are tax administered cash benefits such as the Earned Income Tax Credit (EITC) in the United States and the Family Tax Credit in the United Kingdom. Non-cash benefits such as health care, child care, and education are not included as mentioned above.

### **Equivalence Scale**

Before comparing a household’s after-tax income (computed as described above) to the poverty line for a given nation to determine whether the household is in poverty, we adjust the income according to an equivalence scale (Nelson 1993). Equivalence scales adjust for differences needed

to reach a given level of living given wide differences in the size and structure of families (Nelson 1993). Indeed the marginal costs of children and the amount of income needed to keep larger families as well off as smaller families is a key issue. Several studies in Europe, the United States, and Australia point to an equivalence scale which implies fairly large economies of scale in the conversion of money incomes to consumption among families with children (Buhmann et al. 1988; Bradbury 1989; Rainwater 1990). Because choice of equivalence scale may favor small versus large families, depending on which level is selected, we aim to find a middle ground value that is appropriate for measuring vulnerability for both large families (e.g., those with two or more children) and smaller units (e.g., single persons living alone).

Buhmann et al. (1988) have proposed that disposable income be adjusted for family size in the following way:

$$\text{Adjusted income} = \text{Disposable Income}/\text{Size}^E \quad (1)$$

The equivalence elasticity,  $E$ , varies between 0 and 1; the larger is  $E$ , the smaller are the economies of scale assumed by the equivalence scale. The various studies reviewed by Buhmann et al. (1988) and Atkinson, Rainwater, and Smeeding (1995) make use of equivalence scales for analyses of per capita income ranging from  $E = 0$  (or no adjustment for size) to  $E=1$  (which ignore all economies of scale). Between these extremes, the range of possible values is rather evenly covered.

For the most part, national rankings by *overall* poverty rates among middle aged households are not sensitive to the measure of  $E$  selected (Burkhauser, Merz, and Smeeding 1996; Smeeding 1997). However, poverty rates for families with children compared to those without are sensitive to the choice of  $E$ . In general, higher values of  $E$  produce high poverty estimates for families with children, i.e., parents (or childful adults) compared to nonparents (or childless adult households). Our choice of  $E(.5)$  is close to the choice made by the U.S. National Academy of Sciences in its recent

analysis of redefining poverty (Citro and Michael 1995), and has been often used in poverty research of this type (e.g., Förster 1993, 1994; Hagenaars et al. 1994; Ruggles 1990). We adjust total net household income by the formula above. We then classify persons in each household as above or below the poverty line (which is 40 percent of the median household income for all persons in each nation). We also compare poverty among persons aged 25 to 54 in households with heads and/or spouses aged 25 to 54, to poverty amongst all persons (including nonheads) in this age range. We do not present poverty rates for children, only for their parents, and all poverty rates are determined in comparison to 40 percent of the national median income for all persons of all ages.

**Household Type.** For our analysis we classify the individual men and women who are our units of analysis by the household type they live in—whether they are part of a married or cohabitating couple or not, and by absence or presence of children (under age 18) in the household. Because many couples live together without formally being married, most European and non-United States surveys treat different-sex couples living together as married couples.<sup>23</sup> Indeed, in many datasets it is impossible to distinguish the married from cohabitators. The United States is the only nation in our analysis which does not follow this convention. However data (from the CPS) for the United States was used to identify cohabiting couples. (See Appendix Table A1 for each nation’s definition of headship and cohabitation.) While cohabitation may mean different things in different countries and while cohabitation in the United States is of a shorter duration than in many other countries, we felt the United States data needed to be adjusted to be consistent with those of other nations, many of whom do not allow us to distinguish between married couples and cohabitators. We use the term “couples” for either married or cohabitating different-sex couples, and do not distinguish between the two.

This generates four basic household types:

1. *Couple with no minor children*: Households containing a married or cohabitating couple with heads and spouses aged 25 to 54 with no minor children. This demographic group is the reference category in our regression analyses.
2. *Couple with minor children*: Households containing a married or cohabiting couple with heads and spouses aged 25 to 54 with at least one child under 18.
3. *Single person with no minor children*: Unmarried noncohabitating households headed by an unmarried adult aged 25 to 54 with no minor children in the households.
4. *Single parent with minor children*: Households headed by an unmarried adult (man or women) with heads and spouses aged 25 to 54 with at least one child under 18.

**Other Adults.** Some households contain adults (persons age 18 or over) who are neither a single household head nor part of a different-sex couple. For example, a mother may live with her adult daughter, or a couple may live with one of their parents. These other adults may contribute to family incomes *and* use household resources. We include a variable that measures the number of other adults in the household in our regression analyses.

**Number of Children and Age of Youngest Child.** We include a measure of number of minor children in the household. Households with no children are coded 0 on this variable in our regression analyses. However, since our household type dummies indicate whether any children are present, regression coefficients associated with the variable measuring the number of children tell us only the effect of number of children for those households with some children. We also include a measure of the age of the youngest child. Households with no children are scored 0 on this variable, but as with the measure of number of children, since whether any children are present is controlled for by the household type dummies discussed above, we can interpret coefficients on age of youngest child as telling us the effect of age of youngest child among those households with children.

**Income Sources Used as Independent Variables.** We use three composite income measures in our multivariate analyses: own earnings, other (nongovernmental) income, and

government income. These variables are measured net of taxes and converted to 1994 US dollars using purchasing power parities:

- ! *Own earnings:* Wage and salary earnings of the individual, as well as any private pension income<sup>24</sup> from this individual's past earnings. This variable is measured net of taxes (see below) and entered as a quadratic in our equations.
- ! *Other income:* Other market income including the wage, salary and private pension income of other household members, self-employment income of the individual and other household members, property income, child support payments and other private transfers. This variable is measured net of taxes (see below) and entered as a quadratic in our equations.
- ! *Government income:* Government cash and 'near-cash' transfers including universal benefits, social insurance and means-tested benefits. This variable is measured net of taxes (see below) and entered as a quadratic in our equations.
- ! *Net income calculation:* To transform the income variables into measures net of taxes we first divided total taxes paid by the household by gross household income to establish a household-level tax rate (tax). The calculated tax rate is subtracted from 1 (1-tax). If the result of the subtraction is positive, the remainder is multiplied times the gross income measures ((1-tax)\*incvar). The products are our net income variables. In cases where the tax rate is negative, i.e., where EITC-type programs provide subsidies, the absolute value of the taxes are added to government transfers. In this case, the other gross income variables, own earnings and other income, are not adjusted. In the event that the tax rate is zero, the net income variables are set equal to the gross income variables. All income variables enter the regressions as net income.
- ! *Conversion to 1994 US dollars:* All income variables are converted to 1994 U.S. dollars. First, income is converted to United States dollars in the year of the survey (e.g., 1989 for France) using purchasing power parities (PPPs) obtained from the OECD (1997). Next, income is converted to 1994 US dollars using the CPI-U index. The formula is:  $\text{Income} * (1/\text{PPP}) * (\text{CPI-U } 94/\text{CPI-U survey year})$

This means of all independent variables are listed in Appendix Table A-2

## IV. Results

Before turning to our multivariate analyses, we preview our results with a chart and with a few descriptive tables to give the reader some notion of the basic patterns of poverty by partnership

and parenthood status across these nations. Armed with this descriptive information we then turn to multivariate analyses which capture interactions among these factors in a multivariate framework.

## **Descriptive Results**

Even amongst prime age men and women, poverty rates may vary substantially by nation, partner status and parenthood. Chart 2 shows that for the most part, poverty rates amongst all persons aged 25 to 54 reflect the same patterns as do overall poverty rates. Within country differences between these estimates at the 40 percent poverty level reflect differentially higher poverty rates for younger (under age 25) and older (aged 55 and over) persons. In every nation, poverty among the group aged 25 to 54 is below that of the entire population, and the differences in national poverty rates in this group largely reflect national differences. Poverty is highest in the United States and is above average in all other Anglo-Saxon nations (Australia, Canada, the United Kingdom). Poverty is below average in northern and central Europe and lowest in Sweden.

Tables 1 and 2 suggest that single men and women both experience higher poverty rates than do couples in every nation studied (Table 1). While this result could be an artifact of our choice of equivalence scale, previous analyses have found this not to be the case among the nonelderly population (Smeeding 1997). While overall poverty rates in this age group average only 5.0 percent, with no nations poverty rate above 9.4 percent (United States value), the level and variance is much higher amongst singles (11.8 percent average poverty rate), both men (8.5) and women (14.5). In particular, single women have to be a high average poverty rate (14.5 percent ) and a high variance (3.0 percent in Sweden to 26.3 percent in the United States). Much of this difference is no doubt due to the presence of children (examined below). Still, the last four columns of the table indicate that men's poverty rates are generally at or below the poverty rate for the entire group, thus indicating that women generally have higher poverty rates than men within this age group. They also indicate

that couples—married or co-habiting—generally have a much lower risk of poverty than the average person age 25-54, while singles run poverty risks that are 1.8 to 3.2 times as high as are average poverty rates amongst this group (see rightmost columns in Table 1).

Before turning to parent status we note that while it is comforting to see that United States poverty rates sometimes fall below double digits, the United States always has the highest poverty rate regardless of the subgroup examined, with the other Anglo-Saxon nations (Australia, Canada, United Kingdom) fall generally in a cluster below the United States rate but above the Scandinavian (Sweden) and Northern European (France, Germany, The Netherlands) poverty rates (see also Chart 2).

To be sure, parent status is an important determinant of poverty (Table 2) and most parents (and their children) enjoy poverty rates below 10 percent. On average, parents are more likely than childless adults to be poor (5.7 vs. 4.3) with the largest differences in the United States (11.0 vs. 7.0), United Kingdom (8.0 vs. 4.5), and Australia (6.8 vs. 3.9). In two nations (France and Sweden) parents are less likely to be poor than are childless adults. Men's poverty rates are generally less than women's (except for Sweden) whether parent or not. Differences between childless and childful (parent) men are small and overall poverty rates average below 5 percent for this group. Women, in contrast have a much higher poverty rate than do men, owing particularly to higher single parent poverty rates. In fact, childless women in this age group are on average less likely to be poor than are childless men (4.2 to 4.5 percent). Only in the United States, and Australia are single women at a higher risk of poverty than are single men and even here the differences are small.

These observations suggest that poverty amongst middle age persons is tied to parenthood in general and to women parents in particular. The differences in parent vs. childless poverty that we note seem to be largely due to higher than average poverty amongst women parents and particularly

single parents. Despite low poverty rates for most parents, a high enough fraction of single parents with very high poverty rates can pull the overall poverty rate for all parents into double digits as seems to be the case in the United States .

The data in Table 3 which combines these factors to examine parenthood, gender and partnership confirms these suspicions. Single parents: men (9.7 percent poverty rate) but especially women (21.9 percent) are worse off than are couples or singles. In particular single female headed households even in this prime age adult range do much worse than other groups. Of all of the groups in Table 3, the poverty rates amongst single parents (bold numbers) in the third column is the highest number within each nation (look across columns and compare value to column 3) every where but in France (where only single parent men are worse off) and Sweden where all poverty rates are low, but where single parent rates at the 40 percent of median level are below 1 percent! The gaps between single parent poverty and couple parent poverty (next column) are greatest in the Anglo Saxon countries, but are still large in France, Netherlands, and Germany. In fact, Germany has the second highest single parent poverty rate amongst the nations examined here.<sup>25</sup>

These differences are summarized in the last three columns where it is clear that couple parents poverty rates are virtually identical to overall poverty rates for this age group within each country. To be a parent and to be in a married or cohabitating state does not seem to raise a poverty risk in any nation (final column). Differences in levels of poverty rates among parents therefore mirror differences in national rates (all persons 25-54 column) within this age group. But single parents run a much higher risk of being poor than do other parents, twice as high a risk on average for male single parents and 4.4 times as high amongst single women in this age group. Finally, it should be noted that these analyses concentrate on older single parents—women (and men) at least 25 years of age—not on the “teen parent” problem which may be even worse in some nations.<sup>26</sup>



Finally, we consider the levels of relative earnings amongst each parent, partner and gender grouping (Table 4). Because earnings are the source of over 80 percent of total income amongst this age group (Atkinson, Rainwater, and Smeeding 1995) earned income will be a prime determinant of poverty status. To ease comparisons we have converted each level of earnings to 1994 United States dollars using the purchasing power parities as outlined above, and as employed in the regression analyses which follow.

Despite high poverty rates, United States adults have the highest absolute level of earnings amongst parents, and amongst all groups of nonparents, save single women. Men earn more than women amongst parents in every nation. Differences in earnings are much smaller amongst men and women who are nonparents. In couples, women generally earn less than men whether children are present or not. Single parent women on average earn more than do mothers who are married or who cohabitate (\$7,301 to \$6,756). This difference holds for all nations but the United Kingdom where single mothers earn substantially less than do married mothers (Waldfogel 1997; Harkness and Waldfogel 1998).

The table also reveals interesting cross-national comparisons of earnings levels within each nation. Amongst parents, earnings of married British fathers far outstrip earnings of all other British parental types. Relatively (and absolutely) low levels of earnings are also apparent amongst Dutch women relative to other Dutch earners. Research by others (e.g., Whiteford and Bradshaw 1994; Forssén and Hakovirta 1998) has shown that these differences are in part due to tax and transfer policies which more heavily tax secondary earners in couples (e.g., The Netherlands) and which impose high benefit reduction rates in income transfer programs which benefit single parents (e.g., the United Kingdom). These negative labor supply effects should be compared to the work

reinforcing effects for mothers found in nations with liberal family leave policies and child care support, e.g., France (Gornick, Meyers and Ross 1997, 1998).

Among nonparents, earnings are generally higher than amongst parents with the exception of fathers in couple units in all nations. In particular we note that mothers, whether married or single parents, have significantly lower levels of earnings than do women who are not parents with France being the only exception owing to relatively low earnings amongst French women who live in childless couple arrangements. The impact of this fact on child poverty (which is the focus of our next paper in this series) is further highlighted in the third last column where single female parents' earnings are shown to be only 60 percent of average earnings while single men earn about the same as the average 25 to 54-year-old. Among couples, men consistently have higher earnings and women lower earnings. These and other similar findings suggest that gender patterns in earnings are deeply entrenched in all countries (Bianchi, Casper, and Peltola 1996).

### **Multivariate Analyses**

We estimate poverty as a function of (1) household composition, (2) personal earnings and other market (nongovernmental) income, and (3) government cash and "near-cash" transfers. All of the models are estimated using linear probability models.<sup>27</sup> The independent variables included in the estimations are described in Section III of the paper and their means summarized in Appendix Table A-2.

Since each of the three income variables would be expected to affect the probability of poverty nonlinearly, reducing it up to some threshold above which there was no further reduction in the probability, we enter each of the three income variables into our regression equations in linear and quadratic form.

**Model Estimation.** We begin by our multivariate analyses by estimating a model that includes only household composition variables. Next we add the respondent's own earnings and other income, both in quadratic form, to the model. In the final step we add government income, again as a quadratic. We estimate each of the three models separately for men and women in each of the eight nations. (See our first paper, England et al 1998 for an in-depth discussion of the sequence of models chosen.) The first model estimates the gross effect of household composition on poverty. The results from these regressions provide information on the extent to which different household configurations are associated with poverty for men and women and how this varies across nations. The second model estimates the effects of household composition on poverty net of differences in market income. The model also provides information about the influence of market income on poverty net of differences in household structure. Comparing the coefficients on the demographic variables from models 1 and 2 captures the extent to which the effects of household composition on poverty are due to differences in market income between different household types. For example, we expect that being a single parent will increase the probability of poverty, but that a substantial portion of this one-parent households on poverty is due to differences in private income. If this is true, the "single parent" coefficients should be much smaller in model 2 than model 1.

The third model estimates the influence of government transfer income on poverty. This model also gives us information about the effects of household structure on poverty after taking into account differences in government cash transfers as well as differences in personal earnings and non-governmental income. Since poverty lines are adjusted for household size, additional children or adults should raise poverty (net of all sources of income) by definition.

**Results of multivariate Analyses.** Table 5 presents the results from our multivariate analyses. The top half of the table contains the results for women, the bottom half the results for

men. For each country the first column contains the coefficients from the reduced-form model containing only household composition variables, the second column adds own earnings and other market income, and the third column contains the full model with government income added.

***Model 1: Household Composition.*** In general, the gross effects of household composition are all as we would expect. In the countries where the effect is statistically significant (Australia, Canada, The Netherlands, United States) the number of children a woman has in her household increases the probability that she is poor. For men the effects are in the same direction, but not as large. In Australia, Canada, the Netherlands and the United States, being a parent increases income needs more than either market income or government transfer payments meet those needs, particularly for women. In the other four countries, France, Germany, Sweden and the United Kingdom, parenthood is not strongly associated with poverty.

The age of the youngest child has only small effects on poverty for men and women. For those countries where we estimate a significant result, it is negative. Since this reduced form model does not hold differences in government transfer income, perhaps the negative effect is due to some eligibility criteria within the transfer system. Other adults in the household significantly reduce the likelihood that male and female household heads and spouses are poor in the English-speaking countries (Australia, Canada, United Kingdom, and United States). The negative effect of other adults on poverty in these countries probably results from the other adults generally contributing more income than they add to needs (via the equivalence scale). The poverty-protecting effects of having other adults in their households are generally larger for women than men, perhaps because most men have earnings above the poverty line without help from other adults.

In all countries except Sweden female single parents are more likely to be poor than childless couples. For men this positive association exists only in Australia, Canada, France, Sweden and the

United States. In general the effect of being a single parent is stronger for women than men. Exceptional countries are France and Sweden. In Australia, Canada, Germany, Sweden and the United States childless single women are also more likely to be poor than childless couples. The association holds for men as well. In most countries, couples with children are not statistically different from childless couples in their likelihood of being poor. In Germany and the United Kingdom, however, married mothers are more likely to be poor than married women without children. Married mothers in the United States, on the other hand, are less likely to be poor than married women without children.

The largest effects are those of being a single parent with children, and these are particularly large for women. These analyses do not control for age or labor force experience, so some of these effects are undoubtedly because single individuals are, on average, younger and have less experience and hence lower earnings.

*Model 2: Household Composition and Market Income.* The second column under each country displays the results from regressions that add the effects of market income (own earnings and other income). To capture nonlinear effects, these income variables are introduced in quadratic form. For both men and women in all of our countries, increases in own earnings reduces the probability of being poor, but at a decreasing rate. (We find negative coefficients on the linear term and positive coefficients on the squared term in each equation). The effects of other market income on poverty are the same as the effects of own earnings. These effects of market income, both from self and others, on poverty are as expected; once income brings a household above the poverty line, further increases have no effect.

Many of the positive effects of household composition on poverty, discussed above, are lessened when we control for market income. Likewise the negative effects of household

composition on poverty are increased. Household composition can effect both needs and resources. By holding market resources constant, we see effect of household composition on poverty net of the market resources that may vary differentially with household composition. For example, the effects of other adults on poverty in the first model were all negative or insignificant. Once we control for the level of market resources, however, the effects of other adults on poverty is generally positive of insignificant. In other words, net of market income, additional adults increase the needs of a household and increase the probability that the head and spouse of a household are poor.

Comparing the coefficients for single parents in columns 1 and 2 presents another example of the differential impact of needs and resources. The effect of being a single parent on poverty is partially the result of a reduced number of potential earners in the household. The coefficients on single parents are all higher (and more of them are significant) in the model that does not control for market income. Thus, a major reason single parents are poorer than there married, childless counterparts is that the total market income of their households is lower. As we have seen in Table 4, earnings of single parents are below those of men and just above those of women in couples (where earned income combined with their partners are highest of all).

***Model 3: Household Composition, Market Income, and Government Income.*** The third column for each country adds the influence of government transfer income on poverty. Three patterns emerge. In France, The Netherlands, Sweden, and the United Kingdom (for men only) government transfer income acts like market income--increases in government transfers reduce poverty, but at a decreasing rate. In Germany and the United Kingdom (for women only), increases in government transfers reduce poverty at an increasing rate. In Australia, Canada and the United States government transfers initially increase poverty at a decreasing rate, but then act to decrease poverty at an increasing rate. For women in these countries, and for men in Australia and the United

States, the threshold where government transfers start to decrease poverty is estimated to be above the sample mean of government expenditures. For men in Canada the threshold is \$182 (in US 1994 dollars).

How do we explain these findings? The coefficients on government transfer income may be driven by two separate effects. The first effect is a pure income effect: additional income reduces poverty (a negative relationship). This relationship may not be significant if the income is not enough to move many individuals out of poverty; these will be especially true in countries with very low transfer payments to the nonelderly such as the United States or Australia. The second “effect” is not really causal but about selectivity into receipt of payments; it is an eligibility effect. For those government programs that have strict means-tests many near-poor and most nonpoor households may not be eligible to receive government transfers. The coefficients for government transfers on poverty that we estimate combine these two effects. In countries, such as the United States, where income testing is very strong and the benefit is not large enough to lift most people over the poverty line, the eligibility effect will be positive and override; thus government transfers will be positively associated with poverty.<sup>28</sup>

## **V. Discussion, Summary, and Conclusions**

In this paper we attempt to clarify the relationship between poverty and parenthood across eight rich nations for the prime age (aged 25 to 54) population. We have selected a poverty threshold which is quite restrictive, but one which is consistent with the United States poverty line extended at the same fraction of median income (i.e., 40 percent) to other nations. We use both descriptive and inferential statistics to examine differences in parental poverty among men and women in different partnerships and parenthood circumstances.

We find that parenthood is schizophrenic with respect to poverty. Couples with children have poverty rates which mirror those of nonparents and on average are even lower than those of nonparents (Table 3). But single parent poverty rates are on average, more than four times as high as are overall poverty rates for this group. The combination of not having a partner and having children greatly increases one's risk of poverty. Not having a partner reduces the market income of the household, and this accounts for a good share of the effect, and the effects are stronger for women than for men. This is undoubtedly because fewer male than female single parents make little enough to bring a household with children above the poverty line. Also, having a spouse is less determinative of having another market income for men than women since fewer wives than husbands are employed, and those who are employed generally earn far less than do their husbands.

Further, the more children a household has, the more likely it is in poverty. This is not only by definition (the poverty line is adjusted for household size) because it holds in models not controlling for market or government income. It indicates that while parents may compensate with more employment hours for additional children, they do not do so to the extent that they completely offset the effect of children on poverty. In fact, mothers of many children are likely to be those bearing the highest cost.

But high poverty rates and low levels of work effort among single parents are not universal. In two nations, Sweden and France, single parent poverty rates are below 10 percent, owing to the income packaging and mothers' work-friendly policies of these nations. (Bergmann 1996; Casper, McLanahan, and Garfinkel 1994). But not all European nations have such support systems for single parents. German single parents, for instance, run a higher risk of being poor than do Canadian single parents.



Clearly not all nations have adapted to the “new social risks” of divorce, desertion and single parenthood (Overbye 1997). The few that have done so have found ways to combine universal child allowances, social insurance for absent parents’ lack of payment of child support (so-called “advanced maintenance”), income tested social assistance, and policies such as family leave and subsidized child care to better combine work with welfare. Not many nations have achieved the proper mix of policies and the mix varies across nations, so there is no “magic bullet” (Smeeding, Rainwater, and Danziger 1997).

The United States, which has the highest rates of poverty among single parents, has now chosen a route which almost universally enforces strong work requirements on single parents. While some levels of in work benefits (e.g., EITC) and noncash help (e.g., Food Stamps) are provided to complement work effort, other critical elements of this package such as adequate child care and guaranteed child support are not yet available to all mothers. The differences that these and other similar efforts make among the children of these parents is the next topic on our collective agenda.

## Endnotes

1. While the MacArthur Foundation Network on the Family and the Economy is the general sponsor of this effort, we are currently seeking sponsors for the rest of the project.
2. These are the same nations investigated in this paper.
3. In September, 1999, the Luxembourg Income Study (LIS) will sponsor a large conference on child poverty. For more on the conference, see the LIS web page at <http://lissy.ceps.lu/index.htm>
4. van Praag and Plug (1958) have attempted to quantify the benefits and costs of children using a different framework that relies on asking parents about well-being with and without children. van Praag and Warnaar (1997) have also compiled a international survey on the costs of children.
5. In earlier work Duncan, Boisjoly, and Smeeding (1997) addressed this issue in this fashion for the United States, finding that a large fraction of young men could not afford to become parents because their earnings were below the specified poverty threshold for a family of three. In particular large fractions of black men (up to 60 percent) could only hope to achieve this level of earnings by the time they reached age 35 or higher.
6. The work of our colleagues Shelly Lundberg and Robert Pollak (1993, 1994, 1996) suggests that these are costs as well as benefits to marriage and that a perspective which takes these bargaining costs into account is a more fruitful way to explore issues of household decision making.
7. Public policy can also affect ability to keep a job while also parenting via family leave, subsidized child care, and other means, see Gornick, Meyers, and Ross (1997, 1998) on these topics.
8. For some initial work on this topic, see Wolfe and Smeeding (1998), and Duncombe and Yinger (1998).
9. Our larger project on the costs of children intends to address this issue, See Fulbre and Weisskopf (1998) on the time costs of caregiving and Smeeding (1997a) on time and public policy more generally.
10. See Wright (1992) for an early international look at this issue.
11. For other examples of efforts to look at results of different, unequal pooling assumptions, see Sutherland (1996) or Jenkins (1994).
12. See also <http://lissy.ceps.lu/index.htm>. for more on the LIS database.
13. Various types of data cleaning and editing for non-response are carried out by each nation before sending the data to LIS. While most nations send files without missing values (they

use “hot decking” or a similar procedure), Germany and France have some missing values in their database. We dropped cases with missing values on our variables from this analysis.

14. The LIS data are accessible via electronic mail. Academic researchers access the database by e-mailing programs to the LIS data center where they are processed and returned electronically. This procedure is used because the distribution of raw microdata to the user is not allowed in several nations (Sweden, The Netherlands, France).
15. Future expansions of this paper to Asian nations such as Taiwan, or Southern European nations like Spain, Italy, and Portugal, would provide an opportunity to look at poverty in larger households where multi-generational living and economies of scale in larger families are additional relevant issues regarding the costs of children.
16. From the LIS data we do not know the exact relationship between the children and the head and spouse of a household.
17. In the case of two “roommates” of same or different sex, or a gay male or lesbian couple, we assume that one person is classified as head and the other as an “other adult.”
18. We do not use an absolute approach to measuring poverty for several reasons. First and foremost are the theoretical reasons discussed in the introduction—that felt deprivation and ability to participate in a society are inherently relative. Second, there is the problem of pricing commensurate baskets of goods in different countries. This can be overcome somewhat by purchasing parity conversions of currencies, and we will use such conversions to compare specific sources of income—earned income, other market income, and government transfers. However, when the baskets of goods being compared differ because of a greater share of tax financed goods (e.g., health care, education) in one country vs. another, outcomes will differ. Similarly, baskets of housing costs will differ across countries if housing for the poor is subsidized through vouchers for private rent (which would be counted in our income concept) vs. subsidies to landlords to lower their rents (classic United States style public housing) which would not be counted. The relative within country approach to poverty measurement avoids this problem (Gottschalk and Smeeding, 1998; Smeeding, 1997).
19. Our operational definition is in line with a well-established theoretical perspective on poverty (Sen 1992; Townsend 1979). Such a measure is now commonly calculated by the European Commission (Hagenaars et al. 1994), by the OECD (Förster 1993) and by other international groups.
20. Only the British and one other international study (Cantillon, Marx, and van den Bosch 1996) use mean income as a standard, and Cantillon et al. use both mean and median income-based poverty rates. Using the average or mean income means measuring social distance from something other than the “middle” household. The difference between using the mean or median can lead to quite different results in poverty trends when inequality is changing. In the United States from 1973 to 1994, the mean income grew 15 percent more than the median income, thus assuring that poverty measured relative to the mean grew much more than poverty relative to the median (Burtless 1996).

21. Future work will show the sensitivity of our comparisons to different measures of the level of poverty, including 50 and 60 percent of the median.
22. In including food stamps and subtracting taxes, our procedure differs from the United States government poverty series, which excludes food stamps and measures income gross of taxes.
23. In The Netherlands, cohabiting same-sex couples are treated as married as well; 27 such couples are identified. Given that pooling of income is the rationale for a household-level definition of poverty, it would have made sense to include such couples as couples in our analyses. However, since the other nations' datasets did not allow us to identify same-sex couples, we excluded these 27 Dutch households from the analysis.
24. Given that our analysis does not include persons over 55 years of age, pensions, private or governmental, are a very small portion of income.
25. Of course the relatively low number of single parents in Germany holds down the overall average ratio. See Duncan et al (1993, 1994) for more on this topic.
26. On the problems of teen age and early 20's poverty in the United States see Maynard (1996). Note that some teen mothers may be hidden in larger families. Within LIS a 16 year old mother with her newborn may both be classified as the children of the 35-40 year old female or head of household.
27. Our previous work included some decomposition analyses that benefitted a linear probability model. We keep that functional form here to facilitate comparisons with the earlier paper.
28. In results not shown, we interacted a dummy variable for being in pre-transfer poverty with government transfers, expecting to find a positive sign on the interaction. This was observed in most all cases, consistent with the fact that transfers can only make the difference in poverty if a household is in poverty without the transfer. In fact, Forssten and Hakovirta (1998) indicate that among single parents, dependency on income or means-tested social insurance is very high in the United Kingdom, Australia, the United States, and The Netherlands.

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**Chart 1**  
**Costs and Benefits of Children:**  
**US vs. Other Nations**

<b>I. Costs</b>	<b>Direct</b>	<b>Indirect <sup>1</sup></b>
<b>Private</b>	<ul style="list-style-type: none"> <li>– expenses for consumption and investment</li> </ul> <p style="text-align: center;">(single parent issues: child support)</p>	<ul style="list-style-type: none"> <li>– time (caregiving)</li> <li>– earnings losses of parenthood</li> <li>– intra-household income distribution and bargaining costs</li> </ul> <p style="text-align: center;">(single parent issues: time crunch; earnings losses; and inter-household bargaining costs)</p>
<b>Public</b>	<ul style="list-style-type: none"> <li>– consumption subsidies (cash and inkind)</li> <li>– investment subsidies</li> </ul>	<ul style="list-style-type: none"> <li>– tax expenditures</li> <li>– work support (e.g. family leave, child care)</li> <li>– child support enforcement costs</li> </ul>

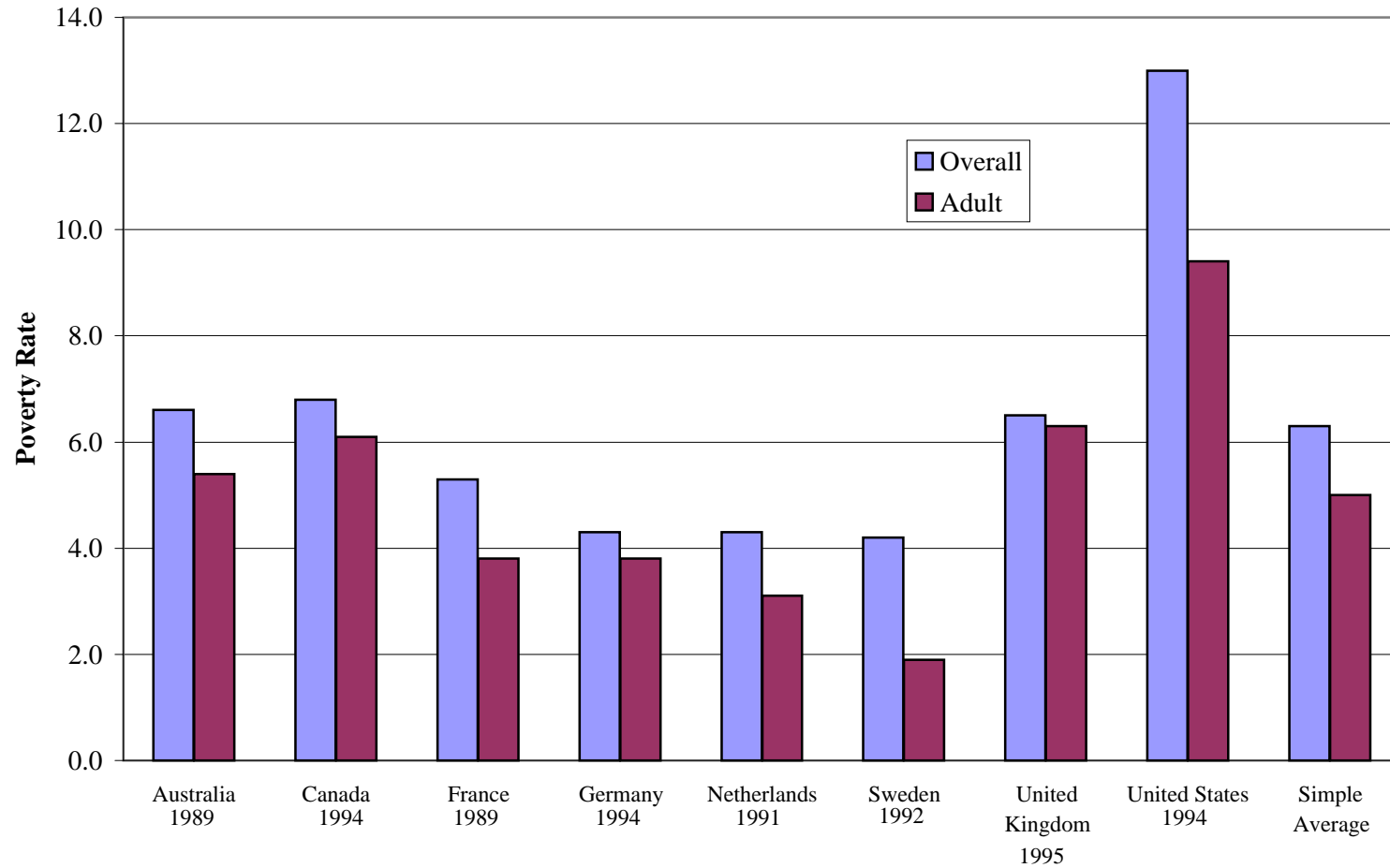
<b>II. Benefits</b>	<b>Direct</b>	<b>Indirect</b>
	<ul style="list-style-type: none"> <li>– support returned to parents as intergenerational transfers (cash in kind)</li> </ul>	<ul style="list-style-type: none"> <li>– fiscal externalities to the wider society</li> </ul>

**III. Research Issues in a Crossnational Context**

- a. variance in costs and benefits of children: [poverty and inequality (unequal opportunity)] amongst families with children
- b. investment benefits from and more equal and more equitable public support of children's education
- c. role of social values in determining levels of public support for children

<sup>1</sup> Includes non-monetary costs, opportunity costs, enforcement costs and regulatory effects.

**Chart 2**  
**Poverty Rates Amongst Adults Age 25-54 and the Overall Population in Eight Nations**



Source: Author's calculations from the Luxembourg Income Study.

Note: Poverty is measured by the percent of persons (overall or age 25-54) with incomes below 40 percent of the adjusted median income for all persons.

Table 1  
Poverty Rates for Men and Women Aged 25-54 by Partner<sup>1</sup> Status

Country	Year	Men's Poverty Rates <sup>3</sup>			Women's Poverty Rates <sup>3</sup>			Total <sup>3</sup>		All persons <sup>3</sup> 25-54	Poverty Rate Ratios (Group/All persons 25-54)			
		Couple	Single	Overall	Couple	Single	Overall	Couple	Single		Men	Women	Couple	Single
Australia	1989	3.9	7.2	4.4	3.9	23.2	7.0	3.9	16.0	5.4	0.8	1.3	0.7	2.9
Canada	1994	3.9	12.9	5.8	4.0	19.1	7.1	4.0	16.1	6.1	1.0	1.2	0.7	2.7
France	1989	3.0	8.9	3.8	3.5	7.2	4.0	3.3	7.9	3.8	1.0	1.1	0.9	2.1
Germany	1994	2.2	6.9	3.1	1.9	16.7	4.8	2.0	12.0	3.8	0.8	1.3	0.5	3.2
The Netherlands	1991	2.6	4.3	2.8	2.5	8.4	3.4	2.5	6.5	3.1	0.9	1.1	0.8	2.1
Sweden	1992	1.1	4.5	2.2	1.1	3.0	1.6	1.1	3.8	1.9	1.2	0.8	0.6	2.0
United Kingdom	1995	5.5	9.8	6.2	5.3	12.1	6.8	5.4	11.2	6.3	1.0	1.1	0.9	1.8
United States	1994	6.1	13.2	7.5	5.8	26.3	11.0	5.9	20.8	9.4	0.8	1.2	0.6	2.2
<b>Country Average<sup>2</sup></b>	<b>1994</b>	<b>3.5</b>	<b>8.5</b>	<b>4.5</b>	<b>3.5</b>	<b>14.5</b>	<b>5.7</b>	<b>3.5</b>	<b>11.8</b>	<b>5.0</b>	<b>0.9</b>	<b>1.2</b>	<b>0.7</b>	<b>2.4</b>

Source: Author's calculations from Luxembourg Income Study.

<sup>1</sup>Couples include married or cohabiting couples. Some households include other adults and also children.

<sup>2</sup>Country Average is a simple, unweighted average of poverty rates.

<sup>3</sup>Poverty is measured by the percent of all persons ages 25-54 (in any type of household arrangement) who have incomes less than 40 percent of the overall national median income. The "all persons 25-54" column in the tables refer not only to men and women who are heads or spouses but also to other adults who are not so classified. See text for further clarification.

Table 2  
Poverty Rates for Men and Women Aged 25-54 by Parent<sup>1</sup> Status

Country	Year	Men's Poverty Rates <sup>3</sup>			Women's Poverty Rates <sup>3</sup>			Total <sup>3</sup>		All persons <sup>3</sup> 25-54	Ratios (Parent status/ All persons 25-54)	
		Parent	Childless	Overall	Parent	Childless	Overall	Parent	Childless		Parent	Childless
Australia	1989	5.0	3.3	4.4	8.4	4.5	7.0	6.8	3.9	5.4	1.3	0.7
Canada	1994	5.2	6.4	5.8	8.2	5.5	7.1	6.8	6.0	6.1	1.1	1.0
France	1989	3.2	4.7	3.8	3.8	4.5	4.0	3.5	4.6	3.8	0.9	1.2
Germany	1994	2.6	3.6	3.1	6.0	3.2	4.8	4.4	3.4	3.8	1.2	0.9
The Netherlands	1991	2.8	2.8	2.8	4.0	2.7	3.4	3.4	2.8	3.1	1.1	0.9
Sweden	1992	1.4	3.0	2.2	1.2	2.1	1.6	1.3	2.6	1.9	0.7	1.4
United Kingdom	1995	7.0	5.2	6.2	8.8	3.8	6.8	8.0	4.5	6.3	1.3	0.7
United States	1994	7.9	7.0	7.5	13.5	7.1	11.0	11.0	7.0	9.4	1.2	0.7
<b>Country Average<sup>2</sup></b>	<b>1994</b>	<b>4.4</b>	<b>4.5</b>	<b>4.5</b>	<b>6.7</b>	<b>4.2</b>	<b>5.7</b>	<b>5.7</b>	<b>4.3</b>	<b>5.0</b>	<b>1.1</b>	<b>0.9</b>

Source: Author's calculations from Luxembourg Income Study.

<sup>1</sup>Parents are household heads and spouses with a child under 18 living in their household. Exact relationship between the child and the head or spouse is unknown.

<sup>2</sup>Country Average is a simple, unweighted average of poverty rates.

<sup>3</sup>Poverty is measured by the percent of all persons ages 25-54 (in any type of household arrangement) who have incomes less than 40 percent of the overall national median income. The "all persons 25-54" column in the tables refer not only to men and women who are heads or spouses but also to other adults who are not so classified. See text for further clarification.

Table 3  
Poverty Rates for Parents and Non-Parents Aged 25-54 in  
Four Family Types and Eight Affluent Nations

Country	Year	Parents' Poverty Rates <sup>1,4</sup>					Non-Parents' Poverty Rates <sup>4</sup>					All Persons <sup>4</sup> 25-54	Poverty Rate Ratios (Group/All persons 25-54) <sup>1</sup>		
		Men		Women		Overall	Men		Women		Overall		Single Parents		Couple Parents
		Single	Couple <sup>2</sup>	Single	Couple		Single	Couple	Single	Women					
Australia	1989	19.6	4.7	<b>35.5</b>	4.7	6.8	5.9	2.0	11.7	2.3	3.9	5.4	3.6	6.5	0.9
Canada	1994	13.5	4.9	<b>27.8</b>	4.8	6.8	12.9	2.2	12.8	2.8	6.0	6.1	2.2	4.6	0.8
France	1989	14.2	3.1	<b>9.8</b>	3.2	3.5	8.5	3.0	5.7	4.1	4.6	3.8	3.7	2.6	0.8
Germany	1994	7.7	2.6	<b>31.0</b>	2.4	4.4	6.9	1.4	8.8	1.0	3.4	3.8	2.0	8.2	0.7
The Netherlands	1991	0.0	2.9	<b>15.1</b>	2.7	3.4	4.5	2.1	4.7	2.0	2.8	3.1	0.0	4.8	0.9
Sweden	1992	2.6	1.3	<b>0.9</b>	1.3	1.3	4.6	0.6	4.2	0.8	2.6	1.9	1.4	0.5	0.7
United Kingdom	1995	5.9	7.0	<b>17.1</b>	6.7	8.0	10.2	3.1	6.0	3.1	4.5	6.3	0.9	2.7	1.1
United States	1994	14.4	7.5	<b>37.9</b>	7.1	11.0	12.9	3.2	14.8	3.4	7.0	9.4	1.5	4.0	0.8
<b>Country Average<sup>3</sup></b>	<b>1994</b>	<b>9.7</b>	<b>4.3</b>	<b>21.9</b>	<b>4.1</b>	<b>5.7</b>	<b>8.3</b>	<b>2.2</b>	<b>8.6</b>	<b>2.4</b>	<b>4.4</b>	<b>5.0</b>	<b>2.0</b>	<b>4.4</b>	<b>0.8</b>

Source: Author's calculations from Luxembourg Income Study.

<sup>1</sup>Parents are household heads and spouses with a child under 18 living in their household. Exact relationship between the child and the head or spouse is unknown.

<sup>2</sup>Couples include married or cohabiting couples. Children are under 18 and living in the household. Some households include other adults

<sup>3</sup>Country Average is a simple, unweighted average of poverty rates.

<sup>4</sup>Poverty is measured by the percent of all persons ages 25-54 (in any type of household arrangement) who have incomes less than 40 percent of the overall national median income. The "all persons 25-54" column in the tables refer not only to men and women who are heads or spouses but also to other adults who are not so classified. See text for further clarification.

Table 4  
Net Earned Annual Income for Parents and Non-Parents Aged 25-54  
By Sex in Four Family Types and Eight Affluent Nations

Country	Year	Parents' Average Net Earned Income <sup>1,2</sup>					Non-Parents' Average Net Earned Income					All Persons 25-54	Earnings Ratios (Group/All persons 25-54) <sup>1</sup>			
		Men		Women		Overall	Men		Women		Overall		Single Parents		Couple Parents	
		Single	Couple <sup>3</sup>	Single	Couple		Single	Couple	Single	Couple			Men	Women	Men	Women
Australia	1989	12,428	17,530	6,352	5,906	11,393	14,861	16,949	12,407	9,150	13,096	12,001	1.0	0.5	1.5	0.5
Canada	1994	15,471	21,419	9,370	9,286	14,875	15,854	20,756	14,043	12,001	15,794	14,845	1.0	0.6	1.4	0.6
France	1989	13,832	15,391	8,899	6,981	11,099	11,538	15,188	12,143	7,574	11,364	10,954	1.3	0.8	1.4	0.6
Germany	1994	14,101	17,875	6,411	5,036	11,152	11,231	15,062	10,735	9,055	11,562	11,201	1.3	0.6	1.6	0.4
The Netherlands	1991	16,262	19,921	3,485	2,996	11,012	12,048	16,882	11,332	6,779	11,801	11,367	1.4	0.3	1.8	0.3
Sweden	1992	12,613	14,806	8,125	7,945	11,119	10,204	14,236	9,630	9,601	10,889	11,007	1.1	0.7	1.3	0.7
United Kingdom	1995	7,361	15,121	4,126	5,383	9,538	11,681	14,804	11,439	9,333	11,828	10,393	0.7	0.4	1.5	0.5
United States	1994	19,459	26,585	11,640	10,514	17,786	19,463	25,214	17,969	14,054	19,113	17,558	1.1	0.7	1.5	0.6
<b>Country Average<sup>4</sup></b>	<b>1994</b>	<b>13,941</b>	<b>18,581</b>	<b>7,301</b>	<b>6,756</b>	<b>12,247</b>	<b>13,360</b>	<b>17,386</b>	<b>12,462</b>	<b>9,693</b>	<b>13,181</b>	<b>12,416</b>	<b>1.1</b>	<b>0.6</b>	<b>1.5</b>	<b>0.5</b>

Source: Author's calculations from Luxembourg Income Study.

<sup>1</sup>All income variables are reported in US 1994 dollars.

<sup>2</sup>Parents are household heads and spouses with a child under 18 living in their household. Exact relationship between the child and the head or spouse is unknown.

<sup>3</sup>Couples include married or cohabiting couples. Children are under 18 and living in the household. Some households include other adults

<sup>4</sup>Country Average is a simple, unweighted average of earnings levels.



Table 5  
Effects of Parenthood, Other Household Characteristics and Income  
On the Probability of Being Poor For Men and Women Aged 25-54 in Eight Affluent Nations  
(OLS Coefficients)

	Australia 1989			Canada 1994			France 1989			Germany 1994		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
<b>Women</b>												
Couple, kids	-0.018	<b>-0.041**</b>	<b>-0.047**</b>	-0.015	<b>-0.022**</b>	<b>-0.027**</b>	-0.015	0.013	-0.005	<b>0.044**</b>	0.014	0.008
Single, no kids	<b>0.095**</b>	0.006	-0.006	<b>0.110**</b>	<b>0.020**</b>	0.010	0.012	<b>-0.033**</b>	<b>-0.053**</b>	<b>0.041**</b>	-0.007	-0.019
Single, kids	<b>0.302**</b>	<b>0.153**</b>	<b>0.136**</b>	<b>0.241**</b>	<b>0.117**</b>	<b>0.107**</b>	<b>0.049**</b>	0.010	-0.013	<b>0.253**</b>	<b>0.168**</b>	<b>0.159**</b>
Number of Kids	<b>0.027**</b>	<b>0.019**</b>	<b>0.020**</b>	<b>0.019**</b>	<b>0.010**</b>	<b>0.013**</b>	-0.001	<b>-0.016**</b>	0.007	-0.002	-0.006	-0.002
Age of Youngest Child	<b>-0.003**</b>	0.000	0.000	<b>-0.002**</b>	0.000	0.000	0.001	0.001	0.001	<b>-0.004**</b>	-0.001	-0.001
Number of Other Adults	<b>-0.020**</b>	<b>0.010*</b>	<b>0.017**</b>	<b>-0.028**</b>	-0.001	<b>0.009**</b>	-0.005	0.001	<b>0.017**</b>	-0.008	0.000	0.005
Own earnings	---	<b>-0.013**</b>	<b>-0.013**</b>	---	<b>-0.016**</b>	<b>-0.016**</b>	---	<b>0.009**</b>	<b>-0.011**</b>	---	<b>-0.009**</b>	<b>-0.010**</b>
Own earnings <sup>2</sup>	---	<b>0.023**</b>	<b>0.023**</b>	---	<b>0.030**</b>	<b>0.032**</b>	---	<b>0.000**</b>	<b>0.025**</b>	---	<b>0.017**</b>	<b>0.019**</b>
Other income	---	<b>-0.007**</b>	<b>-0.008**</b>	---	<b>-0.006**</b>	<b>-0.007**</b>	---	<b>-0.005**</b>	<b>-0.007**</b>	---	<b>-0.004**</b>	<b>-0.005**</b>
Other income <sup>2</sup>	---	<b>0.003**</b>	<b>0.004**</b>	---	<b>0.002**</b>	<b>0.002</b>	---	<b>0.000**</b>	<b>0.003**</b>	---	<b>0.002**</b>	<b>0.002**</b>
Government income	---	---	<b>0.014**</b>	---	---	<b>0.006**</b>	---	---	<b>-0.012**</b>	---	---	-0.001
Government income <sup>2</sup>	---	---	<b>-0.137**</b>	---	---	<b>-0.061**</b>	---	---	<b>0.017**</b>	---	---	<b>-0.031*</b>
<i>Adjusted R<sup>2</sup></i>	<i>0.132</i>	<i>0.257</i>	<i>0.269</i>	<i>0.092</i>	<i>0.239</i>	<i>0.251</i>	<i>0.006</i>	<i>0.107</i>	<i>0.139</i>	<i>0.075</i>	<i>0.143</i>	<i>0.153</i>
<b>Men</b>												
Couple, kids	-0.008	<b>-0.030**</b>	<b>-0.036**</b>	0.003	-0.010	-0.012	-0.007	0.007	-0.011	0.014	-0.005	-0.008
Single, no kids	<b>0.043**</b>	<b>-0.026**</b>	<b>-0.032**</b>	<b>0.103**</b>	<b>0.020**</b>	0.010	<b>0.057**</b>	-0.003	-0.015	<b>0.047**</b>	-0.009	<b>-0.021*</b>
Single, kids	<b>0.153**</b>	<b>0.042*</b>	0.033	<b>0.089**</b>	0.001	-0.002	<b>0.074*</b>	0.040	0.009	0.058	0.022	0.007
Number of Kids	<b>0.021**</b>	<b>0.014**</b>	<b>0.016**</b>	<b>0.012**</b>	<b>0.007**</b>	<b>0.011**</b>	0.001	<b>-0.011**</b>	<b>0.017**</b>	0.004	0.004	<b>0.010*</b>
Age of Youngest Child	<b>-0.002*</b>	0.000	0.000	0.000	<b>0.001*</b>	0.001	0.001	<b>0.002*</b>	0.001	<b>-0.002*</b>	0.000	0.000
Number of Other Adults	<b>-0.010**</b>	<b>0.015**</b>	<b>0.026**</b>	<b>-0.024**</b>	<b>0.007**</b>	<b>0.020**</b>	0.000	0.004	<b>0.021**</b>	-0.007	0.006	<b>0.016**</b>
Own earnings	---	<b>-0.015**</b>	<b>-0.016**</b>	---	<b>-0.014**</b>	<b>-0.016**</b>	---	<b>-0.014**</b>	<b>-0.016**</b>	---	<b>-0.012**</b>	<b>-0.014**</b>
Own earnings <sup>2</sup>	---	<b>0.022**</b>	<b>0.024**</b>	---	<b>0.018**</b>	<b>0.020**</b>	---	<b>0.022**</b>	<b>0.025**</b>	---	<b>0.017**</b>	<b>0.021**</b>
Other income	---	<b>-0.006**</b>	<b>-0.006**</b>	---	<b>-0.005**</b>	<b>-0.006**</b>	---	<b>-0.004**</b>	<b>-0.006**</b>	---	<b>-0.004**</b>	<b>-0.005**</b>
Other income <sup>2</sup>	---	<b>0.002**</b>	<b>0.003**</b>	---	<b>0.002**</b>	<b>0.002**</b>	---	<b>0.002**</b>	<b>0.003**</b>	---	<b>0.002**</b>	<b>0.002**</b>
Government income	---	---	0.003	---	---	0.000	---	---	<b>-0.015**</b>	---	---	<b>-0.005*</b>
Government income <sup>2</sup>	---	---	<b>-0.072**</b>	---	---	<b>-0.041**</b>	---	---	<b>0.021**</b>	---	---	-0.023
<i>Adjusted R<sup>2</sup></i>	<i>0.020</i>	<i>0.208</i>	<i>0.220</i>	<i>0.028</i>	<i>0.220</i>	<i>0.236</i>	<i>0.009</i>	<i>0.160</i>	<i>0.201</i>	<i>0.009</i>	<i>0.129</i>	<i>0.146</i>

Model 1: Includes only household characteristics.

Model 2: Includes household characteristics and market and other, non-government income (income in thousands).

Model 3: Includes household characteristics and market, other and government income (income in thousands).

\*p<0.05, \*\*p<0.01

Table 5 (continued)  
 Effects of Parenthood and Other Household Characteristics on the Probability of Being Poor  
 For Men and Women Aged 25-54 in Eight Affluent Nations  
 (OLS Coefficients)

	Netherlands			Sweden			UK			US		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
<b>Women</b>												
Couple, kids	-0.023	<b>-0.039*</b>	<b>-0.065**</b>	-0.002	<b>-0.016*</b>	-0.003	<b>0.049**</b>	<b>0.035*</b>	0.000	<b>-0.032**</b>	<b>-0.044**</b>	<b>-0.039**</b>
Single, no kids	0.021	<b>-0.048**</b>	<b>-0.076**</b>	<b>0.029**</b>	<b>-0.015*</b>	<b>-0.052**</b>	0.028	<b>-0.050**</b>	<b>-0.073**</b>	<b>0.118**</b>	0.004	0.010
Single, kids	<b>0.116**</b>	0.004	0.007	0.003	<b>-0.055**</b>	<b>-0.050**</b>	<b>0.156**</b>	0.032	0.029	<b>0.293**</b>	<b>0.138**</b>	<b>0.136**</b>
Number of Kids	<b>0.015*</b>	<b>0.016**</b>	<b>0.025**</b>	0.003	0.002	<b>0.011**</b>	0.001	-0.010	<b>0.014*</b>	<b>0.049**</b>	<b>0.033**</b>	<b>0.031**</b>
Age of Youngest Child	0.000	0.001	<b>0.002*</b>	0.000	<b>0.001**</b>	0.000	<b>-0.003*</b>	-0.001	0.000	<b>-0.004**</b>	<b>-0.002**</b>	<b>-0.002**</b>
Number of Other Adults	-0.010	0.000	<b>0.017*</b>	---	---	---	-0.020	0.003	<b>0.029**</b>	<b>-0.020**</b>	<b>0.006*</b>	0.002
Own earnings	---	<b>-0.006**</b>	<b>-0.008**</b>	---	<b>-0.007**</b>	<b>-0.012**</b>	---	<b>-0.011**</b>	<b>-0.016**</b>	---	<b>-0.014**</b>	<b>-0.013**</b>
Own earnings <sup>2</sup>	---	<b>0.007**</b>	<b>0.010**</b>	---	<b>0.018**</b>	<b>0.028**</b>	---	<b>0.024**</b>	<b>0.034**</b>	---	<b>0.014**</b>	<b>0.014**</b>
Other income	---	<b>-0.005**</b>	<b>-0.008**</b>	---	<b>-0.003**</b>	<b>-0.006**</b>	---	<b>-0.006</b>	<b>-0.008**</b>	---	<b>-0.007**</b>	<b>-0.007**</b>
Other income <sup>2</sup>	---	<b>0.002**</b>	<b>0.003**</b>	---	<b>0.003**</b>	<b>0.005**</b>	---	<b>0.002**</b>	<b>0.003**</b>	---	<b>0.003**</b>	<b>0.003**</b>
Government income	---	---	<b>-0.013**</b>	---	---	<b>-0.012**</b>	---	---	<b>-0.013**</b>	---	---	<b>0.007**</b>
Government income <sup>2</sup>	---	---	<b>0.010**</b>	---	---	<b>0.020**</b>	---	---	-0.015	---	---	<b>-0.019**</b>
<i>Adjusted R<sup>2</sup></i>	<i>0.027</i>	<i>0.111</i>	<i>0.163</i>	<i>0.004</i>	<i>0.067</i>	<i>0.131</i>	<i>0.028</i>	<i>0.132</i>	<i>0.177</i>	<i>0.144</i>	<i>0.330</i>	<i>0.334</i>
<b>Men</b>												
Couple, kids	-0.023	<b>-0.032*</b>	<b>-0.056**</b>	0.000	-0.013	0.009	<b>0.055**</b>	<b>0.044**</b>	0.015	0.007	-0.010	-0.010
Single, no kids	0.021	<b>-0.046**</b>	<b>-0.071**</b>	<b>0.055**</b>	0.004	<b>-0.054**</b>	<b>0.073**</b>	-0.014	<b>-0.032*</b>	<b>0.090**</b>	<b>-0.013**</b>	<b>-0.013**</b>
Single, kids	-0.046	-0.092	-0.063	<b>0.048**</b>	-0.005	-0.012	0.058	-0.074	-0.073	<b>0.100**</b>	-0.012	-0.013
Number of Kids	<b>0.012*</b>	<b>0.011*</b>	<b>0.022**</b>	0.004	0.002	<b>0.013**</b>	-0.002	<b>-0.016**</b>	<b>0.013*</b>	<b>0.030**</b>	<b>0.023**</b>	<b>0.023**</b>
Age of Youngest Child	0.001	0.002	<b>0.003**</b>	-0.001	<b>0.001*</b>	-0.001	<b>-0.002*</b>	-0.001	0.000	<b>-0.003**</b>	<b>-0.001**</b>	<b>-0.001**</b>
Number of Other Adults	-0.006	-0.002	<b>0.018*</b>	---	---	---	<b>-0.019*</b>	0.005	<b>0.037**</b>	<b>-0.007**</b>	<b>0.018**</b>	<b>0.018**</b>
Own earnings	---	<b>-0.012**</b>	<b>-0.018**</b>	---	<b>-0.008**</b>	<b>-0.013**</b>	---	<b>-0.016**</b>	<b>-0.023</b>	---	<b>-0.013**</b>	<b>-0.013**</b>
Own earnings <sup>2</sup>	---	<b>0.016**</b>	<b>0.024**</b>	---	<b>0.016**</b>	<b>0.023**</b>	---	<b>0.026**</b>	<b>0.036</b>	---	<b>0.012**</b>	<b>0.012**</b>
Other income	---	<b>-0.004**</b>	<b>-0.006**</b>	---	<b>-0.004**</b>	<b>-0.009**</b>	---	<b>-0.006**</b>	<b>-0.008</b>	---	<b>-0.006**</b>	<b>-0.006**</b>
Other income <sup>2</sup>	---	<b>0.001**</b>	<b>0.002**</b>	---	<b>0.002*</b>	<b>0.008**</b>	---	<b>0.002**</b>	<b>0.003</b>	---	<b>0.003**</b>	<b>0.003**</b>
Government income	---	---	<b>-0.016**</b>	---	---	<b>-0.015**</b>	---	---	<b>-0.022</b>	---	---	<b>0.002*</b>
Government income <sup>2</sup>	---	---	<b>0.011**</b>	---	---	<b>0.023**</b>	---	---	<b>0.383</b>	---	---	<b>-0.010**</b>
<i>Adjusted R<sup>2</sup></i>	<i>0.002</i>	<i>0.162</i>	<i>0.240</i>	<i>0.019</i>	<i>0.090</i>	<i>0.160</i>	<i>0.011</i>	<i>0.195</i>	<i>0.265</i>	<i>0.027</i>	<i>0.259</i>	<i>0.260</i>

Model 1: Includes only household characteristics.

\*p<0.05, \*\*p<0.01

Model 2: Includes household characteristics and market and other, non-government income.

Model 3: Includes household characteristics and market, other and government income.

Source: Author's calculations from Luxembourg Income Study.

**Appendix Table A-1**

<b>Cohabitation and Headship Definitions</b>		
<b>Country</b>	<b>Cohabitation Definition*</b>	<b>Household Head Definition</b>
Australia	Couples in “de-facto” (cohabiting) relationships are coded identically to those who are legally married. De-facto relationships were defined as existing where a married couple living together in a married situation, but are not legally married.	The family head is defined as the head of the primary income unit of the family. If this income unit is a couple, the husband is the head.
Canada	Spouses are defined as legally married, common-law couples, and people living together as married.	The head of the household is always the head of the primary economic family. Headship is determined by the unit itself.
France	In this survey spouses are defined as the legally married partner of the household head. Cohabiting individuals are also considered spouses if this information is available from the census form.	If there is one family, the head is the male adult. If there is more than one family in a household, the head is the oldest working person of the oldest person when no household member is working.
Germany	Spouses are defined as the legally married partner of the household head. Information on life partner of the head is provided separately. The two categories have been redefined as married in our data.	The survey unit head was defined as the person with the best knowledge of household living conditions (not in general the oldest person).
The Netherlands	Information on legally married couples, steady partner of household head and same sex steady partner of head all treated as married.	The respondents identified the household head.
Sweden	In this survey, spouses are defined as people who are cohabiting , as well as people who are married. Households were defined as either one adult or two adults (more than 18 years old) with or without children (equal or less than 17 years old).	Respondents identified the household head.
United Kingdom	A couple who are cohabiting and consider themselves as husband and wife are considered “married”.	The survey unit head is the head of household. The head of household must be a member of that household. He or she is the person, or the husband of the person who: <ol style="list-style-type: none"> <li>1. owns the household accommodation, or</li> <li>2. Is legally responsible for rent of the accommodation, or</li> <li>3. Has the household accommodation by virtue of some relationship to the owner who is not a member of the household.</li> </ol> When two members of different sex have equal claim, the male is taken as head of household.
United States of America	The CPS spouses must be legally married. Thus, “married” means legally married. Cohabiting men and women are not defined as related in the survey even if they have children. Subsequently we coded 2 persons of the opposite sex, with an age difference of 10 years or less as married.	One person in each unit is designated as the head or “householder”. The householder is the person who owns or rents the house. In jointly owned houses, it can be the husband or the wife.

\*All nations except the United States treat cohabitators as married. In the United States, we defined different-sex cohabitators and married couples as “couples.

Appendix Table A-2  
Means of Independent Variables<sup>1</sup>  
Men and Women Aged 25-54

	Australia 1989	Canada 1994	France 1989	Germany 1994	Netherlands 1991	Sweden 1992	UK 1995	US 1994
<b>Women</b>								
Couple, no kids	27.4	31.2	26.9	30.9	31.9	26.2	31.5	26.7
Couple, kids	56.4	48.4	57.8	49.5	51.2	47.1	47.0	48.0
Single, no kids	8.4	11.8	9.5	12.5	10.9	16.9	11.8	12.7
Single, kids	7.8	8.5	5.8	7.0	6.0	9.9	9.8	12.7
Number of kids	1.3	1.1	1.2	1.0	1.1	1.0	1.1	1.2
Age of youngest child	4.8	4.2	4.7	4.4	4.1	4.2	4.1	4.3
Number of other adults	0.3	0.4	0.4	0.3	0.2	---	0.2	0.3
Own earnings	7,376	10,705	7,741	7,089	5,142	8,681	7,069	12,545
Other income	21,863	22,607	16,786	18,258	18,467	12,345	19,306	26,195
Government income	1,754	3,194	3,485	1,973	3,263	4,794	3,111	1,769
(Own earnings) <sup>2</sup>	120,013,699	222,018,380	124,949,903	104,065,007	78,349,785	109,802,814	118,964,552	333,519,130
(Other income) <sup>2</sup>	770,843,701	918,989,102	555,462,950	647,073,191	598,674,071	268,071,515	855,349,589	1,395,118,852
(Government income) <sup>2</sup>	13,525,045	31,829,414	36,684,436	15,464,538	39,773,148	53,069,831	30,507,961	21,666,596
<b>Men</b>								
Couple, no kids	25.7	29.1	25.9	28.3	32.9	21.7	31.8	26.4
Couple, kids	60.3	50.6	61.7	52.6	52.3	43.9	52.8	53.6
Single, no kids	12.7	18.4	11.5	18.4	14.2	32.0	14.0	17.0
Single, kids	1.3	1.8	0.9	0.6	0.7	2.4	1.4	3.0
Number of kids	1.2	1.0	1.2	0.9	1.0	0.9	1.0	1.1
Age of youngest child	4.3	3.7	4.4	3.9	3.6	3.2	3.5	3.8
Number of other adults	0.3	0.3	0.3	0.2	0.2	---	0.2	0.3
Own earnings	16,974	20,090	14,880	15,832	17,779	13,156	14,432	24,794
Other income	13,606	13,896	10,232	9,616	6,716	6,887	13,905	15,914
Government income	1,340	2,808	3,135	1,660	2,634	4,267	2,461	1,294
(Own earnings) <sup>2</sup>	419,780,882	615,781,156	344,636,864	368,695,409	431,749,501	247,271,825	380,601,479	1,011,649,630
(Other income) <sup>2</sup>	432,720,696	470,448,453	309,071,855	315,194,993	158,365,925	100,838,936	645,861,150	642,236,568
(Government income) <sup>2</sup>	9,858,922	26,685,580	30,779,052	11,246,789	30,150,229	45,259,817	23,107,438	15,578,221

Source: Author's calculations from Luxembourg Income Study.

<sup>1</sup>All income variables are reported in US 1994 dollars.