

**A Waning Institution?**  
**Prevalence, Quality, and Nature of Polygynous Marriages in Sub-Saharan Africa**  
Sophia Chae, Population Council  
Victor Agadjanian, University of California, Los Angeles

**Abstract**

Similar to many parts of the developing world, Sub-Saharan Africa has experienced profound changes in the context and nature of marriage. Although polygyny has been widespread across the subcontinent, there is evidence that its prevalence may be on the decline. Using data from the Demographic and Health Surveys, we study trends in the prevalence of polygyny in 24 countries. We examine these trends by sex, sociodemographic characteristics, and marriage characteristics. We also assess whether changes are occurring in the quality of men and women entering these unions and investigate whether the nature of this practice is changing. Preliminary results indicate that the prevalence of polygyny is indeed declining but also that the rate of this decline varies across countries. The completed paper will reflect on the implications of findings for the institution of marriage and couples' and women's well-being in the subcontinent.

## **Introduction**

Polygyny, a form of marriage in which a man has more than one wife, is widespread in Sub-Saharan Africa (Lesthaeghe et al. 1989). The prevalence of this practice varies across the subcontinent as it is linked to demographic, socioeconomic and cultural factors. High fertility, large spousal age gaps, and higher male adult mortality are key demographic determinants of polygyny (Goldman and Pebley 1989). Polygyny is most prevalent in rural, agrarian societies where women's agricultural labor is particularly valued (Boserup 1985; Jacoby 1995). Men marry more than one wife to produce enough children to ensure the continuation of their lineage and to increase their family's agricultural output (Klomegah 1997). Polygyny is typically more common in African countries with significant Muslim populations as Islam allows men to marry up to four wives. However, in many African countries, polygyny predates the spread of Islam and Christianity, and is widely practiced in many areas with largely Christian populations.

Given the centrality of the institution of polygyny for marriage and family life in Sub-Saharan Africa, a large body of literature has examined the relationship between polygyny and women's outcomes, including intimate partner violence, fertility, HIV infection, and mental health. This research has demonstrated across multiple contexts that polygyny is positively associated with intimate partner violence (Abramsky et al. 2011; Amo-Adjei and Tuoyire 2016; Jansen and Agadjanian 2016; Makayoto et al. 2013; McCloskey et al. 2005). Polygyny is also associated with fertility and HIV infection, but the direction of these relationships varies by the wife's rank. Senior wives tend to have more children than junior wives (Gibson and Mace 2007). Reniers and Tfaily (2012) showed that junior wives of polygynous men are more likely to be HIV positive than spouses of monogamous men. First wives of polygynous men, however, are less likely to be HIV positive than women in monogamous relationships. A review of polygyny and women's health in Sub-Saharan Africa showed that polygyny is associated with higher levels of anxiety and depression (Bove and Valeggia 2009). Not all studies, however, depict negative associations between polygyny and women's well-being. Some studies report women's satisfaction with being in a polygynous marriage because the husband provides more resources and co-wives provide greater cooperation and support for childcare (Jankowiak et al. 2005; Notermans 2002; Slonim-Nevo and Al-Krenawi 2006).

Similar to many other parts of the developing world, Sub-Saharan Africa has also experienced profound changes in the context and nature of marriage. Although marriage in the

subcontinent remains largely universal, age at first marriage has increased, the practice of marriage payment (bridewealth) has declined, and more individuals are choosing their own spouse (Anderson 2007; Bishai and Grossbard 2010; Bongaarts et al. 2017; Loforte 2000; Marston et al. 2009; Meekers 1995; Smith 2001). There is also some evidence that polygyny is declining in Sub-Saharan Africa. During the colonial era, Christian missionaries considered it immoral for men to marry more than one wife and tried to deter the practice. Because missionaries had considerable influence in the areas where they lived and worked, their abhorrence for the traditional practice may have sparked the idea of its incompatibility with ‘Western’ or ‘modern’ ideals of marriage. Fenske (2015) shows that rates of polygyny are indeed lower in areas that were in closer proximity to colonial missions. In addition, Islam permits the practice of polygyny only if a man can treat his wives equally, which would require sufficient financial resources. The expectation of bridewealth payment could deter men from taking more than one wife. Furthermore, the subcontinent is rapidly urbanizing (United Nations Population Division 2018), and housing and other living costs are considerably higher in urban than in rural areas. Thus, many men may be unable to afford polygynous marriages because of a lack of financial resources.

Although today polygyny is usually associated with the African continent and some Muslim societies in the Middle East and Asia, many cultures across the world practiced this marital arrangement throughout much of their history, including those in Europe, the Americas, and Asia (Murdock 1967). Gould et al. (2008) theorized that the decline in polygyny and the corresponding rise in monogamy in developed societies can be attributed to increasing variation in the quality of women, as measured by human capital, and their ability to raise higher quality children. They proposed that higher quality men in those societies increasingly preferred higher quality women. Fenske (2015) tested this theory using data from 34 countries collected as part of the Demographic and Health Surveys. He found that education, which was used as a marker of human capital, did not explain the decline in polygyny prevalence.

In this study, we examine the extent to which polygyny is declining in Sub-Saharan Africa. We measure trends in its prevalence by sex, sociodemographic characteristics, and marriage characteristics, and examine these trends at both the country and individual levels. In addition, we compare the quality of men and women entering polygynous versus monogamous marriages and examine whether the quality of men and women entering such unions is changing.

Are ‘lower quality’ men and women disproportionately found in polygynous marriages because ‘higher quality’ men and women tend to choose monogamy? Or are ‘higher quality’ men and ‘lower quality’ women more likely to enter polygynous marriages because higher quality men have the financial means to afford multiple wives? Finally, we investigate whether the nature of polygynous unions (versus monogamous unions) is changing by exploring differences in co-residence with husband, frequency of sexual intercourse, fertility, women’s agency, and spousal fidelity.

## **Data**

We address our research questions using data from the Demographic and Health Surveys (DHS). The DHS, conducted approximately every five years in many low- and middle-income countries, are nationally representative household surveys that collect data on a range of topics, including health, education, and HIV. DHS samples are based on a stratified two-stage cluster design in which primary sampling units are typically drawn from census enumeration areas, after which households are randomly selected within each cluster. In the selected households, all women, 15-49 years, living in the household are invited to participate in the survey. In most countries where DHS data are collected, all men or a subsample of men, typically 15-49 years<sup>1</sup>, living in the selected households are also invited to participate.

Since the DHS program began, data have been collected in 43 Sub-Saharan African countries. Our study focuses on countries where two or more survey rounds have been conducted, a 10+ year gap exists between the earliest and most recent survey, and both women and men were interviewed. In total, 24 countries meet the inclusion criteria: 10 in Western Africa, 3 in Middle Africa, 10 in Eastern Africa, and 1 in Southern Africa. These countries, along with their survey years, are listed in Table 1.

The DHS collects limited information on marriage characteristics. Survey questions cover current marital status, co-residence, polygyny, number of times married (once or more than once), and start date of first marriage. More detailed information is collected on sexual activity, both within and outside marriage. Our study focuses on responses to three questions related to polygyny that are asked to currently married women and men in most Sub-Saharan Africa countries.

---

<sup>1</sup> Age range varies by country and survey.

We construct a measure of whether the woman is in a polygynous marriage using responses to the following question: ‘Does your (husband/partner) have other wives or does he live with other women as if married?’ Women who reported yes are coded as being in a polygynous marriage; all other women are coded as being in a monogamous marriage. We construct a similar measure for men using the following question: ‘Do you have other wives or do you live with other women as if married?’ Men who reported ‘Yes’ were coded as being in a polygynous marriage and those who reported ‘No’ were coded as being in a monogamous marriage.

We create a variable indicating the husband’s total number of wives. Women and men in monogamous marriages are coded as ‘1’. Among women in polygynous marriages, we code this variable using responses to the following question: ‘Including yourself, in total, how many wives or live-in partners does he have?’ For men in polygynous marriages, we use a similar question: ‘Altogether, how many wives or live-in partners do you have?’ Among polygynous women, we construct a measure indicating the wife’s rank (first wife or non-first wife), using responses to the following question: ‘Are you the first, second, ... wife?’

## **Methods**

In the first part of the analysis, we investigate trends in the prevalence of polygyny among currently married women and men in 24 Sub-Saharan African countries. We examine these trends by age, urban/rural residence, educational attainment, religion, and household wealth. Among women, we do this separately for first marriages and higher order marriages. We also build multilevel linear regression models to investigate the country-level factors associated with the prevalence of polygyny and the percentage change in its prevalence. We consider a range of factors including starting level of polygyny, mean age at marriage, percent currently married, religion, educational attainment, percent of population living in urban areas, and economic conditions (e.g. GNI per capita).

Next, we conduct multilevel logistic regression analyses to measure whether polygyny has been declining at the individual level (within countries) after controlling for key sociodemographic and marriage characteristics associated with polygyny. All models are fitted separately for women and men. We construct separate models for each country where we focus on the association between year of marriage and polygyny status of marriage. Because year of

marriage is not collected for women and men in higher-order marriages, these analyses focus on first marriages.<sup>2</sup> Our models control for sociodemographic and marriage characteristics, including age, age at marriage, urban/rural residence, educational attainment, religion, household wealth, previously married, number of co-wives (if polygynous), wife's rank (if polygynous), had premarital birth, spousal age difference, spouse's age, spouse's educational attainment, and survey year. To examine the quality of individuals entering into polygynous marriages, we use the same models described above and interact hypothesized variables measuring quality with year of marriage.

Lastly, to compare the nature of polygynous marriages to that of monogamous marriages, we use couple-level data collected from husbands and wives who both participated in the survey. We use multilevel logistic regression to examine whether co-residence with husband, frequency of sexual intercourse, fertility, women's agency, and spousal fidelity are associated with type of union (polygynous vs monogamous). Data permitting, we will also account for (in)formalization of polygynous vs. monogamous unions (e.g., payment of bridewealth).

### **Preliminary Results**

In this extended abstract, we present our results on the general trends in the prevalence of polygyny. In Figure 1, we show the percentage of currently married women in polygynous unions by country and survey year. There exists a great deal of variation in polygyny levels. In the earliest surveys, polygyny levels ranged from 14% in Rwanda to 52% in Togo. By the most recent survey, these levels declined to 8% and 33%, respectively. In the most recent surveys, the prevalence of polygyny among currently married women ranged from 8% in Rwanda to 48% in Guinea. In all countries except Niger, polygyny levels declined. Niger experienced no change in its prevalence, which remained stable at 36%.

In Figure 2, we present the same information for men. Similar to women, the prevalence of polygyny varies widely by country. However, the prevalence of polygyny is understandably much lower for men than for women. In the earliest surveys, polygyny ranged from 4% in Namibia to 30% in Benin. By the most recent survey, prevalence declined to 2% in Namibia and 20% in Benin. In the most recent surveys, polygyny levels ranged from 2% in Namibia and

---

<sup>2</sup> We will consider other ways to measure changes in the prevalence of polygyny among women and men who have been married more than once.

Rwanda to 26% in Chad. Across all countries, polygyny levels declined, with the exception of Chad and Niger, where prevalence increased from 18% to 20% and 23% to 26%, respectively.

While Figures 1 and 2 demonstrate that the prevalence of polygyny declined across most countries, it does not clearly assess the magnitude of this change. In Table 2, we present the percentage change in the prevalence of polygyny among currently married women and men. We observe that substantial variation exists in the percentage change in the prevalence of polygyny. Among currently married women, this change ranged from no change in Niger to a 50% decline in Ghana. The median change is a 22% decline. Among men, the percentage change ranged from a 15% increase in Chad to a 50% decline in Senegal. The median percentage change for men is a 27% decline. We also observed regional differences in the decline of polygyny. A comparison between Eastern and Western Africa, the two regions with the largest number of countries represented in this study, shows that Eastern Africa experienced a greater decline in polygyny: 30% and 34% for women and men, respectively. In Western Africa, this decline was 22% and 15%, respectively.

### **Next Steps**

Results of these preliminary analyses indicate that the prevalence of polygyny has indeed been declining in almost all of the countries in our sample. We also observed regional variation in the decline of polygyny, which points to the potential importance of country-level factors that may be precipitating or hampering declines in certain contexts. Given that many of these declines are substantial, sometimes upwards of 50%, it is likely that some degree of selection into polygyny is occurring. Our completed paper will take a closer look at these changes in polygyny quality, as well as the nature of the relationship in polygynous unions, both at the country-level and the individual-level, and explore whether various sociodemographic and marital characteristics are associated with these changes. Findings will contribute to our knowledge and understanding of the transformation of polygynous marriage, and marriage in general, in Sub-Saharan Africa. Finally, we will reflect on the implications of these trends in prevalence, quality, and nature of polygyny for couples' and women's well-being in the subcontinent.

## References

- Abramsky, T., Watts, C.H., Garcia-Moreno, C., Devries, K., Kiss, L., Ellsberg, M., Jansen, H.A., and Heise, L. (2011). What factors are associated with recent intimate partner violence? Findings from the WHO multi-country study on women's health and domestic violence. *BMC Public Health*, 11(1), 109.
- Amo-Adjei, J. and Tuoyire, D.A. (2016). Do ethnicity and polygyny contribute to justification of men beating women in Ghana? *Women & Health*, 56(1), 48-64.
- Anderson, S. (2007). The economics of dowry and brideprice. *Journal of Economic Perspectives*, 21(4), 151-174.
- Bishai, D. and Grossbard, S. (2010). Far above rubies: Bride price and extramarital sexual relations in Uganda. *Journal of Population Economics*, 23(4), 1177-1187.
- Bongaarts, J., Mensch, B.S., and Blanc, A.K. (2017). Trends in the age at reproductive transitions in the developing world: The role of education. *Population Studies*, 71(2), 139-154.
- Boserup, E. (1985). Economic and demographic interrelationships in sub-Saharan Africa. *Population and Development Review*, 383-397.
- Bove, R. and Vallengia, C. (2009). Polygyny and women's health in sub-Saharan Africa. *Social Science & Medicine*, 68(1), 21-29.
- Fenske, J. (2015). African polygamy: past and present. *Journal of Development Economics*, 117, 58-73.
- Gibson, M.A. and Mace, R. (2007). Polygyny, reproductive success and child health in rural Ethiopia: why marry a married man? *Journal of Biosocial Science*, 39(2), 287-300.
- Goldman, N. and Pebley, A. (1989). The demography of polygyny in Sub-Saharan Africa. In R.J. Lesthaeghe (Ed.), *Reproduction and Social Organization in Sub-Saharan Africa* (pp. 212-237). Berkeley: University of California Press.
- Gould, E.D., Moav, O., and Simhon, A. (2008). The mystery of monogamy. *American Economic Review*, 98(1), 333-357.
- Jacoby, H.G. (1995). The economics of polygyny in Sub-Saharan Africa: Female productivity and the demand for wives in Côte d'Ivoire. *Journal of Political Economy*, 103(5), 938-971.
- Jankowiak, W., Sudakov, M., and Wilreker, B.C. (2005). Co-wife conflict and co-operation. *Ethnology*, 81-98.
- Jansen, N. and Agadjanian, V. 2016. "Polygyny and Intimate Partner Violence in a Rural Sub-Saharan Setting." Presented at Presented at the 2016 Population Association of America Annual Meeting, Washington D.C.



- Klomegah, R. (1997). Socio-economic characteristics of Ghanaian women in polygynous marriages. *Journal of Comparative Family Studies*, 73-88.
- Lesthaeghe, R., Kaufmann, G., and Meekers, D. (1989). The nuptiality regimes in Sub-Saharan Africa. In R. Lesthaeghe (Ed.), *Reproduction and social organization in Sub-Saharan Africa* (pp. 238-337). London: Clarendon Press.
- Loforte, A.M. (2000). *Género e Poder: Entre os Tsonga de Moçambique [Gender and Power among the Tsonga of Mozambique]*. Maputo: Promédia.
- Makayoto, L.A., Omolo, J., Kamweya, A.M., Harder, V.S., and Mutai, J. (2013). Prevalence and associated factors of intimate partner violence among pregnant women attending Kisumu District Hospital, Kenya. *Maternal and Child Health Journal*, 17(3), 441-447.
- Marston, M., Slaymaker, E., Cremin, I., Floyd, S., McGrath, N., Kasamba, I., Lutalo, T., Nyirenda, M., Ndyanaabo, A., and Mupambireyi, Z. (2009). Trends in marriage and time spent single in sub-Saharan Africa: a comparative analysis of six population-based cohort studies and nine Demographic and Health Surveys. *Sexually transmitted infections*, 85(Suppl 1), i64.
- McCloskey, L.A., Williams, C., and Larsen, U. (2005). Gender inequality and intimate partner violence among women in Moshi, Tanzania. *International Family Planning Perspectives*, 124-130.
- Meekers, D. (1995). Freedom of partner choice in Togo. *Journal of Comparative Family Studies*, 26(2), 163-&.
- Murdock, G.P. (1967). *Ethnographic Atlas*. Pittsburgh: University of Pittsburgh.
- Notermans, C. (2002). True Christianity without Dialogue. Women and the Polygyny Debate in Cameroon. *Anthropos*, 341-353.
- Reniers, G. and Tfaily, R. (2012). Polygyny, partnership concurrency, and HIV transmission in Sub-Saharan Africa. *Demography*, 49(3), 1075-1101.
- Slonim-Nevo, V. and Al-Krenawi, A. (2006). Success and failure among polygamous families: The experience of wives, husbands, and children. *Family Process*, 45(3), 311-330.
- Smith, D.J. (2001). Romance, parenthood, and gender in a modern African society. *Ethnology*, 40(2), 129-151.
- United Nations Population Division. 2018. "World Urbanization Prospects: The 2018 Revision." New York, NY: United Nations.

---

Table 1. Country and survey years, Demographic and Health Surveys

---

Region and Country	Survey Years
<i>Western Africa</i>	
Benin	1996, 2001, 2006, 2012
Burkina Faso	1993, 1999, 2003, 2010
Cote d'Ivoire	1996, 2001, 2006, 2012
Ghana	1993, 1998, 2003, 2008, 2014
Guinea	1999, 2005, 2012
Mali	1996, 2006, 2012
Niger	1992, 1998, 2006, 2012
Nigeria	2003, 2008, 2013
Senegal	1993, 1997, 2005, 2010, 2014, 2015, 2016
Togo	1998, 2013
<i>Middle Africa</i>	
Cameroon	1991, 1998, 2004, 2011
Chad	1997, 2004, 2014
Gabon	2000, 2012
<i>Eastern Africa</i>	
Comoros	1996, 2012
Ethiopia	1995, 2000, 2005, 2011, 2016
Kenya	1993, 1998, 2003, 2008, 2014
Malawi	1992, 2000, 2004, 2010, 2015
Mozambique	1997, 2003, 2011
Rwanda	1992, 2000, 2005, 2008, 2010, 2015
Tanzania	1992, 1996, 1999, 2004, 2010, 2015
Uganda	1995, 2000, 2006, 2011, 2016
Zambia	1996, 2002, 2007, 2013
Zimbabwe	1994, 1999, 2005, 2010, 2015
<i>Southern Africa</i>	
Namibia	2000, 2006, 2013

---

Table 2. Percent change in the prevalence of polygyny among currently married women and men, Demographic and Health Surveys

Region and Country	Women	Men
<b>Western Africa</b>		
Benin	-25	-35
Burkina Faso	-17	-8
Cote d'Ivoire	-21	-5
Ghana	-50	-51
Guinea	-11	-12
Mali	-22	-17
Niger	0	12
Nigeria	-19	-17
Senegal	-34	-50
Togo	-37	-23
<i>Median</i>	-22	-15
<b>Middle Africa</b>		
Cameroon	-19	-36
Chad	-1	15
Gabon	-12	-25
<i>Median</i>	-12	-25
<b>Eastern Africa</b>		
Comoros	-16	-36
Ethiopia	-18	-41
Kenya	-41	-46
Malawi	-36	-15
Mozambique	-11	-28
Rwanda	-44	-72
Tanzania	-32	-41
Uganda	-16	-6
Zambia	-27	-10
Zimbabwe	-33	-31
<i>Median</i>	-30	-34
<b>Southern Africa</b>		
Namibia	-7	-44

Figure 1. Percent of currently married women in polygynous unions

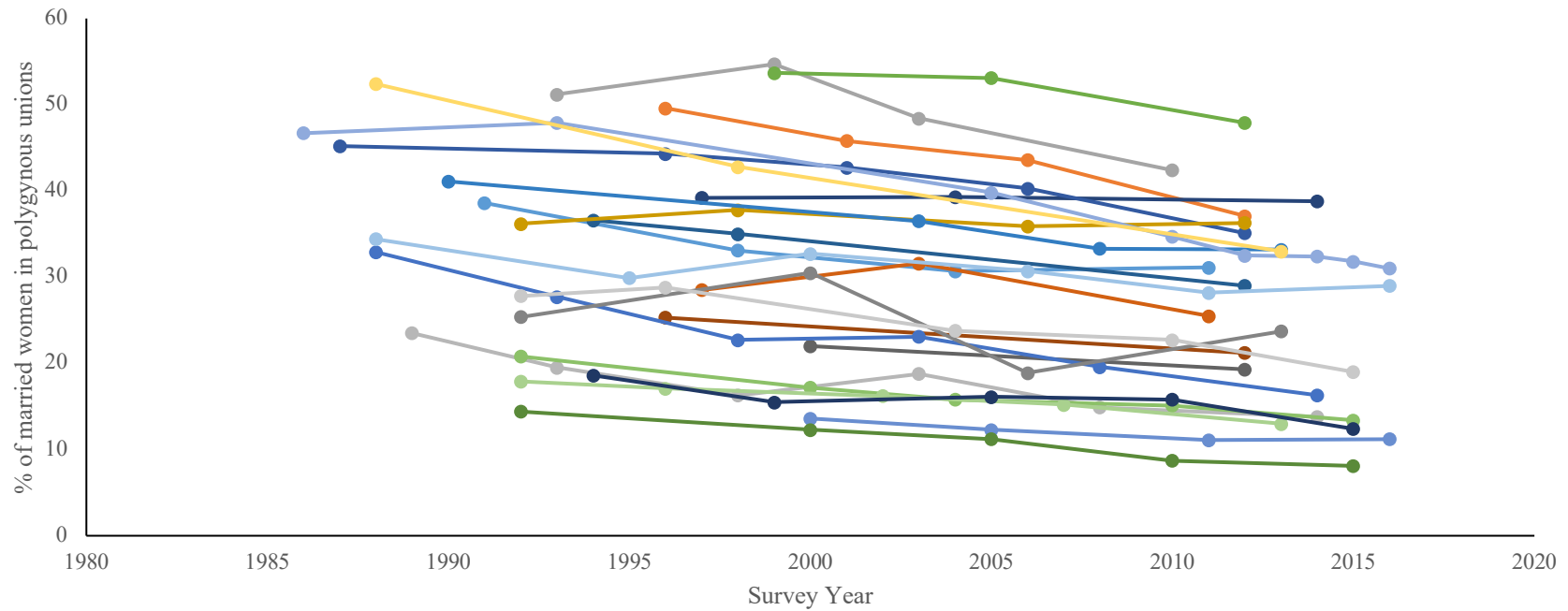


Figure 2. Percent of currently married men in polygynous unions

