

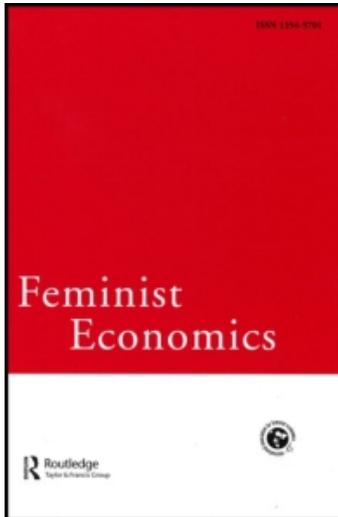
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Divorced, Separated, and Widowed Women Workers in Rural Mozambique

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DIVORCED, SEPARATED, AND WIDOWED WOMEN WORKERS IN RURAL MOZAMBIQUE

Carlos Oya and John Sender

ABSTRACT

A remarkably high proportion of women wage workers in rural Mozambique are divorced, separated, or widowed. This paper explores the factors underlying the difference between the marital status of these wage workers and other rural women in Mozambique and establishes a strong relationship between labor-market participation and female divorce or widowhood. The association is likely to work in both directions. Moreover, contrastive exploration suggests that divorced and separated women differ from partnered women in many other important respects: they tend to have access to better jobs, and divorced and separated mothers are also remarkably good at investing in their daughters' education compared with other mothers and male respondents. This paper concludes by stressing the limits of regression techniques in teasing out causation and interactions between variables, and by suggesting that policies to increase women's access to decently paid wage employment could make a substantial difference to the welfare of very poor rural sub-Saharan African women and their children.

KEYWORDS

Divorce, labor markets, education, Africa, Mozambique

JEL Codes: J12, J16, J43

INTRODUCTION

This paper explores in some detail the lives and employment prospects of divorced, separated, and widowed rural women in Mozambique. The fate of these women is not only important in the context of Mozambique. A great many extremely poor people in sub-Saharan Africa, especially in southern Africa, live in similar rural households that do not receive regular support from a male spouse. In the poorest African households, the ratio of adult males to adult females is relatively low or there are no adult males at all (David Stifel, David Sahn, and Stephen Younger 1999; John Sender 2002, 2003; Richard Erlebach 2006).¹

The Mozambican Rural Labor Survey (MRLS) captured precisely the type of household that nationally representative expenditure surveys in

Mozambique have classified as extremely poor. For example, many of the MRLS households suffer from at least as much deprivation – measured in terms of the lack of assets and inadequate education – as the *poorest* expenditure quintile of households surveyed by the Inquérito aos Agregados Familiares (IAF) in 2002/03 (Instituto Nacional de Estatística [INE] 2004) in the same provinces of Mozambique (Christopher Cramer, Carlos Oya, and John Sender 2008). Thus, an analysis focused on divorced, separated, and widowed women in rural areas is likely to provide insights into extreme poverty that are directly relevant to policy debates on poverty reduction in Africa.

These policy debates tend to focus on expanding funding for micro-credit to support self-employment, despite the fact that there is too little evidence in Africa or elsewhere to justify belief in the poverty-reducing impact of these conventional policies (John Weiss and Heather Montgomery 2005). Most donors, nongovernmental organizations, and government agencies continue to believe as an article of faith that the poverty of rural women can be effectively reduced by efforts to promote and subsidize self-employment in micro-enterprises, rather than wage employment. In contrast, the evidence and analysis presented in this paper, focused on a sample of the poorest women in Mozambique, suggests that increasing women's access to decently remunerated wage employment, as well as lowering the barriers of paternalist coercion within and outside the family, could make a substantial difference to the welfare of these women and their children.

This paper will also address how the availability of decent wage employment may allow, or even encourage, some relatively well-educated women to “make the choice” of attempting to live without a male partner. However, other women are likely to become divorced or separated through no choice of their own. Instead, men may decide to leave their female partners if their partners fail to give birth to a son or a sufficient number of children because of biological factors over which these women have no control. This pattern of male behavior is apparent in the results of research in some wealthier economies, which concludes that women who have given birth to a son are considerably *less* likely to become divorced and more likely to marry than women who have given birth to a daughter (Shelley Lundberg 2005). In addition, ethnographic work in rural Nigeria and Ethiopia suggests that a series of child deaths or childlessness in a marriage can precipitate divorce (Last Murray 1992; Dana Tilson and Ulla Larsen 2000). This article uses MRLS data to discuss the relationship between the birth histories of women, the number and gender of the children they have produced, and their divorce or separation status.

Women, even relatively well-educated women, may also be unable to “choose” to enter the local labor market, if they live in a rural area in which the demand for women wage workers is low and stagnant.²

Intuitively, in contexts where employment opportunities are scarce, poor women are more likely to be compelled to remain in relationships with men in order to survive. Thus, this article also discusses the importance of another (demand-side) factor that women cannot control, especially whether they live in, or have the resources to finance migration to, an area in which the labor market is dynamic.

Many divorced, separated, and widowed women are extremely poor, as noted above. However, looking at the degrees of poverty and the education of children in the MRLS highlights the fact that being divorced or separated does not necessarily condemn all of the rural women concerned, or their children, to poverty. This article distinguishes between the poverty implications of (1) widowhood and (2) divorce or separation. It focuses on reporting some important and perhaps surprisingly strong results concerning the relatively successful performance of Mozambican divorced and separated women in educating their children, and in narrowing the gaps between the education of their daughters and sons.

The paper concludes by emphasizing the limits of regression techniques and the methodological difficulties to be overcome in future research and then raises some questions for policy-makers.

SURVEYS

First, we need to establish the actual proportion of divorced, separated, or widowed females in Mozambique, as the two surveys available to assess this number provide very different estimates. One aim of this paper is to account for the remarkable differences in the results of contemporaneous surveys: the characteristics of adult female respondents (aged 15–49) in the Mozambican Rural Labor Survey (MRLS) differ from the characteristics of Mozambican women captured in a nationally representative Demographic and Health Survey (DHS), although both surveys were conducted in 2002–3 (INE 2005).³ One particularly striking difference is that, in the MRLS, a remarkably *high* proportion of the female respondents (about 37 percent) are currently divorced, separated, or widowed (Table 1). In contrast, only about 14 percent of all women in the relevant age group (15–49) in the DHS are currently divorced, separated, or widowed (Table 2). An even smaller percentage of *rural* women (11.6 percent) in the DHS are divorced, separated, or widowed.

In addition, the provincial distribution of divorced, separated, and widowed women in the DHS is very different from that found in the MRLS: In the MRLS there is a very high incidence of divorce, separation, and widowhood among women in Manica Province (46 percent). However, in the DHS, the incidence of divorce, separation, and widowhood among women in Manica is *not* particularly high – just 10.4 percent – and is actually below the average national incidence (13.9 percent).⁴

Table 1 Marital status of female principal respondents aged 15–49 years in the MRLS

		Province			Total
		Nampula	Zambézia	Manica	
Not divorced/widowed/ separated	Count	257	220	217	694
	% within province	69.9%	65.6%	53.9%	62.8%
Divorced/widowed/separated	Count	111	115	186	412
	% within province	30.2%	34.0%	46.0%	37.3%
Divorced/separated	Count	82	66	114	262
	% within province	22.3%	19.7%	28.3%	23.7%
Total	Count	368	335	403	1,106

Table 2 Marital status of women aged 15–49 years in the DHS

	Urban (%)	Rural (%)	National (%)	Nampula (%)	Zambézia (%)	Manica (%)
Not divorced/widowed/ separated	82.3	88.4	86.1	88.1	87.5	89.6
Divorced/widowed/ separated	17.7	11.6	13.9	11.9	12.5	10.4
Widowed	1.1	0.8	0.9	0.5	2.7	1.1
Divorced/separated	16.6	10.8	13.0	11.4	9.8	9.3

This paper attempts to account for these differences in the results of the two surveys. The obvious starting point for an explanation of the relatively high incidence of divorced, separated, and widowed women in the MRLS is to examine the differences between the MRLS sampling method and the methods used by the DHS (and the IAF). The MRLS was specifically designed to investigate labor-market issues, and *all* of the principal respondents were currently employed and earning wages.⁵ Although the MRLS sample was not statistically representative (there was no available sampling frame for wage workers),⁶ the sample was designed to ensure maximum variation and the inclusion of the most important types of rural wage jobs in the selected provinces, based on those sources that could be used as “proxy” sampling frames (like the Agricultural Census 1999/2000 [INE 2003], district lists of employers, and so on). The range of occupations and types of employers captured was large enough to ensure that sufficient diversity was achieved to make the results statistically relevant and to cover all of the most important rural labor markets within the selected provinces. An effort was made to avoid sample-selection bias: we

sampled workers employed by a large variety of small- to mid-size farmers and other types of rural employers, avoiding a bias toward workers in large plantations or agribusiness. The combination of care taken to build appropriate sampling frames, the large sample size, and the principle of maximum variation provide grounds to believe that the MRLS provides the best available information on the characteristics of rural wage workers in the provinces selected.

In contrast, the DHS and IAF did *not* purposively sample women (or men) who were wage employed but drew samples that were *statistically* representative of the population at the provincial level for the age groups concerned (in the case of DHS, the focus is on women aged 15–49 years old).⁷ The only other Mozambican survey that has exclusively focused on women wage workers found that the incidence of divorced and widowed women was as high (38 percent) as in the MRLS (Carin Vijfhuizen and Carla Braga 2003), suggesting that there is likely to be a relationship between marital status and patterns of labor-market participation.

Moreover, the life histories of women collected as part of the MRLS research confirmed that marital status has a strong influence on patterns of labor-market participation. Many women told the researchers that they became wage workers following the death of or desertion by their spouse or that they left the labor market as soon as they married or began to cohabit.⁸ These statements highlight the need to examine interactions between labor-market participation and current marital status, and one major objective of this paper is to assess the importance and implications of these interactions. Since other attributes apart from marital status are also likely to influence girls' and women's labor-market participation, including their levels of education, this study uses contingency tabulations, non-parametric tests, and logistic regressions to analyze some of the most plausible interactions among labor-market participation, education, and marital status.

THE AGE DISTRIBUTION AND EDUCATION OF DIVORCED, SEPARATED, AND WIDOWED WOMEN

Women in their 20s and 30s are much more likely to be divorced or separated in the MRLS than in the DHS, although there is a sizable number of divorced and separated teenagers in both surveys.⁹ The proportion of divorced and separated women in the DHS only begins to get close to the proportion in the MRLS after women reach the age of 40.

It is important to note that because of its focus on labor-market issues, the MRLS only obtained information on respondents' *current* marital status, failing to collect information on whether women had ever been married, the number of times they had been married, or the duration of previous marriages. Nevertheless, it is possible to make a simple snapshot

comparison of the incidence of divorce and widowhood across age groups in the MRLS and DHS, as shown in Table 3. Unsurprisingly, widowhood is more common in the older age groups (30+ years old) in both surveys, but it is important to emphasize the much *higher* incidence of widowhood, even among teenage women, in the MRLS than in the DHS. In fact, the strikingly high incidence of widowhood, and of divorce and separation in the younger age groups, in the MRLS accounts for much of the difference between the proportions of divorced, separated, and widowed women in the two surveys.¹⁰ Moreover, most of the older women (aged more than 60) in the MRLS are widows, suggesting a very strong correlation between labor-market participation and widowhood in this age group. Figure 1 illustrates the large differences between the MRLS and DHS in the proportion of widows found in Nampula, Zambézia, and Manica provinces.

Table 3 Incidence of divorce and widowhood by age in MRLS and DHS

Age group	Divorced/separated (%)		Widowed (%)	
	MRLS	DHS	MRLS	DHS
15-9	12.8	5.1	2.7	0
20-4	26.2	13.3	5.9	0
25-9	30.5	13.2	9.3	0.5
30-9	24.1	14.6	17.2	0.9
40-9	20.4	19.0	29.8	3.5
50-9	15.6	—	48.9	—
60+	8.9	—	68.9	—

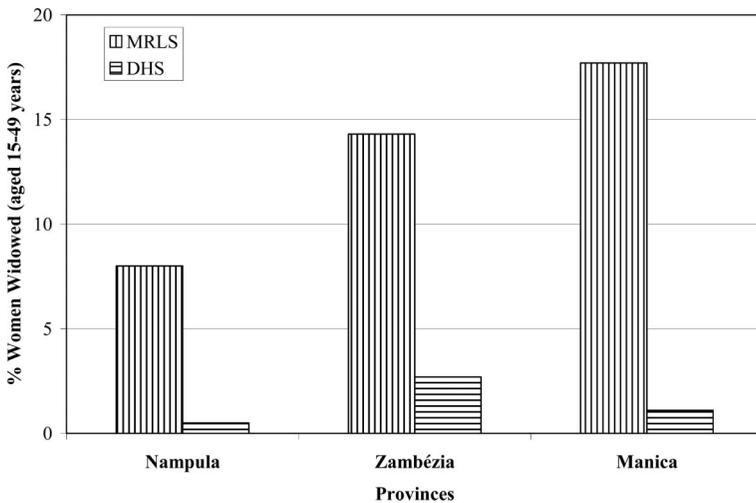


Figure 1 Provincial distribution of widowed women in the MRLS and the DHS

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It has been argued on the basis of DHS data that ethnicity can account for local differences in the rates of divorce and separation in Mozambique; for example, Carlos Arnaldo suggests, “the absence (or low value) of bride-wealth payments in matrilineal marriage makes divorce easier, while high bride-wealth payments and the fact that children belong to the husband’s lineage among the patrilineal ethnic groups make divorce difficult in these societies” (2004: 161). In addition, several ethnographic studies have reported high rates of marital instability among the matrilineal Macua, who are concentrated in Nampula province. However, the incidence of divorce and separation among women in Nampula province is relatively *low* in the MRLS (22.3 percent), compared with Manica province (28.3 percent). Besides, even the DHS results do not suggest that the incidence of divorce and separation among women is particularly high in Nampula (11.4 percent) compared with the national incidence (13.0 percent). It seems unlikely that the ethnic composition of the MRLS can provide a satisfactory account of the extremely high incidence of divorce and separation among women in this survey, especially in Manica province.

It is possible that the provincial distribution of HIV/AIDS mortality and the distribution of mortality in the Mozambique civil war have affected the distribution of widows across provinces in Mozambique. Unfortunately, data on the provincial distribution of HIV prevalence, as shown in Table 4, are unreliable (John Sender, Christopher Cramer, and Carlos Oya 2005).

Table 4 Provincial urban and rural HIV-prevalence rates and rural mortality rates for adults 15–49 years

<i>Province</i>	<i>Adult death due to illness in rural areas (1999–2002)</i>	<i>Rural and urban adult HIV-prevalence rates (2002)</i>
	<i>% of adults within province</i>	
Niassa	5.4	11.1
Cabo Delgado	5.9	7.5
Nampula	3.3	8.1
Zambézia	5.0	12.5
Tete	5.3	14.2
Manica	7.5	19.0
Sofala	4.9	26.5
Inhambane	3.5	8.6
Gaza	7.6	16.4
Maputo	5.8	17.4
National	5.2	13.6

Source: David Mather, Cynthia Donovan, Michael Weber, Higinio Marrule, and Albertina Alage (2004: 6) drawing from TIA 2002 Rural Survey (Ministério de Agricultura e Desenvolvimento Rural [MADER] 2002) and Health Ministry data.

Nevertheless, these data do indicate relatively *low* prevalence in Nampula province (8.1 percent), which may account for the smaller proportion of widows found in that province in both the DHS and the MRLS. Manica appears to have a relatively high HIV-prevalence rate (19.0 percent), and there is a correspondingly high proportion of widows in the MRLS (22.7 percent). But in the DHS, there is a surprisingly low proportion of widows (1.1 percent) in Manica. The *Trabalho do Inquérito Agrícola* (TIA), organized by the Ministério de Agricultura e Desenvolvimento Rural (MADER 2002), collected provincial data on adult rural mortality rates in 2002, also shown in Table 4. The TIA 2002 results confirm that Manica has experienced relatively *high* adult mortality in recent years and suggests that the low prevalence of widows in the DHS is anomalous.¹¹

The MRLS finds that educated women are *more* likely to be divorced or separated than less-educated women. The DHS finds a similar relationship if women with or without primary schooling are compared, but not if women with secondary education and beyond are considered (INE 2005: 89).¹² In the MRLS, Table 5 shows that a notably higher proportion of divorced and separated women completed primary school than women who were not divorced or separated. The average number of years of schooling completed by divorced and separated women is also manifestly higher than the average for other women. Widows in the MRLS, especially older widows, appear to have had very limited access to education.¹³ Despite these statistically significant differences, it should be noted that the gap between the benefits women derive from three as compared with two years of schooling may not be very important, especially if the quality of primary education is low and uneven.

However, it is reasonable to expect that the superior level of education achieved by the divorced and separated women in the MRLS results in

Table 5 Education of female respondents by marital status in the MRLS

		<i>Divorced/ separated</i>	<i>Not divorced/ separated</i>	<i>Widowed</i>
	Never at school (%)	34 (32)	42 (39)	63 (40)
	Completed primary school (%)	16 (15)	11 (11)	8 (12)
Average years of schooling	Mean	3.1 (3.0)	2.44 (2.5)	1.66 (3.0)
	S.E. of mean	0.17 (0.24)	0.09 (0.13)	0.18 (0.35)
	Median	3.0 (3.0)	2.0 (2.0)	0 (3.0)
	N	274 (145)	949 (399)	204 (76)

Notes: Figures in parentheses refer to female respondents in the age group 25–39 years. Older women in the MRLS had less opportunity to attend school since there were fewer rural primary schools in Mozambique when they were girls. Primary school construction in rural areas only expanded rapidly in the early 1990s (Sudhanshu Handa 2002: 111).

a different pattern of labor-market participation for these women compared with non-divorced and non-separated women and widows. The following section of the paper investigates this issue.

INTERACTIONS AMONG LABOR MARKET PARTICIPATION, EDUCATION, AND MARITAL STATUS

The women interviewed in the MRLS work in a wide array of occupations and enterprises for very different wages. The relatively weak bargaining power of all these wage workers, especially casual agricultural workers and domestic servants, means that many of them live on pitiful and irregular wages and receive few, if any, non-wage benefits. However, the MRLS also shows that some types of employers – typically larger employers with more access to capital – are able to offer decent jobs and much better working conditions to their female workers. An earlier paper has examined these differences, making a distinction between “good” rural jobs (in the agricultural and non-agricultural sector) and the most irregular, worst, or “bad” jobs in the agricultural sector (Cramer, Oya, and Sender 2008). To summarize, “good” jobs were generally regular, paid monthly, offering median wage rates between one-third and 50 percent higher than the rates for “bad” jobs, which were characterized by their *irregularity* and a high incidence of piece-rate payments. Moreover, working conditions were far superior in “good” jobs, in terms of the provision of meals, accommodation, loans, and compensation for overtime. “Good” jobs were dominated by male workers (65 percent) in the MRLS sample; two-thirds of the workers with inferior jobs were women.

The first hypothesis to be examined here is that the women who are working in “bad” jobs are likely to be *less* educated than other women in the MRLS. Table 6 confirms that (relatively well-educated) divorced and separated women are more likely than (less-educated) non-divorced and non-separated women to find “good” jobs, and that they are less likely to have to resort to the worst type of irregular job, that is, casual agricultural wage labor for a few days a month.¹⁴ Table 6 also shows that widows, the least well educated of all the respondents, are more likely to have a “bad” job than divorced and separated women. However, it is important to note that widows are relatively successful in obtaining “good” *agricultural* jobs; they are as successful as divorced and separated women and *more* successful than non-divorced and non-separated women. Their success suggests that acquiring a “good” job, especially a “good” job in agriculture, is *not* solely determined by their levels of education, meaning that some poorly educated women are able to find “good” jobs. This suggestion is supported by the results of logistic regressions reported in the Appendix.¹⁵

Logistic regressions that control for years of education and age (among other covariates) independently and as interaction terms with marital status

Table 6 Quality of job and marital status of female respondents in the MRLS

	<i>Marital status of female worker</i>			<i>Phi coefficient DS - job</i>	<i>Phi coefficient W - job</i>
	<i>Not divorced/separated (%)</i>	<i>Divorced/separated (%)</i>	<i>Widowed (%)</i>		
Good job (all sectors)	19	32	21	0.129***	-0.014 ^{n.s.}
Good job in agriculture	8	15	15	0.088***	0.075***
Bad job in agriculture	36	23	35	-0.116***	0.015 ^{n.s.}

(a) DS = divorced or separated; NDS = non divorced/separated; W = widow.

(b) "Good job" definition = paid monthly and more regular employment;

"Bad job" definition = casual agricultural for few days per month.

(c) Phi is a non-parametric coefficient of association between two dichotomous variables; ***denotes significant association at 1%, ** at 5% and * at 10%, n.s. = not statistically significant.

(d) Sample size for this analysis is 1,227 respondents.

suggest that marital status – being divorced, separated, or widowed – has a strong independent and positive effect on the odds of obtaining a "good" job, especially in agriculture. At the same time, regressions trying to explain divorce and separation show that the type of labor-market participation (whether having a "good" or a "bad" job) has a strong effect on the likelihood of divorce or separation. In fact, the results suggest that a woman with a "good" job is 3.3 times more likely to be divorced or separated than a woman with a "bad" job, after controlling for education and other demographic variables (see Appendix). The relationship is complex and probably works in both directions, as women finding good jobs and being more educated can achieve an autonomy that is positively correlated with divorce or separation. Part of the explanation for the finding that so many non-divorced and non-separated women are employed in "bad" jobs may be the fact that men (husbands or fathers) are preventing them from working in better types of jobs; men fear that women will have better opportunities to meet male co-workers if they commute to work in (large-scale) enterprises offering regular employment (John Sender, Carlos Oya, and Christopher Cramer 2006: 316). Some additional data from the MRLS can be used to explore this explanation further.

The MRLS contains some information on the labor-market participation of another, larger group of adult women (3,556 women aged between 15 and 64 years), who live in the same households as the female (and male) principal respondents.¹⁶ Only about 15 percent of these women are divorced, separated, or widowed, but these 532 women were more likely to be working *regularly* for wages than the non-divorced and non-separated female household residents. When non-divorced and non-separated female

household residents participate in the labor market, they are more likely than divorced, separated, and widowed women to work only sporadically, often in “bad” jobs for neighboring farmers. These findings are consistent with the suggestion that patriarchal relations may be preventing women from traveling any distance to obtain regularly paid employment; they are reinforced by horrifying reports of male partner violence directed against Mozambican women who attempt to work regularly for wages (Kathleen E. Sheldon 2002: 156), as well as by other studies that analyze the physically violent consequences of men’s reaction to changes in the gender distribution of wage employment opportunities (Margrethe Silberschmidt 1999; Ross Macmillan and Rosemary Gartner 1999; Lorenzo Blanco and Sandra M. Villa 2008).

WOMEN’S “CHOICES”

The data in the preceding section could be interpreted as suggesting that women who have completed relatively more years of schooling are able to “choose” to reject male ideological domination and abusive treatment. The argument would be that more-educated, confident women can and do choose divorce or separation, and for them, this choice is a feasible option *because* they are more likely to succeed in finding decent jobs. Their confidence and relatively high levels of education may stem from the fact that their own family background was sufficiently prosperous both to pay for girls’ education and to establish kin networks that facilitated their successful job searches.¹⁷ However, it is not possible to establish the causal links implied by this argument. One problem is that it could equally be argued that women’s ability to choose to leave men is *not* primarily influenced by their level of education, since many poorly educated women also appear to have left men, even when their labor-market prospects are rather bleak.

An alternative argument is that the “choices” faced by both more- and less-educated women are strongly constrained by the level and pattern of demand for women workers in the local labor market. A relatively high proportion of the women interviewed in the MRLS in Manica province were divorced or separated, as shown in Table 1. Part of the explanation for this finding may be the fact that the level and rate of growth of investment in women’s wage labor in intensive agribusiness has been high in tobacco-growing areas like Manica compared with other provinces (Rui Benfica, Julieta Zandamela, Arlindo Miguel, and Natércia de Sousa 2005).¹⁸ Thus, labor-market demand within Manica may have allowed, or even encouraged, a high proportion of women to attempt to survive on their own.¹⁹ Of course, individual women (and men) have little control over the patterns of demand for their labor, but changes in local or more distant labor-market opportunities may precipitate changes in marital status – including the

effective desertion of women by men migrant laborers.²⁰ The use of logistic regression techniques to “explain” either women’s marital status or their degree of success in labor markets does not help a great deal in untangling and ranking the most important of these and other plausible causal processes. At best, these regression results (further discussed in the appendix) point to the complexity and the range of different factors influencing uncertain outcomes for women in the labor market and in their relationships with men.²¹ Besides, the concept of “choice,” or constrained “choice,” however fashionable in mainstream economics, is clearly inappropriate when analyzing the behavior of desperately poor Mozambican women regularly coerced by violence and/or acute hunger (Amit Bhaduri 1986).

Some of the life histories of illiterate women collected during the fieldwork for the MRLS emphasize another important aspect of women’s inability to “choose” their relationships with men. For example, the case of Amalia (discussed at greater length in Sender, Oya, and Cramer [2006]) illustrates how little control some women have over whether or not they become divorced or separated. Amalia was married twice as a very young girl, but both of her husbands sent her back to live with her father because she failed to produce any children. To escape persistent accusations of witchcraft, Amalia left her father’s home, migrated in search of rural wage employment within the province, and eventually established a new relationship with a man. Unfortunately, the child she bore with this man died at the age of three months, and she was again abandoned. When she was interviewed, she had been living on her own in acute poverty for many years and was not planning to attempt another relationship.²²

Amalia’s example, as well as some literature on divorce in Organisation for Economic Co-operation and Development (OECD) economies, suggests that women who fail to have children, as well as women who fail to have sons, are far less likely to marry or remain married (Lundberg 2005).²³ Thus, the probability of being divorced and separated may be influenced by differences in the birth histories of the female principal respondents in the MRLS.²⁴ In fact, a relatively high proportion of the divorced and separated principal respondents in the MRLS did *not* have a son who was alive at the time of the survey (23 percent), compared with non-divorced and non-separated women (17.8 percent).²⁵ More importantly, divorced and separated women had a consistently *lower* number of living children than non-divorced and non-separated women, as shown in Table 7.

DEGREES OF POVERTY AND THE EDUCATION OF CHILDREN IN THE MRLS

Evidence from longitudinal survey data in OECD economies suggests that both divorce and widowhood result in “prolonged economic hardship for

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Table 7 Number of living children of divorced and separated and non-divorced and non-separated female principal respondents in the MRLS

<i>Marital status</i>	<i>Number of living children</i>		<i>Std. error of mean</i>	<i>N</i>
	<i>Mean</i>	<i>Median</i>		
Non-divorced/non-separated	2.99 (3.27)	3.00 (3.00)	(0.07) (0.08)	793 (399)
Divorced/separated	2.39 (2.56)	2.00 (3.00)	(0.10) (0.13)	275 (146)
Total	2.84 (3.08)	3.00 (3.00)	(0.06) (0.08)	1068 (545)

Notes: Figures in parentheses refer to female respondents in the age group 25–39 years. The exclusion of younger and older women does not alter the conclusion that divorced or separated women are likely to have had fewer children.

women and, if present, their children’’ (Karen C. Holden and Pamela J. Smock 1991: 74; Pamela J. Smock, Wendy D. Manning, and Sanjiv Gupta 1999). Similarly, while all the female respondents in the MRLS live in households that are, on average, much poorer than other rural households in Mozambique (as noted above), widowed respondents live in households that are particularly deprived. However, there is marked differentiation in the degree of deprivation suffered by MRLS households, and not all divorced and separated women live in abject poverty. These differences among households, in terms of the severity of their poverty, have been analyzed by constructing a simple possessions score (determined by household access to basic material assets, such as a toilet, shoes, beds, paraffin lamps, watches/clocks, and radio cassettes).²⁶ Possessions scores ranged between a minimum of -1 (reflecting no access at all to the simplest assets) and a maximum of 5. The mean score for the households of female respondents is 1.19, and the standard deviation is high at 1.63.²⁷ The poorest group of households, the bottom third, was defined as those with a possessions score between -1 and 0, while the least poor households (27 percent of all households) were defined as those with a possession score of 3 or more.

The unevenness of the distribution of possession scores among all the respondents in the MRLS is illustrated in Figure 2, while Table 8 gives the possessions scores for the households of female MRLS respondents by marital status. The scores for widows are indeed very low, consistent with the very low levels of education achieved by widows, particularly older widows, shown in Table 5. However, the distribution of possessions scores in Table 8 suggests that divorce and separation do *not* necessarily condemn women to extreme poverty. In fact, the mean possessions score for divorced and separated women is marginally higher than the score for non-divorced and non-separated women (1.29 compared with 1.16), and 26 percent of

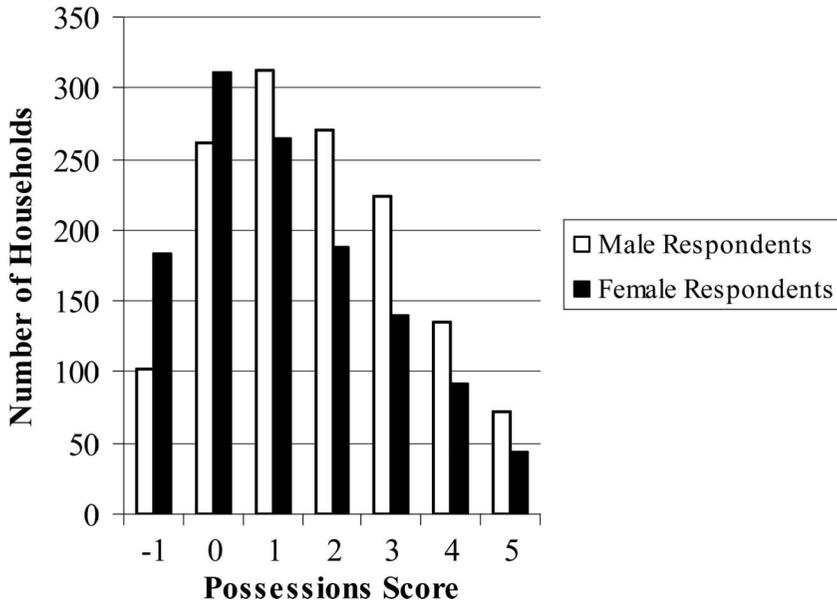


Figure 2 The distribution of possessions scores in the MRLS

Table 8 Possessions scores for divorced, separated, and widowed female respondents in the MRLS

	<i>Female respondents</i>			<i>All</i>
	<i>Non-divorced/ non-separated</i>	<i>Divorced/ separated</i>	<i>Widowed</i>	
Possessions score mean	1.16	1.29	0.88	1.19
Possessions score median	1.00	1.00	1.00	1.00
% in poorest class	40	41	47	41
% in least poor class	21	26	17	22
N	952	275	202	1227

divorced and separated women are in the least poor class of household, compared with 21 percent of non-divorced and non-separated women. Thus, despite gender discrimination in rural labor markets, some divorced and separated women can earn enough to escape the most degrading poverty and the worst living conditions. The specific characteristics of this small and successful group of divorced and separated women, the “pioneers of new social possibilities for women” (Naila Kabeer 1997: 299), have been discussed in more detail in an earlier paper (Sender, Oya, and Cramer 2006).

WOMEN WORKERS IN RURAL MOZAMBIQUE

Another dimension of household welfare, apart from access to material goods, is certainly not adversely affected by a divorce or separation. Divorced and separated women clearly achieve better results in educating their children than other women. Divorced and separated mothers are especially good at investing in their daughters' educations compared with non-divorced and non-separated mothers. Thus, in absolute terms, the daughters of divorced and separated women have achieved more schooling (in terms of the mean and median number of years of schooling completed) than the daughters of non-divorced and non-separated women, as shown in Table 9. Moreover, the education gap between daughters and sons of divorced and separated mothers is *smaller* than the corresponding gap between the daughters and sons of non-divorced and non-separated mothers, meaning that divorced and separated mothers favor their sons far less than non-divorced and non-separated mothers. Figure 3 shows that the size of the gender gap, measured by the ratio of the mean or median years of education achieved by sons compared with daughters, is much larger for non-divorced and non-separated than divorced and separated mothers.

It is not surprising that the sons of the male principal respondents in the MRLS have had more years of education (a mean of 5.39 years) than other children in the MRLS, since their fathers are more educated and earn higher wages, on average, than women wage workers. It is more surprising that the children of divorced and separated female principal respondents are, on average, better educated than the children of male principal

Table 9 Education of sons and daughters of female and male principal respondents in the MRLS

		<i>Female principal respondents</i>			
			<i>Divorced/ separated</i>	<i>Non- divorced/ non- separated</i>	<i>Male principal respondents</i>
	<i>Variable</i>	<i>Stat</i>			
Children 16 yrs +	Years of schooling	Mean	4.62	4.25	4.36
		Median	5.00	4.00	4.00
^a Sons 16 yrs +	Years of schooling	Mean	5.29	4.89	5.39
		Median	5.00	5.00	5.00
^b Daughters 16 yrs +	Years of schooling	Mean	3.93	3.40	3.23
		Median	4.00	3.00	3.00

Notes: ^aFor female principal respondents N=414; for Male principal respondents N=209. ^bFor female principal respondents N=334; for male principal respondents N=189.

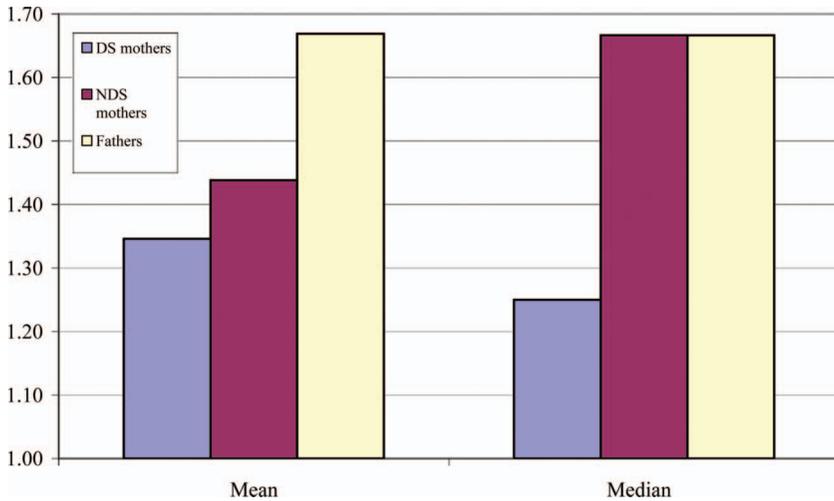


Figure 3 Ratio of sons and daughters' years of schooling in the MRLS, male principal respondents and divorced and separated (DS) and non-divorced and non-separated (NDS) female principal respondents

respondents because the daughters of divorced and separated women boost the average by being better educated than the daughters of male principal respondents (Table 9). The median number of years of education completed by the daughters of divorced and separated women is four years, compared with three years for the daughters of male principal respondents. Although the sons of divorced and separated women do complete more years of education than their daughters – 5.29 years compared with 3.93 years (equivalent to 35 percent more years), the sons of male principal respondents are even more privileged, receiving 70 percent more years of education than the daughters of the principal male respondents. Thus, the size of the gender gap between the education of sons and daughters is particularly large for the children of the male principal respondents, very much larger than the gender gap for the children of divorced and separated women (Figure 2).

This MRLS evidence – that in households where women have greater autonomy in making resource allocation decisions, the welfare of daughters is less likely to be neglected than in other households – confirms patterns found in the international literature on gender gaps in education and nutrition (Duncan Thomas 1994; Esther Duflo 2003; Joyce J. Chen 2005; Farzana Afridi 2005; Naila Kabeer 2005; Marcos A. Rangel 2006). However, the estimates of “autonomy” in this literature have not considered divorce or separation as an unambiguous indicator of women’s ability to act independently. The intergenerational poverty reduction impact of female education is also widely recognized (Thomas P. Schultz 2002), and the

MRLS does find that divorced and separated mothers are more highly educated, even if the differences are not statistically very significant.

However, the positive impact of women's ready access to decent wage employment opportunities on investment in their daughters' futures, has received much less attention in the literature but appears in this paper as a critical factor. The focus in the literature is usually on maternal education as predicting the level of child education, particularly the education of girls, rather than on the types of wage employment open to women.²⁸ In fact, wage employment for women "is generally associated with lower levels of education of girls, most often the oldest girl who substitutes for her mother in the domestic division of labor" (Naila Kabeer 2003: 37). This paper has, in contrast, emphasized the fact that divorced and separated women are more likely to have "good" jobs *and* to educate their daughters, facts that cannot be explained solely by reference to their levels of education.

It is impossible to reach a definitive conclusion about the main causal processes here, but fieldwork insights concerning the relative success of some divorced and separated women do suggest a line of argument that could be the basis for further research. Some divorced and separated women have gained self-confidence through schooling as well as the emancipatory experience of a successful struggle to survive on their wage income without a male partner. As a result, they appreciate that their daughters would be unwise to rely on support from a man, especially if men continue to restrict women's access to the labor market. Instead, they believe that their daughters' welfare, and less altruistically, their ability to care for them in their old age, will be greater if their daughters remain at school for as long as possible.

CONCLUSIONS

The MRLS results suggest that the relationships among marital status, levels of education, forms of participation in wage labor markets, and the welfare of household members are complex; they vary over time, from place to place, and even from household to household, in rural Mozambique. This analysis of the MRLS results shows that regression techniques are not particularly helpful in teasing out causation and the interactions among variables. For example, it is not clear from the MRLS whether divorced and separated women should be regarded as having successfully emancipated themselves from patriarchal bonds or as "victims" of desertion by men and discriminatory labor markets, despite the potentially positive effects of their divorces and separations. Longitudinal data for a carefully sampled cohort of rural women might improve analyses of the complex processes and the causal links involved, but until cohort studies become available, there is still considerable scope for improving existing, internationally sponsored survey instruments and methods. For example, demographic and health surveys

need to collect more detailed data on the employment histories, wages, occupations, and working conditions of adult women.²⁹ At the same time, labor-market surveys, apart from filling the huge gaps in their coverage of “irregular,” seasonal, and casual workers in Africa – that is, the poorest women workers – need to recognize the importance of collecting information on the reproductive history of women and the timing of changes in their marital status.³⁰ Without this historical and demographic data, women’s patterns of labor-market participation and the prospects for reducing their poverty will continue to be poorly understood.

Of course, there is also ample scope for micro surveys and qualitative research focused on the life histories of rural women and their changing relationships with men and their children.³¹ MRLS life histories highlight lacunae in the data collected through the larger-scale quantitative survey, including the absence of reliable information on the sensitive issue of domestic violence. Another particularly important defect was the failure to collect data on the timing of periods of cohabitation and the history of women’s changes in marital status to complement the detailed questions on the timing of changes in employment and occupational status. The only data collected in the quantitative survey were on household members’ current marital status.

Nevertheless, the MRLS results might be a useful starting point for future research on employment and poverty dynamics. This paper used a logistic regression to test the conclusions that women are more likely to be divorced and separated if: (1) they are more educated, (2) they have fewer or no children, (3) they have a good job, and (4) they live in an area in which labor-market demand is high and/or rising.³² The regression results, as well as the descriptive statistics discussed above, suggested that each of these factors increases the probability that a woman was currently divorced or separated, but the regression did not perfectly predict whether a respondent was divorced or separated. Obviously, the probability of being currently divorced or separated is influenced by a wide range and combination of factors apart from those identified above.³³

This article also used descriptive statistics and logistic regression to explore the probability of obtaining a “good” job (in a better segment of the labor market). The results suggest that this probability increases considerably if a woman lives in Manica and if she is divorced, separated, or widowed. Controlling for other factors, the number of years of education completed by a woman did not appear to affect strongly the probability that she would have a better job and did not affect the likelihood of her finding a good agricultural job, even considering an interaction effect.

Divorced and separated women were relatively successful in educating their children, and in particular, in educating their daughters. This article suggests that in explaining this success, it might be useful to consider not only the well-known intergenerational links between the education of

mothers and daughters but also the role of decent wage employment opportunities in increasing women's ability to make more autonomous decisions on household expenditures.

The policy conclusion that there is an urgent need to devote substantially more resources to the education of rural girls in sub-Saharan Africa is commonplace. Unfortunately, there is little evidence of a commitment to such a policy by donors or the state in Mozambique, or elsewhere in Africa (Cynthia B. Lloyd and Paul C. Hewett 2003; Jean Claude Berthélemy 2006). There is even less evidence that donors have recognized the need for, or developed effective policies to promote, the massive investments in agribusiness and rural infrastructure required to increase the demand for female wage labor in rural Africa.³⁴ In fact, the share of official development assistance (and of government public expenditures) devoted to agricultural investments in Africa has remained remarkably small (World Bank 2007). Most donors, nongovernmental organizations, and government agencies continue to believe as an article of faith that the poverty of rural women can be reduced considerably by efforts to promote and subsidize self-employment in micro-enterprises, rather than wage employment.

After more than a decade of expanding funding for micro-credit to support self-employment, there is far too little evidence in Africa or elsewhere to justify belief in the poverty-reducing impact of these conventional policies (John Weiss and Heather Montgomery 2005). In contrast, the evidence and analysis presented in this paper, focused on a sample of the poorest women in Mozambique (divorced, separated, and widowed women working for wages in rural areas), has shown that increasing female access to decently remunerated wage employment, as well as lowering the barriers of paternalist coercion, within and outside the family, could make a very substantial difference to the welfare of these women and their children.

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NOTES

- ¹ The widely held view that widowed women in developing countries are “particularly prone to poverty” is discussed in John Knodel and Mary Beth Ofstedal (2003). Households containing divorced, separated, and widowed women are not always clearly identified in African poverty surveys, which often classify households in terms of misleading categories, such as “female headed” or “de-facto female headed.” For a critical discussion of attempts to link female-headed households to poverty, see Jane Guyer and Pauline Peters (1987) and Jean Drèze and P.V. Srinivasan (1998).
- ² This lack of choice has been well documented in other contexts. For example, between 1920 and 1940, there were large differences among the labor-force participation rates of young women across different regions of England, reflecting marked local differences in levels of demand in geographically distinct labor markets (Selina Todd 2005: 57).
- ³ The MRLS was the first ever large-scale survey of the rural labor market in Mozambique. In this survey conducted in 2002–3, a detailed questionnaire was completed for 2,626 people working for wages in the rural areas and small district towns of three provinces in Mozambique. The MRLS was not statistically representative of the *overall* rural population in the three provinces covered (Nampula, Manica, and Zambézia). The sample was purposively constructed to ensure maximum variation and the inclusion of all the most critical types of rural wage jobs in the selected provinces. The team prepared several complementary sampling frames (using the Agricultural Census 1999/2000 – see Instituto Nacional de Estatística [INE] 2003; the most recent National Household Survey, Questionário de Indicadores Básicos de Bem-Estar [QUIBB] 2000/01, see [INE] 2001) and district administration lists of employers and agricultural producers to facilitate a sufficiently representative selection of cases, taking account of the proportion of types of employers and jobs, and ensuring that key cases were not missed. According to population census statistics (for projections from 1997, see INE 2000), these three provinces together account for about 45 percent of the total population in Mozambique and around 50 percent of Mozambique’s total rural population. They also produce a considerable proportion of the national output of important cash crops, including tobacco, cotton, and sisal. Much of the output of these crops is produced on relatively large-scale farms, which are responsible for employing a sizable proportion of the total number of wage laborers (these data were derived from the Agricultural Census 1999/2000 [INE 2003], which was used as one of the sampling frame sources for the MRLS).
- ⁴ Moreover, the published DHS data refer to the *total* population in each province. The only DHS data disaggregated into rural and urban areas are at the national level, which indicate that the rates of divorce, separation, and widowhood in urban areas

are 1.7 times higher than in rural areas. If we apply the DHS's national rural-urban ratio for divorce, separation, and widowhood rates to the tabulated provincial data, we can estimate that the rate for *rural* Manica in the DHS would be between 8 and 9 percent, compared with a rate of almost 50 percent in the MRLS.

- ⁵ Unless otherwise stated, the analysis of women (and men) in this paper is based on data concerning these "principal" respondents. The use of the term "principal" does not have any connotations of "headship"; the MRLS did not attempt to identify a household "head." Households are defined in terms of economic relationships among members, rather than the narrower residential or sociological relationships commonly used in socioeconomic surveys (John Sender, Carlos Oya, and Christopher Cramer 2006).
- ⁶ The available official statistics not only fail to collect information on employees in enterprises employing fewer than ten workers, but they also exclude many enterprises employing more than ten workers if, as is often the case, these enterprises are not legally registered. Ministry of Labour officials lack the resources, training, and incentives to investigate employment, especially seasonal and temporary employment in many local firms.
- ⁷ Comparisons between the MRLS and DHS samples, therefore, should be made taking into account that the sampling methods were not the same, as the purpose and target population were different. The particular demographic characteristics of women sampled in the MRLS are certainly worth contrasting with an "average representative" female of the DHS samples. The point is not to question the validity of DHS data, rather to contrast certain features of a specific target population (female wage workers) with a more general population.
- ⁸ The life histories of Mozambican women are discussed in Sender, Oya, and Cramer (2006). The strength and historical significance of men's resistance to the proletarianization of their wives elsewhere in rural Africa is discussed in John Sender and Sheila Smith (1990) and in Sender (2002). In the context of rapidly expanding wage-earning opportunities for women in Bangladesh, "any diminution of women's economic dependency was perceived as a threat" by their husbands (Naila Kabeer 1997: 271). Life histories of women in Kerala confirm that the death of a husband usually precipitates a change in employment status, and more generally, widows in Kerala and Haryana are much more likely than other poor women to participate in the labor market (Leela Gulati 1998: 355-6; D. V. Rukmini 1998: 384). In the US, longitudinal studies show a dramatic increase in labor-market participation following separation and divorce (Karen C. Holden and Pamela J. Smock 1991: 59). However, different processes and factors that are not strictly comparable across countries and time determine these apparently similar labor-market outcomes.
- ⁹ Many of these divorced and separated teenagers have children. A total of ninety female respondents in the MRLS became pregnant as teenagers, giving birth to at least one child. These respondents and their children have been shown to suffer from particularly acute forms of deprivation relative to other women in the MRLS (Sender, Oya, and Cramer 2006: 325-6).
- ¹⁰ The DHS women's questionnaires are only completed for women aged between 15 and 49 years. The general household questionnaire in the DHS does not collect information on the marital status of other household members.
- ¹¹ HIV prevalence in Manica may be high because the relatively good transport infrastructure in that province facilitates transmission. Manica's transport links, as well as its favorable agro-ecological conditions, have also underpinned the agricultural investments that increased the demand for female wage labor in that province. Moreover, Manica has experienced a large influx of new and returning refugees from neighboring countries (especially Zimbabwe and Zambia) where there are high HIV/AIDS-prevalence rates, which may have resulted in a more rapid spread of HIV (David

Mather, Cynthia Donovan, Michael Weber, Higino Marrule, and Albertina Alage 2004). Unfortunately, the data on the provincial distribution of war-related deaths are so patchy that they cannot help in explaining the provincial distribution of widows found in different surveys.

- ¹² At the national level, the observed differences in divorce rates by educational attainment are, in any case, not substantial. Some studies elsewhere in Africa have shown a weak positive relationship between education and divorce, while others suggest a non-linear relationship with “the lowest divorce rates observed among uneducated women and among the highest educational groups” (Georges Reniers 2003: 182).
- ¹³ Thus, over half of the widowed principal respondents aged between 30 and 39 years never attended school, and the median number of years of education completed by widows in this older age group is zero. In contrast, the median number of years of completed education for divorced and separated women in the same age group is two years, and only 38 percent of these divorced and separated women failed to attend school.
- ¹⁴ Non-parametric measures of the association between divorce and separation status and the likelihood of access to “good” or “bad” jobs (also reported in Table 6) are statistically significant and stronger in the case of the association between divorce/separation status and access to a “good” job.
- ¹⁵ Employers in rural Mozambique exercise a great deal of discretion in determining the wages and working conditions offered to their male and female employees. The scope of this discretion, which plays an important role in the distribution of “good” and “bad” jobs irrespective of the attributes of individual workers, is discussed in Cramer, Oya, and Sender (2008).
- ¹⁶ About one-third of these female household members were the spouses of male principal respondents; most of the remainder were the mothers and mothers-in-law (20 percent), siblings (17.5 percent), or children (17.5 percent) of principal respondents.
- ¹⁷ The MRLS established that relatives and “friends,” as well as bribery, played an important role in securing permanent employment.
- ¹⁸ According to information released by the *Associação Comercial e Empresarial de Manica* (ACIAM 2006) recorded employment in Manica’s commercial agriculture increased five-fold between 2001 and 2003, reaching a peak of 4,385 workers. Many members of ACIAM are new investors who were previously based in Zimbabwe.
- ¹⁹ Higher levels of demand for women agricultural workers in one region of Ecuador have been shown to lead to a statistically significant increase in the bargaining power of women relative to men (Constance Newman [2002]).
- ²⁰ The labor demand and other factors affecting changes in men migrants’ relationships with their spouses in rural Mozambique are discussed in Stephen C. Lubkemann (2000).
- ²¹ Other empirical research on divorce in various African contexts confirms the complexity of the empirical determinants of divorce and remarriage, but these studies pay little attention to the role of female labor-market participation (Therese Locoh and Maire-Paule Thiriart 1995; Reniers 2003; Baffour K. Takyi and Christopher L. Broughton 2006).
- ²² Similarly, Locoh and Thiriart (1995) and John O.G. Billy, Nancy S. Landale, and Steven D. McLaughlin, (1986) show how women in West Africa have little control over their marriages at a young age. They begin to achieve some autonomy after the “rite of passage” of their first divorce. A first husband often insists on divorce if a woman remains childless or their children have died. In southern Malawi, men may be blamed for child deaths or childlessness, and the woman (or more often her family/elders) will then press for divorce (Pauline E. Peters, personal communication, 2007).

- ²³ See also Locoh and Thiriati (1995) and Tilson and Larsen (2000) for examples in Africa and Kabeer (1997: 289) for examples in Bangladesh. In Mozambique, there is some evidence that men hold more pro-natalist views than women, but as elsewhere in Africa, there is no evidence of a strong preference for sons by either men or women (Victor Agadjanian 2005).
- ²⁴ The same point has been made by Arnaldo (2004: 157).
- ²⁵ The difference between the number of living sons of divorced and separated female principal respondents and the number of living sons for other female principal respondents is only weakly significant (at the 10 percent level).
- ²⁶ Asset indices are a useful and more robust guide to poverty analysis than poverty lines based on dubious expenditure per capita data. Possessions scores in the MRLS have been used to identify households that do not contain a literate adult, households failing to send their children to school, and households containing illiterate young women (Sender, Oya, and Cramer 2006).
- ²⁷ The mean possessions score of the households of male respondents in the MRLS is, unsurprisingly, significantly higher (1.69) with a similar standard deviation. The mean difference lies between 0.31 and 0.62 (95 percent confidence interval), or between 26 and 52 percent of the average possession score of women.
- ²⁸ There are exceptions to this characterization of the literature. For example, in South Asia, "Research since the 1970s has documented the increasing fragility of the marriage bond, particularly among the very poor. Women appear(ed) to be losing faith in marriage as a means of security; for many, the education of daughters was seen as a source of security which their own lack of education had denied them. Subsequent changes in the (wage employment) opportunities available to women appear to have reinforced their willingness to educate daughters" (Naomi Hossain and Naila Kabeer 2004: 4,095). Thus, almost all the women wage workers interviewed in a Bangladesh survey asserted "that they did not want their daughters to have to face the same limited opportunities that they have had to face in their own lives, particularly since marriage as a form of security appears to be less and less feasible. Education is increasingly seen as the best way ... to give their daughters a better chance in life" (Kabeer 1997: 288).
- ²⁹ The latest DHS instruments in Africa have belatedly included measures of HIV status, but these surveys contain far too little information on the labor-market participation of female (and male) household members (Damien de Walque 2006).
- ³⁰ Generally, at least until recently, marriage histories have been weakly covered in most surveys, including the DHS and censuses (Reniers 2003: 176).
- ³¹ For an example of a particularly illuminating survey that is sensitive to conflicting and changing relationships between household members and to demographic histories, see Pauline Peters (2002, 2006).
- ³² These factors are consistent with the findings of Takyi and Broughton (2006) on the determinants of divorce among Ghanaian women. Their findings suggest that different aspects of women's "autonomy" combine to increase the likelihood of divorce: work and education are important variables, together with some institutional measures of autonomy, such as matrilineal kinship ties.
- ³³ As Reniers (2003) shows both in the case of rural Malawi and in his literature review of the issue in Africa, several factors interact to play a combined role in explaining divorce likelihood, namely individual characteristics like social class, religion, location, and education and "couple" features like residence patterns (including absence of one of the spouses), age at first marriage, age difference between spouses, evidence of ethnic endogamy, polygyny, and childlessness among others. A study in the Netherlands concludes: "[T]he likelihood of divorce is higher when women are gainfully employed, when women have accumulated more paid work experience, and

when wives are better educated,” but it also notes that there are important interaction effects between labor-force participation variables and cultural variables that also influence divorce probability (Matthijs Kalmijn, Paul de Graaf, and Anne-Rigt Poortman 2004: 86). Robert Rowthorn and David Webster (2008) present similar findings with particular emphasis on the role of worklessness of men in the rise of (especially women’s) lone parenthood in Great Britain (Robert Rowthorn and David Webster 2008).

- ³⁴ The World Bank, the most influential donor in Africa has very recently recognized: “Making the rural labor market a more effective pathway out of poverty is... a major policy challenge that remains poorly understood and sorely neglected in policy making” (World Bank 2007: 287).

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APPENDIX

Logistic regressions of divorced and separated status of women

This appendix presents the results of logistic regressions designed to capture the correlations between the variables discussed in this paper after controlling for some key factors. The models do not aim to establish a line of causality but the results confirm some of the findings presented in the contingency tables in this article.

Appendix Table 1 shows the results of the two best regressions of the status of divorce and separation on some individual and household characteristics of women wage workers. These results highlight the statistical importance of the type of labor-market participation as a covariate of divorce and separation. Both variables, access to "good" or "bad" jobs, are statistically very significant (for example, in Model 2 the odds ratio for the effect of "good jobs" lies within a 95 percent confidence interval between 1.33 and 2.92). In terms of predicted probability changes, both "job" variables have a strong effect on the likelihood of being divorced after controlling for education and variables indicating the number of children and the presence of a son, which are proxies for childlessness that attempt to capture the pro-natalist discrimination faced by women. The regression also controls for specific effects associated with the province with highest divorce rates in the MRLS sample. The strong statistical significance of the type of job ("good" and "bad" jobs)

Appendix Table 1 Odds ratios for logistic regressions of divorce and separation

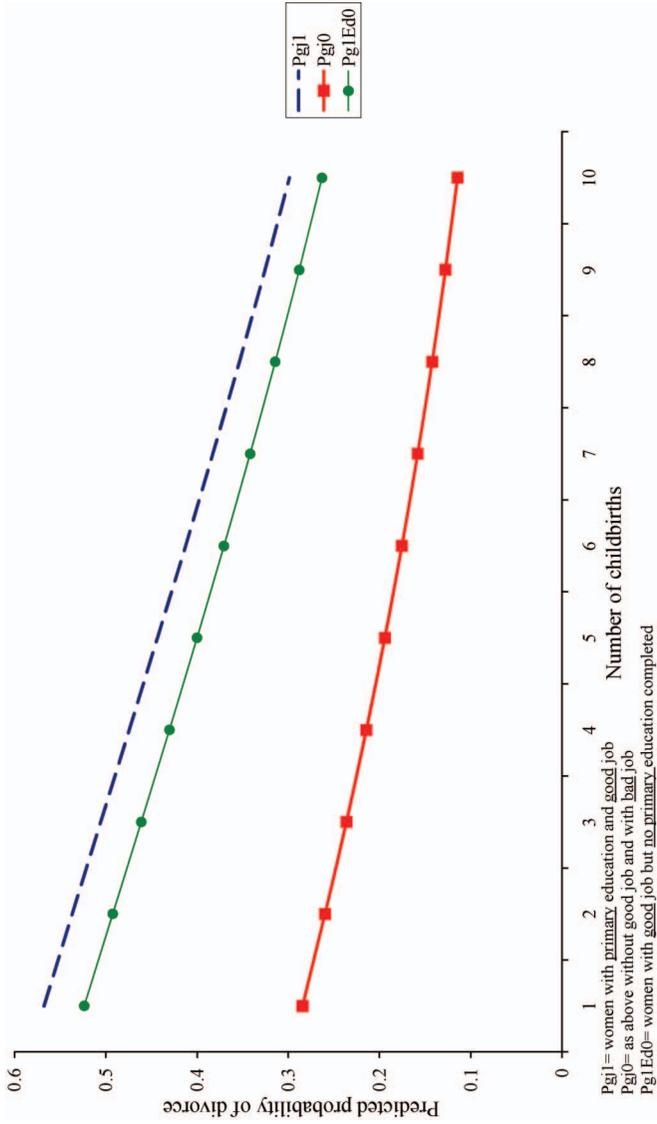
	<i>Model 1</i>	<i>% Probability change per unit of change in \bar{X}</i>	<i>Model 2</i>	<i>% Probability change per unit of change in \bar{X}</i>
1. Intercept	0.611**	-38.9	0.621**	-37.9
2. Primary education completed	1.182	18.2	1.194	19.4
3. Presence of son	0.894	-10.6	0.898	-10.2
4. "Good" job	1.908***	90.8	1.971***	97.1
5. "Bad" job	0.597***	-40.3	0.596***	-40.4
6. Number of childbirths	0.881***	-11.9	0.882***	-11.8
7. Manica province	1.094	9.4		
N (missing values)	917 (316)		917 (316)	
-2 Log likelihood	967.719		967.9867	
Likelihood ratio Chi square	60.8		60.6	
Df	6		5	
Pseudo R ²	0.10		0.09	

Notes: Levels of significance = ***p < 0.01, **p < 0.05, *p < 0.1.

highlights the importance of labor-market indicators in accounting for the likelihood of divorce or separation. Pro-natalism, rather than the presence of a living son in the household is also critical and indicates that women who have given birth to a larger number of children are *less* likely to be divorced and separated. Every additional child reduces the probability of divorce or separation by almost 12 percent.

The inclusion of a specific geographical variable (province of Manica) does not add more explanatory power to the model, suggesting that the other factors have a more noteworthy independent effect. Although there were more "good" jobs available in the Manica sample, the association between access to these jobs and divorce status was also strong in the other two provinces. Moreover, the type of job is a powerful predictor, especially in combination with a proxy for "childlessness." Using this model, the predicted probability of a woman being divorced or separated if she has completed primary education and has only two children, no son, and a "good" job is as high as 53 percent.

Appendix Figure 1 shows the distribution of predicted probabilities of divorce by number of children still alive. As the number increases, the probability of divorce or separation decreases. This figure also shows the independent effect of both education and, most importantly, type of labor-market participation. The line shifts upwards toward much higher probabilities of divorce when women have a "good" job and have completed primary education. This figure shows that the effect of securing



Appendix Figure 1 Divorce probabilities by number of childbirths

a more regular and monthly paid job is much stronger than the effect of having completed primary school.

Logistic regressions of access to “good” jobs

The results in Appendix Table 2 confirm that marital status has an independent effect on the odds of being in a “good” job, both in general and in the agricultural sector. Divorced or separated women are three times as likely and widows are twice as likely as other women to secure a “good” job, after controlling for education and age. This is corroborated after controlling for the possible interaction effect between schooling and the dummies for divorced and separated women and widows. The inclusion of an interaction term between schooling and divorce is statistically significant (the odds ratio lying between 0.77 and 0.98 for a 95 percent confidence interval), although not particularly strong, but has the main effect of reinforcing the *independent* effect of divorce or separation, while it slightly diminishes the independent effect of widowhood, which still remains positive. This is important because it means that despite what contingency tables show – meaning that a low proportion of widows had access to a “good” job and a high proportion made do with very casual poorly remunerated work – many of the most disadvantaged widows were

Appendix Table 2 Odds ratios for logistic regressions of access to “good” jobs

		% Probability change per unit of change in X	Agricultural jobs	% Probability change per unit of change in X
	All rural jobs			
1. Intercept	0.355*	-64.5	0.003***	-99.7
2. Manica province	4.049***	304.9	8.979***	797.9
3. Nampula province	0.650*	-35.1	0.080**	-92.0
4. Divorced/separated	3.374***	237.4	3.513***	251.3
5. Widow	2.085***	108.5	2.512***	151.2
6. Schooling years	1.328***	32.8	1.114**	11.4
7. Work experience (seniority)	1.009**	0.9	1.010*	1.0
8. Age	0.913**	-8.7	1.132**	13.2
9. Age ²	1.001	0.06	0.998**	-0.2
10. Divorce*schooling interaction	0.870**	-13.0	0.819**	-18.1
N (missing values)	1211 (21)		1211 (21)	
-2 Log likelihood	976.99		570.93	
Likelihood ratio Chi square	295.4***		191.5***	
Df	8		8	
Pseudo R ²	0.33		0.32	

Note: Levels of significance = ***p < 0.01, **p < 0.05, *p < 0.1.

rather old. This regression shows that a divorced woman and a widow have similar chances of securing a “good” job if they are of the same age and education, so that there is nothing intrinsic to widowhood that reduces the odds of getting a better job compared with divorced and separated women. However, the MRLS results also show that divorced and separated women were relatively more educated and considerably younger than widows. The regression also signals the weak independent effect of education, especially for “good” jobs in agriculture. The first regression shows that an extra year of schooling, other things being equal, increases the probability of having a “good” job by 33 percent (11 percent in the case of agricultural jobs), well below the effect of other variables like marital status and province. The interaction effects between schooling and marital status are, on the other hand, mildly negative, thus reinforcing the importance of marital status as an independent factor. Work experience with the same employer does not help much, especially for “good” agricultural jobs, which, for female workers tended to be only seasonal, and very rarely led to a permanent employment contract. In fact, age has a weak negative effect in the first regression, which suggests that relatively younger women are preferred in “good” jobs (all categories), while slightly older women are more likely to get “good” agricultural jobs.

In these regressions, the geographical variables carry a very significant statistical and economic effect, in different directions. Manica province accounts for a large proportion of “good” jobs, especially in agriculture, as shown by the very high odds (4 times more likely to be in a “good” job if the woman lives in Manica and much less likely if she lives in Nampula, where these jobs are scarce). This result is a sign of the importance of context and the segmentation of provincial and local labor markets. The combination of both women workers’ characteristics and specific geographical effects seems to explain much of the chance of getting “good” jobs for women workers in the MRLS sample, as the relatively high Chi-square and the pseudo- R^2 shows.