

Woman-Headed Households and Poverty: An Empirical Deconstruction for Uganda

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ABSTRACT: Analysis of the first nationally representative household survey of Uganda shows that woman-headed households as a group are not poor when assessed by consumption or income. They are disadvantaged on several social indicators, with lower school enrolment by girls, higher mortality and lower usage of curative health care. Some sub-groups are also economically disadvantaged, including those headed by widows. Lack of female education is the major source of the economic disadvantage women-headed households face. High remittances receipts play a key role in maintaining economic parity between woman and man-headed households.

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1. Introduction

The linkages between gender and poverty have been a major issue in discussions of the role and effectiveness of policy intervention in developing countries. Extensive literature has focused on woman-headed households and the particular disadvantages which they may face (see Buvinić and Gupta, 1995, for a survey). In this paper, the evidence for Africa is extended by using the first nationally representative household survey of Uganda to answer a question of central importance for this policy debate: what factors determine whether woman headed households are poor? We answer that question in two steps. At the first stage we ask if the gender of the household head can be used to identify poor households. If it could this would be an important piece of information. At the second stage we ask whether it is possible to go beyond the classification of households into poor and less poor and to identify the factors that create poverty within woman-headed households and how such factors differ between man and woman headed households. We will show, as has been found for a number of other countries, that the gender of the household head is not a useful indicator of poverty if attention is confined to economic indicators¹. The extension of welfare measures to incorporate a social dimension does point to relative deprivation in woman headed households. We will argue that a concentration on classification according to the sex of the household head hides important gender dimensions of poverty. We identify two in this paper: firstly, gender inequalities in educational attainment disadvantage women in general and women-headed households *ceteris paribus*; secondly, for some women-headed households, this disadvantage is offset by high remittance receipts. The first finding suggests that expanding female education will improve gender equity, as well as bringing the social returns identified elsewhere in the literature. The second result implies that understanding the linkages between members of dispersed households is a key element to understanding the causes of poverty.

The paper is organised as follows. In the next section we set out different indicators of economic welfare. We present tabulations from the survey to show that on none of the flow measures are woman headed households as a group poorer than man headed ones. In section three, we report social indicators which do suggest gender disadvantage. Section four moves to consider the factors that explain the poverty within woman headed households. A final section concludes the paper.

2. Indicators of Economic Welfare

This paper uses data from the first nationally representative household survey of Uganda, the 1992 Integrated Household Survey (IHS). The IHS was gathered by the government Statistics

¹ The nationally representative Living Standards Measurement Study surveys of Ghana and Côte d'Ivoire suggest that women-headed households as a group are not poorer when assessed by consumption levels (Lloyd and Gage-Brandon, 1993; World Bank, 1994). Contrary results have been found for some other African countries, such as Malawi and Kenya (Kennedy and Peters, 1992). Where nearly all studies agree is in the heterogeneity of woman-headed households. For example, although Kennedy and Peters found woman-headed households in Malawi to be generally poor, those with migrant husbands in South Africa had the highest per capita expenditure of the all the household types examined. Conversely, although woman-headed households in Côte d'Ivoire appear less poor than man-headed ones, "de facto" woman-headed households are the poorest household type apart from polygamous ones.

Department and interviewed 10000 households sampled from 1000 enumeration areas around the country. A "cooking pot" definition of the household was used and defined the head as:

The member of the households under whose authority the activities of the household including expenditures are carried out and who is accepted as such by all the members of the household ...(p.12 Republic of Uganda, 1992)

This definition was qualified by the provision that the head must have been resident in the household for six months or more in the year. One useful feature of the survey is the wide range of alternative poverty indicators it provides, including information on consumption, income, assets, housing, time use, education and health. Recent work on poverty has tended to stress its multi-dimensional nature (Bevan and Sseweya, 1995). Whilst this paper is limited to cross-sectional quantitative indicators, it does aim to provide as broad a perspective as the survey allows. We begin by considering money metric flow measures of household welfare. These are arguably the single most comprehensive indicators of ability to meet wants². As such they are commonly used by the World Bank and others in making poverty assessments (Demery, 1993).

2.1 Consumption

Consumption is typically preferred to income as a money-metric measure of economic welfare for practical and theoretical reasons. Consumption may be easier to measure in households with their own farms and small businesses and - following the permanent income hypothesis - it should reflect long term economic status better (Johnson, McKay and Round, 1990). Table 1 shows that mean consumption per capita is virtually identical in man-headed households (MHHs) and woman-headed households (WHHs) in Uganda³. The same applies when consumption is assessed per adult equivalent⁴. Comparing mean indicators provides only a limited picture of welfare differences, but examining the overall distribution of consumption per adult equivalent also suggests that woman-headed households are not over-represented amongst the poor. They constitute 26.6% of the poorest quartile compared to 26.5% of the most affluent. The national situation reflects the situation in rural areas, where 88% of the population are located. However, in urban areas, WHHs are poorer (with 7% lower real expenditure per adult equivalent) but still enjoy consumption levels far above the national average.

Similar findings were reported for India (Visaria, 1980) but subsequently disowned by the

² More comprehensive indices could be constructed by augmenting expenditure based measures with non-monetary indicators. However, the weighting involved in aggregating the various elements is likely to be rather arbitrary and controversial (see Kanbur, 1993, on the Human Development Index).

³ Consumption includes an imputed value for consumption of home produced goods (primarily food). Remittances paid out by the household are not included. The index of real consumption was obtained by deflating nominal figures by the price of a food basket and an estimate of non-food requirements (made following Ravallion and Bidani's, 1994, method).

⁴ The equivalence scales used reflect WHO (1985) calorific requirements for males.

Table 1: Mean Economic Welfare Indicators by Gender of Head

	National		Rural		Urban	
	Man-headed	Woman-headed	Man-headed	Woman-headed	Man-headed	Woman-headed
Index of real consumption: (100 = national mean)						
Per capita	100	99	89	91	162	148 [*]
Per adult equivalent (PAE)	100	100	90	91	158	147 [*]
PAE adjusted for economies of scale	100	98	91	90	157	143
Food:						
Index of real food consumption per adult equivalent	99	102 ⁺	96	99	124	123
Food share (%)	62.2	63.6 ⁺⁺	63.7	65.4 ⁺⁺	51.5	53.1 ⁺⁺
Income:						
Nominal income per capita (1000 Sh/month)	14.8	15.6 ⁺⁺	12.6	12.9	28.8	29.6
Assets:						
Households without cultivable land (%)	24.8	32.4 ⁺⁺	15.2	23.0 ⁺⁺	84.5	81.1
Cultivable land per capita if any (hectares)	0.76	0.79	0.76	0.79	0.73	0.66
Value of durable goods per capita (1000sh)	26.4	19.2 ⁺⁺	13.6	8.9 ⁺⁺	106.2	72.6 ⁺⁺
Housing:						
Own dwelling (%)	83.0	77.4 ⁺⁺	92.2	87.5 ⁺⁺	25.6	25.5
Have thatched roof (%)	63.0	53.9 ⁺⁺	71.3	62.0 ⁺⁺	11.9	11.7
Have mud walls (%)	75.6	70.4 ⁺⁺	81.6	76.0 ⁺⁺	38.4	41.4
Rooms per capita	0.65	0.70 ⁺⁺	0.7	0.7 ⁺⁺	0.6	0.6
Have pit latrine (%)	77.3	67.8 ⁺⁺	75.8	65.2 ⁺⁺	86.7	81.2 ⁺⁺
Hours of work per day (people aged 15-59):						
Adults	7.68	7.98 ⁺⁺	7.57	7.89 ⁺⁺	8.32	8.37 ⁺⁺
Men	6.92	7.26 ⁺⁺	6.67	7.21 ⁺⁺	8.38	7.59 ⁺⁺
Women	8.50	8.25 ⁺⁺	8.53	8.17 ⁺⁺	8.25	8.57 ⁺⁺

Asterisks indicate significance of t-tests for difference in mean by gender of the head. + = significant at 5%; ++ = significant at 1%

Source: author's calculations from the IHS.

author who claimed that household expenditures are:

a better indicator of the level of living compared to per capita expenditures, because household implies certain basic establishment costs, formation of assets, etc., some of which are or more less independent of the size of the household (p.83, Visaria and Visaria, 1985, quoted in Buvinić, 1993).

This argument is invalid: that some costs are (more or less) independent of household size does not imply that household expenditures are preferable to per capita expenditures. One would have to establish that such costs are larger than those expenses which are (more or less) proportional to household size. This will not be the case in many developing countries where food - strongly linked to household size - is more than half of all household expenditures. However, it is important to test whether the results are robust to correction for household economies of scale in consumption. Estimates of household economies of scale were taken from Collier, Radwan and Wangwe's (p.72, 1986) study of Tanzania. The adjustment does create a slight differential in mean household expenditure per (adjusted) adult equivalent; WHHs are 2% poorer in the country as a whole, but this difference is not significant, despite the large sample size. Economies of scale can also be controlled for by comparing consumption in households of equal size. In no case does consumption per adult equivalent differ significantly by gender of the head.

Buvinić and Gupta (1995) argue that consumption based measures may be subject to biases when comparing by gender of the household head. Woman-headed households may report consumption more completely than man-headed households. This is partly because the former tend to be smaller and partly because the woman head is more likely to be fully informed about all expenditures; in man-headed households there may be divisions of responsibility over different kinds of expenditure. Both these biases have plausibility. One test for whether woman-headed households recall consumption more completely is to contrast the results reported above with those from an earlier survey of Uganda, the 1989 Household Budget Survey. There is some evidence that the latter - an expenditure survey dedicated to estimating weights for the CPI - was more accurate in measuring consumption than the general purpose IHS (Appleton, 1995). Consequently, if consumption is more subject to recall error in MHHs than WHHs as Buvinić and Gupta (1995) claim, then one would expect MHHs to be better off relative to WHHs in the more accurate HBS than in the IHS. However, this is not found to be true: mean nominal consumption per capita was 2.5% lower in MHHs than in WHHs in the HBS compared to the 2.3% shortfall in the IHS.

Despite corroboration by an earlier survey, the finding that WHHs are not particularly poor when measured by consumption measures will be news to many commentators on Uganda. A government sponsored poverty analysis of the HBS data concluded that:

the poorest of the hard-core poor are likely to be ... in female-headed households. (p.56, Tulya-Muhika et al., 1992).

However, by the authors' own calculations (Appendix II), only 22.9% of the "hard core" poor households are likely to be woman-headed; scarcely more than the proportion of woman-

headed households in the population (22.3%). A World Bank document on poverty in Uganda made similar assertions without quantitative evidence (World Bank, 1993, p.20). Focus groups of government officials and NGO workers in the country also identified woman-headed households as a poor and vulnerable group (Goetz, Maxwell and Manyire, 1994). However, the finding that woman-headed households do not appear to be poorer implies that targeting interventions on these households as a group would give rise to excessive Type I and Type II errors (Appleton and Collier, forthcoming 1995). (In this context, Type I errors would be excluding poor man-headed households and Type II errors would be including non-poor woman-headed households.) There are other persuasive objections to "targeting" woman-headed households, but the fact they are not particularly poor is sufficient⁵. Given that the evidence based on consumption has such important policy implications and is contrary to widespread perceptions about poverty and headship in Uganda, it is worthwhile exploring whether the finding is robust to alternative welfare measures.

2.2 Food Consumption and Food Shares

Food consumption has been claimed to be a superior welfare measure to total consumption (Anand and Harris, 1990). The argument is that much non-food consumption - such as that of durables (including clothing) and some non-essentials (eg entertainment) - is a noisy measure of long term welfare, due to lumpiness or sensitivity to short term fluctuations of income. Outside of urban areas, WHHs appear to enjoy higher mean food consumption, whether assessed per capita or per adult equivalent. The mean difference in real food consumption per adult equivalent is significant at 5% for the country as whole, but other comparisons are insignificant. Higher food shares account for why WHHs appear better off than MHHs when assessed by their food consumption but not by total consumption. This provides an argument against using either food consumption or food shares as poverty indicators⁶. Woman-headed households tend to have higher food shares for a given level of total consumption, perhaps due to gender differences in preferences (Hoddinott and Haddad, forthcoming, 1995). One would not wish to claim one group to be better or worse off merely because they choose to spend their income on different goods from another group.

⁵ Remittances from men to women-headed households might be reduced if such households were targeted for state benefits. Such targeting may even make things worse if the state interventions are ineffective, but de-legitimise such private transfers. Targeting WHHs will also create incentives against being in marital unions. This may result either in such unions either being fraudulently under-reported or genuinely reduced, with possibly adverse social effects. Geisler (1994) cites a NORAD project in Zambia for women headed households only. Recipients had to testify that they were unlikely to marry and would remain single for the duration of the project. The project failed because married women pretended to be single whilst husbands complained that NORAD aimed to break up marriages.

⁶ The theoretical arguments for using the food share as a poverty indicator are rather weak. The food share will reflect many factors other than overall household welfare, such as relative prices, tastes and household demographics. In Uganda, the food share varies little with total consumption: it is virtually the same for the poorest and most affluent quartiles (Appleton and Mackinnon, 1995).

2.3 Time Use

Leisure is perhaps the most valuable consumption good omitted from money metric measures of welfare. Comparisons of actual expenditure or income will tend to identify as poor those households which place a higher value on leisure compared to goods, *ceteris paribus*. This omission may be particularly important when making gender comparisons, since many studies of time use in sub-Saharan Africa report much higher working hours for women. In Uganda, one influential report based on observation of three communities reported that women worked between 12 and 18 hours a day, with a mean of 15 hours (UNICEF/ACFODE, 1988). Figures for male working hours were not given but are unlikely to be at these levels. Hence, the World Bank (1993, p.27) asserts:

if leisure time is a valid indicator of well-being, women are very poor indeed.

Kabeer (1992) suggests that - in so far as woman-headed households are not poorer in terms of consumption or income - this is at the cost of greater work and effort.

The IHS only provides data on time allocation during the busiest twelve hours of the day. During these twelve hours, women are reported to work an extra hour and a half per day more than men. This inequality arises in rural areas only: in urban areas, men work roughly equal hours to women⁷. People in woman-headed households do tend to work longer hours. However, this reflects their gender composition: they contain more women and women work longer. There does not appear to be any extra burden on women due to their being in a WHH. In rural areas - and the country as a whole - women in WHHs actually tend to work fewer hours than those in MHHs; conversely, men in WHHs work more than men in MHHs. In urban areas, the situation is reversed: women in WHHs in urban areas appear to work longer than those in MHHs; men work less. All these conclusions must be qualified, however, by the fact that the time use data covered only twelve hours of each day.

2.4 Income

Buvinić and Gupta (1995) suggest that, although consumption-based measures are:

vastly preferred over income in the development literature as a measure of well-being and poverty (p.7)

income may be less subject to the reporting biases previously discussed which may distort

⁷ Caution is required in making welfare inferences based solely on the hours worked. Tasks designated as "men's work" in rural areas are often more energy-intensive than those regarded as "women's work"; for example, digging compared to hoeing. Using Indonesian data, Pitt, Rosenzweig and Hassan (1990) found that correcting for the energy intensiveness of work overturns an apparent pro-male bias in calorie allocation. Indeed the correction implies a "pro-female" bias in calories allocated relative to requirements.

comparisons by gender of the head⁸. One can question whether similar problems will not arise with income. Man-headed households tend to have more workers and hence more scope for omitting income. Intra-household conflicts may lead to spouses concealing their personal income from each other. In fact, contrary to Buvinić and Gupta's hypothesis, the Ugandan data show women-headed households to be better off on income measures than on consumption measures. Indeed, income per capita is 6% higher for woman-headed households, which is significant. One important caveat is that the survey design prevents the two measures being strictly comparable, since they cover different definitions of the household⁹.

2.5 Assets

Although the Permanent Income Hypothesis suggests that current consumption is related to lifetime welfare, capital market imperfections and other problems imply that it is unwise to neglect other indicators of future welfare. Cultivable land is the most important physical asset for the majority of Ugandans. Woman-headed households are significantly less likely to report cultivable land amongst their assets. 11% of such households in rural areas are landless, compared to 8% of man-headed households. However, landlessness as measured by the survey is not associated with lower household consumption per adult equivalent (see Appleton, 1995). Rather than signalling a lack of assets, it may instead indicate households with sufficient non-agricultural income generating opportunities not to need to own cultivable land. Nonetheless, conditional upon having some land, greater holdings are associated with higher economic welfare - both in bivariate and multivariate analysis (see Appleton and Mackinnon, 1995). Amongst those with land, WHHs report slightly more land per capita¹⁰.

A second major asset for most households is the dwelling in which they reside. WHHs in rural areas are significantly less likely to own their homes. Against this, there are indications that the construction of WHHs' dwellings are somewhat superior to those of rural MHHs. They are less likely to have mud walls and thatched roofs (as opposed to iron sheets); they also tend to be larger relative to household size. However, WHHs in rural areas do appear to have inferior sanitation: only two-thirds had pit latrines, compared to three-quarters of MHHs. This may be because the construction of pit latrines requires (or is thought to require) male labour, which is more scarce in WHHs. The inequality may have adverse implications for

⁸ Buvinić and Gupta (1995) also argue that the omission of leisure from consumption is an additional reason for preferring reported income as a welfare measure. This concern seems misplaced: reported income and consumption are equally deficient in omitting the value of leisure when measuring the "full income" constraint facing households.

⁹ Income is aggregated over an "extended" definition of the household, which includes regular members who are absent for more than half the year. The consumption statistics include only "usual" household members, that is to say those resident for more than half the year. Questionnaire design prevents use of the extended definition when measuring consumption or the narrower definition when measuring income.

¹⁰ This reflects smaller household size rather than increased total land holdings. Further insight into gender and land is provided by regression analysis revealing that numbers of women in the household are less strongly associated with size of land holdings than numbers of men (Appleton and Mackinnon, 1995). This is consistent with women having less access to land. The analysis also confirms that woman-headedness *per se* is not significantly correlated with less land.

health in WHHs, since pit latrines are associated with lower reported morbidity in a number of other Sub-Saharan African countries (Appleton, 1992). In urban areas, WHHs are less likely to live in an independent house as opposed to a shared house or apartment. Otherwise, there are few marked contrasts in the apparent quality of urban housing enjoyed by WHHs and MHHs.

Substantial holdings of other physical and financial assets are relatively uncommon in Uganda and hence comparisons are often not informative about the conditions of the mass of the people. However, mean enterprise assets other than land are reported to be much higher in MHHs than WHHs in rural areas. Associated with this, WHHs in rural areas have received only half as much loan finance per capita as MHHs. Man-headed households also report higher stocks (and purchases) of consumer durables. MHHs have around fifty percent higher stocks of consumer durables per capita than WHHs. To some extent, this is a corollary of the higher food shares in WHHs previously remarked upon.

3. Social Indicators

Education and health are key social indicators which can be used to supplement monetary measures of economic welfare. They are often thought to be intrinsically valuable, privately as well as socially, but are not well captured in estimates of private consumption due to their large state subsidies. In addition, they are measures of human capital and hence a determinant of future welfare. Social indicators are often well correlated with economic welfare but this does not appear to be the case with education and health in Uganda; see Kakande and Nalwadda (1993) and Mackinnon (1995). There is some evidence that women-headed households in Uganda are disadvantaged on these social indicators, even when they are not poorer on measures of economic welfare.

3.1 Education

A frequently expressed concern over woman-headed households is that they may perpetuate a cycle of deprivation, in part through providing less schooling to their children. In Latin America, children are often observed to drop-out of school in order to help under-paid and over-burdened women heads with either domestic or paid work (Barros, Fox and Mendonca, 1994; Moser, 1993). Girls in women-headed households in Uganda are somewhat less likely to be enrolled in school. The effect is not very large but it is statistically significant: 64% of girls aged 7-14 in WHHs were reported to be attending school at the time of the surveys compared to 67% in MHHs (Table 2 refers). Enrolment rates for boys were equal across WHHs and MHHs.

More generally, educational attainment is lower for females than males in Uganda, as in most other parts of Sub-Saharan Africa. Men are almost twice as likely to have received complete primary schooling as women and almost three times as likely to have obtained four years of secondary schooling. These inequalities are persisting, although greatly diminished. Calculations from the IHS yield gross primary school enrolment ratios of 0.99 for boys and

Table 2: Mean Educational Indicators by Gender of Head

	National		Rural		Urban	
	Man-headed	Woman-headed	Man-headed	Woman-headed	Man-headed	Woman-headed
Children 7-14 at school (%):						
Boys	72.1	72.7	71.3	71.5	80.6	80.0
Girls	67.0	63.6 ^a	66.5	62.6 ^a	71.4	69.8
Schooling of household heads (%):						
None	23.1	55.9 ^{a,b}	25.6	62.8 ^{a,b}	7.3	20.2 ^{a,b}
Some Primary	45.7	28.6 ^{a,b}	48.2	27.3 ^{a,b}	30.2	35.5 ^{a,b}
Complete Primary	13.5	6.4 ^{a,b}	12.9	4.6 ^{a,b}	17.1	16.0
Some Secondary	8.3	5.2 ^{a,b}	7.5	3.9 ^{a,b}	13.2	12.0
4 Years or more of secondary	4.5	2.5 ^{a,b}	2.4	0.9 ^{a,b}	17.6	10.4 ^{a,b}

Asterisks indicate significance of t-tests for difference in mean by gender of the head. ^a = significant at 5%; ^{a,b} = significant at 1%.
Source: author's calculations from the IHS.

0.83 for girls; for secondary school, the figures are 0.17 and 0.1 respectively (Appleton and Mackinnon, 1995). One consequence of these gender differentials is that women heads are markedly less educated than their male counterparts. More than half the women heads had received no schooling compared to less than a quarter of their male counterparts.

3.2 Health

In developing countries, people often highlight health as a crucial dimension of their well-being (Chambers, 1994). Table 3 presents three different indicators of health status: mortality, self-reported morbidity and anthropometric measurements. Each may contain distinct information, since - rather surprisingly - they are very weakly correlated with each other (see Mackinnon, 1995). Perhaps the most important indicator is mortality rates. These are calculated from questions about each woman in the household concerning the births and deaths of their children. There is no information on time of death, so the statistics do not justly reflect mortality during childhood. Mortality rates are nearly a third higher in WHHs than in MHHs. The disparity is greater in urban areas, where the death rate in WHHs is more than half that in MHHs. In rural areas, the increase in mortality associated with WHHs is particularly pronounced for males. These simple comparisons are robust to controls for the age of women in different households¹¹. Lower survival probabilities for children in WHHs have also been reported in studies of countries as diverse as Brazil (Wood, 1989), Zambia (Kumar, 1991) and the Philippines (García, 1991). Much of the correlation of WHHs with mortality arises through widowhood. The death of a husband may also be associated with a continuing threat to the health of others in the household; for example, if the dwelling is in a malaria infested area or if he died of an infectious disease such as AIDS. In a multivariate model of mortality using the same data, Mackinnon (1995) found that child mortality was significantly higher amongst widowed and divorced women. Identifying the causes of these disturbing differentials is a priority for further research.

Children in WHHs are reported to be ill for 9% more days than those in MHHs, although this difference is significant only at the 10% level¹². Reported morbidity amongst women is also higher in WHHs but the reverse is true for men; this may reflect a reporting bias¹³. Anthropometric indicators reveal a mixed pattern but none of the differences by gender of the

¹¹ Mortality rates were modelled as a tobit function of the age of the woman and a dummy variable for residence in a WHH. For the country as a whole, residing in WHH was associated with an increase of 1.9 points in the mortality rate, controlling for maternal age. For urban areas, the increase was particularly marked at 3.8%.

¹² Kennedy and Peters (1992) reported a positive association between WHHs and child illness in Malawi but a negative one in Western Kenya. In Jamaica, the association appears positive (Handa, 1994). There may be a reporting bias: mothers may be more aware of child illness and more likely to be interviewed in WHHs.

¹³ The survey asked one or more household respondent about the health of all household members. Household heads are the most likely respondents and respondents may be more likely to recall their own illnesses than those of other household members. If true, this would lead to under-reporting of male illness in WHHs and under-reporting of female illness in MHHs.

Table 3: Health Indicators by Gender of Head

	National		Rural		Urban	
	Man-headed	Woman-headed	Man-headed	Woman-headed	Man-headed	Woman-headed
Health outcomes:						
Mortality rate of children ever born in household:						
Male	19.4	26.8**	20.2	28.0**	13.0	19.9**
Female	17.1	21.8**	17.8	22.4**	11.6	18.2**
Mean days lost to illness per month:						
Men	1.74	0.91**	1.84	0.92**	1.14	0.87
Women	1.77	1.94	1.86	2.06	1.13	1.35
Boys	1.29	1.39	1.27	1.35	1.50	1.63
Girls	1.28	1.40	1.32	1.42	1.01	1.34**
Nutrition of under fives:						
Wasting (%)						
Boys	5.9	6.5	5.8	6.3	6.5	7.6
Girls	5.4	4.2	5.3	3.8	6.2	6.9
Stunting (%)						
Boys	44.3	41.8	46.4	43.4	30.8	32.4
Girls	37.5	39.2	39.1	40.8	25.5	29.2
Health Care:						
% of sick members saw professional medical worker:						
Men	62.3	54.1	60.0	49.2	78.5	81.4
Women	63.9	57.3**	62.5	55.7*	76.8	66.6**
Boys	65.8	63.5*	63.9	60.7**	80.7	78.5
Girls	62.4	61.9	60.9	60.4	74.7	69.9*
% of children under ten vaccinated:						
Boys	78.7	81.9**	78.4	80.8	80.8	88.2**
Girls	80.1	80.8	79.7	80.1	83.6	85.1

Stunting and wasting are defined as having height-for-age and weight-for-age respectively which is two standard deviations or more below the US median.

Children are those aged under 15.

Asterisks indicate significance of t-tests for difference in mean by gender of the head. * = significant at 5%; ** = significant at 1%

Source: author's calculations from the IHS.

head are statistically significant¹⁴. In urban areas, anthropometric indicators are all lower for children in WHHs. People who live in WHHs are less likely to be sent for treatment if they fall ill than those in MHHs. The differences are fairly large in the case of adults. 63% of those adults in MHHs reported ill in the month prior to the survey saw a professional medical worker: in WHHs, the figure was only 57%. The only health-related indicator on which WHHs appeared more favourable was vaccination rates of children under ten¹⁵.

Abstracting from the issue of the gender of the head, are there any indications of general gender bias in health and health care? In common with most countries, death rates are higher for males. There is no suggestion that Uganda suffers from the problem of "missing women" identified in some other countries, notably in South Asia (Sen, 1990). Women are more likely to be reported ill than men, but this effect is substantial only in WHHs. Amongst children there are no marked gender differences in reported morbidity. Indeed, anthropometric status is consistently higher for girls than for boys. This is contrary to what might be expected if there were discrimination against girls in the allocation of food. (World Bank, 1993, provides a vivid portrait of such discrimination, claiming that mothers and daughters in Uganda wait whilst husbands and older sons eat their fill.) Nonetheless, it is consistent with most other findings for Sub-Saharan Africa which also find no evidence of superior male nutrition (see Svedberg, 1990). Vaccination rates are very similar for boys and girls. However, boys are more likely to have been sent for treatment if ill in the month prior to the survey¹⁶. This is particularly pronounced in urban areas. Amongst adults in urban areas, males are also more likely to be sent for treatment if sick.

4. Causes of Poverty in Woman-Headed Households

In the last section, we showed that woman-headed households as a whole are not particularly poor in Uganda when assessed by reported consumption and income. This section extends that analysis by looking at sub-groups of women-headed households and by analysing the causes of differences in living standards. We focus on real consumption per adult equivalent, subsequently termed economic welfare for brevity.

Buvinić (1993) argues that WHHs are generally poorer than MHHs, but criticises studies which do not corroborate this claim for not disaggregating by type of women headship (see the discussion of Visaria, 1980, and Louat et al., forthcoming 1995, on pages 5-6). In Table 4, disaggregation by marital status of the head reveals the heterogeneity of WHHs. Those headed by widows have the lowest mean economic welfare of the various sub-groups classified by the

¹⁴ In their review of 18 developing country studies of the relation between woman headedness and child nutrition, Buvinić and Gupta (1995) report roughly equal numbers finding favourable and unfavourable effects.

¹⁵ A child was defined as being vaccinated if she had been vaccinated against all the following diseases: DPT, Polio, Measles and BCG. Those in the middle of a course of vaccination against all these diseases were also defined as vaccinated if the course was begun less than a year before the survey.

¹⁶ Surveys of several other African countries (Côte d'Ivoire, Kenya and Tanzania) do not reveal similar biases, see Appleton (1992).

Table 4: Disaggregation by Gender and Marital Status of the Head

	National		Rural		Urban	
	Man-headed	Woman-headed	Man-headed	Woman-headed	Man-headed	Woman-headed
a) Percentage of households in population with heads:						
Never Married	6	3	5	2	10	7
Married	62	9	63	9	55	9
Cohabiting	1	1	1	1	2	1
Divorced or Separated	3	4	4	4	3	6
Widowed	2	10	2	11	1	7
All	77	23	78	22	73	28
b) Mean index of real consumption per adult equivalent (100 = national average) if head:						
Never Married	143	138	127	114	191	178
Married	94	103 ^{***}	85	95 ^{***}	153	149
Cohabiting	104	94	93	92	144	101
Divorced or Separated	121	102 ^{***}	116	94 ^{***}	164	130
Widowed	117	89 ^{***}	113	83 ^{***}	159	139
All	100	100	90	91	158	147 [*]

Asterisks indicate significance of t-tests for difference in mean by gender of the head. * = significant at 5%; ** = significant at 1%; *** = significant at 1%

Source: author's calculations from the IHS.

gender and marital status of the head, whilst those WHHs headed by married women enjoy average economic welfare¹⁷. However, gender of the head clearly matters but interacts with marital status. Widow headed households have significantly lower economic welfare than widower headed ones; conversely, households headed by married women have significantly higher economic welfare than those headed by married men. WHHs with a divorced or separated head resemble those with widowed heads in that they appear to suffer from a gender disadvantage: they are significantly worse off than MHHs with divorced or separated heads. However, they are not particularly poor; their living standards are comparable to those of WHHs with married heads. Women heads who had never married tended to be in charge of relatively prosperous households; the reverse is true of woman heads who were cohabiting but not married. In both cases, such WHHs averaged lower - but not significantly lower - economic welfare than households headed by males of the same marital status. Such large variations in economic welfare according to the gender and marital status of the head imply that looking at woman-headed households as a group is not useful when analysing poverty in Uganda¹⁸.

More insight into differences in household welfare by gender and marital status is provided by multivariate analysis. The welfare measure (household consumption per adult equivalent transformed into logs) was regressed on a set of proximate determinants. These included dummy variables for the different types of households defined according to the gender and marital status of the head¹⁹. In addition, a large number of other hypothesised determinants of poverty were included, specifically: land holdings, remittances, the age and education of the head, household size and dependency ratios, location and season. Table 5 shows that these other proximate determinants of welfare can explain all the significant differences in welfare between married MHHs and other household types. There are no strong residual effects of gender and marital status of the household head: all the dummy variables for the different types of woman-headed households are insignificant. Hence, even for widows - the most disadvantaged sub-group of woman-headed households - there is no evidence of what Buvinić asserts is:

¹⁷ Widow headed households are also the most over-represented amongst the poor: 13% of the poorest quartile of the Ugandan population reside in households headed by widows compared to 8% of the most affluent quartile.

¹⁸ This can be demonstrated by an F-test for whether dummy variables for each of the five types of woman headed household (unmarried; married; cohabiting; divorced or separated; widowed) have the same coefficients when used as regressors in a model of economic welfare. The restriction was rejected at 10% significance.

¹⁹ Implicitly, we are assuming that the sex and marital status of the household's head is exogenous to its economic welfare. Some have argued that households with women heads may not be poor because women heads may represent "survivors". Women who cannot cope economically after bereavement or divorce will often join other households, either by moving in with relatives or by remarrying (Buvinić et al., 1992). As a result, assessments of the impact of such adverse events on women are likely to be misleading when derived from comparisons based on headship and household welfare. Conversely, others have claimed that woman-headship may be a consequence, not cause, of poverty: poor households may be more likely to lose a male head through migration, death or divorce (Kabeer, 1991). Modelling headship as endogenous would help clarify these issues but is not feasible on the available data.

Table 5: O.L.S. Regression of Determinants of Economic Welfare

Variable	Coefficient	T-ratio
Constant	4.56	68.69 **
Age of head:		
Years	0.006425	2.55 **
Years squared	-0.0000697	-2.61 **
Marital status of woman head:		
Never married	-0.0287	-0.75
Married	0.0395	1.45
Cohabiting	0.0276	0.41
Divorced	-0.00775	-0.24
Widowed	0.00506	0.21
Marital status of man head:		
Never married	-0.0109	-0.43
Cohabiting	-0.0315	-0.71
Divorced	-0.0454	-1.32
Widowed	0.0822	1.75
Schooling of man head:		
Total years	0.0294	9.40 **
Lower secondary years	0.0182	2.15 **
Upper secondary years	0.111	4.81 **
Post-primary training	0.219	5.40 **
Post-secondary training	0.290	7.59 **
Schooling of woman head:		
Total years	0.0257	5.25 **
Lower secondary years	0.0581	3.89 **
Upper secondary years	0.0915	1.69
Post-primary training	0.312	4.69 **
Remittances:		
No remittances (dummy)	0.0481	3.80 **
US\$. per adult equivalent (1000)	0.0174	16.49 **
US\$. per adult squared (1000)	-4.54764E-8	-8.71 **
Household size:		
Adult equivalents	-0.114	-14.21 **
Adult equivalents squared	0.00553	10.21 **
Dependency ratios (proportions):		
Children (under 15)	-0.575	-6.52 **
Children square	0.439	3.59 **
Elderly	-0.199	-4.87 **
Cultivable land:		
Hectares per capita	0.217	8.26 **
Hectares per capita squared	-0.0225	-3.51 **
No land (dummy)	0.228	8.94 **
Land data missing (dummy)	0.126	3.08 **
Mean of dependent variable:	4.62	
Adjusted R-squared:	0.356	
Number of observations:	9912	

Also included but not reported: variables for parental background, urban interaction terms, seasonal and regional dummies.

* = significant at 5%

** = significant at 1%

Source: author's calculations from IHS (unweighted data).

an independent effect of female headship on household economic vulnerability that cannot be reduced to the characteristics of the women or the household (p.5, Buvinić and Gupta, 1995)²⁰.

Which characteristics of the women or the household account for the lower welfare of widowheaded households in Uganda? This was investigated by excluding blocks of explanatory variables from the model of welfare and seeing whether alternative exclusions led to the reappearance of a significant negative coefficient on the dummy variable for widow headed households. Excluding the variables for land holdings did not change the coefficient, despite the widespread concern that women suffer from discriminatory inheritance customs (World Bank, 1993). Nor did household size and dependency ratios explain the poverty of widow headed households. The same was true of both the age of the head and remittances received. Only when the block of variables for the education of the head was excluded did the coefficient on the widow headed household variable become negative and significant. Lower education of widows is thus an important proximate cause of the lower welfare of widow-headed households relative to married MHHs. Lack of education also disadvantages most other WHHs, as can be seen by the drop in the coefficients associated with them when educational variables are excluded from the multivariate analysis.

The multivariate analysis also reveals that the education of men and women heads are associated with similar increases in household economic welfare. The only significant gender difference is in that lower secondary schooling has a higher return for woman heads than for man heads. This suggests that the returns to education are at least as large for women as for men. Mincerian returns estimated from earnings functions for urban employment using the same data-set corroborate this hypothesis (Appleton et al., 1995). Consequently, it seems that where women are disadvantaged is not in receiving lower returns to their schooling but in being given lower amounts of schooling. Of course, this applies to monetary returns to education only. Multivariate analysis of the data suggests that maternal education in Uganda brings substantial social benefits in terms of lower mortality rates (Mackinnon, 1995).

If woman-headed households in general are disadvantaged by a lack of education, what factors counter-act this and prevent them from having lower economic welfare? Here, remittances play a large role. Recall that married women tend to head more affluent households than married men. However, if we subtract net remittances from total expenditures, the economic welfare of married WHHs would be 6% lower than that of married MHHs. This reflects WHHs greater dependency on gross remittance receipts: they account for just under a quarter of WHHs' attributable income; for MHHs, the proportion is just under one eighth²¹. If the share of gross remittances in attributable income was the same in WHHs and MHHs, the

²⁰ This effect is posited to operate via time constraints, discrimination access to jobs or resources, and a history of premature parenthood and family instability.

²¹ The income measure includes remittances received but is not net of remittances paid out. "Attributable income" excludes "other income", which was partly a balancing item (imputed by field workers and the survey Scrutiny Unit to avoid income falling too far short of reported consumption).

former would have 9.3% lower income per capita than the latter²². The role of remittances in determining economic welfare appears to differ significantly with the gender of the head. There is a strong positive association only for WHHs. Woman-headed households with no remittances averaged only 10% of mean economic welfare; man-headed households with no remittances had slightly above average welfare. By contrast, in WHHs which were heavily dependent on remittances (where the share of attributable income was more than 30%), economic welfare was 19% higher than the national average; for MHHs, welfare was slightly below average.

Further investigation is hampered by the absence of information in the survey on who sent the remittances and on non-resident husbands. Married WHHs probably include a substantial number of "left behind" households, whose husbands have moved elsewhere to work and are sending back remittances. Such households may enjoy above average welfare both because migration gives rural households access to the more remunerative urban labour market and because an expected income gain may be necessary to induce partners to live apart (Harris and Todaro, 1970)²³. Some indication of the potential benefits of having links with a non-resident man is provided by the relatively few cases where such individuals were listed on the household roster. On average, households - both WHHs and MHHs - who reported such a non-resident man (under 60) had double the economic welfare of those who did not²⁴. Married WHHs may also be the result of polygamy, although the survey does not provide sufficient information to identify such cases. Within polygamous cultures, those men with more than one wife are likely to be better off since only such men can afford multiple wives²⁵. With both "left-behind" migrant and polygamous WHHs, the absence of a resident husband may also be temporary and hence any negative effects will be smaller. However, where married WHHs do not receive remittances, they are a disadvantaged group. They are both poorer than MHHs with no remittances and indeed have lower living standards than widowed WHHs.

Dependence on remittances may imply that woman-headed households are more vulnerable even if they are not poorer (as Johnson and Rogers, 1993, have argued about the Dominican Republic). Folbre (1991) expresses concern that woman-headed households are threatened by disruption of traditional systems of family governance which enforced transfers from fathers

²² Similar results hold for Ghana. Lloyd and Gage-Brandon (1993) reported net remittance shares of 6.2% for households with women heads aged 15-59 and -0.8% for their men headed counterparts but under-played the importance of this difference by remarking that "*remittances do not represent a significant percentage of adjusted expenditure on a net basis*" (p.122). In fact, the differences in net remittance shares reported account for nearly two-thirds of the higher expenditure enjoyed by households with women heads aged 15-59 in Ghana.

²³ Woman headed households with migrant husbands have been found to be more affluent in studies of Kenya, Malawi and India (cited in Buvinić and Gupta, 1995). However, contrary evidence exists for south Botswana and China, (see Kossoudji and Mueller, 1983; Song, 1995). In the latter two countries, migration is not necessarily the most remunerative activity and is more common amongst poorer rural residents.

²⁴ Only a small minority of non-resident husbands of woman heads are listed in the survey roster; one might speculate that only those who contributed very heavily to the household were mentioned. The presence of resident men in the household was associated with lower welfare of WHHs. The same was observed for Jamaica by Handa (1994).

²⁵ In Ghana, married women with polygamous non-resident husbands are the most affluent household type identified (Kennedy and Haddad, 1994).

to children; in Africa, weakening filial obligations may also be important. However, it should be noted that, where there are strong ties between WHHs and those making remittances (for example, a non-resident husband), a high remittance share may imply less, not more, vulnerability. Remittances can assist in the diversification of household income and reduce exposure to specific local risks such as poor weather. This reduction in risk may be an important motive for migration (Stark, 1991).

5. Conclusions

In Uganda, woman-headed households as a whole do not appear to be poorer when assessed by consumption and income. Although women do work longer hours, there is no evidence that woman-headed households' parity in income and consumption is bought at the expense of a further burden on women's time. Woman-headed households have less land, but ownership of this asset is not associated with higher welfare. They also have fewer other assets and consumer durables, but this is to some degree offset by higher food consumption. All this suggests that woman-headed households should not be designated as a "target group" on which poverty alleviating economic interventions should be focused. In Uganda, gender of the head provides no information on the economic status of the household. However, the same is not true of a number of social indicators. Compared to man-headed households, in woman-headed households, girls are less likely to be enrolled in school, the sick are less likely to be sent for treatment and mortality rates are higher.

Simple comparisons of mean economic welfare by sex of the head mask important gender dimensions in the causes of poverty. Some sub-groups of woman-headed households - such as widows - are poor in terms of consumption. However, multivariate analysis identified no independent effect purely of being a widow such as would be expected if there was pervasive gender discrimination. Instead, lower levels of female education appear to account for the poverty of this sub-group and indeed disadvantage woman-headed households as a group. In the long run, expanding female education should do much to benefit disadvantaged woman-headed households and women in general. Such an expansion need not be justified on equity grounds alone. Rates of return to female education in terms of urban wages and economic welfare appear to be comparable to those for male education; there are also social benefits in terms of reduced child mortality. The disadvantage woman-headed households face due to low levels of female education is offset by high remittances receipts. Such remittances may not only raise but diversify income. Understanding more about the economic linkages between resident households members and others is thus a key element to understanding how some women-headed households escape poverty.

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