

# **Gender Inequality in Poverty in Affluent Nations: The Role of Single Motherhood and the State**

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## **Gender Inequality in Poverty in Affluent Nations:**

### **The Role of Single Motherhood and the State**

Women have higher poverty rates than men in almost all societies (Casper et al. 1994). In this paper, we compare modern nations on this dimension. We use the Luxembourg Income Study (LIS) to compare women's and men's poverty rates in eight Western industrialized countries circa the early 1990s: the United States, Australia, Canada, France, West Germany, the Netherlands, Sweden, and the United Kingdom. We define individuals to be in poverty if they live in households with incomes below half the median for their nation. We examine, for each country, the ratio of women's to men's poverty rate. We then use simple demographic simulation methods to estimate how this gender disparity is affected by how prevalent single motherhood is, and by state tax and transfer programs that may particularly help households headed by women.

Our guiding framework emphasizes a web of interdependencies.

Individuals rely on others (family members, employers, or the state) to

obtain money and what it can buy. In addition, we have relationships with other people—as friends, spouses, employees, fellow citizens, or neighbors—and in this we are reliant on the labor of those who reared these people. In this second emphasis, our analysis is inspired by feminist interrogation of who pays the costs of children (England and Folbre 1999; Folbre 1994a; 1994b). In this view, an important reason that more women than men are in poor households is because women are paying more of the costs of children than men. Folbre (1994a) argues that many members of society share in the benefits of children being brought up well. Most of us are dependent upon those who rear children for our ability to find caring friends, a spouse, trustworthy neighbors, or employees. But we seldom recognize this dependency, and market mechanisms don't get all the beneficiaries to pay the parents or others who reared children. Often when services have this “public good” aspect, as for example with national defense or highways, the state steps in to socialize the costs. Many social welfare programs, in effect, socialize some of the costs of rearing children. But states differ in how much they do this, and this may affect how much

individual mothers bear the costs of children relative to individual fathers, and relative to male and female taxpayers. Single motherhood also affects the distribution of the costs of children between individual mothers and fathers, since in the case of nonmarital births and divorce, individual fathers often contribute little or nothing to the labor of rearing children and little to the financial costs. If women are poorer than men because many of them are raising children alone, this is evidence that mothers are bearing a disproportionate share of the costs of children relative to fathers or other citizens. The prevalence of single mothers and the way they (and others) are treated by social policies both affect the sex gap in poverty rates.

### **Past Literature On Gender Inequality in Poverty Rates**

Individuals get income from three main sources: the family, the market and the state. Households get their money primarily from household members selling their labor in labor markets or receiving transfers from government programs.<sup>1</sup> Family members generally pool income, so the family serves to redistribute income within households, with those who either work for

earnings or receive government transfers sharing these types of income with those who receive less or no income from outside the household.

Women have a higher poverty rate than men in almost all nations. (Sweden is the exception among the countries in our sample.) In thinking about possible causes of the gender gap in poverty rates, it is crucial to understand that poverty is measured at the *household or family level* in most all government and academic statistics. An individual is in poverty if s/he lives in a household whose total income falls below the poverty line. In households with an adult couple, either both partners are in poverty or neither is in poverty. So, if all adults were married to or cohabiting with a person of the other sex, there would be no sex gap in poverty.<sup>2</sup> Thus, the sex gap in poverty exists because single women are poorer than single men. And for any size of the sex gap among singles, the overall sex gap will be larger if a higher proportion of the population is single.

Why are single women's households poorer than single men's? There are

two main reasons--women's lower income and the fact that more single women live with children. Having children in the household affects the likelihood of poverty in one definitional way. Since the poverty line is adjusted for household size, the presence of children in a household raises the income necessary for the household to escape poverty, and thus, income equal, single adults who live with children are more likely to be poor than those who live alone. Single women are much more likely to live with children than single men, since women usually have custody of the children in cases of divorce or nonmarital births. Thus, even if single men and women had equal earnings, more of the women than the men would be in poverty by virtue of supporting children.

Single women's greater poverty also comes from their lower earnings. Since single individuals typically do not have adult household members to transfer income to them, most are reliant on either government transfers or earnings. Although research on the sex gap in pay has seldom examined patterns separately by marital status, it is safe to assume that single women

earn less than single men for many of the same reasons that women earn less than men more generally. (For a comparative overview of gender inequality in employment in earnings in modern nations, see Gornick 1999.)

Jobs are still quite segregated by sex, both because a myriad of social forces encourage individuals to seek out sex-typical jobs and because of sex discrimination in hiring and job placement by employers (Jacobs 1989; Reskin and Roos 1990). Segregated jobs create a sex gap in pay because, even though "female" jobs require as much education, on average, as "male" jobs, they pay less (England 1992). The low pay in "women's jobs" may arise because of crowding, the greater excess of supply relative to demand in female jobs than in male jobs, resulting from the exclusion of women from "male" jobs (Bergmann 1986). In addition, there is evidence that sex bias affects employers' decisions about how much to pay "women's jobs" relative to jobs dominated by men; this is the type of discrimination at issue in "comparable worth" (England 1992; Sorensen 1994).

Parenthood reduces women's but not men's pay, also contributing to the sex gap in pay. Motherhood lowers the pay of women because some women leave the labor force or work part-time when they have children. In the case of single mothers this may require living on government transfer payments. When mothers return to work full-time, their earnings suffer from the accumulated deficit in experience and seniority. However, even after adjustments for prior experience, motherhood lowers women's earnings (Budig and England 1999; Waldfogel 1997, 1998). This may be because child care leaves mothers with less energy when they go to work, cutting into their productivity, because they trade off higher wages for "mother-friendly" jobs,<sup>3</sup> or because employers discriminate against mothers.

Nations differ in how their welfare states deal with these issues. Orloff (1993:319) suggests the utility of classifying welfare states along "a general dimension of self-determination" that would consider how much the state allows individuals to be independent from either markets or marriages. This contrasts with conceptualizations, like Esping-Andersen's (1990)

Marxist-inspired notion of “decommodification,” which focus on how much independence from markets the state provides. A feminist critique of this formulation is that it implicitly assumes that men’s (or women’s) dependence on capitalist employers is more problematic than wives’ dependence upon husbands for money. In her discussion of the gendered nature of welfare states, Orloff (1993) focuses on how much the state facilitates women’s independence from *either* employers or husbands. Her work implies that a large sex gap in poverty is not a *necessary* consequence of a high incidence of single mothers. This is because welfare states can ameliorate poverty among single mothers, either through policies that help women combine employment with motherhood, through enforcement of obligations that noncustodial fathers pay child support, and/or through transfer payments that pull single mothers out of poverty.

The thrust of the literature on welfare states is that the U.S. and other Anglo-Saxon nations provide less than other nations that facilitates mothers’ employment as well as less generous and universal income

support. Nordic nations provide the most, with other nations intermediate. One might infer from this that nations in which the welfare state is doing more for women (and mothers) have a lower gender gap in poverty. However, state policies are not necessarily the cause of national differences in the gender gap in poverty. In part this is because there are other determinants of women having higher poverty than men, such as the proportion of women who are single mothers and the relative treatment of men and women in private-sector labor markets. Also, having relatively generous programs for single women (including single mothers) will not necessarily equalize poverty rates for women *relative to* men. It could be that welfare states that have generous policies for single women also have generous policies for single men, and therefore that generous welfare states do nothing close the sex gap in poverty.

Our goal is to assess the extent to which national differences in the gender gap in poverty come from differences in family structure (the proportion of people who are single, and whether single women are mothers) and

governmental transfers more favorable to women versus men. The past research that comes closest to addressing our question is that of Casper et al. (1994). Using data from the mid-1980s, they showed nations arrayed as follows, in descending order of the size of their ratio of women's to men's poverty rate. The U.S., Australia, West Germany, Canada, and the U.K. all had a sizeable gender gap. In Italy and the Netherlands women's poverty rate was about the same as men's. In Sweden, women's poverty rate was actually less than men's. Like Casper et al. (1994), we use LIS data, but we use a more recent wave of data for each country. We analyze the same countries except that we have added France because it is well known for welfare state policies directed at children and excluded Italy.<sup>4</sup>

Casper et al. (1994) used logistic regression to predict individuals' poverty from several variables; most describe household composition and one dummy variable indicates whether or not individuals are employed. They then performed a decomposition showing that nations with more women relative to men living in households with children--which occurs when there

are more single mothers--have larger sex gaps in poverty. They found that the high levels of employment among single females in Sweden are important in reducing women's poverty relative to men's. They speculate that the near equal poverty rates of the Dutch must come from generous transfer programs, since they show that the Netherlands has low female employment and relatively high rates of single motherhood, both factors that would tend to increase women's poverty relative to men's.

Our analysis, like that of Casper et al. (1994), examines the effect of a nation's family patterns (e.g. prevalence of single mothers) on the gender gap in poverty. On this question, our contribution is in more detailed measures of family status categories and use of more recent data. Their analysis did not examine the contribution of the state to men's and women's poverty. Their conclusions that the relatively low gender gap in poverty in the Netherlands is explained by welfare policies was largely speculative. We assess this more directly through our simulations that examine each nation's ratio of women's to men's poverty including and excluding

transfer payments, after standardizing poverty rates for demographic differences between nations in the proportion of people in various family status categories.

### **DATA, MEASURES, AND METHOD**

We use the Luxembourg Income Study (LIS). This data set contains information on household income for over 25 nations in 90 databases covering the period 1967 to 1995, and new waves of data continue to be added (LIS User Guide 1998). The LIS consists of a set of household income surveys representing the civilian non-institutionalized population of each nation. We use the most recent wave for each of 8 nations; most are from early to mid-1990s. The United States database is the March 1995 Current Population Survey with annual income information for 1994. The other nations we examine are the U.S. (1994), Australia (1994), Canada (1994), West Germany (1994), France (1989), Netherlands (1991), Sweden (1992) and the United Kingdom (including England, Scotland, Wales and Northern Ireland, 1995).<sup>5</sup>

In order to avoid including students and retirees, whose poverty is driven by very different factors than that of “prime-age” adults, we limited our sample to adults from age 25 to 54. Although our measures of poverty and household type are defined at the household level, individual men and women are the units of analysis.

The measure of economic poverty we use here considers an individual in poverty if she or he lives in a household with a (size-adjusted) disposable money income that is less than half the median for households in the nation. This is a relative notion of poverty that compares the economic well being of individuals to other residents of the same nation (not to those in other countries or to some absolute standard). We measure poverty at the household level. One limitation of measuring poverty at the household level is the implicit assumption of perfect pooling between household members. This ignores that an individual who brings money into the household may not share perfectly, but may retain disproportionate power over how money is spent and may consume more than other family

members. There is a strong theoretical and an inconclusive but suggestive empirical literature proposing that women may have less 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 and Kilbourne 1990; Lundberg and Pollak 1996.) On the other hand, to assume no pooling would even more seriously distort individuals' ability to consume and to participate in societies in ways that require money. The nonemployed wife of a corporate executive with extremely high earnings would be classified in poverty if we took an individual rather than household definition of poverty. Thus, we think the household definition is preferable, as long as we do not forget that those who earn or otherwise receive money from outside the household may gain more from it than other household members.

The forms of income that go into the determination of whether a household is in poverty are cash and near-cash income. LIS data sets contain variables for earnings, pensions, many types of government transfers, and other

sources of income such as property income and child support payments. These were added to form total household income. We also include near-cash transfers such as food stamps<sup>7</sup> and cash denominated housing allowances in our definition of household income. This gross income was then converted to “disposable income” by subtracting out income and payroll taxes. For our simulation designed to assess the effect of welfare state’s tax and transfer programs on gender inequality in poverty, discussed below, we compare ratios of women’s to men’s poverty computed using this disposable (post-tax, post-transfer) income to those computed using pre-tax, pre-transfer income. (For both we take the poverty line to be half of median disposable income.) Even post-transfer income excludes non-cash benefits such as health care, child care, and education; they are not measured by the LIS.

Before comparing a household’s income to the poverty line for the relevant nation to determine whether the household is in poverty, income was adjusted by a commonly used equivalence scale. (The U.S. governmental

poverty line, which we do not use, is also constructed with an equivalence scale.) Equivalence scales adjust income for family size. However, instead of a simple linear transformation like per capita income, they are calibrated to reflect the notion that while a larger family needs more income than a smaller family, given economies of scale, a family of four doesn't need twice of what a family of two needs. Details on our choice of an equivalence scale are in the Appendix. The Appendix also includes calculations showing that our basic substantive conclusions are fairly robust regardless of whether our measure of family size weights each adult and child as 1, or weights children 25% more or less than adults. The former assumes that households need more money per child than per adult because children need child care, while the latter assumes children consume less of some goods, such as food.

To assess how much between-nation differences in household composition affect the degree of gender inequality in poverty, we perform a simple demographic simulation making use of post-tax, post-transfer (disposable)

income. To do this, we first classify the individual women and men who are our units of analysis by the household type they live in, i.e. whether they are part of a male-female couple or not and by the presence or absence of children under age 18 in the household. As shorthand, we will refer to both married and cohabiting male-female couples as “married.”<sup>8</sup> Whether individuals are classified as “parents” is determined not by whether they have biological children, but by whether a child under 18 lives in their household. So, for example, single fathers who do not live with their children are classified as male single non-parents. This yields four household types for each sex: married parents, married non-parents, single parents, and single non-parents. The overall poverty rate for women is a weighted average of the poverty rate for women in each of the four household-type categories, and analogously for men.

Our analysis begins with a simple calculation of poverty rates for men and women. The measure of the gender gap in poverty that we use is the ratio of women’s poverty rate to men’s poverty rates, called the “sex-poverty ratio.”

(We take this term from McLanahan et al. 1989.) We also examine these ratios for subgroups such as singles and single parents.

We then move to simulations designed to assess the effects of welfare state tax and transfer policies, and the effects of household composition on cross-national differences in gender inequality in poverty. First, to assess the effects of tax and transfer policies, we compare the sex-poverty ratio if income is pre-tax and pre-transfer to the sex-poverty ratio if it is post-tax and post-transfer. If we are willing to assume no behavioral response (in labor supply, marriage, cohabitation, or fertility) to policies, this tells us whether overall the tax and transfer policies help women or men more, as regards being or not being in poverty.

Second, we assess the effects of family composition on nations' sex-poverty ratio by performing a simulation that gives every other nation the U.S. proportion of men and women in each household type, but retains the nation's own poverty rates within household types. In essence, we

weight a country's sex- and household-type-specific poverty rates by U.S. weights for family demography. This gives us the sex-poverty ratios other nations would have if they had the U.S. household composition.

## **RESULTS**

Table 1 shows the raw sex gap in poverty in various subgroups. The first two columns examine poverty rates among all men and women ages 25-54 and the third shows the "sex-poverty ratio," i.e. women's poverty rates divided by men's poverty rates.

[TABLE 1 ABOUT HERE.]

Looking at the poverty rates, we see that men in Sweden and the Netherlands have substantially lower poverty rates than men in the other countries (under 5%), while U.S. and Canadian men have the highest poverty rates (11%). The rank order of countries by women's poverty rates is the same, with the lowest women's poverty in Sweden (3%) and the Netherlands (6%) and highest rates in Canada (13%) and the U.S. (15%).

Only Sweden has a sex-poverty ratio less than one, indicating that Swedish men are more likely to live in poverty than Swedish women. But both sexes have very low poverty, so the difference is not large in percentage point terms (4% for men and 3% for women). In all other countries, women have higher poverty rates than men; the country with the next lowest sex-poverty ratio is France, where women are 11% more likely than men to live in poverty. Sex-poverty ratios are higher than this in Canada, the Netherlands, Germany and U.K., where women are between 13% and 20% more likely to live in poverty than men. The two outliers are Australia and the U.S., where women are respectively 30% and 38% more likely to live in poverty than men.

Table 1 also shows poverty rates and ratios for single men and women. We examine singles separately because the overall gender gap in poverty is driven entirely by the gap among singles, weighted by what proportion of people are single, as discussed previously. Nations' rankings in single

men's poverty rates are quite similar to the ranking for all (single and married) men. The same holds for single women. The low poverty of single women in Sweden (5%) is striking. Even single men in all countries have higher poverty rates, and the poverty rates of single women in other countries are in an entirely different ballpark than that of their Swedish counterparts, from 13% in the Netherlands to a high of 32% in the U.S. In all countries but Sweden, single women have higher poverty than single men. In all countries but Sweden and France, single women's poverty is more than 50% higher than men's.

Table 1 also shows the poverty rates for single mothers. Swedish single mothers are outliers with a poverty rate of only 3%. Rates of poverty for single mothers are very high in all other countries, from a low of 25% in France and the Netherlands to a high of 47% in the U.S. Single fathers have poverty rates lower than single mothers, but quite high in the 10-30% range except for the low 7% rate of Sweden.<sup>9</sup>

These descriptive statistics allow several generalizations: Women's poverty rate is higher than men's everywhere except Sweden. However, there are large national differences in the extent of inequality between women's and men's rates of poverty. Single women, particularly single mothers, have higher poverty rates than most other groups of men or women in all nations but Sweden. But the extent to which single women and single mothers have "surplus" poverty varies by nation.

Next we want to assess how much differences between nations in their sex-poverty ratio are driven by differences in their tax and transfer policies, and how much by the prevalence of single motherhood. To do this, we perform data-based simulations, presented in Table 2.

[TABLE 2 ABOUT HERE.]

First, we want to assess whether, all in all, tax and transfer payment policies help reduce women's poverty relative to men's. That is, we want to know if they change the ratio of women's poverty rate to men's. For that to be true,

the policies would have to raise proportionately more women than men above the poverty line. To examine this, we first compute hypothetical poverty rates for women and men in each nation based on their income before subtracting taxes and before adding government transfers. The ratio of women's to men's poverty in the first row of Table 2 comes from these calculations. It can be compared to the second row in Table 2, which gives the sex-poverty ratio when each household's actual disposable (post-tax, post-transfer) income is used.

Table 2 shows that in all cases the actual ratio of women's to men's poverty is lower than it is before taxes and transfers, implying that every nation's welfare state pulls proportionately more single women than single men out of poverty. However, in most nations the reductions are very small. If we count any reduction less than 5% as trivial, then the welfare states of the U.S., Canada, France, and Germany are not redistributive between men and women, at least across the poverty line. They reduce the sex-poverty ratios by 3, 2, 1, and 1% respectively. The tax and transfer systems of Australia

and the U.K. are slightly more friendly to women relative to men as regards poverty; they reduce the sex-poverty ratio by 5% and 8% respectively. The nations with tax and transfer systems that help women out of poverty the most, relative to men, are the Netherlands and Sweden, whose systems reduce the ratio of women's to men's poverty by 15% and 21% respectively (Table 2). Thus, the fact that the U.S. has the highest ratio of women's poverty to men's poverty can be attributed in part to its less gender-redistributive system of tax and transfer policies as regards poverty. This is particularly true in comparison with the Netherlands and Sweden.

The two nations whose welfare states reduce the gender gap in poverty the most, Sweden and the Netherlands, also have the lowest poverty rates of both men and women. However, the Netherlands has much higher poverty of single mothers (25%, similar to that of France) than Sweden (3%). The policies of most of the nations are scarcely redistributive across gender lines. Some nations, like France and Germany, may have relatively generous welfare systems compared to the U.S., but because they help men

nearly as much as women, they scarcely reduce the gender inequality in poverty produced by family and market.

We next address the question of the effect of family demography on the ratio of women's to men's poverty. To do this, we can standardize any nation's poverty rates to the demography of any other. To avoid too many comparisons, and because the U.S. has the worst sex gap in poverty, we use the U.S. as a comparator. The fourth row of Table 2 gives the hypothetical ratio of women's to men's poverty for each nation if it were given the family demography of the U.S.

To calculate this, we first divide the individuals in each nation into eight sex-specific household types. That is, we divide each sex into married parents, married non-parents, single parents, and single non-parents. The U.S. poverty rate for each of these groups is computed from the LIS U.S. data. Then we create hypothetical male and female poverty rates for the other nations under the assumption that they had the U.S. family

demography. To do this, for each sex, in each nation, we take a weighted average of that nation's observed poverty rates. If we used that nation's proportion of persons of that sex who are in that household category, we would get the nation's observed (disposable, i.e. post-tax, post-transfer) poverty rate. However, by using U.S. household category proportions as weights, we get the poverty rate the nation would have if it had U.S. family demography. The sex-poverty ratios corresponding to these hypothetical rates are row 4 of Table 2. By comparing them to row 2, the nation's actual post-transfer, post-tax ratios, we see how much their gender inequality in poverty would be increased if they had the U.S. family demography. Close examination of the detailed numbers leading to these rates and ratios makes clear that it is largely the U.S. higher proportion of single mothers that drives the differences between the sex-poverty ratios with the nation's own versus the U.S. family demography (row 2 versus row 4 in Table 2). The last row of Table 2 gives the percent by which the sex-poverty ratio is increased when each nation is given the U.S. family demography (as weights) but keeps its own poverty rates within household types.

The last rows of Table 2 show that every nation would have a higher ratio of women's to men's poverty if they had the U.S. household family composition. This is largely due to the high percentage of U.S. women who are single mothers, about 12%. In Sweden, France, Germany, and the Netherlands only 5% of women are single mothers. The Anglo-Saxon nations have higher rates with Australia at 8%, Canada at 9%, the U.K. at 11%, and the U.S. the highest at 12%. We see that, given that the U.K. has nearly as many single mothers as the U.S., if they had the U.S. family demography their sex-poverty ratio would go up only 3%. But the ratios of Australia, Canada, France, and Sweden would all go up 7-8%. The ratios for Germany would go up 19% and the Netherlands would go up 30%. Despite the fact that Germany and the Netherlands have about the same proportion of single mothers as France and Sweden, the ratio of women's to men's poverty would go up much more in the former than the latter two nations if they had the U.S. family composition. This is largely because single mothers have higher poverty relative to single men in Germany and

the Netherlands than in France and Sweden.

## **CONCLUSION**

Women have higher poverty than men in every nation besides Sweden. However, the ratio of women's poverty to men's among the nonelderly differs by nation, being highest in the U.S. (1.38), followed by Australia (1.30). In this paper, we explored the operation of the welfare state and family demography as they affect these sex-poverty ratios and how they differ across nations.

To assess how nations' welfare states affect gender inequality in poverty, we compared the hypothetical sex-poverty ratios if the state did no taxation and transfers (that is the ratios calculated from pre-transfer, pre-tax income) to the actual ratios (calculated on disposable, i.e. post-transfer, post-tax income). Systems of taxation and transfer payments are the major way that welfare states affect the distribution of income. While our analysis does not consider the effects of specific programs, it provides a good

“bottom line” assessment of whether tax and transfer systems bring proportionately more women or men out of (or into) poverty. The U.S., Australia, Canada, France, and Germany all reduce the ratio of women’s to men’s poverty rates by 5% or less through their tax and transfer systems. Thus, in these countries the welfare state does little to reduce the gender inequality in poverty produced by single motherhood and labor market inequalities. The UK reduces its sex-poverty ratio from 1.30 to 1.20, by 8%, with its tax and transfer system. The nations whose welfare states do the most for women relative to men are the Netherlands and Sweden. In Sweden, women have no higher poverty than men even when we look at pre-tax, pre-transfer income, but after taxes and transfers are included in income, women’s poverty goes down even more relative to men’s.

One might object to our analysis because it embodies the unrealistic assumption that there are no behavioral effects of welfare, such as women deciding not to be employed or not to get married because of the availability of transfers for single mothers. However, if such behavioral effects exist,

and particularly affect women, then our analysis will exaggerate the beneficial effects of transfers on women's poverty rates relative to men's. If this is true, we may be exaggerating the helpful effect of the state on gender equality in freedom from poverty in Sweden and Netherlands. But the conclusion seems quite safe that the welfare states of the other five nations (the U.S., Australia, Canada, France, and Germany) make no more than trivial redistribution that reduces the gender disparity in poverty rates.

Our analysis also examined the effect of household demography on gender inequality in poverty. Poverty, as we measure it, applies to all members of a household, so married couples can't contribute to a sex gap in poverty, and any gap must come all from disparities between single men and women. In particular, single mothers have higher poverty than other groups everywhere but Sweden (although the extent of their surplus rates varies). Single women are more likely to be supporting children than single men, yet have lower earnings on average. Thus, nations with a higher percent of

women who are single mothers will generally have a higher sex gap in poverty. We examined how much household composition drives differences between nations in the degree of sex inequality in poverty. To do this, we compared the actual sex-poverty ratios to those each nation would have if it had the proportion of men and women in each household category (single with kids, single without kids, married with kids, and married without kids) that the U.S. has. This simulation showed that every nation would have more gender inequality in poverty if it had U.S. family demography. The major factor in the increase is the higher proportion of American women who are single mothers. Indeed, the poverty rates of Australia, Germany and the Netherlands are such that if they had U.S. demography but their own poverty rates within household types they would have higher gender inequality in poverty than the U.S.

Sweden is doubly blessed, with family demography and the state contributing to women's low poverty relative to men's. Even if single mothers did have higher poverty than other groups in Sweden, its lower

proportion of single mothers relative to the U.S. would give it a lower ratio of women's to men's poverty than in the U.S. Its welfare state is also important to gender equality, as seen by the fact that taxes and transfers reduce the ratio of women's poverty to men's below its already low level.

France is also known for its ample government transfers and services for families with children. We thought at first that this must be what produced its relatively low poverty rates among single mothers and low sex-poverty ratio among singles (Table 1). However, our simulations make clear that state transfers of income are not what generates France's greater gender equality compared to the U.S. Taxes and transfers do little to reduce the gender disparity in poverty in either France or the U.S. Apparently the French system is more generous to both men and women, while the U.S. system is stingy to both, but neither does much redistribution by gender. The superiority of France to the U.S. in gender equality in poverty comes in part from its lower prevalence of single mothers.

The Netherlands is a particularly interesting case with forces pulling for and against gender equality in poverty. Dutch single mothers have very high poverty rates. Before taxes and transfers the Dutch sex-poverty ratio is as high as any nation but the U.S. and Australia, in part because all mothers, single and married, have low employment rates. But the Netherlands has fewer single mothers than the U.S. or other Anglo-Saxon nations, which lowers their gender inequality in poverty. Their tax and transfer system also works against gender inequality in poverty more than that of any nation besides Sweden.

If Sweden is doubly blessed, the U.S. is “doubly damned,” with high levels of single motherhood and a welfare state that is relatively stingy and redistributes little if at all by gender. Both the high rates of single motherhood and the lack of gender redistribution by the welfare state contribute to the highest gender disparity in poverty. It is important to remember that the income data used here exclude noncash transfers, such as health care and child care. Analyses that included these would make the

U.S. look even worse relative to other nations in poverty rates and gender inequality in poverty. All other affluent nations have universally available health care and more state child care funding than the U.S. Universally available health care and child care are particularly beneficial to single mothers for their direct benefits, as well as because they make employment pay where it otherwise would not because of child care costs and loss of welfare-provided health care for children.

Single motherhood is growing in most industrial nations. As this occurs, gender inequality in poverty will increase if women's employment and earnings and/or state subsidization of the costs of rearing children do not increase to compensate for women's loss of access to men's earnings. This is an important concern for public policy, both out of a concern for gender equity in bearing the costs of children, and also because the higher poverty of single mothers means poverty for their children.

## **End Notes**

1. Some individuals also receive market income from property--dividends from stock, rents from real estate, etc., although this affects a fairly small proportion of households in modern nations. Pensions received later in life are a delayed payment for work in labor markets, so we consider them as part of an individual's own market earnings. Self-employment earnings mix a return to labor and capital, but we consider them together with labor earnings.
2. U.S. government poverty statistics consider cohabiting unmarried couples as if they were two households. Following the convention of most other governments, in this paper, we will consider cohabiting different-sex couples and married couples together, referring to them as married. This reflects the assumption that cohabiting couples generally pool income.
3. A recent analysis by Budig and England (1999) casts doubt on the hypothesis that the motherhood penalty arises because mothers trade off wages for mother-friendly jobs. Entering a large number of

occupational characteristics and dummy variables for industry into a regression predicting women's earnings showed that the presence or absence of these controls had no effect on the size of the coefficient measuring the effect of number of children on wages.

4. We omitted Italy because a few anomalies in the most recent wave of data require correction.
5. The LIS databases for the other nations are: Australia 1994 (Housing and Income Survey), Canada 1994 (Survey of Consumer Finances), France 1989 (Enquete Bourgeois, or Budget Survey), West Germany 1994 (German Social and Economic Panel), Netherlands 1991 (Income Distribution Survey), Sweden 1992 (Household Income Distribution Survey), and the United Kingdom 1995 Family Expenditure Survey). Each national database is sent to LIS in its cleaned and edited form. At LIS, the data are harmonized by reclassifying the income and demographic variables into homogeneous 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.

6. We only include individuals whom LIS classified as heads of households or the spouses or cohabitants of heads. Single adults living alone or with children were classified as heads, and one person in each different-sex couple was called the head (with decision rules varying by country). Thus, the individuals who are omitted from our analysis are adults who are neither a single head nor part of a married or cohabiting different-sex couple. For example, if a single or married mother lives with her mother, the grandmother is not a unit in our analysis. However, any income provided by these extra adults is included in our measure of household income, and the presence of the adult is taken account of when the equivalence index is used to size-standardize the household's income before determining if it is in poverty.
7. In including food stamps, our procedure differs from the U.S. government poverty series, which excludes food stamps income before determining if it is in poverty.
8. Only the data from the Netherlands identified same-sex couples; we did

not include them in our analysis since no other nations' data sets allow us to identify same-sex couples.

9. Caution is needed interpreting rates for single fathers, as the data sets in many countries have quite small sample sizes of single fathers, sometimes under 30.

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**Table 1: Poverty Rates<sup>1</sup> and Sex-Poverty Ratios for All Adults, Single Adults, and Single Mothers and Fathers**

	Male Poverty Rates	Female Poverty Rates	Sex Poverty Ratio <sup>2</sup>	Single Male Poverty Rates	Single Female Poverty Rates	Singles' Sex Poverty Ratio	Single Moms' Poverty Rates	Single Fathers' Poverty Rates <sup>3</sup>	Single Moms/ Single Men	Single Fathers
AS 94	0.082	0.107	1.30	0.148	0.247	1.67	0.386	0.275	2.60	1.40
CN 94	0.116	0.131	1.13	0.174	0.291	1.68	0.405	0.171	2.33	2.37
FR 89	0.096	0.107	1.11	0.132	0.164	1.24	0.247	0.111	1.87	2.23
GE 94	0.083	0.098	1.18	0.118	0.226	1.92	0.391	0.111	3.31	3.52
NL 91	0.049	0.056	1.14	0.081	0.132	1.63	0.257	0.000	3.17	NA <sup>4</sup>
SW 92	0.040	0.029	0.73	0.093	0.048	0.52	0.034	0.069	0.37	0.49
UK 95	0.091	0.109	1.20	0.136	0.214	1.57	0.319	0.200	2.35	1.60
US 94	0.110	0.151	1.38	0.166	0.320	1.93	0.471	0.223	2.84	2.11

<sup>1</sup>Poverty rates are the proportion of non-elderly adults ages 25-54 whose disposable family incomes fall below the poverty line. "Single" means not married or part of a cohabiting male/female couple.

<sup>2</sup>The sex-poverty ratio is the female poverty rate divided by the male poverty rate.

<sup>3</sup>Single fathers are men living with a child under the age of 18 and without an adult female. Single mothers are defined analogously. Single fathers' rates should be interpreted with caution because some Ns are < 30.

<sup>4</sup>This ratio cannot be computed since the denominator is 0.

Note: AS=Australia, CN=Canada; FR=France; GE=Germany; NL=the Netherlands; SW=Sweden; UK=United Kingdom; US=United States.

**Table 2: Ratio of Women's to Men's Poverty Rate in Eight Nations and Under Simulations**

Ratio Based On:	US 94	AS 94	CN 94	FR 89	GE 94	NL 91	SW 92	UK 95
Pre-Transfer, Pre-Tax Income	1.42	1.37	1.15	1.12	1.19	1.34	.92	1.30
Post-Transfer, Post-Tax (Disposable) Income	1.38	1.30	1.13	1.11	1.18	1.14	.73	1.20
% Tax and Transfer System Changes Ratio	-3%	-5%	-2%	-1%	-1%	-15%	-21%	-8%
Post-Transfer, Post-Tax Income With U.S. Household Composition	1.38	1.39	1.21	1.19	1.40	1.48	.79	1.16
% U.S. Household Composition Changes Ratio	0%	7%	7%	7%	19%	30%	8%	3%

Note: The first row gives the ratio of women's to men's poverty rates for each country when we do not add government transfers to or subtract payroll taxes from income. The second row gives the ratio of women's to men's poverty rate for disposable income (post-transfer, post-tax). The third row gives the percentage change in the ratio of women's to men's poverty rate due to the nation's tax and transfer system (i.e. the percentage change between row 1 and 2). Using disposable (post-transfer, post-tax) income, the fourth row gives the ratio of women's to men's poverty rate each nation would have if it kept its own poverty rates for men and women within each household type, but had the proportion of men and women in each household type observed in the U.S. The last row gives the percentage change between rows 2 and 4. This is the percentage by which the sex-poverty ratio for disposable income would be increased if the nation had the U.S. distribution of people across household types, but kept its own sex-poverty ratio within each household type.

AS=Australia, CN=Canada; FR=France; GE=Germany; NL=the Netherlands; SW=Sweden; UK=United Kingdom; US=United States.

### **Appendix on Equivalence Scales to Adjust for Family Size**

Equivalence scales adjust the poverty line for family size. Buhmann et al. (1988) propose that income be adjusted for family size in the following way:

$$\text{Adjusted Income} = \text{Disposable Income} / \text{Size}^E$$

The equivalence elasticity, E, varies between 0 and 1. The smaller the E, the larger the economies of scale assumed by the equivalence scale. An E of 0 makes no size adjustment; the poverty line is the same regardless of family size. With an E of 1, adjusted income becomes per capita income (with no economies of scale). We use an equivalence scale of .5, as this is the middle ground between no adjustment for size and per capita income, and this figure is commonly used in cross-national poverty research. The official poverty rate used by the U.S. government is based on an equivalence scale of .56, but produces similar poverty rates to the equivalence scale of .5.

A separate issue is how adults are to be weighted relative to children. The

simplest procedure, which we use in Tables 1 and 2, weights both adults and children as 1 to get Size. However, some (e.g. Citro and Michael 1995) argue that children should be weighted less because they consume less of some goods, for example food, and thus a family needs less income for an additional child than an additional adult. On the other hand, children need intensive care that adults do not. This care is paid for by families (or the state) either in cash for childcare or in the opportunity cost of a family member's time spent caring for children rather than earning a wage. To test how sensitive our conclusions are to the relative weight given to children and adults, Table A-1 presents the results in Table 2 (bolded) and compares them to results when children are weighted .75 (top number in each cell) and 1.25 (lower number in each cell). In all cases adults are weighted 1 and  $E=.5$ .

An examination of Table A-1 suggests that how children are weighted changes numbers somewhat, but our basic conclusions are unchanged, and it is surprising how little the weights change the sex-poverty ratios.

**Appendix Table A-1. Ratio of Women's to Men's Poverty Rate in Eight Nations and Under Simulations, Using an Equivalence Scale in Which Children are Weighted .75, 1, and 1.25 that of Adults**

Ratio Based On:	US 94	AS 94	CN 94	FR 89	GE 94	NL 91	SW 92	UK 95
Pre-Transfer, Pre-Tax Income	1.43 <b>1.42</b> 1.41	1.37 <b>1.37</b> 1.35	1.14 <b>1.15</b> 1.14	1.13 <b>1.12</b> 1.10	1.16 <b>1.19</b> 1.17	1.34 <b>1.34</b> 1.32	.90 <b>.92</b> .93	1.29 <b>1.30</b> 1.30
Post-Transfer, Post-Tax (Disposable) Income	1.39 <b>1.38</b> 1.36	1.26 <b>1.30</b> 1.35	1.10 <b>1.13</b> 1.15	1.09 <b>1.11</b> 1.12	1.17 <b>1.18</b> 1.18	1.11 <b>1.14</b> 1.23	.70 <b>.73</b> .76	1.10 <b>1.20</b> 1.26
% That Tax and Transfer System Changes Ratio	-2% <b>-3%</b> -3%	-8% <b>-5%</b> -0%	-3% <b>-2%</b> 1%	-4% <b>-1%</b> 1%	1% <b>1%</b> 1%	-17% <b>-</b> <b>15%</b> -7%	-22% <b>-</b> <b>21%</b> -18%	-15% <b>-8%</b> -3%
Post-Transfer, Post-Tax Income With U.S. Household Composition	1.39 <b>1.38</b> 1.36	1.36 <b>1.39</b> 1.48	1.20 <b>1.21</b> 1.25	1.11 <b>1.19</b> 1.20	1.37 <b>1.40</b> 1.44	1.37 <b>1.48</b> 1.66	.88 <b>.79</b> .80	1.08 <b>1.16</b> 1.24
% U.S Household Composition Changes Ratio	0% <b>0%</b> 0%	8% <b>7%</b> 10%	9% <b>7%</b> 9%	4% <b>7%</b> 7%	17% <b>19%</b> 22%	23% <b>30%</b> 35%	26% <b>8%</b> 5%	-2% <b>3%</b> -2%

Note: The first number in each cell is the ratio when children are weighted .75 in the equivalence scale, the second when weighted 1 (bolded numbers are those in Table 2), and the third when weighted 1.25. See Appendix for description of equivalence scale.

Note: The first row gives the ratio of women's to men's poverty rates for each country when we do not add government transfers to or subtract payroll taxes from income. The second row gives the ratio of women's to men's poverty rate for disposable income (post-transfer, post-tax). The third row gives the percentage change in the ratio of women's to men's poverty rate due to the nation's tax and transfer system (i.e. the percentage change between row 1 and 2). Using disposable (post-transfer, post-tax) income, the fourth row gives the ratio of women's to men's poverty rate each nation would have if it kept its own poverty rates for men and women within each household type, but had the proportion of men and women in each household type observed in the U.S. The last row gives the percentage change between rows 2 and 4. This is the percentage by which the sex-poverty ratio for disposable income would be increased if the nation had the U.S. distribution of people across household types, but kept its own sex-poverty ratio within each household type.

AS=Australia, CN=Canada; FR=France; GE=Germany; NL=the Netherlands; SW=Sweden; UK=United Kingdom; US=United States.