

A FEMINISATION OF POVERTY IN GREAT BRITAIN?

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In most industrialised nations, women are over-represented in the ranks of the poor. Furthermore, it is often argued that this gender-based disadvantage has increased over time. In this paper the author tests this so-called "feminisation of poverty" hypothesis in Great Britain. Cross-sectional data from three years of the *Family Expenditure Survey* (1968, 1977 and 1986) are used. A poverty measure that is additively decomposable with population share weights, and is consistent with Sen's axiomatic approach to poverty measurement, is used to decompose the "total" amount of poverty into male and female "shares." Somewhat surprisingly, this decomposition lends no support to the feminisation of poverty hypothesis.

INTRODUCTION

One theme running through much of the current debate on poverty in industrialised nations is that there has been a large increase in the proportion of women who are poor. For example, Scott (1984, p. vii) writes: "What is much less generally recognized is the increasing extent to which women are represented among the world's poor." This process is often referred to as the "feminisation of poverty." Despite the fact that it is thought to be a general trend, it is very surprising to find that only limited attention has been directed towards its empirical verification (Fuchs, 1986). Furthermore, many of the conceptual and empirical problems associated with defining and measuring poverty have been ignored in the feminisation of poverty literature (Jenkins, 1991).

This is particularly true in Great Britain. For example, commenting on the poverty experience of British women, Millar and Glendinning (1989, p. 362) conclude: "[W]omen are at far greater risk of poverty than men: at any given stage in their lives, women are far more likely than men to be poor and their experience of poverty is also likely to be far more acute." Likewise, in an earlier paper they conclude: "[T]he feminisation of poverty constitutes a new development (Millar and Glendinning, 1987, p. 261)." As these two quotations suggest, there is a strong belief that British women are over-represented in the ranks of the poor and that this gender-based disadvantage has increased over time. These "conclusions" are surprising given the dearth of empirical studies of the relationship between gender and poverty in Great Britain (Jenkins, 1991). For example, of the 27 empirical poverty studies reviewed by Morris and Preston, (1986, pp. 303-306), none addressed explicitly gender differences in the incidence and intensity of poverty.

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With this in mind, I empirically examine the relationship between gender and poverty in Great Britain, in order to test the feminisation of poverty hypothesis. There are four sections. In the first section, the *Family Expenditure Survey* datasets used in the analysis are described. In the second section, the procedures used to identify the poor are outlined. In the third section I describe the specific measures of poverty calculated and outline how the feminisation of poverty hypothesis is tested. In the fourth section, the results are presented. Two conclusions concerning the poverty experience of British women emerge from the analysis. The first is that women, compared to men, are over-represented in the ranks of the poor. The second is that when the poverty experience of all women is considered, there is no support for the feminisation of poverty hypothesis.

I. DATA

The data used in this paper are from the *Family Expenditure Survey* (FES). Three years of the FES, covering a eighteen year period, are used: (1) 1968 (the first year available in machine-readable form); (2) 1977; and (3) 1986 (the most recent year available). The FES is a continuous, household-based survey carried out annually by the *Office of Population Censuses and Surveys*. About 7,000 households are interviewed each year and detailed information on income and expenditure is collected for all household members, along with a variety of socio-economic and demographic variables. The FES is currently the principle micro-level data source on income and other household characteristics in Britain, and is thought to be the most reliable source of nationally-representative, temporally-consistent, income data available to researchers. Unlike other datasets, such as the *General Household Survey*, the income data are very complete (i.e. only a small percentage of cases are lost due to missing information) and the methodology used to collect the data has changed little over the life of the survey. (For a thorough discussion of the "quality" of the FES income data see, Atkinson and Micklewright, 1983). In Table 1 a breakdown of the samples used is shown.

TABLE 1
SUMMARY OF FAMILY EXPENDITURE SURVEY DATA USED IN ANALYSIS

Year	Households	Individuals	Adults	Men	Women	Children
1968	7,149	20,916	15,087	7,192	7,895	5,829
1977	7,180	19,721	14,316	6,770	7,546	5,405
1986	7,171	18,269	13,765	6,576	7,189	4,504

II. IDENTIFYING THE POOR

If we define economic well-being as the ratio of economic resources to need, then an individual is "poor" if their available economic resources do not meet their needs at some minimum level. As with most empirical studies of poverty, we employ *disposable equivalent household income* as the empirical counterpart to economic well-being. The household's economic resources are assumed to be

determined by its total disposable income, which is equal to the gross weekly income from all sources minus *National Insurance* contributions, taxes and housing costs. Nominal income is adjusted across the three survey years for changes in prices and is expressed in 1986 pounds.

Weekly income is used simply because this is the time period that many of the components of total income refer to (such as earnings and many government transfers). Annual income is often used in poverty studies since the longer measurement period tends to help “smooth-out” short-term fluctuations in income due, for example, to unemployment or overtime payments. However, because of the method of income reporting in the FES, numerous (and often arbitrary) assumptions are required to “gross-up” the different types of FES income into an annual total. I felt that the benefits from using annual income were outweighed by the many assumptions needed to construct it (see, Morris and Preston, 1986, p. 288, for one set of assumptions used).

The income measure is net of housing costs. That is, mortgage and/or rental payments are deducted from total household income. It is important to take into consideration the “income value” of owner-occupation in the analysis of poverty (see, Atkinson, 1991). Housing costs usually represent a large share of total expenditure and there are sharp regional differences in the costs of housing (both renting and owning) and between the public and private sectors of the rental market in Great Britain. Subtracting housing costs from total income is one way, albeit imperfect, of taking into consideration the variation in the costs of housing and the owner-occupation valuation problem. The alternative is to impute income for owner-occupation. However, this is not a straightforward task and there is little agreement on how it should be done. Furthermore, one of the advantages of the approach used here is that it is also used in the calculation of the “official” U.K. poverty estimates (see for example, Department of Social Security, 1988).

The household’s needs are assumed to be a function of the number and age of its members. It is further assumed that there is equal sharing of resources among household members. In keeping with most studies, disposable income is “standardised” for differences in household composition using “equivalence scales.” The equivalence scales used here are those implicit in the 1986 *Supplementary Benefit System*, which until recently was the main system of financial support for low income households—now called *Income Support* (see, Johnson and Webb, 1979, p. 76). The specific weights used are: first adult = 1.0; other adults = 0.59; child age 1–4 = 0.22; age 5–10 = 0.27; child age 11–12 = 0.35; child age 13–15 = 0.41; and child age 16–17 = 0.49. In Table 2 the means of the income variables (in 1986 pounds) for the three sample years are presented.

TABLE 2
MEAN HOUSEHOLD INCOME (£1986 PER WEEK)

Year	Gross	Net	Equivalent
1968	174.91	152.81	81.45
1977	202.10	170.10	94.53
1986	238.26	199.19	115.01

A household is “poor” if its equivalent disposable income, y_i , is below the “poverty line,” y^* . Unfortunately, there are no well-defined rules for selecting the “correct” poverty line (Hagenaars and van Praag, 1985). In this paper, the so-called “households below average income” (HBAI) approach is used, where the poverty line is set at a fraction, ρ , of the mean level of income. That is: $y^* = \rho \cdot \bar{y}$. Therefore, households are poor if they have incomes below this level. An individual is poor, therefore, if he or she is a member of a poor household. This is the approach that is now used by the British government in its official estimates of poverty (see Department of Social Security, 1990; Nolan, 1989). At first, it may seem to be an *ad hoc* way of setting the poverty line. However, it is desirable since the use of a range of poverty thresholds allows for findings which are not sensitive to a precise (and often arbitrary) choice of the poverty line. (For further advantages of this approach see, Atkinson, 1987.)

The problems associated with choosing the poverty line are heightened if one is interested in looking at changes in poverty over time. The key choice that the researcher must make is whether or not the poverty line is allowed to change in *nominal* value over time. If poverty is viewed as an absolute concept, the poverty line is defined to be independent of the average standard of living in the society. In this case, the poverty line moves only with changes in the average price level (i.e. it is adjusted for inflation only). On the other hand, if poverty is viewed as a relative concept, the poverty line is defined in relation to the average standard of living in the society. In this case, the poverty line moves with nominal earnings (i.e. it is adjusted for inflation *and* for the growth in average income).

The poverty estimates presented in this paper are all based on an absolute poverty line. The poverty line is set at 40, 50 and 60 percent of the mean level of income in 1986 ($p = 0.4, 0.5$ and 0.6 , see Table 2). Clearly, if someone is poor in 1986 based on this poverty line, then an individual with the same income in 1968 would also be poor. As Sen (1979, p. 289) points out, this is a desirable outcome since: “[T]here is an irreducible core of absolute deprivation in the notion of poverty.” However, this outcome is not guaranteed when poverty estimates are based on a relative poverty line, since the poverty threshold itself changes over time. Indeed, there is a considerable debate in the poverty literature whether absolute or relative poverty standards should be used in addressing changes in poverty over time (see Sen, 1983 and Townsend, 1985 for a precise discussion of both sides of this debate).

III. MEASURING POVERTY

Sen (1986) described three properties that a good summary index of poverty should possess. The first is the index must be sensitive to the relative number of poor, capturing the *incidence of poverty*. The second is that the index must be sensitive to the average level of income of poor, indicating their *average deprivation*. The third is the index must be sensitive to the distribution of income among the poor, indicating their degree of *relative deprivation*. It is important to note that the term “deprivation” is used here to denote the degree of income shortfall or disadvantage below the poverty line. It should not be confused with Townsend’s (1985) notion of deprivation, which has a much broader social and economic basis.

Unfortunately most measures of poverty that incorporate Sen's axiomatic requirements (including Sen's own measure) are not decomposable (Hagenaars, 1987). For our purposes, this is problematic since we want to decompose the "total" amount of poverty into male and female "shares." Changes in these poverty shares provide information about changes in the gender composition of poverty. If the feminisation of poverty has occurred then we would expect the female share of poverty to have increased.

The measure used here, which is decomposable, is due to Foster, Greer and Thorbecke (1984) (hereafter referred to as the FGT measure). This measure, $P(\alpha)$, may be defined:

$$(1) \quad P(\alpha) = (1/n) \sum_{i=1}^q \left(\frac{(y^* - y_i)}{y^*} \right)^\alpha.$$

where y^* is the poverty line, y_i is the household income of individual i , q is the number of poor individuals in the population ($y_i < y^*$), and n is the total number of individuals in the population. α is a parameter which takes on a value greater than or equal to zero ($\alpha \geq 0$). As α gets larger, the measure becomes more sensitive to the income circumstances of the "poorest poor."

If $\alpha = 0$ then $P(0) = H = q/n$. This is the "head-count ratio," which is simply the proportion of population who have income below the poverty line (i.e. the incidence of poverty). If $\alpha = 1$ then $P(1) = HI$ where $I = (y^* - \bar{y}_p)/y^*$ and \bar{y}_p is the average income of the poor. This is a renormalisation of the "income-gap ratio," which captures the average income shortfall of the poor (i.e. the level of absolute deprivation measured by average income from the poverty line). If $\alpha = 2$ then $P(2) = H[I^2 + (1 - I)^2 C_q^2]$, where C_q is the coefficient of variation of income among the poor. Since C_q is a commonly used measure of income inequality, its inclusion in the measure captures the relative deprivation of the poor.

A useful feature of the FGT measure is that it is additively decomposable with population share weights. More specifically, with respect to male and female povert; it may be expressed as:

$$(2) \quad P(\alpha) = (n_f/n)P(\alpha)_f + (n_m/n)P(\alpha)_m,$$

where the subscripts m and f denote male and female, respectively. The ratios n_f/n and n_m/n are the population shares of females and males (n_f/n and $n_m/n = 1$). $P(\alpha)_f$ and $P(\alpha)_m$ are the FGT poverty measures calculated separately for females and males. If we think of $P(\alpha)$ as being the total amount of poverty in the population, then the female and male shares of this total are:

$$(3) \quad S(\alpha)_f = (n_f/n)P(\alpha)_f/P(\alpha),$$

$$(4) \quad S(\alpha)_m = (n_m/n)P(\alpha)_m/P(\alpha).$$

Clearly, if the poverty experience is shared equally between males and females then $S(\alpha)_f = S(\alpha)_m = 0.5$. On the other hand, if $S(\alpha)_f > S(\alpha)_m$ then poverty is not equally shared, with females being over-represented in the ranks of the poor. It follows that an increase in $S(\alpha)_f$ over time is indicative of a feminisation of poverty.

IV. ESTIMATES

The percentage of households that are poor based on the three absolute poverty lines for the three sample years are shown in Table 3. As expected, the estimates show that absolute poverty has declined considerably in the 1968 to 1986 period. When the poverty line is set at 40 percent of the mean 1986 income ($\rho = 0.4$), 7.5 percent of households were poor in 1968, declining to 2.8 percent by 1986. Likewise, when the poverty line is set as 60 percent of the mean income in 1986 (i.e. $\rho = 0.6$), 41.9 percent of households were poor in 1968, declining to 13.3 percent by 1986.

TABLE 3
HOUSEHOLD POVERTY RATES (%)

Year	0.4	$\rho =$ 0.5	0.6
1968	7.5	20.2	41.9
1977	4.3	11.4	23.6
1986	2.8	6.1	13.3

What is of more interest are the changes in the gender-specific nature of poverty. In Tables 4 to 6, I show the FGT poverty measures for $\alpha = 0, 1.0$ and 2.0 , calculated separately for adult males and females, along with the decomposition of poverty into male and female shares— $S(\alpha)_m$ and $S(\alpha)_f$ from equations (3) and (4).

In Table 4 the estimates based on the head-count ratio, $P(0)$, as the summary measure of poverty, are presented. There are four things worth pointing out about these estimates. The first is that at all values of the poverty line, the proportion of men and women in poverty declined significantly in the 1968 to 1986 period. This is consistent with the trend in household poverty rates shown in Table 3.

The second is that the head-count rates are higher for females. This suggests that the incidence of poverty is higher for women compared to men. For example, in 1986 and $\rho = 0.4$, 2.7 percent of all adult women were poor, compared to 2.4 percent of adult men. Likewise, in 1986 and $\rho = 0.6$, 12.4 percent of women were poor, compared to 11.8 percent of men.

The third point is that the poverty burden is disproportionately borne by women. As mentioned above, if the poverty burden is equally shared by males and females, the male and female poverty shares, $S(0)_m$ and $S(0)_f$, should both equal 50 percent. However, as shown in Table 4, this is clearly not the case. At all values of the poverty line, the female poverty share is much larger than the male poverty share. In fact, the difference is in the order of 10 percent points.

The fourth point is that there has been little change in the female share of poverty over the period covered by our data. At all values of the poverty line, the female share of poverty has remained virtually constant—between 52 and 55 percent—and there has been no upward trend. In other words, despite the fact that the incidence of poverty is higher among women, compared to men, there has been little change in the gender composition of poverty. Therefore, based on

TABLE 4
MALE-FEMALE POVERTY RATES: INDEX IS $P(0) \times 100$

Year	Poverty Rates			Poverty Shares (%)	
	Women	Men	Adults	Women	Men
$\rho = 0.4$					
1968	7.1	6.4	6.7	55.0	45.0
1977	4.1	3.9	4.0	53.8	46.2
1986	2.7	2.4	2.6	54.5	45.6
$\rho = 0.5$					
1968	19.9	18.5	19.2	54.0	46.0
1977	10.7	10.7	10.7	52.7	47.3
1986	5.9	5.2	5.5	55.2	44.8
$\rho = 0.6$					
1968	41.1	37.4	39.3	54.7	45.3
1977	22.7	22.5	22.6	53.0	47.0
1986	12.4	11.8	12.1	53.4	46.6

the head-count ratio, there is no support for the feminisation of poverty hypothesis in the 1968 to 1986 period.

In Table 5 the FGT measure that incorporates information on the income-gap or average income shortfall [$P(1)$] is shown. As a general remark, this poverty index confirms what was found for the head-count ratio. Again, the data lend no support to the feminisation of poverty hypothesis.

TABLE 5
MALE-FEMALE POVERTY RATES: INDEX IS $P(1) \times 100$

Year	Poverty Rates			Poverty Shares (%)	
	Women	Men	Adults	Women	Men
$\rho = 0.4$					
1968	1.35	1.20	1.28	55.3	44.7
1977	0.88	0.84	0.86	53.9	46.1
1986	0.89	0.89	0.89	52.4	47.6
$\rho = 0.5$					
1968	3.62	3.31	3.47	54.5	45.5
1977	2.10	2.04	2.07	53.4	46.6
1986	1.53	1.44	1.48	53.7	46.3
$\rho = 0.6$					
1968	8.03	7.39	7.72	54.5	45.6
1977	4.40	4.36	4.38	52.9	47.1
1986	2.73	2.58	2.66	53.6	46.4

Finally, in Table 6 the FGT measure that incorporates information on the distribution of income among the poor [$P(2)$] is shown. In fact, at all values of the poverty line, the female share of poverty has declined slightly (or alternatively, the male share of poverty has increased). For example, when $\rho = 0.4$, the female poverty share is 54.8 percent in 1968 and 51.0 percent in 1986. Likewise, when the poverty line is set at $\rho = 0.6$ the female share is 54.5 percent in 1968

TABLE 6
 MALE-FEMALE POVERTY RATES: INDEX is $P(2) \times 100$

Year	Poverty Rates			Poverty Shares (%)	
	Women	Men	Adults	Women	Men
$\rho = 0.4$					
1968	0.54	0.49	0.51	54.8	45.2
1977	0.41	0.38	0.39	54.5	45.5
1986	0.55	0.58	0.57	51.0	49.0
$\rho = 0.5$					
1968	1.20	1.09	1.15	54.8	45.2
1977	0.78	0.74	0.76	54.0	46.0
1986	0.78	0.79	0.78	52.1	47.9
$\rho = 0.6$					
1968	2.58	2.36	2.47	54.5	45.5
1977	1.51	1.47	1.49	53.4	46.6
1986	1.18	1.14	1.16	53.0	47.0

and 53.0 in 1986. Clearly, such a trend is contrary to the feminisation of poverty hypothesis, suggesting just the opposite—a “masculinisation of poverty,” perhaps?

VI. CONCLUSION

Analysis of three years of the *Family Expenditure Survey*, covering the period 1968 to 1986, supports two conclusions concerning the relationship between gender and poverty in Great Britain. The first is that women are over-represented in the ranks of the poor. In all cases, estimated poverty rates are higher for females compared to males. The second is that this gender-based disadvantage has not increased over time. Male and female poverty shares have not changed significantly over the period 1968 to 1986. In other words, there is no support for the hypothesis that there has been a feminisation of poverty in Great Britain.

It must be stressed that these conclusions refer to all women. That is, when the poverty experience of *all* women is compared to that of *all* men, there is no support for the feminisation of poverty hypothesis. However, it may be the case that there has been a feminisation of poverty within particular groups of individuals. For example, over 90 percent of one-parent households in Britain are headed by women. In the 1968, one-parent household made up 1.5 percent of all households; by 1986 this share had risen to 3.8 percent (i.e. about 16 percent of all households with dependent children). In the same period, the share of married couples with children households dropped from 30.3 to 23.4 percent. It is well-known that poverty rates for one-parent households are higher than for two-parent households (Wright, 1990). Therefore, the sharp rise in the incidence in single-parenthood may have contributed to a feminisation of poverty within one-parent households. Similarly, the share of one-person households has increased, from 16.2 percent in 1968 to 24.3 percent in 1986, and this increase has been especially marked in female one-person households. Since poverty rates tend to be higher for one-person households, especially among the elderly, this

trend may have also contributed to a feminisation of poverty within one-person households.

Such changes indicate the importance of distinguishing between households headed by women and those headed by men, when one is examining the relationship between gender and poverty. More generally, it points to the value of "standardising" poverty measures for changes in household structure when one is examining changes over time—a procedure not widely practiced in poverty analysis (see, Wright, 1992). Future research, using methods similar to those applied in this paper, should be able to shed more light on these issues.

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