Poverty and headship in post-apartheid South Africa, 1997-2006

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Abstract

In this paper, I investigate the characteristics and poverty status of female- and male-headed households in South Africa using nationally representative household survey data from the October Household Surveys (1997 and 1999) and the General Household Surveys (2004 and 2006). This decade (1997-2006) represents a period for which there is an extensive poverty literature documenting (particularly in the 2000s) an overall decrease in the poverty headcount rate. At the same time, however, there is evidence to suggest that female-headed households have a far higher risk of poverty and that the poverty differential between female- and male-headed households widened over the period. The aim of this paper is to identify some of the main reasons that female-headed households are more vulnerability to poverty in post-apartheid South Africa and why poverty has decreased by more in male-headed households (relative to female-headed households). The study examines the key features which distinguish female- and male-headed households and whether these have changed over time. In order to link these characteristics with the poverty differential between female- and male-headed households, I then examine whether (and by how much) controlling for the observable differences between female- and male-headed households reduces the significantly greater risk of poverty in female-headed households.

Key words: female-headed households; poverty; South Africa

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1. Introduction

The poverty differential between male-headed households (MHHs) and female-headed households (FHHs) has been used extensively to highlight gender differences in access to resources in the international development literature over the past several decades (Moghadam, 2005, Medeiros and Costa, 2007). In post-apartheid South Africa, it is somewhat surprising that there has been relatively little work which has examined the poverty differences between these household types. The feminisation of the labour force (Casale and Posel, 2002) and the corresponding increase in female employment and *un*employment; an increase in female labour migration (Posel, 2004); the decline in marital rates (Casale and Posel, 2002); and the rise in female headship (Bhorat et al., 2006, Posel and Rogan, 2011)[2] all suggest that there have been important household compositional changes which may be affecting the relative well-being of individuals living in female-headed households. To date, several studies have demonstrated that female-headed households in South Africa are relatively disadvantaged in terms of income (Budlender, 1997, Posel, 2001) and assets (Dungumaro, 2008), or are significantly over-represented among the poor (Ray, 2000, Leibbrandt and Woolard, 2001, Bhorat and van der Westhuizen, 2008, Posel and Rogan, 2009). The characteristics of female-headed households which may make them more vulnerable to poverty, however, have received somewhat less attention.

In this paper, I investigate further the characteristics and poverty status of female- and male-headed households in South Africa using nationally representative household survey data collected from 1997 to 2006. In the first part of the paper, I explore the characteristics of female and male heads of household (and the households in which they live) and whether these have changed over time. In the second part of the paper, I consider how the characteristics which distinguish female- and male-headed households are associated with the risk of income poverty and whether controlling for these factors explains the poverty differential (between female- and male-headed households).

The remainder of the paper is structured as follows. Section Two briefly reviews the international and local literature on female headship and poverty. In Section Three I describe the data sources that I use to explore headship and vulnerability to poverty in South Africa. Section Four explores the demographic and labour market characteristics of male- and female-headed households and whether and how these have changed over a recent period. Section Five then identifies the risks of poverty in a multivariate context in order to explain the poverty differential between female- and male-headed households.

2. Review

A large body of existing work has demonstrated that, on average, there is a relationship between poverty and female headship in many countries. While there are many national or regional studies which have provided evidence for this link (cf. Barros et al., 1997, Bibars, 2001, Gangopadhyay and Wadhwa, 2003, Katapa, 2006, Horrell and Krishnan, 2007, Chant, 2009), perhaps the strongest evidence in support of the claim that female-headed households are more

[2] The percentage of households that are female-headed, for example, increased from 35.2 per cent in 1997 to 37.5 per cent in 2006 (Posel and Rogan 2009).

likely to be poor comes from a frequently cited review of the literature conducted by Buvinic and Gupta (1997). They found that, out of 61 studies investigating the association between poverty and female-headed households in developing countries, 38 found female-headed households over-represented among poor households; 15 found that poverty was associated with some types of female-headed households or that, with certain types of poverty measures, a statistically significant relationship was found; and only eight found no association between female headship and poverty (summarised in Buvinic, 1997, Buvinic and Gupta, 1997). In a similar review of the World Bank's poverty assessments, the poverty headcount was higher for female-headed households than for male-headed households in 25 out of 58 countries. In a further ten countries, certain types of female-headed households were poorer than male-headed households (Lampietti and Stalker, 2000).

The association between poverty and female headship, however, warrants qualification. Not all female-headed households are equally vulnerable to poverty and the risk of poverty often differs both by context and by a number of other household characteristics. Those studies in developing countries that have found no association between female-headed households and the risk of poverty have often identified a range of other factors that have stronger associations with poverty than does headship (cf. Appleton, 1996, Medeiros and Costa, 2007). The marital status of the household head, in particular, is often cited as being a better predictor of household wellbeing than the gender of the household head in many contexts (Appleton, 1996, Chant, 2007). The key message from these studies is that female- and male-headed households are heterogeneous household types and that aggregate poverty statistics are likely to mask important differences in vulnerability to poverty within these broad household groupings (Buvinic, 1993, Buvinic and Gupta, 1997, Chant, 2007).

The heterogeneity within the broader category of female (and male) headship notwithstanding, several explanations have been put forward as to why female-headed households, on average, are more likely to be vulnerable to poverty than male-headed households. The international development literature describes female-headed households as, *inter alia*, facing a 'triple burden' which includes: the head being a single earner; the earner being female and therefore facing labour market disadvantages; and time constraints due to commitments of managing the household and earning income (Buvinic and Gupta, 1997, Fuwa, 2000a: 128). In addition, work in a number of different settings has suggested that female household heads face higher poverty risks because they are more likely to support dependents than their male counterparts, especially in developing country contexts (Moghadam, 2005).

In South Africa, recent work (Bhorat and van der Westhuizen, 2008, Posel and Rogan, 2009, 2011) has demonstrated that, not only are female-headed households far more likely to be poor than male-headed households, but that the difference in poverty rates between these broad household types has *widened* even further during the post-apartheid period. In a recent ten year period for which the available poverty literature (cf. Meth, 2006, Bhorat and van der Westhuizen, 2008, van der Berg et al., 2008) documents a decrease in the overall poverty headcount rate (particularly in the 2000s), Posel and Rogan (2011) found that the decline in poverty rates favoured male-headed households. For example, in 1997, approximately 67 per cent of female-headed households were poor compared to only 39 per cent of male-headed households. By 2006, poverty rates had fallen among both household types (to 62 per cent and 33 per cent,

respectively), but the decrease was absolutely and relatively larger for male-headed households. The poverty differential between male- and female-headed households therefore *increased* from 1997 to 2006 even though the risk of poverty actually decreased for both household types (Posel and Rogan, 2009, 2011). Moreover, the increasing poverty differential between female- and male-headed households was most pronounced in the period (i.e. the early 2000s) during which the poverty literature documented a notable expansion of the social grant system (Seekings, 2007) and, in particular, the increased take up of grants (e.g. the child support grant, the care dependency grant and the foster care grant) that were well targeted to the poorest households and were more likely to be awarded to women (Williams, 2007).

In explaining the large aggregate poverty differential between male- and female-headed households, preliminary work in South Africa has indicated that female-headed households may be more vulnerable to poverty because they tend to be larger, support more children, are based in rural areas, contain fewer working age adults, and because female heads are more likely to be unemployed and earn lower wages than their male counterparts (May et al., 1998, Ray, 2000, Woolard, 2002). In an earlier study, Posel (2001) used the 1993 Project for Statistics on Living Standards and Development (PSLSD) data, and found that female-headed households were more likely to be concentrated in the lower earnings brackets both because they contain fewer employed members and because of the difference between male and female earnings. A more recent paper by Dungumaro (2008) demonstrated that female-headed households in South Africa tend to be larger and are more likely to have heads without employment. Finally, Posel and Rogan (2011), in their analysis of the growing poverty differential between female- and male-headed households, identified the smaller impact of earned income on reducing poverty among female-headed households as one of the likely reasons for the difference in poverty rates between these two household types.

In this paper, I extend the research on female-headed households in post-apartheid South Africa by identifying the key differences in the (changing) characteristics of female and male heads and the households in which they live. The main objective of the paper is, therefore, to examine some of the reasons for the particularly large (by international standards) poverty differential between female- and male-headed households (for a comparison with other countries, see Quisumbing et al., 2001) in South Africa. As far as possible, the paper also considers why poverty headcount rates may have decreased by more for male-headed households. Towards this end, and in light of the existing empirical work which highlights the smaller impact of labour market earnings on poverty rates among female-headed households, the paper is concerned with identifying some of the reasons that may explain why female-headed households have less access to earned income, relative to male-headed households, and how this affects the risk of poverty in these households.

3. Data and methods

The study makes use of data collected in the 1997 and 1999 October Household Surveys (OHSs) and the 2004 and 2006 rounds of the General Household Survey (GHS). The OHSs and the GHSs are selected because they regularly and consistently capture information on the receipt of both earned income and social grant income. I can therefore use these data to generate comparable measures of earned and social grant income over a ten-year period. The interval between 1997 and 2006 is significant because it represents a period of time for which there is an extensive body of literature documenting poverty trends more generally (cf. Leibbrandt and Woolard, 2001, Hoogeveen and Özler, 2006, Leibbrandt et al., 2006, Bhorat and van der Westhuizen, 2008, van der Berg et al., 2008) as well as gendered trends in income poverty (cf. Posel and Rogan, 2009, 2011), in particular.

In estimating poverty rates among male- and female-headed households I follow Hoogeveen and Özler (2005) in selecting R322 per capita monthly household income (in 2000 prices)[3] as a plausible lower-bound poverty threshold for South African households. This poverty threshold allows for comparability with a number of other recent poverty studies (cf. Hoogeveen and Özler, 2005, Ardington et al., 2006, Leibbrandt et al., 2006, Bhorat and van der Westhuizen, 2008) as well as for direct comparisons with earlier work on gender, poverty and headship (Posel and Rogan, 2009, 2011). Poverty estimates are based on measures of income from the OHSs and GHSs that include both earned and social grant income. Where households do not report either earned or social grant income, I augment the income measure with household expenditure data.[4]

4. Results

Many of the studies which have explored the greater poverty risks faced by female-headed households have disaggregated the findings by the marital status of the household head (cf. Kossoudji and Mueller, 1983, cf. Appleton, 1996, Barros et al., 1997, Fuwa, 2000b, Horrell and Krishnan, 2007) and by the presence of the male partner of the head (cf. Kossoudji and Mueller, 1983, Varley, 1996, Fuwa, 2000b) in order to account for the heterogeneity of female-headed households. In South Africa, as in many other contexts, female headship is largely associated with the absence of a male partner since the vast majority (92.2 per cent in 2006)[5] of all female heads do not reside with a spouse or partner. Even among female heads who are married, only 25.8 per cent have a resident male partner in the same household (in contrast 88.6 per cent of married male heads reside with their spouse or partner). Moreover, based on the marital status of male and female heads, female-headed households are a far more heterogeneous household type than male-headed households.[6]

[3] Income measures were adjusted for inflation using Statistics South Africa's consumer price index (yearly average) with 2000 as the base year.

[4] For a fuller discussion of the measure of income derived from the OHSs and GHSs, see Posel and Rogan (2011).

[5] In contrast, 62.4 per cent of male heads resided with a spouse or partner in 2006.

[6] Most male heads (in 2006) are either married (70.5 per cent) or have never married (23.6 per cent). Female heads, on the other hand, are fairly evenly represented across the marital categories with the highest

The analysis presented throughout this paper therefore follows Appleton (1996), Klasen et al. (2010) and Fuwa (2000a) in classifying self-reported female-headed households as *de facto* female-headed, *de jure* female-headed, or headed by a married/co-residing female who lives with her partner (referred to as a 'co-resident female-headed household' from this point onwards). According to this classification, a *de jure* female-headed household is one in which the head is not attached with a male partner (i.e. never married, widowed or divorced/separated) and a *de facto* female head is married but not living with her husband or partner. These three categories (i.e. *de jure* headed, *de facto* headed and co-resident female-headed) are mutually exclusive and all female-headed households fall within one of the classifications.

There are, as shown in Table 1, some important differences within these three types of female headship in terms of their prevalence and in their risk of poverty. The most common type of female-headed household, for example, is one in which a female is the *de jure* head (i.e. is not married or attached to a male partner). Nearly a third (32.4 per cent) of all South Africans resided in a household with this type of household head (in 2006) and the vast majority are below the poverty line (72.7 per cent). In terms of poverty risks, however, the highest levels of poverty are found in *de facto* female-headed households. Less than 10 per cent (7.3 per cent) of South Africans live in this household type, but an astonishing 86.3 per cent are poor.

Table 1 Key characteristics associated with female- and male headship, 2006

	***De facto* female-headed**	***De jure* female-headed**	**Co-resident female-headed**	**Male-headed**
Percentage of individuals by household type	7.31 (.100)	32.35 (.203)	2.34 (.074)	57.99 (.217)
Percentage of poor individuals by household type	86.29 (1.54)	72.73 (1.71)	46.04 (3.70)	43.39 (1.95)

Source: Own calculations from the 2006 GHS

Notes: The data are weighted. Standard errors in brackets. R322 per capita poverty line in 2000 prices. Household well-being is estimated as average per capita total household monthly income.

4.1 Household composition among female- and male-headed households

Table 2 demonstrates that *de jure* female-headed households, on average, contain significantly fewer working age adults (2.08) than both co-resident female-headed households (2.57) and male-headed households (2.19). Moreover, and as highlighted in the table, the 'missing' working age adult in *de jure* female-headed households is often a male since *de jure* and *de facto* female-headed households contain only about half the number of working age males, on average, as co-resident female-headed households and male-headed households.

percentage having never married (37.4 per cent) and with 22.5 per cent married and 32.3 per cent widowed (own calculations for the 2006 GHS).

Table 2 Selected demographic characteristics of FHHs and MHHs, 2006

	De facto female-headed	*De jure* female-headed	Co-resident female-headed	Male-headed
Household size	4.52	3.99	4.19	3.39
	(.072)	(.036)	(.149)	(.025)
Household composition				
# working age adults	2.15	2.08	2.57	2.19
	(.038)	(.020)	(.108)	(.015)
# of male working age adults	.60	.67	1.24	1.30
	(.025)	(.013)	(.059)	(.009)
# of female working age adults	1.55	1.41	1.33	.88
	(.025)	(.014)	(.068)	(.010)
# of pensionable adults	.14	.33	.33	.20
	(.011)	(.007)	(.060)	(.006)
# of children <11	2.22	1.58	1.29	1.00
	(.051)	(.023)	(.096)	(.015)
# of children (age 11-16, inclusive)	.90	.61	.47	.37
	(.030)	(.012)	(.045)	(.007)
Ratio of children (<16) to total household size	.43	.32	.24	.20
	(.007)	(.004)	(.016)	(.003)
Ratio of pensioners to total household size	.04	.12	.09	.07
	(.005)	(.003)	(.026)	(.002)

Source: Own calculations from the 2006 GHS

Notes: The data are weighted. Standard errors in brackets.

Despite the relative absence of working age males, however, these two types of female-headed households tend to be larger than male-headed households and this is because they have a greater number and proportion of children (under the age of 16 and therefore too young to enter the labour market) and adults of a pensionable age (for *de jure* female-headed households only), as well as a greater number of working age females (relative to male-headed households). An important caveat here, however, is that, due to the reach of the state old age pension, the presence of elderly household members may not necessarily be associated with higher poverty risks. In other developing country contexts, the absence of working age adults (and the presence of elderly members) in female-headed households has often been linked with a greater risk of poverty (cf. Appleton, 1996, Moghadam, 2005, Chant, 2007, 2009), but the available evidence (cf. Woolard, 2003, Posel and Rogan, 2011) suggests that receipt of the pension is an important factor mitigating the risk of household poverty in South Africa.

Rather, the main poverty risk associated with female headship in the South African context is, as documented in Table 3, the far greater percentage of female-headed households (both *de jure* and *de facto*) that are likely to be supported by the labour market earnings of female householders. Nearly half (48.9 per cent) of *de jure* female-headed households (and 54.4 per cent of *de facto* female-headed households), for example, contain at least one working age female but no working age males. Perhaps one of the most important differences between female- and male-headed households, however, is the percentage of households that support children. As illustrated in Table 3, 74.1 per cent of *de facto* female-headed households support young children (under the age of 11) and 55.8 per cent have children between the ages of 11 and 16 (inclusive). Most (57.7 per cent) *de jure* female-headed households also contain young children and about 41.8 per cent have older children. In contrast, only 41.3 per cent of male-headed households have a resident child under the age of 11 and the percentage of male-headed households with a child between the ages of 11 and 16 in residence is 26.4 per cent.

Table 3 Household composition of female- and male-headed households, 2006

Percentage of households with:	***De facto* female-headed**	***De jure* female-headed**	**Co-resident female-headed**	**Male-headed**
No working age adults	2.81 (.485)	7.43 (.369)	5.93 (2.82)	4.39 (.241)
No adult males (>17)	63.06 (1.43)	60.79 (.723)	7.71 (1.47)	NA
No working age males	57.19 (1.47)	56.29 (.738)	14.27 (2.99)	6.93 (.280)
Female working age adults (no working age males)	54.38 (1.49)	48.86 (.751)	8.34 (1.50)	2.54 (.149)
Children under 11	74.09 (1.34)	57.74 (.733)	49.77 (3.55)	41.28 (.580)
Children age 11-16	55.79 (1.52)	41.81 (.729)	33.79 (3.03)	26.41 (.485)

Source: Own calculations from the 2006 GHS

Note: The data are weighted. Categories are not mutually exclusive therefore columns do not add up to 100 per cent.

4.2 Labour market income and female headship

If, as highlighted in much of the literature, the employment status of the household head is a key determinant of vulnerability to poverty, then the descriptive statistics presented in Table 4 would suggest that all three types of female-headed households carry a greater risk of poverty (relative to male-headed households). Male household heads are far more likely to be employed (67.8 per cent) and far less likely to be strictly unemployed (7.9 per cent) or inactive (20.6 per cent) compared with female heads. There are, however, also some important differences within the three classifications of female headship. Compared with *de facto* and *de jure* heads, a far greater

percentage (50.9 per cent) of co-resident female heads are employed. Co-resident female heads are also less likely to be economically inactive (32.5 per cent) while a significantly greater percentage of both *de facto* and *de jure* female heads are not active in the labour force (42.2 per cent and 44.6 per cent, respectively). Even controlling for the older age of these female heads (and *de jure* heads in particular), they are still more likely to be economically inactive. Among working age heads, for example, all three types of female heads are significantly less likely to participate in the labour market (relative to male heads).

Table 4 Percentage of households by the employment status of the head, 2006

Employment	***De facto* female head**	***De jure* female head**	**Co-resident female head**	**Male head**
Non-searching	14.67	7.50	6.11	3.31
unemployed	(1.00)	(.384)	(1.17)	(.193)
Searching	11.54	9.32	10.43	7.95
unemployed	(1.08)	(.438)	(1.83)	(.329)
Inactive	42.29	44.55	32.51	20.56
	(1.52)	(.737)	(3.65)	(.444)
Employed	31.04	38.24	50.92	67.77
	(1.44)	(.754)	(3.59)	(.536)
Inactive among	35.72	22.93	21.04	12.36
working age	(1.60)	(.726)	(3.35)	(.387)

Source: Own calculations from the 2006 GHS

Notes: The data are weighted. Standard errors in brackets.

In documenting aggregate differences in the number of employed members (and employed men, in particular) and average earnings between female- and male-headed households, Table 5 highlights some of the household factors that may contribute to the higher risk of poverty among female-headed households. Perhaps most importantly, the table shows that a far higher percentage of both *de facto* and *de jure* female-headed households do not contain any employed household members at all (61.9 per cent and 48.3 per cent, respectively). Roughly a third (33.6 per cent) of *de facto* female-headed households and 41 per cent of *de jure* female-headed households contain only one employed household member. In contrast, co-resident female-headed households and male-headed households are far less likely to have no employed members and co-resident female-headed households are actually more likely to have more than one employed household member (40 per cent of these households). As would be expected, then, both *de facto* and *de jure* female-headed households have a distinct disadvantage in terms of the average number of employed members (.47 and .67 respectively). Both co-resident female-headed households and male-headed households, on the other hand, have, on average, more than one employed member.

Table 5 Selected labour market characteristics of female- and male-headed households, 2006

	De facto female-headed	*De jure* female-headed	Co-resident female-headed	Male-headed
Household income earners				
No employed members	61.87 (1.50)	48.25 (.748)	25.87 (3.55)	24.17 (.490)
One employed member	33.59 (1.46)	40.96 (.754)	34.29 (3.11)	48.06 (.595)
More than one employed member	4.54 (.584)	10.79 (.473)	39.84 (3.51)	27.77 (.535)
Number of employed	.47 (.020)	.67 (.012)	1.24 (.073)	1.10 (.010)
# employed males (Excl. the head)	.07 (.008)	.15 (.007)	.30 (.036)	.12 (.005)
# employed females (Excl. the head)	.38 (.016)	.52 (.010)	.65 (.047)	.30 (.006)
Average monthly income per employed householder (2000 prices)	1,538.99 (136.22)	1,667.13 (65.45)	2,917.78 (334.90)	2,890.17 (85.34)

Source: Own calculations from the 2006 GHS

Notes: The data are weighted. Standard errors in brackets.

All three types of female-headed households therefore rely, to a large degree, on the earnings of their female household members. Even without considering the work contribution of the head, female-headed households have a higher number of employed females, on average, than employed males. In considering these types of labour market characteristics, the higher risk of poverty in *de facto* female-headed households seems to be due, in particular, to the lack of access to employed household members. Household heads have the lowest levels of employment of all household types and, not counting the head, these households have the lowest number of employed males (0.07).

Not only are *de facto* and *de jure* female-headed households more vulnerable in terms of the number of employed members, but workers in these households also earn less, on average, than workers in male-headed households (and in co-resident female-headed households). Employed members from *de facto* female-headed households, for example, earn, on average, R 1,538.99 per month in constant 2000 prices. The average worker in co-resident female-headed households, however, earns nearly twice that amount (R 2,917.78) and there is no significant difference between average monthly earnings in these households and male-headed households (R 2,890.17 in 2000 prices).

Since men, on the whole, earn more than women, Table 6 now considers male earnings and (given the South African context) access to social grant income more closely. As the table clearly shows, the vast majority of both *de facto* and *de jure* female-headed households do not have any employed male adults resident in the household (91 per cent and 87.8 per cent, respectively). Co-resident female-headed households are also more likely (relative to male-headed households) to have no employed males, but over half of these households (52 per cent) do have at least one employed male.

Table 6 Access to male earnings among FHHs and MHHs, GHS 2006

Percentage of households with:	***De facto* female-headed**	***De jure* female-headed**	**Co-resident female-headed**	**Male-headed**
No employed men	91.00 (.874)	87.75 (.493)	48.01 (3.56)	29.21 (.463)
At least one employed female, no employed males	30.72 (1.40)	39.60 (.751)	22.31 (2.62)	5.04 (.227)
No employed members, grant income only	40.05 (1.44)	36.62 (.700)	18.60 (2.92)	13.16 (.345)
No employed members and no grant income	20.23 (1.34)	11.53 (.474)	7.11 (2.63)	11.01 (.393)

Source: Own calculations from the 2006 GHS
Note: The data are weighted. Categories are not mutually exclusive therefore columns do not add up to 100 per cent.

Female employment in *de facto* and *de jure* female-headed households is particularly important since a substantial percentage of these households (30.7 per cent and 39.6 per cent, respectively) only have access to female earnings (i.e. no male earnings). Moreover, the fact that these households have fewer employed members overall (and lower employment levels among the heads of these households) means that a significantly higher percentage (relative to both co-resident female-headed households and male-headed households) rely completely on social grant income. *De facto* female-headed households have an additional layer of risk related to the fact that 20.2 per cent of these households report no income from either employment or social grants.[7]

4.3 Key changes in household composition and labour market earnings over the period

While the descriptive statistics presented in the previous sections highlighted some of the demographic and labour market characteristics that may explain the higher risk of poverty in female-headed households, they did not account for why poverty rates may have fallen by more among male-headed households during the period under review. Since the growing poverty

[7] These households are the most likely beneficiaries of remittances and other private transfers from outside of the household since the heads of these households have partners who are not listed on the household roster.

differential between female- and male-headed households has been one of the more recent findings (cf. Posel and Rogan, 2009, 2011) in the poverty literature in South Africa, this section briefly identifies some of the most important demographic and labour market *changes* that may explain why the difference in poverty levels between female- and male-headed households widened over the period.

Before looking at some of the most important changes in household characteristics, however, Table **7** considers broader trends in the prevalence of the three different types of female-headed households (and male-headed households) and in their risk of poverty. The table shows that the increase in female headship over the period has been driven largely by an increase in the percentage of individuals living in *de jure* female-headed households.[8] In 1997, for example, 27.1 per cent of all South Africans lived in this type of household and, by 2006, this had increased to 32.4 per cent. Therefore, not only are *de jure* female-headed households the most common type of female-headed household considered in the analysis, but they are also the fastest growing household type.

Table 7 Changes in female and male headship and the risk of poverty, 1997-2006

	Individuals by household type			**Poverty headcount rates (P_0)**		
	1997	**2006**	**Relative change, 1997-2006**	**1997**	**2006**	**Relative change, 1997-2006**
De facto	10.77	7.31	-3.21%	81.59	75.19	-7.84%
female-headed	(.084)	(.100)		(.880)	(2.15)	
De jure	27.13	32.35	19.24%	63.39	60.90	-3.93%
female-headed	(.127)	(.203)		(.843)	(1.98)	
Co-resident	2.25	2.34	0.04%	46.91	38.50	-17.93%
female-headed	(.042)	(.074)		(2.32)	(2.88)	
Male-headed	59.86	57.99	-3.12%	38.84	32.54	-16.22%
	(.140)	(.217)		(.663)	(1.55)	

Source: Own calculations from the 1997 OHS and the 2006 GHS

Notes: The data are weighted. Poverty estimates are calculated at the household level at the R322 per capita poverty line in 2000 prices. Household well-being is estimated as average per capita total household monthly income.

At the same time, the relative decrease in the extent of poverty was actually the lowest among *de jure* female-headed households (Table 7). Between 1997 and 2006, for example, the percentage of these households below the poverty line only decreased by a modest 3.9 per cent while the relative decline among *de facto* female-headed households was 7.8 per cent. The poverty headcount rate decreased by far more among co-resident female-headed households (17.9 per cent) and male-headed households (16.2 per cent). *De jure* female-headed households were, therefore, the fastest growing household type over the period under review and, more

[8] The growth in *de jure* female-headed households was driven predominantly by a substantial increase in the percentage of household heads who have never married (from 33.4 per cent to 47.6 per cent between 1997 and 2006).

importantly, the difference in poverty rates between these households and all other household types also widened considerably.

Since the rise in female headship over the period was driven largely by the increase in *de jure* female-headed households and since these households were increasingly more likely to be poor, relative to the other household types, the next two tables identify some of the characteristics that may account for the growing poverty differential between *de jure* female-headed households specifically and male-headed households. Table 8 shows that, in particular, the composition of *de jure* female-headed households has been increasingly characterised by a concentration of working age females. Despite a decrease in the average number of working age adults in both household types (in line with an overall decrease in household size over the period), female-headed households reported more than twice as many working age females than working age males by 2006.

The changing gender composition of female-headed households can also seen in the increase (from 51.6 per cent to 56.3 per cent) in the percentage of *de jure* female-headed households that had no working age males resident in the household. Male-headed households, on the other hand, saw a very marginal decline in the average number of working age males and a significant decline in working age females. At the same time, and despite a slight decrease in the average number of children in both female- and male-headed households, female-headed households saw an increase in the ratio of children to household size over the period. In other words, the proportion of household members that were under the age of 16 (and therefore below the minimum age for employment) grew in these households such that, *ceteris paribus*, income would need to be divided among a greater number of household members without employment. The fact that the proportion of elderly household members only declined slightly in female-headed households (and did not change at all in male-headed households) highlights the likelihood that income from female earnings has been increasingly important in these households.

Table 8 Changes in household composition, 1997-2006

	De jure female-headed		Male-headed	
	1997	**2006**	**1997**	**2006**
Household composition				
# of male working age adults	.78 (.012)	.67 (.013)	1.39 (.692)	1.30 (.009)
# of female working age adults	1.54 (.014)	1.41 (.014)	1.22 (.008)	.88 (.010)
# of children <16	1.76 (.021)	1.58 (.023)	1.52 (.013)	1.00 (.015)
Ratio of children (<16) to total household size	.31 (.003)	.32 (.004)	.27 (.002)	.20 (.003)
Ratio of pensioners to total household size	.14 (.004)	.12 (.003)	.07 (.002)	.07 (.002)
Percentage of households with:				
No working age adults	8.79 (.377)	7.43 (.369)	3.53 (.152)	4.39 (.241)
No working age males	51.60 (.599)	56.29 (.738)	6.12 (.186)	6.93 (.280)

Source: Own calculations from the 1997 OHS and the 2006 GHS
Note: The data are weighted. Categories are not mutually exclusive therefore columns do not add up to 100 per cent

In light of these household compositional changes it is not surprising that there have also been growing differences in access to earned income over the period (Table 9). Female-headed households, for example were increasingly more likely to report having no resident employed men (e.g. 87.8 per cent in 2006) while the percentage of male-headed households without access to male earnings actually declined slightly (from 31.4 per cent to 29.2 per cent between 1997 and 2006). At the same time, and coinciding with a significant increase in the employment rate of female heads, female-headed households saw a slight increase in the average number of female employed members and a decrease in the number of employed males. Male-headed households, on the other hand, reported very little change in the average number of resident employed men alongside a notable decline in the number of employed female members. In short, the average number of employed household members in female-headed households did not change significantly over the period, but the gender composition of the employed did change such that

female-headed households have become more reliant on the earnings of the female head and other female householders.

Table 9 Changes in labour market characteristics, 1997-2006

	***De jure* female-headed**		**Male-headed**	
	1997	**2006**	**1997**	**2006**
Percentage of households with:				
No employed men	85.65 (.421)	87.75 (.493)	31.39 (.378)	29.21 (.463)
No employed members, grant income only	27.71 (.513)	36.62 (.700)	11.44 (.250)	13.16 (.345)
No employed members and no grant income	23.80 (.496)	11.53 (.474)	13.51 (.280)	11.01 (.393)
Head is employed	33.09 (.587)	38.24 (.754)	66.95 (.376)	67.77 (.536)
Number of employed (household)	.67 (.010)	.67 (.012)	1.16 (.007)	1.10 (.010)
# Employed males	.16 (.005)	.14 (.006)	.80 (.005)	.80 (.007)
# Employed females	.50 (.008)	.52 (.010)	.37 (.005)	.30 (.006)

Source: Own calculations from the 1997 OHS and the 2006 GHS
Note: Categories are not mutually exclusive therefore columns do not add up to 100 per cent

Despite this increase in access to earned income from female household members (in female-headed households), perhaps the most important change over the period is that social grant income has become an increasingly important income source in female-headed households. The percentage of these households that survived on grant income alone (i.e. had no access to earnings) increased significantly from 27.7 per cent in 1997 to 36.6 per cent in 2006. More importantly, there was a concurrent and significant drop in the percentage of female-headed households that had access to neither earned income nor social grant income over the period. Therefore, during the period under review, *de jure* female-headed households have come to survive, increasingly, on income from female earnings and social grants and less on earned income from male household members.

5. Estimating poverty risks in female- and male-headed households

In this section, I now consider whether (and by how much) controlling for the observable differences (i.e. both demographic and labour market) between female- and male-headed households reduces the significantly greater risk of poverty in female-headed households. To

estimate the likelihood that an individual lives in a poor household I use a logit regression model, in which the natural logarithm of the odds ratio of being poor is estimated as:

$$Y_i = \ln\left(\frac{P_i}{1-P_i}\right) = a_i F_i + b_i Z_i + u_i$$

Y_i equals 1 if the individual *i* lives in a household in which average per capita household income is below the poverty line of R322 (in 2000 prices); F_i = 1 if the individual lives in a female-headed household (and 0 if in a male-headed household); Z_i captures other observable characteristics of the household in which the individual lives and u_i is the error term. The explanatory variables include the age and employment status of the head (1 if employed, 0 otherwise), the proportion of household members who are children, the percentage who are of pensionable age, and the number of employed household members (apart from the head). The model controls also for household size, population group, the level of education attained by the head, whether the household is in a metropolitan area, and for the province of residence.

Table 10 presents the results from the logit estimations for living in a poor household using data from the 2006 GHS. The sample includes all individuals living in households in which a head is identified.[9] In the simple regression reported in the first column (I), the variable identifying whether an individual lives in a female- or a male-headed household is the only explanatory variable. The estimated coefficient (1.292) for female headship indicates the significantly larger poverty risk (relative to living in a male-headed household) associated with living in a female-headed household (the coefficient is both positive and significant), without controlling for other household characteristics. In the second regression (II), female headship is further disaggregated into the classifications adopted throughout the paper and male headship is (again) the reference category. The coefficients on the female headship variables identify *de facto* female-headed households as having the highest poverty risks (2.106) followed by *de jure* female-headed households (1.247).[10]

In the third regression (III), the model now controls for some of the key characteristics of the household head (e.g. human capital variables such as the age of the head and the head's level of education as well as a dummy variable denoting whether the head is employed) as well as urban/rural residence, province and race. After controlling for these variables, the coefficient on *de jure* female headship is roughly halved (i.e. it drops to .665 but remains significant). The single largest correlate of poverty in the third regression is whether or not the head is employed (-1.578). Households with an employed head are more than one and a half times less likely to be poor compared with households without an employed head (i.e. inactive or unemployed). In other words, controlling for the employment status of the head identifies the greater likelihood of

[9] The number of households (about 117/28,002) that report more than one head of household in the 2006 GHS is very small. These households have been dropped from the sample.

[10] An adjusted Wald test confirms that de facto female-headed households are more likely to be poor than *de jure* households and that co-resident female-headed households are less likely to be poor than both *de facto* and *de jure* households.

female heads to be unemployed or economically inactive as one of the main reasons for the higher poverty risk faced by female-headed households.

While the first three regressions in Table 10 have shown that the risk of poverty is still significantly greater for individuals living in *de facto* and *de jure* female-headed households (relative to male-headed households) even after controlling for the characteristics of the head, spatial and demographic (i.e. race) variables, the next regression (IV) examines the additional effect of access to earned income. By controlling for the number of household members with employment (apart from the head), the model identifies both the effect of employed household members (-.874) on the likelihood of living in poverty as well as how living with employed individuals affects the poverty differential between female- and male-headed households. In particular, the model suggests that, once again, the difference in poverty risks between female- and male-headed households decreases once the model controls for the number of employed household members. The coefficients for *de jure* and *de facto* female-headed households, while remaining significant and positive, are reduced even further (i.e. they drop to .632 and 1.136, respectively).

Finally, the last regression (V) in Table 10 considers how this income would be divided among household members by controlling for household composition. More specifically, the estimation now also controls for the number of household members as well as the ratio of children and elderly (i.e. of a pensionable age) to total household size. Perhaps the main finding from this last step in the model is that, over and above all other factors, the proportion of householders that are children has the strongest positive association (1.050) with the risk of poverty. Since female-headed households tend to be larger and have a greater number and proportion of children, relative to male-headed households, it is therefore not surprising that the coefficients for *de jure* (.574) and *de facto* (.835) female headship decrease once again (yet remain positive and significant) after controlling for these two variables.

Table 10 Logit estimations predicting poverty status in female- and male-headed households, 2006

	I	II	III	IV	V
Female-headed	1.292***				
	(0.0199)				
		1.247***	0.665***	0.632***	0.574***
***De jure* FHH**		(0.0214)	(0.0252)	(0.0254)	(0.0282)
***De facto* FHH**		2.106***	1.270***	1.136***	0.835***
		(0.0454)	(0.0506)	(0.0514)	(0.0554)
Co-resident FHH		0.108*	0.019	0.209**	0.0846
		(0.0648)	(0.0853)	(0.0917)	(0.114)
Age of the head			-0.025***	-0.0193***	-0.0202***
			(0.000941)	(0.000981)	(0.00133)
Head is employed			-1.578***	-1.618***	-1.947***
			(0.0250)	(0.0261)	(0.0302)
Metro			-0.567***	-0.554***	-0.457***
			(0.0304)	(0.0313)	(0.0328)
African			1.270***	1.223***	0.516***
			(0.0728)	(0.0765)	(0.0815)
Indian			-0.116	0.0476	-0.470***
			(0.126)	(0.127)	(0.127)
Coloured			0.567***	0.743***	-0.0401
			(0.0808)	(0.0833)	(0.0901)
Number of employed				-0.874***	-1.442***
				(0.0179)	(0.0232)
Household size					0.367***
					(0.00806)
Ratio of children					1.050***
					(0.0675)
Ratio of pensioners					-2.017***
					(0.143)
	-0.266***	-0.266***	2.110***	2.208***	1.193***
_cons	(0.0122)	(0.0122)	(0.106)	(0.111)	(0.118)
N	104730	104730	104592	104573	104573

Source: Own calculations from the 2006 GHS

Notes: The data are weighted. Standard errors in parentheses. *** Significant at the 99.9 per cent confidence level. ** Significant at the 95 per cent confidence level. * Significant at the 90 per cent confidence level. The omitted categories are: male-headed, head is not employed, and white. The models also include a set of provincial dummy controls and a set of variables capturing the highest level of education attained by the head that are not displayed in the table.[11]

[11] Each level of education attained by the head has the expected outcome- i.e. that each additional year of education has a stronger negative correlation with poverty than the previous level. The coefficients for education are also all significant at the 99.9 per cent level of confidence.

6. Conclusion

This paper has examined some of the characteristics that may make female-headed households, on average, more likely to be poor than male-headed households in post-apartheid South Africa. In order to explore the heterogeneity in vulnerability to poverty in greater detail, the analysis disaggregated the broad category of female headship into three different classifications. This categorisation not only identified *de jure* female-headed households as the most prevalent and fastest growing type of female-headed household in post-apartheid South Africa, but also the household type with the smallest decrease in income poverty over the period under review. Much of the growing poverty differential between female- and male-headed households that has been documented in the recent literature (cf. Posel and Rogan, 2011) is therefore likely 'due' to changes in this household type. The changing nature of household composition in female- and male-headed households has, in turn, largely been characterised by an increasing concentration of working age females and children in *de jure* female-headed households. As a result, *de jure* female-headed households, relative to male-headed households, have been increasingly likely to depend on income from working age women and this income is being spread over a growing proportion of household members who are too young to enter the labour market.

Not surprisingly then, the paper has also demonstrated that female-headed households, on average, are disadvantaged in the labour market relative to male-headed households. *De jure* female-headed households contain far fewer employed members overall and a smaller (and decreasing) number of employed males. In fact, the vast majority (between 85.7 per cent and 87.8 per cent during the period under review) of female-headed households do not have an employed male resident in the household and, in 2006, nearly half had no employed members at all. Moreover, even though there was no change in the average number of employed household members between 1997 and 2006 in female-headed households (and an actual decrease in male-headed households), this change was predominantly in the form of rising employment rates among female householders (and female heads in particular). However, average monthly earnings among employed individuals residing in female-headed households were consistently and significantly lower than for employed individuals in male-headed households. Against this backdrop, it is not surprising that income from social grants became increasingly important, in these households, over the period.

The logit model demonstrated further that the main characteristics that distinguish female- and male-headed households are significantly associated with the risk of poverty. For example, not only are the employment status of the head and the number of employed household members, in particular, two of the strongest protectors against poverty, but these variables account for much of the poverty differential between all three types of female-headed households and male-headed households. Once the model also controls for the composition of households (i.e. the size of the household as well as the proportion of children and pensioners) the differential decreases even further. In other words, less access to earned income combined with the greater proportion of household members not active in the labour market (and children in particular) in female-headed households explains much of the higher risk of poverty in these households. Since this paper has also documented household compositional *changes* that have seen an increase in the proportion of children in female-headed households as well as the substitution of male earnings with female

earnings over the period, the logit models would suggest that the growing poverty differential between female- and male-headed households would be explained largely by these two factors.

In conclusion and with respect to government's efforts to combat unemployment, inequality and poverty in the post-apartheid period, enthusiasm for the recent reduction in income poverty rates should be tempered by the realisation that this decline has not been even across all household types. In addition, one of the main concerns with this growth in the poverty differential between female- and male-headed households is that it has occurred despite the growth in female employment and the expansion of the social grant system. One of the most likely explanations for this outcome is the accompanying household compositional changes that have meant that female-headed households, in particular, have substituted their traditional sources of income (i.e. from male earnings) with earnings from low-paid employment and social grant income. Moreover, and as suggested by the logit model, the risk of poverty is significantly higher in households with fewer employed members and this has likely been exacerbated by the increasing proportion of female-headed households that are solely dependent on women's earnings and/or social grants. In addition, the fact that this income had to be shared (increasingly) with household members who were too young to enter the labour market would explain why earned income did not reduce poverty rates in (*de jure*) female-headed households by as much as in male-headed households. It might be argued, then, that the widening poverty differential (between female- and male-headed households) is one of the more tangible markers of persistent labour market disadvantages for women, declining access to male earnings and the increasing responsibility that female-headed households undertake for providing for children.

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