

Women's welfare and livelihoods outside of marriage: Evidence from rural Tanzania

Ayala Wineman

Michigan State University

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Motivation/ background

- Female headship as a proxy for gender (Chant 2004; Quisumbing et al. 2014) and marital status.
- Channel of marriage exit can affect outcomes (Horrell and Krishnan 2007). Little attention paid to divorce in rural SSA (Clark and Brauner-Otto 2015).
- Women in SSA lose access to land after marriage exit (Chapoto et al. 2011; Peterman 2012; Yngstrom 2002).
- Do women compensate with off-farm income-generating opportunities?
- Time/ mobility constraints; gender wage gap (Fontana and Paciello 2010).
- Divorced/ widowed women do avail themselves of off-farm options (Canagarajah et al. 2001; Oya and Sender 2009).

Research questions

- In rural Tanzania, how are women's consumption levels affected by marriage exit?
- How is access to land affected by marriage exit?
- How do women adjust their livelihood portfolios in response?

Use of individual-level panel survey =
Capture outcomes for *all* women

Outcomes of marriage exit along 2 axes:

- How marriage ended
- Headship status in post-marriage household

Extend analysis beyond agriculture: How do women compensate for any lost land?

Data and methods

- Three waves of the LSMS Tanzania national tracking data set (2009–2013)
- Focus on rural women ≥ 18 years old (2,374 women in the balanced panel)

$$Y_{it} = \alpha + [\mathit{Marital_Status}_{it}] \boldsymbol{\beta} + \mathit{X}_{it} \boldsymbol{\theta} + C_i + \varepsilon_{it}$$

Dependent variable

- HH consumption / AE, poverty status
- Individual economic activities in past year
- Household land access and livelihood sources

Indicator(s) of marital status

- Divorced / widowed
- Divorced *versus* widowed
- HH head *versus* not

Socioeconomic and geographic characteristics

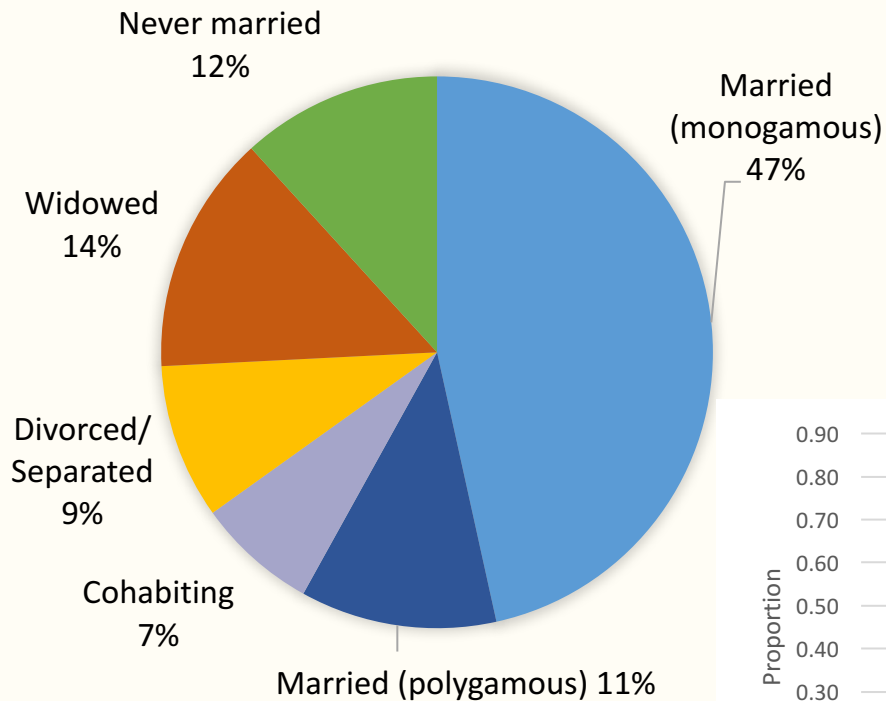
Individual fixed effect

Correlated random effects (CRE) models

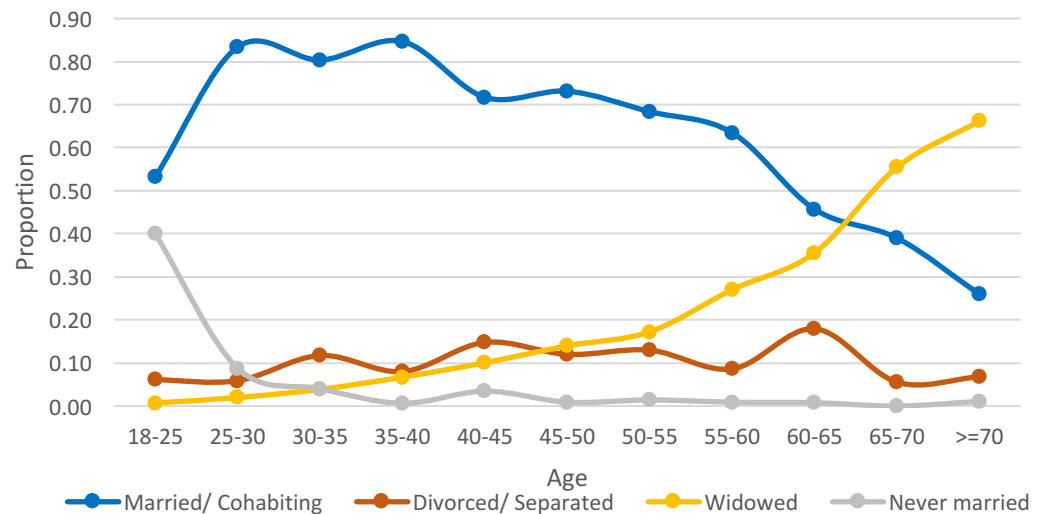
- Include individual mean of all time-varying regressors

Descriptive statistics

Marital status of rural women (≥ 18 years), 2009



Marital status by age category



Descriptive statistics

Relationship with household head among non-head widowed or divorced women, 2009 (proportions)

Living with...	Marital status	
	Widowed	Divorced
Parent/ Step-parent	0.15	0.60
Sibling	0.01	0.12
Child	0.51	0.06
Other relative	0.33	0.21
Non-relative	0.00	0.01
Obs.	137	109

Changes in marital status of rural women, 2009 to 2013

Marital status 2009 ↓	2013 →			
	Married	Divorced	Widowed	Never married
Married/cohabiting N=1,606	89.5%	5.2%	5.3%	---
Divorced/separated N=204	28.2%	63.4%	8.4%	---
Widowed N=309	5.5%	8.7%	85.8%	---
Never married N=255	41.0%	12.5%	2.1%	44.4%

Descriptive statistics

		Spouses	Heads	Other positions in household
		Mean values		
Welfare	Value of consumption/ AE/ day (1,000s TSh)	2.08	2.24	2.00
	1= HH is poor	0.33	0.31	0.36
Individual livelihoods	1= Main occupation is agriculture	0.94	0.89	0.70
	1= Agricultural wage worker in past year	0.15	0.22	0.07
	1= Non-agricultural wage worker in past year	0.03	0.05	0.02
	1= Was self-employed in past year	0.10	0.14	0.03
	Hours of work in past week	50.70	47.60	37.06
	Hours of wage work	2.29	3.64	1.10
Household livelihoods	Land area per capita (acres)	1.17	0.90	1.05
	Share of household income from off-farm sources	0.32	0.40	0.30
Other individual/ household characteristics	Age (years)	37.66	51.05	32.52
	HH size	6.05	4.35	8.24
	Obs.	1,378	443	553

Welfare after widowhood and divorce among rural women (CRE regressions)

	(1)	(2)	(3)	(4)	(5)	(6)
	Value of consumption/ AE/ day (TSh)			Poverty status (1= Poor)		
	CRE-OLS ^a			CRE-probit		
1= Divorced or widowed	39.85 (0.66)			0.08*** (0.01)		
1= Divorced		163.08 (0.12)			0.05 (0.10)	
1= Widowed		-192.89 (0.11)			0.12*** (0.00)	
1= Head (divorced or widowed)			130.64 (0.28)			0.07** (0.04)
1= Not head (divorced or widowed)			-75.91 (0.49)			0.09* (0.05)
Individual, household, and community characteristics, year FE	Y	Y	Y	Y	Y	Y
Mean values of time-variant regressors	Y	Y	Y	Y	Y	Y
P > F (Divorced = Widowed)		0.007			0.084	
P > F (Head = Not head)			0.161			0.722
Observations	7,122	7,122	7,122	7,122	7,122	7,122

Coefficients (linear models) or average partial effects (nonlinear models); P-values in parentheses; Standard errors clustered at individual level; *** p<0.01, ** p<0.05, * p<0.1

Women's *individual* livelihoods after widowhood and divorce

	(1)	(2)	(3)	(4)	(5)	(6)
	1= Agriculture as main occupation CRE-probit	1= Agricultural wage work	Past year 1= Non- agricultural wage work CRE-probit	1= Self- employed	Past week Hours wage work CRE-tobit	Hours worked in past week
PANEL A						
1= Divorced or widowed	-0.05** (0.03)	0.06** (0.04)	0.06*** (0.00)	0.09*** (0.00)	3.72*** (0.00)	4.91*** (0.01)
All other control variables	Y	Y	Y	Y	Y	Y
PANEL B						
1= Divorced	-0.05* (0.07)	0.08** (0.03)	0.07*** (0.01)	0.09*** (0.01)	4.85*** (0.00)	5.02** (0.01)
1= Widowed	-0.06* (0.05)	0.03 (0.44)	0.05* (0.09)	0.10** (0.03)	2.43** (0.04)	4.82** (0.05)
All other control variables	Y	Y	Y	Y	Y	Y
PANEL C						
1= Divorced or widowed (Head)	-0.08** (0.01)	0.06* (0.08)	0.07** (0.01)	0.14*** (0.00)	3.96*** (0.00)	5.94*** (0.01)
1= Divorced or widowed (Not head)	-0.03 (0.41)	0.07 (0.16)	0.06 (0.11)	0.03 (0.54)	4.58** (0.02)	3.67 (0.15)
All other control variables	Y	Y	Y	Y	Y	Y
Observations	7,122	7,122	7,122	7,122	7,122	7,122

Coefficients or average partial effects; P-values in parentheses

Women's *household* livelihoods after widowhood and divorce

	(1)	(2)	(3)	(4)	(5)	(6)
				Share HH income from...		
	1= HH accesses land CRE-probit	Land area per capita (acres) CRE-OLS	Share HH income from off-farm sources CRE-OLS	Wage work	Self- employment CRE- SUR	Transfers
PANEL A						
1= Divorced or widowed	-0.04** (0.02)	-0.11 (0.17)	0.05** (0.03)	0.02 (0.19)	-0.001 (0.96)	0.03** (0.02)
All other control variables	Y	Y	Y	Y	Y	Y
PANEL B						
1= Divorced	-0.06** (0.01)	-0.14 (0.14)	0.06** (0.03)	0.04* (0.06)	-0.01 (0.65)	0.04** (0.02)
1= Widowed	-0.01 (0.66)	-0.05 (0.57)	0.04 (0.23)	-0.01 (0.80)	0.02 (0.49)	0.02 (0.30)
All other control variables	Y	Y	Y	Y	Y	Y
PANEL C						
1= Divorced or widowed (Head)	-0.07*** (0.01)	-0.32*** (0.00)	0.12*** (0.00)	0.03* (0.07)	0.01 (0.49)	0.06*** (0.00)
1= Divorced or widowed (Not head)	-0.00 (0.87)	0.16 (0.19)	-0.03 (0.29)	0.01 (0.72)	-0.02 (0.32)	0.01 (0.69)
All other control variables	Y	Y	Y	Y	Y	Y
Observations	7,122	7,122	7,122	7,122	7,122	7,122

Robustness checks

- Account for within-household economies of scale
household consumption / AE ^{φ} / day

φ = an estimated scale economies parameter

Widowhood now associated with significantly reduced consumption.

- Include men in the analysis

Men's levels of consumption and land access *increase* upon widowhood or divorce.

Main findings

- Widowhood **and divorce** are common, and ~40% of widowed & divorced women are not household heads.
- Widowhood → Decline in welfare
- Divorce → Less (or no) land
- Widowhood or divorce → Rely more heavily on **off-farm income sources**, including wage work, self-employment, and the receipt of transfers.
- Joining another's household protects women from loss of land, maintains agricultural focus. But household heads 'pivot' away from agriculture.

Research (and policy) implications

- A focus on female-headed households \neq a holistic consideration of women's experiences outside of marriage.
- Importance of both the **non-farm economy** and **family networks**.
- Programs and policies should aim to ensure that (divorced) women retain access to land.
- Efforts to advance women's access to non-farm economic activities = a potential lever to bolster women's welfare.

