

Beneath African Marriage is a Process:
Prevalence, Trends, and Correlates of Cohabitation in 21 sub-Saharan African
Countries

By

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Abstract of

Beneath African Marriage is a Process: Prevalence, Trends, and Correlates of Cohabitation in 21 sub-Saharan African Countries

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This paper uses data from the Demographic and Health Surveys (DHS) to examine the prevalence, recent trends, and correlates at the individual-level of reporting one's marital status as "living together" versus "married" in 21 sub-Saharan African countries. Up until now, demographic studies on unions in the region have not distinguished between cohabitation and marriage. This is attributed to the view that marriage in Africa is a process. I argue for a reevaluation of this generalized manner in which marriage in the entire sub-Saharan Africa continues to be conceived. By looking at cohabitation separately from marriage, I find significant heterogeneity in the region. In some countries around a half of all unions are self-reported as cohabitation while in others, virtually no unions are comprised by "living together". There is also notable variation in recent trends; cohabitation in most countries in the sample is on the rise, in some countries its levels are stable while in others still, it has declined. I also find that in a majority of countries, particularly those where cohabitation is prevalent, women from lower SES backgrounds have higher odds of cohabiting while in a few countries, where cohabitation is rarer, there is some evidence of a more "modern" cohabitation that is practiced by elites. To explain the various levels and trends in cohabitation among the countries, I hypothesize that cohabitation in some contexts could be a result of prolonged periods of conflict. Also, a country's level of cohabitation appears to be inversely associated with the median age of union entry. These results call for more nuanced scholarship on union formation in sub-Saharan Africa that is sensitive to diversity within the region and responsive to the changes that are underway in the composition of unions by these union types.

1. INTRODUCTION

Recent studies on marriage in sub-Saharan Africa document the numerous changes union formation is undergoing in the region. Generally, age at marriage is rising (Bongaarts et al. 2016); child marriage, especially for girls at older ages, is declining (Koski et al. 2017); fewer women, particularly the more educated, are in unions than previously (Shapiro and Gebreselassie 2013); and divorce rates remain stably high in most countries (Clark and Brauner-Otto 2015). Absent from this literature, however, is the examination of cohabitation in the region. Where studies exist, they have been on specific individual countries, notably South Africa and Botswana (e.g. Moore and Govender 2013; Posel et al. 2011; Shope 2006 on South Africa, and Mokomane 2006 and 2013 on Botswana). This omission is all the more conspicuous when demography's recent attention to cohabitation in other regions is considered.

Scholars studying unions in sub-Saharan Africa attribute this silence to the difficulty in distinguishing between informal unions and customary premarital cohabitation. Marriage in Africa, it is argued, is not a discrete event as it is in the West, but the culmination of a process that could span years (Meekers 1992, Bledsoe and Pison 1994). In his highly influential study of marriage in Cote d'Ivoire, Meekers (1992) highlights cohabitation, sexual relations, and a wedding ceremony as phases of the marriage process. This processual nature of marriage, coupled with the absence of survey tools designed to capture this process, complicates the use of standard survey data by demographers who wish to distinguish between "unions in process" from casual consensual unions. As a result, it has become standard practice for analyses using survey data, most commonly from the Demographic and Health Surveys (DHS), to treat those who report to be "living together" as married when examining phenomena that call for the definition of a married pool (Shapiro and Gebreselassie 2013: 232-2; Clark and Brauner-Otto 2015: 588; Koski et al. 2017:8; Clark et al. 2017:6).

While these and other studies have begun from the fact of marriage in sub-Saharan Africa being fluid and treat those who self-report as “living together” as “married”, this paper seeks to look beneath this conventional view of African marriages. Using DHS data on self-reported marital status, I examine “living together” in 21 sub-Saharan African countries. I argue that the manner in which we continue to characterize marriage in the entire subcontinent has obscured any variation that may exist in the region. While this alone is reason for such an analysis, I offer that it is critical to distinguish cohabitation from marriage as the former likely enjoys less social and legal recognition. I also argue that the merging of cohabiting and married women results in a loss of valuable data on the contexts in which union formation is occurring. I unpack each of these arguments in the section that follows.

To meet these aims and contribute to our portrait of unions in contemporary sub-Saharan Africa, this study uses DHS data on *current marital status* to answer three questions. (1) What are the levels of cohabitation in 21 African countries? To address this question, I use data from the most recent DHS survey to estimate the proportion of all current unions that are comprised by cohabitation, weighted to be nationally representative, for each country. The selection criteria for the 21 countries and the choice of this measure are discussed in the “Methods” section. I find that there is a wide range in the levels of “living together” in the 21 countries; in some countries, virtually no unions are comprised by cohabitation while in others, up to a half are. (2) What is the trend in the prevalence of cohabitation in these countries in the past 2 decades? Using all available cross-sectional waves of DHS surveys, are cohabiting unions in the 21 countries stable, on the rise, or in decline? For these two questions, the age-patterning of the prevalence in cohabitation will also be reported. While in most countries there have been increases in the level of cohabitation, in others, there is stability and in other still, declines have occurred. (3) At the individual-level in each country, what factors are associated with cohabiting versus being married? That is, if cohabiting women are different from married women, how do they differ? To address this question, I will employ a logit multivariate regression approach

at the individual-level testing the salience of factors found to be correlated with cohabitation in existing literature. Like the measure used in the first two questions, a discussion on the selection of this strategy will be offered in the ‘Methods’ section. I find that in 12 countries, cohabitation is associated with lower socioeconomic outcomes; in 7, higher socioeconomic status (SES) women have greater odds of cohabiting; and in 2 countries, cohabiting and married women are not systematically different. Interestingly, where cohabitation is rare, it is more likely to be practiced by higher-SES women, and where it is most prevalent, it is associated with lower-SES women.

2. BACKGROUND

2.1. Motivations of Study

The view that marriage in sub-Saharan Africa is not a discrete event as it is in the West is based on ethnographic work, largely in West African societies, in the mid-to-late twentieth century (Bledsoe and Pison 1994: 2). Meekers’ (1992) study - which utilized an unusual instance in which a large demographic survey (the 1980-81 Ivorian World Fertility Survey) responded to the cultural specificities of the population studied by capturing the various stages of marriage for some Ivorian subgroups - was the first instance when this anthropological finding was taken up by demography. Strikingly, these findings set the standard for demographic work on marriage for the entire sub-Saharan Africa. That marriage in Africa is a process is the commonsense assumption from which scholarship on unions in the region begins. Interestingly, if anthropology is said to particularize while demography generalizes (Hammel and Friou 1997: 191), in this encounter between the two disciplines, the particular has been generalized.

This generalization is perhaps not surprising given the Western-African binary that is explicit in the manner in which marriage in Africa is opposed to marriage in the West where it is a “discrete event” (Meekers 1992). As Hall (1992:189) argues, when such dichotomies are made, we essentialize the two regions and preclude diversity within each of them. It is this diversity within sub-Saharan

Africa that this paper sets out to explore by looking beneath *African Marriage is a Process*. Do different countries in the region exhibit varying levels of “living together” that we fail to see because of the broad characterization? In addition, Hall (1992) offers that such bifurcations also exaggerate difference between groups. When we consider current union formation processes in Western and African countries, convergences that weaken this bifurcation emerge. For example, from the 1970s onwards, marriage in the United States and Western Europe has undergone dramatic changes with cohabitation being seen as a testing ground and prelude to marriage, particularly in the United States (Forste 2002; Heuveline and Timberlake 2004; Edin et al. 2004; Hiekel and Castro-Martin 2014). Similarly, this Western/African dichotomy overlooks institutional changes that may necessitate that marriage, where it was a process, become more discrete.

This brings me to my second argument for making cohabitation in sub-Saharan Africa visible. Cohabiting unions enjoy less legal and social recognition than formalized marriages. Their precarious position, particularly in light of the high union dissolution documented in the region is another reason for their study (Clark and Brauner Otto 2015). Absent from the view that marriage in Africa is a process is the consideration of the state as an arbiter of marital rights and resulting *ramifications for marital status fluidity (where it applied) that were previously absent*. Marriage laws of modern African states that are influenced by colonialism (Pitshandenge 1994) and by the state’s need for its population to be legible (Scott 1998), might make it such that the state does not recognize customary cohabitation that lacks complete social recognition and no legal binding. So, while marriage could indeed be culturally understood as a process by some groups, the practices of the state allow little room for such ambiguity. Meyer (1997) would characterize this as the “decoupling” of state practices from its citizens’ norms. Rwaenzura (1998), writing on Tanzania’s decision to remove existing protections for cohabiting unions that become “de facto” marriages after two years, clearly illustrates these tensions:

“... the task of gathering statistics, even if undertaken, would be very difficult indeed, especially in relation to unions that have a customary law origin. This is mainly because the line between a de facto union and an irregular or incomplete customary marriage is often hard to draw. In any case, the need to define marriage in a more precise manner is created by Western law which views marriage as an event. African customary law has traditionally viewed marriage as a process which is capable of completion over time.” (191-2)

Ongoing debates in the region suggest that these issues are not merely theoretical. In Uganda for example, the Marriage and Divorce Bill which has been in contestation for around a decade, seeks to “repeal and consolidate” all existing laws on “Civil, Christian, Customary, Hindu and Bahaima marriages” and requires that they all be registered (Uganda Law Reform Commission, 2017). Interestingly, the delay in passing the bill into law was because of a clause, now removed from the bill, that provided for property rights for cohabiting partners who have been in a union for more than 10 years (Heuler 2013; *The Independent* 2018). So, like the previous example of Tanzania, legal protections for individuals in cohabiting unions are not just absent, in some cases, they are in fact rescinded. Apart from these two East African countries, similar debates are taking place elsewhere in the region. Arguing for the extension of family law to cohabiting unions in Nigeria, Attah (2012) also discusses the law’s lack of recognition of customary marriages that were not completed. In Namibia (Hubbard 2010) and South Africa (Goldblatt 2003) too, there are calls for the recognition of cohabiting unions that currently enjoy no legal protection. We can expect these debates will become only increasingly common as African states continue to widen their reach as countries pursue development (Ferguson and Lohmann 1994) while extended kin networks that previously performed this arbitration role lose theirs because of processes such as urbanization (Bell 1997, Das Gupta 2010).

In addition to the importance of examining cohabiting unions in and of themselves, this study is also motivated by what cohabitation can tell us about larger social processes. After all, unions are inevitably shaped by the social, economic and political contexts in which they are formed. For example, in South Africa, the high prevalence of cohabitation among Blacks speaks to the upholding

of customary bridewealth payments that are undergoing increasing commercialization in the market economy (Shope 2006); apartheid-era labor migration policies that separated married couples and sometimes resulted in informal partnerships in urban areas (Hosegood et al. 2009); among other factors. Similarly, Botswana's "exceptionally" prevalent cohabitation reflects its mobile male migrant population and a marriage squeeze which has resulted in the circulating of scarce men through multiple informal partnerships. Mokomane (2006) also attributes the high levels of cohabitation in Botswana to high rates of premarital childbearing and the difficulty in getting married after such births. As a last example, in Cote d'Ivoire, Matlon (2016) finds that cohabitation among Abidjanais men is linked to the centrality of wage-labor in the construction of masculinity, a legacy of French colonialism, and the consequent unmarriageability of unemployed men who cohabit instead. In short, union formation occurs in specific social contexts that manifest themselves in patterns of marriage and cohabitation. Closely examining different union types – and this paper's aim at making them visible is only a first step - is likely to reveal these underlying phenomena.

2.2. Factors Associated with Cohabitation

What factors are associated with cohabiting versus being married? Before unpacking this, it is important to distinguish between two cohabitations. I borrow from Covre-Sussai et al. (2015) who find *traditional* and *modern* (which encompasses the *innovative* and *blended* types) cohabitation in Latin America. In the traditional type, individuals are not rejecting marriage; rather, they are unable to meet the costs of formalizing their union. This type of cohabitation then, is associated with socioeconomic deprivations. Modern cohabitation on the other hand, is secular and the result of the eschewing of norms. Cohabitors in this type are of a higher socioeconomic class, have high levels of education and more individual autonomy. Covre-Sussai and colleagues, as do Esteve et. al (2012), identify this cohabitation with the second demographic transition (SDT) that has seen the emergence of a variety of new living and family arrangements in Europe and North America (Lesthaeghe 2010). The

innovative and blended types of modern cohabitation are primarily differentiated by their fertility outcomes, with the latter exhibiting high fertility that is incongruous with the SDT.

Returning to the cohabitation discussed by Meekers (1990) (and Meekers and van de Walle 1994) in his study using the Ivoirian WFS, the procedural cohabitation that might precede a marriage can be viewed as a prime example of traditional cohabitation. It follows that then that age and duration spent in a union are correlates of whether a union has been formalized or not, with more time spent in a partnership corresponding to a completion of the various stages towards marriage. A prolonged duration spent cohabiting could be a result of difficulties in completing the marriage process. Evidence from South Africa, where the high prevalence of cohabitation among Blacks has been explained in part by the inability to complete bridewealth payments (*lobola*) which are critical for marriage in some communities, is an illustration of this. As Posel (2011) reports, less than a quarter of black women in South Africa are married; an estimate that is all the more striking when compared to white South Africans whose marriage rate is three times higher. Because of the salience of bridewealth, working-class black South Africans are more likely to be cohabiting than more economically stable Blacks (Goldblatt 1999 as cited by Budlender et al. 2004; Goldblatt 2003; Posel 2011). Isiugo Abanihe (1994) documents a similar pattern among the Igbo in Nigeria. He finds that increasingly, there is an education premium on bridewealth payments that has driven them up to “unprecedented levels” as women continue to receive more education (78). While this increase primarily led to the postponement of union formation, Isiugo-Abanihe also finds cohabitation as a response to these prohibitive bridewealth payments. Mokomane’s (2005; 2013) work in Botswana also finds a link between cohabitation and “stringent” bridewealth payments, with less educated, low-income, and unemployed men likely to be cohabiting as a result (2005: 26).

Apart from the inability to cover the costs of marriage, other factors mediate the relationship between one’s socioeconomic status and whether they are cohabiting or married. Like Covre-Sussai

et. al (2015: 879), Attah (2011), writing on Nigeria, argues that highly-educated individuals are less likely to be cohabiting because of an awareness of the legal benefits of marriage. Of course, the access to these institutional advantages, and not just an awareness of them, among the educated is likely to mediate this association. In addition, as Smith (2001) finds among the urban affluent in Nigeria, higher-educated individuals are more likely to opt for union types that are more instantly formalized due to the increasing aesthetic, as well as Christian value, attached to “white weddings” (138).

Looking elsewhere, there is also evidence of traditional cohabitation that is more common among lower socioeconomic classes in the United States (Lundberg and Pollak 2013; Watson and McLanahan 2011; Sassler and Miller 2011; Edin et al. 2004; Edin and Reed 2005; Bumpass and Lu 2000). From their study of low-income cohabiting parents in several American cities, Edin et al. (2004) find that their cohabiting respondents aspire to marriage but “insist on marrying well” (1013). As a result, they cohabit until meeting personally and socially defined conditions for marriage. What emerges from this literature is not just how marriage might be inaccessible to persons in lower class positions who are unable to meet certain criteria, but also, and critically, *how the criteria for marriage are themselves changing*. Cherlin (2005) persuasively argues that the seeming retreat from marriage in the United States is in fact explained by its increased symbolic significance which has made it more difficult to attain. The increase in bridewealth payments in some African contexts is an example of such a change in criteria that is linked to an increased prevalence in, or prolonging of, cohabitation.

In addition to these socioeconomic correlates of traditional cohabitation, some scholars have found a link between cohabitation and polygamy, a common practice in some sub-Saharan African countries that simultaneously continues to have staying power while enjoying less acceptability (Pitshandenge 1994: 118). Examining the urban elite in colonial Lagos, Mann (1994) documents the conflict between maintaining both a “modern” monogamous aesthetic as well as a “traditional”

polygamous one experienced by some men. The result of this tension is formalizing a union with one woman and having informal unions, “outside marriages”, with other partners. Letamo (1993) and Locoh (1994) argue the same for Botswana and Togo respectively. Such cohabiting unions (though here the *co-residing* aspect of *cohabitation* is complicated) can be viewed as aspiring to marriage but hindered by the increasing legal and normative preference for monogamy. We can expect that same-sex couples, who face such social and legal hurdles in many contemporary African countries, are likely to be cohabiting.

The modern type of cohabitation on the other hand, more ideational in nature, is not seen as a step towards, or a placeholder for, marriage. Lesthaeghe (2010, 2014), the leading proponent of the Second Demographic Transition theory, argues that cohabitation, along with other family arrangements outside the conjugal nuclear family (traditional in Western Europe and North America), are a result of secularization, increased individual autonomy and more egalitarian gender relations. This modern cohabitation then, results not from challenges in getting married, but from the subversion of tradition associated with drivers and markers of “modernity” such as urban residence and high levels of education. So, while the higher-educated are more likely to be married in many settings, in some, and particularly where cohabitation is rare, they are more likely to eschew marriage. For example, in Sweden, the exemplar of modern cohabitation, consensual unions with no religious recognition emerged among an educated elite (Trost 1988 as cited by Kiernan 2001:2).

Of course, this traditional/modern typology borrowed from Covre-Sussai et al. (2015) is designed to simplify what is an otherwise multifaceted phenomenon. For example, while traditional cohabitation is driven primarily by material reasons, it requires normative cover that legitimate these socioeconomic justifications. Nicely bringing together the two cohabitations are Esteve et al. (2012) who apply the “ready, willing and able” (R.W.A) framework developed by Coale (1973) (and further

elaborated on by Lesthaeghe and Vanderhoeft 2001) in their study of cohabitation in Latin America. An individual is “ready” to take up a practice if its benefits outweigh its costs; is “willing” when it is normatively acceptable; and is “able” when they have access to the practice (Lesthaeghe and Vanderhoeft 2001: 240-1). While traditional and modern cohabitation (Esteve et al. term them “old” and “new”) are primarily explained by “ready” and “willing” respectively, it is likely that all three components of R.W.A. contribute to the two types.

How cohabitation in the 21 sub-Saharan countries I observe is patterned along these factors will be explored in the multivariate regression analysis used to address my third question.

3. METHODS

3.1. Data

To examine trends in cohabitation in sub-Saharan Africa, this paper will use data from the Demographic and Health Surveys (DHS). The DHS program, funded primarily by the United States Agency for International Development (USAID), is the largest and longest-running cross-national survey in the Global South. The first wave of data collection, DHS-I, was conducted in the mid to late 1980s. As conveyed by their name, the surveys are mainly geared towards generating statistics on population growth, particularly fertility, and health. DHS data continues to be used extensively by demographers for academic and policy purposes. In addition to being publicly available (the registration process through which one acquires access to the data is fairly straightforward), the surveys have the advantage of being largely consistent allowing for studying phenomena in 1 country across time as well as making cross-country comparisons.

I use data from the Individual Women's Data - Individual Recode (IR) dataset. The main variable of interest is the response to the question on current marital status which has the following response options: “never married”, “married”, “living together”, “widowed”, “divorced” or “not

living together”. The phrase “living together” is elaborated as follows in the Liberian 1986 survey report (the earliest one in the sample): **stable cohabitation, such as a man and a woman living together and having sexual relations without any legal or customary binding** (Chieh-Johnson et al. 1988: p. 15). This designation is consistent across other countries’ surveys.

3.2. Sample

I include only those countries with more than 1 data point for “living together” to enable a comparison across time for each country. Because cohabitation is likely to have different meanings at the sub-national level (let alone at the national level), I limit the sample to a countries with multiple cross-sections to get a sense of their propensities for “living together”. Countries with only 1 DHS survey, as well as those with only 1 survey in which “living together” is a response option for the question on current marital status were dropped (in some of the earlier waves in several countries, data on cohabitation is unavailable; cohabiters were coded as “married”). On average, there is a 19-year difference (median – 20 years) between the earliest and most recent survey year. The samples range in size from 3,040 (Cote d’Ivoire 1998) to 38,948 (Nigeria 2013). Sampling weights, so that the data are nationally representative, are applied when making inferences on the prevalence of cohabitation in a country.

----- TABLE 1 HERE -----

3.3. Measures

The measure in the first part of the analysis is the percentage of all current unions that are comprised by cohabitation. Table 2 presents cohabitation as a total share all current unions and by age-groups for the 21 countries from the most recent survey. Table 3 shows the percentage cohabiting in the first and most recent survey side by side. To gauge whether the trend in cohabitation as a share of all unions in each country is driven by an increase in cohabitation or a fall in marriage, the percentage of all

women in the sample who are currently cohabiting, as well as the proportion of all women in unions are also shown on Table 3. Figure 1 shows cohabitation, broken down by age groups, as a percentage of current unions for all available surveys in the 21 countries.

The third part of the investigation uses a multivariate logit regression approach to explore the factors associated with cohabitation at the individual-level in each country. This regression analysis will compare cohabiting women to married women and examine how they differ across a set of key demographic and socioeconomic characteristics. As this study is premised on studying cohabitation in sub-Saharan Africa in a bottom-up fashion, I do not pool the data for the 21 countries which would aggregate the socioeconomic patterning of cohabitation in the region and obscure any variation among the countries. A multivariate regression strategy has been chosen because some of the correlates of cohabitation versus marriage are likely to be competing. For example, if younger women are more likely to be cohabiting, is this because they are likely to be in newer unions, or because there is a generational difference in cohabiting? Apart from separating these associations, a regression framework also identifies the relative strength of the different correlates. This analysis will be limited to women in first unions for whom data on the duration of current unions is available.

The dependent variable is a dummy that is “0” if a woman reports being married and “1” if she reports “living together” as her marital status. An important caveat is that this variable only tells us a woman’s *current* union status and does not capture whether a married woman initially cohabited. Conversely, women whose status is currently “living together” could transition to “married” in the future. The independent variables included in the model are the socioeconomic variables discussed earlier, as well as demographic characteristics. These are dummy variables for: a woman’s age (“0” for 15-19, “1” for higher age groups); type of place or residence (urban “1” compared to rural “0”); level of education (“0” for no education, “1” for the three education levels included in the equation below); labor force participation (“1” if woman works outside the home, “0” otherwise); polygamy (“1” if a

woman's partner has other wives/partners, "0" if partner is monogamous); wealth quintile ("0" for "poorest" women and "1" for each of the higher wealth quintiles: "poorer" "middle" "richer" "richest") and continuous variables for the duration of cohabitation. A woman's reported religion (with other religious affiliations compared to traditional religion) and ethnicity will also be included. The multivariate regression equation is specified as follows:

$$\begin{aligned} \text{logit}[\pi(\text{cohab})] \\ = \alpha + \beta_1 \text{age20to24} + \beta_2 \text{age25to29} + \beta_3 \text{age30} + \beta_4 \text{urban} + \beta_5 \text{primaryed} \\ + \beta_6 \text{secondaryed} + \beta_7 \text{highered} + \beta_8 \text{poorer} + \beta_9 \text{middle} + \beta_{10} \text{richer} \\ + \beta_{11} \text{richest} + \beta_{12} \text{working} + \beta_{13} \text{yrsofcohab} + \beta_{14} \text{polygamous} \\ + \beta_{15} \text{muslim} + \beta_{16} \text{catholic} + \beta_{17} \text{protestant} + \beta_{18} \text{otherchristian} \\ + \beta_{19} \text{other} + \beta_{20} \text{none} + \beta_{21} \text{ethnicity} \end{aligned}$$

Descriptive statistics for these variables for each country are presented in the Appendix section

3.4. Data Limitations

Choice of Measures

Like all research that uses secondary data, this study's questions and analytic approach are necessarily bounded by the scope of the available data. And in the case of union formation in sub-Saharan Africa, data limitations are nontrivial. Available cross-country data is almost entirely that which is repurposed from surveys like the DHS where sexual unions are incidental and primarily viewed in the context of fertility. For example, in some of the earliest DHS reports, marital status was reported under the headers "the proximate determinants of fertility" (e.g. Nigeria 1990, Namibia 1992) and "exposure to the risk of pregnancy" (e.g. Liberia 1986, Ghana 1988). As a result, robust data on union history in cross-sectional surveys that might address the complexities in studying union formation is absent. This limitation precludes the use of standard demographic techniques such as event history analysis which would have been suitable in capturing the transition from cohabitation to marriage. These data considerations inform my use of measures which are necessarily snapshots of current marital status.

In my analysis of the prevalence and trends in cohabitation, I examine the share of all current unions comprised by cohabitation. In the second analysis, I compare women in their first unions who reported their current marital status as “living together” to those who provided “married” as their response.

With these measures, I am unable to distinguish between period and cohort effects. For example, if younger women are more likely to be cohabiting than older women, I am unable to identify whether this is explained by cohabitation becoming increasingly common in the current period compared to a previous one (period effects) or by cohabitation being a stage in the life course of a woman that she completes as she ages (cohort effects).

Assumptions

One important assumption I make in this study is that there are no systematic reporting errors in how women report their marital status in the 21 countries. That is, if there is misreporting, it occurs in a random manner that cancels out at the aggregate level (Drost 2011). Reasonably, it could be argued that cohabiting women are more likely to report themselves as married due to stigma or a sense of “for all intents and purposes I am married”, than the reverse, married women reporting to be “living together”. If this is the case, then this reporting error will only bias my estimates of cohabitation downwards, leading me to present conservative results.

Another related assumption I make is that for each country, the manner in which women describe their current marital status remains stable across the multiple surveys. That is, between the first and most recent DHS survey, there is no reason, for example less stigma, that would make cohabiting women report themselves as married and vice versa *differently* in the twenty-year period. I regard this as a permissible assumption as cultural norms around union formation are not likely to dramatically change in a period of 2 decades.

4. RESULTS AND PRELIMINARY OBSERVATIONS

4.1. Prevalence of Cohabitation

Table 2 reports cohabitation as a percentage of all current unions for the most recent DHS survey. There is a notable range in the prevalence of cohabitation among the 21 countries: from 1% in Zambia to 52% Liberia.

In six countries, cohabitation appears to be rare. These are Burkina Faso, Ethiopia, Guinea, Nigeria, Zambia and Zimbabwe where women who report to be “living together” make up 5% or less of all women currently in a union. In four countries - Comoros, Kenya, Malawi, Madagascar - cohabitation is less rare but comprises less than, or about, a tenth of all unions. In Benin, Cameroon, Ghana, Tanzania and Togo, cohabitation comprises between 20-30% of all unions. In the remaining six countries where cohabitation is most prevalent, more than a third of all unions are cohabiting ones. Strikingly, in Uganda and Liberia, 50% and 52% respectively, of all women in unions describe their marital status as “living together”.

Table 2 also presents these estimates for women in different age-groups. In all 21 countries, there is an age gradient in cohabitation. Women aged between 15 and 19 years report higher shares of cohabitation than women in higher age brackets (except in Benin, Kenya and Nigeria where women in unions aged 20-24 cohabit in slightly larger proportions). In Namibia and Rwanda, where this age gradient is particularly apparent, almost all women in the youngest age bracket are cohabiting. While we are unable to distinguish period and cohort effects from these estimates, this age patterning squares well with the view that marriage is a process: older women, assuming they have been in their current unions for longer durations, are more likely to be married. Considering this, it is striking that in several countries, more than a third of women older than 30 are cohabiting (Cote d'Ivoire, Liberia, Mozambique, Namibia and Uganda).

When the analysis is restricted to first unions to examine the correlates of cohabitation, we see that the total level of cohabitation is driven up by post-marital cohabitation. For example, in Cote d'Ivoire, Ghana, Liberia, Uganda and Namibia, when higher-order unions are dropped, the share of all unions comprised by cohabitations falls by 5 to 7 percentage points. This suggests that divorcees and widows in these countries cohabit at higher proportions than women in their first unions. The opposite is true for Mozambique where the level of cohabitation increases when we observe only first unions which indicates that lower shares of women in higher-order unions cohabit than never-married women. See the Appendix for these estimates.

----- TABLE 2 HERE -----

4.2. Trends in Cohabitation

As is the case with the prevalence of cohabitation in the 21 countries, there is no one pattern in the trend in cohabitation in sub-Saharan Africa in the past 2 decades. Table 3 presents cohabitation as a share of all current unions for the first and the most recent DHS surveys. Figure 1 shows the age-patterning of cohabitation for each country from all available DHS surveys. As shown by Table 3 (column 3) and Figure 1, in 8 countries (Cameroon, Comoros, Cote d'Ivoire, Ghana, Namibia, Tanzania, Togo and Uganda) there are notable increases in cohabitation. In Kenya and Malawi, increases have been modest while in Ethiopia and Zambia (particularly the former), cohabitation appears stable. Zimbabwe and Guinea show modest declines compared to the more dramatic decreases that occurred in Liberia, Rwanda, Nigeria and Mozambique. In a few countries, as can be seen on Figure 1, trends are not clearly discernible (Benin, Burkina Faso and Madagascar).

Among countries where cohabitation is on the rise, Uganda is most notable: cohabitation as a share of all unions has risen by 30 percentage points, a more than doubling. Tanzania and Ghana have also experienced dramatic increases, in their case manifold, in the share of unions that have not been

formalized; from 5.3% to 27.5% in Tanzania, and 7.9% to 25.4% in Ghana. When columns 1 and 2 are considered, it becomes clear that some of the increases in cohabitation as a share of all unions are attributable not to increases in cohabitation, but to decreases in marriage. Taking Namibia as an example, while cohabiting unions were around 47.3% of all unions in 2013, up from 34.9% in 1992, the proportion of all women in the sample living with a partner only increased from 14.6% to 16.1%. This suggests that while cohabitation has indeed increased, its growing share of all unions is largely explained by women opting out of unions altogether and remaining single (column 1). Other countries where this is also the case are Comoros and Cameroon. Uganda, Tanzania, Ghana, Cote d'Ivoire and Togo retain their notable increases in cohabitation as a share of all unions even with a retreat from marriage for singlehood (which we do see, especially in Ghana) is accounted for. While in passing, Clark and Brauner-Otto (2015: 601) have also picked up on the uptick in cohabitation in these countries (although these authors also included Benin in this group which is not supported by the data from the intervening surveys which suffers from considerable erraticism, see Figure 1).

Among the countries where cohabitation has fallen from the first DHS survey to the most recent, Mozambique has experienced the largest decline; 39.3 percentage points. This very drastic fall represents a more than halving of the share of all unions comprised of cohabitation. Declines in the share of unions that have not been formalized are theoretically puzzling because cohabitation is associated with structural factors such as socioeconomic (traditional) and normative (modern) changes that are not typically reversible in the short-term. It could be expected that cohabitation, especially of the modern kind, only becomes increasingly common in a population. At first glance, it appears that the countries that exhibit these decreases have all emerged from moments of instability due to conflict (Mozambique, Liberia, Guinea, Nigeria, Rwanda) and adverse economic conditions (Zimbabwe) roughly around the timing of the unions reported in the first DHS survey. This is all the more striking because the cohabitation in the first DHS is highest in Mozambique, Liberia and Rwanda; countries

where conflict has been particularly prolonged and severe. This suggests that there could be an upswing in unions that have not been formalized by a civil, religious or customary ceremony during periods of socioeconomic and political hardship. If this proposition is accurate, can the notable increases in cohabitation in some countries be understood in this light? While a careful examination of this hypothesis is beyond the immediate scope of this analysis, it will be revisited in the discussion.

Figure 2, which plots the prevalence of cohabitation in the most recent DHS against that in the first DHS, is a quick summary of the trends discussed here.

----- TABLE 3 HERE -----

----- FIGURE 1 HERE -----

----- FIGURE 2 HERE -----

4.3. Correlates of Cohabitation

Table 4 presents the results of multivariate regressions of various socioeconomic and cultural variables on cohabiting for women in their first unions in each country. The correlates are presented as odds ratios, with an odds ratio less than one indicating that a variable is negatively correlated with cohabitation, an odds ratio of one suggests no correlation, while an odds ratio greater than one indicating a positive association. If the odds ratio is statistically significant (reported for the 5%, 1% and 0.1% levels) it is not equal to one, suggesting that even when other competing factors are considered that variable is significantly associated with cohabitation versus being married.

----- TABLE 4 HERE -----

Below, I discuss how each of the socioeconomic variables are associated with cohabitation:

1. *Age* – Where age is a salient correlate of cohabitation, younger women in unions have higher odds of cohabiting than comparable older women. In 13 countries women aged 15-19 are more likely to be cohabiting than older women with monotonic declines in the odds ratio of cohabiting as you move towards higher age brackets. Strikingly, in Benin, Kenya, Liberia,

Mozambique, Tanzania, Zambia, Ethiopia and Malawi, there is generally no age patterning of the odds ratio of cohabitation (though in the last 2 the odds ratio for women aged 25-29 are lower).

2. *Urban Residence* – Generally, higher shares of cohabiting women than married women live in urban areas (see the descriptive statistics in the Appendix section). At the individual-level, in half of the countries, women in urban areas have higher odds of cohabiting than comparable rural women. Only in Nigeria is a woman who lives in a rural area more likely to be cohabiting than an urban one. Strikingly, urban residence is a salient correlate of cohabitation in countries where cohabitation is most prevalent: Liberia, Uganda, Namibia, Cote d’Ivoire, Mozambique, Rwanda, Tanzania and Ghana.
3. *Education* – Education is a salient correlate of cohabitation in most of the countries observed. Only in 5 countries (Cote d’Ivoire, Kenya, Malawi, Zambia and Zimbabwe) do the odds of cohabitation not vary by education. In 11 countries, higher education is correlated with lower odds of cohabitation. In 7 of these countries (Benin, Ghana, Mozambique, Namibia, Rwanda, Tanzania and Uganda) the odds of cohabitation generally decline as you move from women with little to no formal education to women with tertiary education. In the other 4 (Guinea, Liberia, Nigeria and Togo), the odds of cohabitation first increase by education, and then fall at the highest level. That is, it is women with little education, not no education, that have the highest odds of cohabiting. In the remaining 5 countries (Burkina Faso, Cameroon, Comoros, Ethiopia and Madagascar), the odds of cohabitation are the highest for women with higher education.
4. *Wealth* – The odds of cohabiting for women in different wealth quintiles exhibit various patterns in the 21 countries. In a few countries, with the other variables controlled for, the odds of cohabitation are not correlated with wealth (Benin, Ethiopia, Madagascar, Malawi and

Zambia). In others, the odds of cohabitation either increase steadily as one moves from “poorest” to “richest” women (Nigeria, Mozambique), or are highest for “richest” women (Guinea). The opposite is exhibited in other countries where odds fall consistently as you move towards higher wealth quintiles (Rwanda and Namibia). In the remaining countries, the majority, it is “poor” or “middle” (not “poorest”) women who have the highest odds of cohabiting with falls as you move towards the top quintiles. As with education in some countries, cohabitation in these cases is a more likely practice for women in low, not the lowest, socioeconomic positions.

5. *Working outside the home* – Looking first at the descriptive statistics, for all but 4 countries (Ethiopia, Mozambique, Nigeria and Tanzania), lower shares of cohabiting women work outside the home than married women. When other variables are held constant in the multivariate analysis, the negative association between working and cohabitation remains salient at the individual level for 8 countries (Benin, Cameroon, Cote d’Ivoire, Kenya, Madagascar, Malawi, Rwanda and Uganda). The correlation maintains its positive correlation in Ethiopia, Mozambique and Tanzania, and emerges as positive in Liberia and Zimbabwe. While working outside the home could be an indicator of a woman’s individual autonomy, it is an imprecise measure of socioeconomic position as women at both extremes (poorest/wealthiest, least/most educated) are likely to be participating in the paid workforce. This is captured by the “U-shaped” pattern between education and a woman’s labor force participation (Mammen and Paxson 2000; Lahoti and Swaminathan 2015).
6. *Years of cohabitation* – The length of a union, captured here by how long a couple has lived together, is generally negatively associated with cohabitation. With the exception of Guinea, in all countries, a 1-year increase in the duration of the union is negatively associated with that union being described as “living together”. This association ranges from a 2.1% (Malawi) to

12.3% (Cameroon) decrease in the odds of cohabiting for every additional year of being in a first union.

7. *Polygamy* – In 13 countries, women whose partners are polygamous are more likely to be cohabiting when compared to women with monogamous partners. The magnitude of the association in several of these countries is striking; Ethiopia (6.268), Rwanda (4.044), Madagascar (3.562) and Zambia (3.157). Among the 8 countries where polygamy is not correlated with cohabitation, 6 are West African. One possible explanation for this West African bias is the prevalence of polygyny in the region, the highest globally, which might mean that the practice is more acceptable, and a polygamous man is able to formalize his all multiple partnerships (Ezeh et al. 1996 as cited by Blesdoe 2002: 73).
8. *Other “cultural” controls* – Even with the union characteristics and socioeconomic variables above controlled for, a woman’s religion and ethnicity are correlated with her union status in several countries. This is only expected as norms around sexual unions are strongly dictated by religion and customary traditions. In 6 of the 15 countries with data on ethnicity, a woman’s ethnic identity is significantly correlated with her odds of cohabitation. Similarly, in most countries, reported religion is also associated with her union status. While each country where religion is a salient correlate exhibits a unique patterning of cohabitation by religious affiliation, one consistent finding is that Muslim women generally constitute a smaller share of cohabiting unions than marriages (see descriptive statistics in Appendix), and have lower odds of cohabiting.

To summarize the vast information presented in the discussion above, I offer a rough categorization of the 21 countries based on manner in which the odds of cohabitation are patterned. Following Covre-Sussai et al. (2015), I privilege the socioeconomic variables (education and wealth) I examined. Where the correlations with education and wealth behave incongruously,

as is the case with Mozambique, I give more weight to the association with “higher education” which is a better indicator of socioeconomic status as it is a more selective measure of status compared to the “richest” wealth quintile to which a fifth of all women automatically belong. The categories are as follows:

1. *Low socioeconomic status:* Congruent with the “traditional” cohabitation from Cove-Sussai and colleagues’ typology of cohabitation in Latin America, here, cohabiters are likely to lack the inputs necessary to formalize their unions. Based on the association between cohabitation at the individual-level and a woman’s education and/or the wealth quintile they belong to, 12 of the 21 countries fall in this category. These are Benin, Cote d’Ivoire, Ghana, Kenya, Liberia, Mozambique, Namibia, Rwanda, Tanzania Togo, Uganda and Zimbabwe. Noticeably, the countries where cohabitation is most prevalent (with the exception of Cameroon) all belong here.
2. *High socioeconomic status:* There is a little evidence of the “modern” cohabitation of Cove-Sussai et. al in Burkina Faso, Cameroon, Comoros, Ethiopia, Guinea, Madagascar and Nigeria. In these 7 countries, higher levels of education and wealth are associated with greater odds of cohabitation. This is particularly striking for Cameroon, Comoros, Ethiopia and Madagascar. That polygamy is associated with cohabitation in all but one of these countries somewhat challenges this categorization as it suggests that cohabiting women might be considered “outside wives” which undercuts the ideational motivation underlying this union type (Mann 1994). In addition, that rural women in Nigeria have higher odds of cohabiting is also incongruous with this category. With the exception of Cameroon, these countries have very low to moderate levels of cohabitation. This suggests that in contexts where cohabitation is not common and is an “avant-garde phenomenon”, it is likely to be practiced by a more secular group (Kiernan 2001). This point is supported if we consider that excepting Madagascar, these

countries have large Muslim populations, for whom (as suggested by the individual level results) cohabitation is atypical, meaning cohabitators are vanguards and particularly nontraditional.

3. *Unpatterned by socioeconomic status* – This type of cohabitation does not appear to be patterned along the socioeconomic variables tested in this paper. In the sense that studies that investigate unions in sub-Saharan Africa have not questioned how women reporting to be “living together” differ from those who report to be “married”, it is this cohabitation that is implicitly assumed. Malawi and Zambia best fit this category. These two countries also stand out from the rest because cohabitation is barely associated with age. However, like several others, polygamy is a salient correlate of cohabitation for women in both Malawi and Zambia.

The suggested typology above is intended only as a broad-stroke summary of the factors correlated with cohabitation at the individual-level in the 21 countries. Each group contains in it a heterogenous set of countries whose union formation practices can hardly be imagined to be uniform within the country let alone in this cross-national framework. There does, however, appear to be coherence within the categories if we take geographical proximity as a rough proxy for sociocultural similarity: cohabitation in several sets of neighboring countries appear to behave similarly (e.g. Malawi and Zambia; Comoros and Madagascar; Cameroon and Nigeria; Kenya, Uganda and Tanzania).

More importantly, there is a strong association between the type of cohabitation that is dominant in a country and the prevalence of cohabitation in that country. The more materially-explained *Low SES* cohabitation occurs where the practice is more common whereas in countries where cohabitation is rare, it is likely to be the more ideationally explained *High SES* cohabitation. Figure 3 presents boxplots of the prevalence of cohabitation by the two types.

----- FIGURE 3 HERE -----

5. DISCUSSION AND CONCLUSION

This paper examines cohabitation – sexual unions in which partners live together without any legal or customary binding – in 21 sub-Saharan African countries using self-reported marital status from the DHS. Up until now, demographic studies have not distinguished between women who self-report as “living together” and “married” in sub-Saharan Africa as marriage in the region is believed to be a process that is marked by different stages including premarital cohabitation. Studies on Botswana and South Africa are exceptions. I set out to highlight these different union types to recover the diversity in the region that is obscured by the generalized view that the *African Marriage is a Process*. I also offered that changes in the composition of unions by cohabitation and marriage are likely to be informative of the structural and normative contexts in which union formation in the region occurs. In addition, I argued that separating cohabitation from marriage is critical to reflect the reality of their different and consequential legal standing. As I show with the example of Uganda, debates on whether the state should recognize partnerships that have not been formalized can be hotly contested, and suggest that the difference in union types should receive more serious scholarly consideration.

Looking at the levels of cohabitation in the 21 countries, I find significant heterogeneity in the share of unions that are comprised by cohabiting unions. In some countries, cohabitation appears to be a rare phenomenon. Examples are Burkina Faso, Guinea, Ethiopia, Nigeria and Zambia where less than 5% of all unions were reported as cohabitation in the most recent DHS survey. On the other hand, in some countries, cohabitation is a very prevalent practice. In Uganda and Liberia, cohabiting unions make up 50% and 52%, respectively, of all unions. Notable levels of cohabitation are also found in Cote d’Ivoire, Mozambique, Namibia, and Rwanda where more than a third of all women in unions are cohabiting.

Turning to the changing levels of cohabitation from the first DHS survey to the most recent one, there is also a diversity in trends in the 21 countries. Very notable increases in cohabitation as a share of all unions have occurred in Uganda, Tanzania, Ghana, Namibia, Cote d'Ivoire, Togo, Cameroon and Comoros (with the first three countries showing the highest increases). Modest change occurred in Malawi, Kenya and Zambia with cohabitation levels in Ethiopia showing the most stability. In Rwanda, Nigeria, Liberia and Mozambique, there have been significant declines.

What can help explain the varying levels of cohabitation in different countries? Why does cohabitation rise in some countries and fall in others? Why are some countries exceptional given their neighbors' trends? For example, why does cohabitation in Nigeria appear to be declining when it is undergoing dramatic increases in nearby Cameroon, Ghana and Togo? Another regional outlier is Kenya which does not report the high increases in cohabitation experienced by its East African peers (increases in cohabitation in Uganda and Tanzania are the highest in the set out of countries observed)?

While addressing the above questions is beyond the scope of this paper, I offer a few hypotheses for further testing. The first hypothesis is that there is an increase in cohabitation as a result of socially disruptive events such as conflict. As I mention previously, the declines in cohabitation observed in a few countries are theoretically unexpected as cohabitation is associated with structural and normative factors that are not typically reversible in the short-term. One might predict that where cohabitation is customary, or where it is regarded as deviant, once underway, it only becomes more common. This finding creates room for some abductive analysis; using surprising results to generate hypothesis (Timmermans and Tavory 2012). That we see some of the largest declines in cohabitation as a share of all unions in Liberia, Rwanda and Mozambique, all post-conflict countries, suggest that cohabitation could be a response to instability in some contexts.

I focus briefly on Mozambique where the level of cohabitation in the first available survey is the highest among all the cross-sectional samples of the 21 countries I examine. Around three quarters of women in a union, and more than half of all women, in the 1997 Mozambican survey reported their current marital status as “living together”. Even allowing for reporting errors and ambiguity concerns, these figures are striking. The 1997 DHS survey was carried out 5 years after the end of a 16 year-long civil war. Preceding this conflict was the Mozambican War of Independence that took place between 1964 and 1975. Examining the correlates of cohabitation in 1997 Mozambique lends some support to this hypothesis. Distinct to the Mozambican Civil War was that the brunt of the conflict was borne by rural areas. RENAMO, the guerilla movement opposed to the national party, FRELIMO, explicitly set out to “destroy the Mozambican economy in rural zones” (Young 1990: p. 498). If the destruction of the rural economy was a war tactic, and the cohabitation-instability thesis is valid, this might explain why in the 1997 survey, rural women were far more likely to be cohabiting than urban women. As shown on Table 5, the odds that an urban woman was cohabiting instead of being married were less than half that for a rural woman. In the case of Rwanda and Liberia; the 1992 Rwandan survey was conducted 2 years after the civil war that culminated in the 1994 genocide, while Liberia’s 1986 survey was carried out 6 years after a military coup and 3 before the breaking out of the Liberian Civil War. This hypothesis might also help explain why cohabitation in Uganda is exceptionally high in the first DHS when compared to its neighbors (20% versus Kenya and Tanzania’s shared 5.3% in 1989 and 1991 respectively). The 1988 Ugandan DHS survey was preceded by several military coups, the Idi Amin dictatorship and the 1980-1986 Uganda Civil War.

Support for this hypothesis comes from Latin America where there is evidence that cohabitation in several countries responded to the bouts of inflation and hyperinflation experienced in the region in the 1980s (Esteve et al. 2012). In these Latin American countries however, unlike the 3 African cases, cohabitation does not decline after the economic shocks pass and only further

increases. It is to explain this rise in cohabitation in Latin America that Esteve and colleagues applied Coale's (1973) R.W.A. framework: during social and economic crisis, we can expect that having the resources to get married becomes increasingly harder (R) and social mores around union formation become lenient (W).

A second hypothesis for further study is that levels of cohabitation are highest for countries where entry into unions is the most postponed. Women in Namibia, Botswana and South Africa, as well as Rwanda and Ghana, have among the highest ages at union formation in the region as well as significant levels of cohabitation. Conversely, Ethiopia, Nigeria, Burkina Faso and Guinea, where women in the region enter unions at the youngest ages, have the lowest levels of cohabitation (Garenne 2004; Clark et al. 2017). This association might be explained by the relative autonomy of older women such that they can join informal unions than younger women. Alternatively, there might be less pressure on cohabiting partners to transition into marriage if later marriage is normatively acceptable. It is also possible that both union postponement and cohabitation are the result of similar economic factors that make marriage costly.

Turning to the factors associated with cohabitation, I find that in most countries, it is young women between ages 15 and 19 years that have the highest odds of cohabiting. There are a few notable examples (Benin, Kenya, Liberia, Mozambique, Tanzania and Zambia) where the odds of cohabitation are not patterned by age. As I discuss earlier, this study is unable to distinguish between period and cohort effects; is cohabitation most common among younger women because of their stage in the life course or because it is a new phenomenon? Another factor that emerges as a salient correlate of cohabitation in more than half of the countries is polygamy; women partnered to polygamous men have higher odds of cohabiting.

When it comes to how cohabitation is patterned by socioeconomic variables, I find 3 types of associations. In the first, cohabitation is associated with lower socioeconomic outcomes. In 12 countries, the modal category, women with lower levels of education and wealth have higher odds of cohabiting. Generally, it is women with low (not the lowest) socioeconomic outcomes that have the highest odds of “living together”. This suggests that while this type of cohabitation is primarily explained by economic reasons, ideational factors such as some individual autonomy are also salient. Notably, 10 of these *low SES cohabitation* countries exhibit the highest levels of cohabitation among the countries examined. Based on existing literature, cohabitation in South Africa and Botswana, where it is also very prevalent, would also fall under this first type (Hosegood et al. 2009; Moore and Govender 2013; Posel et al. 2011; Mokomane 2006; Mokomane 2013). The second type is *high SES cohabitation* which is associated with higher levels of education and wealth. In 7 countries, where levels of cohabitation are low to moderate, high SES women have the highest odds of “living together”. I offer that in these countries, cohabitation might be considered deviant behavior and is practiced primarily by a “vanguard” group that is highly-educated. Lastly, I also find a cohabitation that is *unpatterned by SES* in Malawi and Zambia, where cohabitation is also not common.

To summarize, this study has taken cohabitation – what most demographic studies on sub-Saharan Africa obscure by not distinguishing between different union types - as its object of study. By examining “living together” separately in 21 countries, I have found great heterogeneity in the levels, recent trends, and correlates of cohabitation in the region. These variations challenge the generalized way in which union formation in sub-Saharan Africa continues to be conceptualized. These results also suggest vast opportunity for further research. An important issue for further study is the causes of the various trends, particularly the rises, in cohabitation in the 21 countries. What role has the postponement of marriage, increased women’s education, urbanization, changing norms, and other factors played in the changing share of unions comprised of cohabitation? Have these changes been

different for different social groups? Hopefully, this paper has opened the space for these questions to be asked so that we can continue to learn about union formation in a region where it is undergoing considerable change.

In addition to contributing to the research agenda, I also anticipate that this study will nuance the manner in which cohabitation and marriage in sub-Saharan Africa and elsewhere are conceptualized. I have argued for the recognition of institutional changes that make cohabitation in some contexts, even where it is customarily provided for, a more precarious union type than marriage. More importantly, I have challenged the manner in which marriage in sub-Saharan Africa is conceived of uniquely as a process as opposed to elsewhere where it is regarded as a discrete event. I offer, instead, that marriage everywhere is a process that unfolds differently for different groups. As Edin et al. (2004) find from their study of low-income cohabiting parents in the United States, cohabitation “is understood as the first in a series of steps leading to marriage” (p. 1010). This alternative understanding is not merely a semantic one; viewing marriage as a process leads to the recognition that different unions are at various stages of that process, in fact might identify different finish lines, and therefore deserve equal social and legal recognition. Otherwise, a more discrete view of union formation is likely to privilege the socioeconomically advantaged able to meet the criteria for marriage more easily, as suggested by the *low SES* cohabitation I find in a majority of the countries I examine.

Critically, such a reconceptualization does not elide the study of different union types as it has in sub-Saharan Africa. Rather, it recognizes the complexity in union formation and encourages a scholarship that reflects it.

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TABLES AND FIGURES

Tables

Table 1: Countries and DHS Waves Used

Country	DHS Waves Used
West Africa	
Benin	1996, 2001, 2006, 2011
Burkina Faso	1998, 2003, 2010
Cote d'Ivoire	1998, 2011
Ghana	1988, 1993, 1998, 2003, 2008, 2014
Guinea	1999, 2005, 2012
Liberia	1986, 2006, 2013
Nigeria	1990, 2003, 2008, 2013
Togo	1998, 2013
East Africa	
Comoros	1996, 2012
Ethiopia	2000, 2005, 2011, 2016
Kenya	1989, 1993, 1998, 2003, 2008, 2014
Madagascar	1992, 1997, 2003, 2008
Malawi	1992, 2000, 2004, 2010, 2015
Mozambique	1997, 2003, 2011
Rwanda	1992, 2000, 2005, 2010, 2014
Tanzania	1991, 1996, 1999, 2004, 2010, 2015
Uganda	1988, 1995, 2000, 2006, 2011, 2016
Central and Southern Africa	
Cameroon	1991, 1998, 2004, 2011
Namibia	1992, 2000, 2006, 2013
Zambia	1992, 1996, 2001, 2007, 2013
Zimbabwe	1999, 2005, 2010, 2015

Table 2: Cohabitation as a Percentage of all Unions in Most Recent DHS Survey (weighted)

Country	Years	Sample in Union	Cohabitation as a Percentage of All Unions				
			Total	Ages 15-19	Ages 20-24	Ages 25-29	Ages 30+
Benin	2011	11,880	22.0	23.1	24.7	23.0	20.8
Burkina Faso	2010	13,392	4.8	9.5	7.8	6.4	2.3
Cameroon	2011	9,805	22.5	38.9	34.0	24.9	14.1
Comoros	2012	3,291	9.1	30.6	18.4	11.6	3.0
Cote d'Ivoire	2011	6,453	37.3	49.7	44.4	41.1	32.0
Ethiopia	2016	9,824	2.0	3.3	3.2	1.9	1.6
Ghana	2014	4,456	25.4	63.5	48.5	30.6	18.8
Guinea	2012	6,779	1.5	4.9	2.1	1.0	0.8
Kenya	2014	19,036	8.6	12.2	12.9	7.3	7.5
Liberia	2013	5,875	52.1	76.0	74.2	60.9	40.2
Madagascar	2008	11,903	12.7	32.7	19.3	10.1	7.3
Malawi	2015	15,952	6.1	8.3	8.0	5.5	5.1
Mozambique	2011	8,956	34.2	37.1	35.8	36.9	31.9
Namibia	2013	3,803	47.3	90.0	74.6	63.3	36.5
Nigeria	2013	27,274	2.8	2.1	5.1	3.6	2.0
Rwanda	2014	6,890	33.3	95.3	68.6	42.1	22.0
Tanzania	2015	8,189	27.5	37.9	32.4	30.5	23.4
Togo	2013	6,360	22.4	36.3	29.2	25.4	19.0
Uganda	2016	11,379	50.0	71.7	60.5	54.2	40.3
Zambia	2013	9,649	1.0	2.1	1.2	1.2	0.8
Zimbabwe	2015	6,015	5.0	13.4	6.8	4.3	3.7

Table 3: Cohabitation and all Unions in the First and Most Recent DHS Survey (weighted)

Country	Years	Percentage of Women in Unions (1)	Cohabiting Women as a Percentage of	
			All Women (2)	Women in Unions (3)
Benin	1996	76.5	7.6	9.9
	2011	70.4	15.5	22.0
Burkina Faso	1998	80.4	0.1	6.4
	2010	79.4	3.8	4.8
Cameroon	1991	74.1	11.8	15.9
	2011	63.5	14.3	22.5
Comoros	1996	53.6	1.2	2.3
	2012	61.2	5.6	9.1
Cote d'Ivoire	1988	61.3	13.7	22.3
	2011	62.7	23.4	37.3
Ethiopia	2000	63.7	0.0	1.4
	2016	65.2	1.3	2.0
Ghana	1988	70.3	5.5	7.9
	2014	56.6	14.4	25.4
Guinea	1999	82.4	4.0	4.8
	2012	73.6	1.1	1.5
Kenya	1989	66.7	3.6	5.3
	2014	59.7	5.1	8.6
Liberia	1986	67.5	38.3	56.7
	2013	58.3	30.4	52.1
Madagascar	1992	59.7	9.7	16.2
	2008	69.3	8.8	12.7
Malawi	1992	72.0	3.2	4.5
	2015	4.0	4.0	6.1
Mozambique	1997	74.4	54.7	73.5
	2011	67.9	23.3	34.2
Namibia	1992	41.7	14.6	34.9
	2013	34.0	16.1	47.3
Nigeria	1990	78.4	7.4	9.5
	2013	71.5	2.0	2.8
Rwanda	1992	57.8	23.8	41.2
	2014	51.7	17.2	33.3
Tanzania	1991	65.4	3.5	5.3
	2015	61.9	17.0	27.5
Togo	1998	67.9	7.4	10.9
	2013	66.3	14.9	22.4
Uganda	1988	67.2	13.5	20.0
	2016	60.6	30.3	50.0
Zambia	1992	63.1	2.0	3.2
	2013	60.1	0.6	1.0
Zimbabwe	1999	61.1	4.8	7.9
	2015	61.8	3.1	5.0

Table 4: Results from Logistic Multivariate Regression Analysis of Correlates of Cohabitation for Women in First Unions, Odds Ratios

	Benin 2011	Burkina Faso 2010	Cameroon 2011	Comoros 2012	Cote d'Ivoire 2011	Ethiopia 2016	Ghana 2014
Age (ref: 15-19)							
20-24	1.103	0.671**	0.656***	0.378***	0.828	0.774	0.544*
25-29	1.199	0.552***	0.542***	0.209***	0.738*	0.489*	0.250***
30+	1.264	0.351***	0.407***	0.0533***	0.670**	0.489	0.170***
Urban	0.929	3.833***	1.190	1.260	1.726***	1.427	1.516***
Education Attained (ref: none)							
Primary	0.862*	1.580***	2.290***	1.562	0.949	2.331**	1.429*
Secondary	0.900	2.295***	3.045***	6.690***	1.000	3.094***	1.316*
Higher	0.516*	2.338**	3.238***	14.93***	1.486	3.331**	0.233***
Wealth (ref: poorest)							
Poorer	1.047	2.241**	2.545***	1.631	1.215*	1.126	1.698***
Middle	0.978	1.983*	3.924***	2.661*	0.966	0.963	1.858***
Richer	0.957	2.199**	3.205***	5.046***	1.093	1.059	1.046
Richest	0.842	2.924***	2.212***	2.109	0.886	1.411	0.450***
Working outside home Union Characteristics	0.806***	0.820	0.834*	0.978	0.679***	2.254***	0.839
Years of cohabitation	0.972***	0.935***	0.877***	0.924**	0.963***	0.947**	0.951***
Polygamous	1.172**	1.254	1.287**	3.043***	0.881	6.268***	0.928
Religion (ref: traditionalist)							
Muslim	0.200***	1.463	0.282***	-	2.714***	25.41	0.0882***
Catholic	0.662***	4.173***	1.032	-	8.861***	95.66	0.536*
Protestant	0.621***	1.330	0.815	-	7.008***	53.60	0.770
Other Christian	0.712***	-	0.574	-	10.91***	41.71	0.548*
Other	0.388***	1.118	0.505	-	7.701***	-	-
None	1.157	5.763**	0.392*	-	8.985***	-	0.502*
Ethnicity	1.014***	0.999	1.505***	-	0.996***	0.955*	1.000
Observations	10380	11830	7565	2323	5321	8219	4319
Pseudo R-Square	0.0564	0.2270	0.3568	0.3065	0.1026	0.1465	0.1903

* p<0.05, ** p<0.01, *** p<0.001

Table 4 (cont.): Results from Logistic Multivariate Regression Analysis of Correlates of Cohabitation for Women in First Unions, Odds Ratios

	Guinea 2012	Kenya 2014	Liberia 2013	Madagascar 2008	Malawi 2015	Mozambique 2011	Namibia 2013
Age (ref: 15-19)							
20-24	0.247***	1.116	1.189	0.518***	0.976	0.944	0.780
25-29	0.237**	0.714	0.756	0.285***	0.725*	1.031	0.488*
30+	0.118**	1.113	0.696	0.295***	0.753	1.132	0.217***
Urban	1.369	0.884	1.425***	1.575***	1.000	1.164*	2.734***
Education Attained (ref: none)							
Primary	2.312*	0.794	1.278*	1.123	0.806	1.026	0.813
Secondary	3.811***	0.725	1.892***	1.567**	0.867	0.920	0.402***
Higher	0.681	0.775	0.817	2.034**	0.677	0.306***	0.185***
Wealth (ref: poorest)							
Poorer	1.320	2.482***	1.103	1.245	0.912	1.663***	0.771
Middle	2.598	2.137***	1.578***	1.210	0.850	1.822***	0.897
Richer	1.031	2.123***	1.173	1.311	0.783	3.303***	0.589**
Richest	5.692*	1.537*	0.466***	0.988	0.888	4.915***	0.168***
Working outside home Union Characteristics	1.069	0.596***	1.227**	0.804*	0.803**	1.504***	1.171
Years of cohabitation	0.935	0.962***	0.903***	0.937***	0.979*	0.963***	0.927***
Polygamous	0.945	1.622***	0.903	3.562***	1.395**	1.104	1.307*
Religion (ref: traditionalist)							
Muslim	0.686	0.412***	0.0713***	0.423	0.784	0.383***	-
Catholic	-	1.080	-	0.990	0.665**	0.926	1.918***
Protestant	-	(ref)	-	0.968	(ref)	(ref)	(ref)
Other Christian	3.625	-	0.358*	-	0.999	1.559***	-
Other	-	0.456	-	0.567	-	1.372	0.626**
None	-	0.136*	0.744	1.081	2.226*	0.980	1.618
Ethnicity	1.006	1.006	1.001	-	0.994	0.993**	-
Observations	5760	8343	4053	8934	12880	7283	2899
Pseudo R-Square	0.2705	0.0385	0.2096	0.1403	0.0182	0.1021	0.2349

* p<0.05, ** p<0.01, *** p<0.001

Table 4 (cont.): Results from Logistic Multivariate Regression Analysis of Correlates of Cohabitation for Women in First Unions, Odds Ratios

	Nigeria 2013	Rwanda 2013	Tanzania 2015	Togo 2013	Uganda 2016	Zambia 2013	Zimbabwe 2015
Age (ref: 15-19)							
20-24	1.280	0.111***	0.834	0.645*	0.600***	0.779	0.531**
25-29	0.836	0.0394***	0.884	0.534***	0.538***	1.118	0.325***
30+	0.662*	0.0178***	0.771	0.466***	0.431***	1.876	0.420**
Urban	0.727**	3.235***	1.341**	0.770	1.346***	0.639	1.677
Education Attained (ref: none)							
Primary	2.661***	0.562***	0.970	1.201*	0.857*	2.032	1.167
Secondary	3.266***	0.453***	0.845	1.122	1.078	1.959	1.035
Higher	1.033	0.0425***	0.178***	0.769	0.517***	0.795	0.546
Wealth (ref: poorest)							
Poorer	2.661***	0.623***	1.247*	1.638***	1.288***	0.702	0.723
Middle	3.564***	0.440***	1.415***	2.229***	1.486***	0.777	0.903
Richer	5.365***	0.357***	1.208	2.562***	1.411***	1.570	0.609
Richest	6.039***	0.266***	0.679**	2.302***	1.328**	1.694	0.417*
Working outside home Union Characteristics	0.969	0.631***	1.210**	0.944	0.821***	0.724	1.565**
Years of cohabitation	0.930***	0.949***	0.957***	0.973***	0.950***	0.879***	0.924***
Polygamous	1.390**	4.044***	0.982	0.998	1.334***	3.157***	1.699*
Religion (ref: traditionalist)							
Muslim	0.166***	1.605	-	0.242***	0.541	-	0.432
Catholic	0.351*	0.253*	-	1.084	0.711	0.672	0.553
Protestant	-	0.380	-	1.145	0.730	(ref)	0.654
Other Christian	1.041	0.0909**	-	1.647***	0.148	-	0.811
Other	-	-	-	-	1.650	-	-
None	-	-	-	1.308	0.233	-	-
Ethnicity	1.001	-	-	0.996	1.000	0.984**	-
Observations	23773	6197	6692	5306	9207	7774	5030
Pseudo R-Square	0.2046	0.2291	0.0389	0.0813	0.0789	0.0740	0.0785

* p<0.05, ** p<0.01, *** p<0.001

Table 5: Odds Ratio of Cohabitation and Urban Residence for First Unions, Mozambique 1997 and 2011

	DHS 1997	DHS 2011
Urban Residence	0.471*** (.036)	2.356*** (.118)
Observations	4400	7283
Pseudo R-Square	.0194	.0301

* p<0.05, ** p<0.01, *** p<0.001

Notes on Table 4:

1. Data on ethnicity is not provided for some countries (Comoros, Madagascar, Namibia, Rwanda, Tanzania and Zimbabwe)
2. For countries where there is no data on adherents of traditional religions (it was not a response option), the religion used as a reference group is the majority religion (Kenya, Malawi, Mozambique, Namibia and Zambia). For Comoros, virtually all Comorians are Muslims, making comparisons with other groups impossible due to small sample size.

Figures

Figure 1: Cohabitation as Proportion of All Current Unions, by Age Group, All Available DHS Surveys

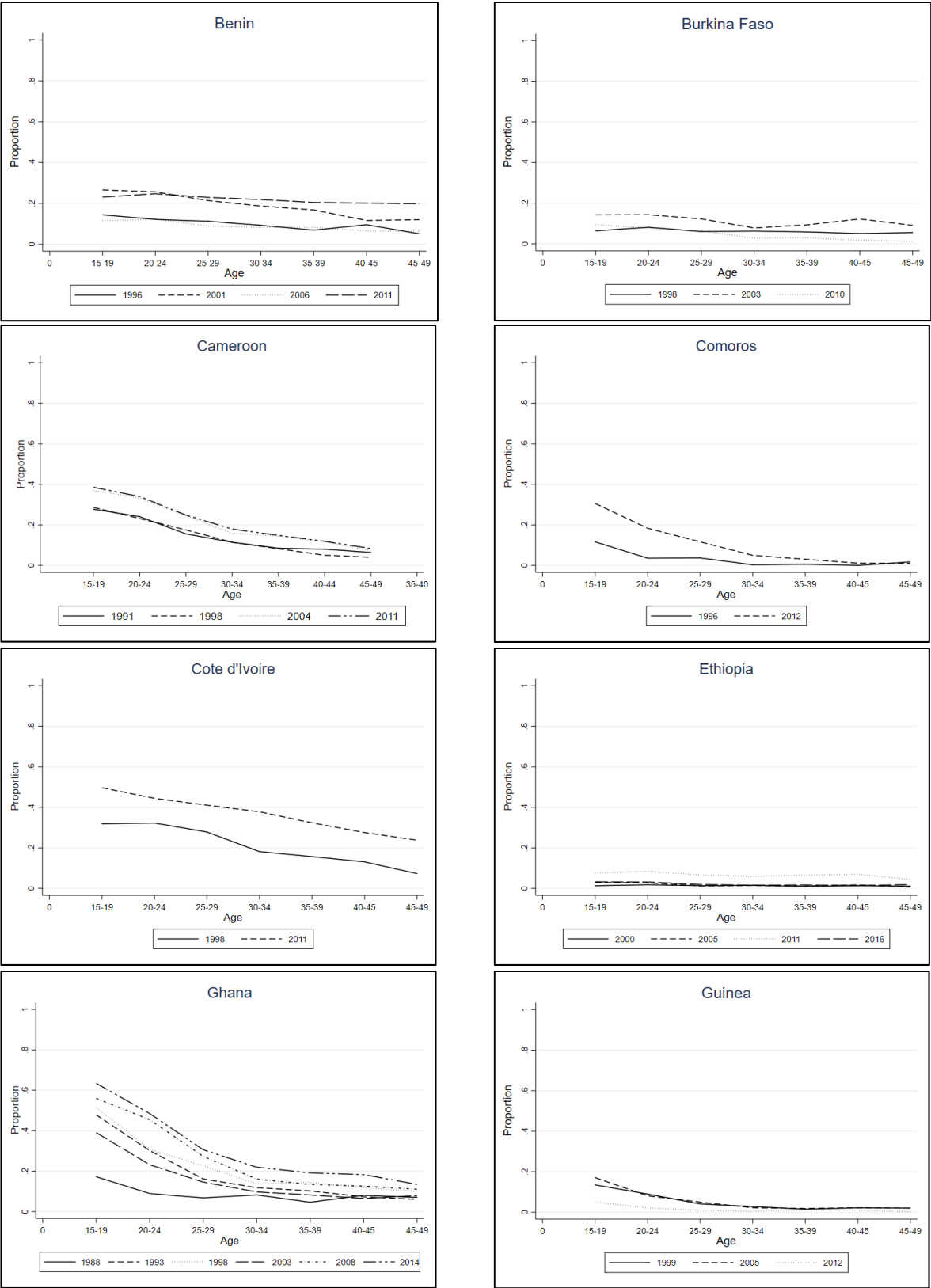


Figure 1 (continued)

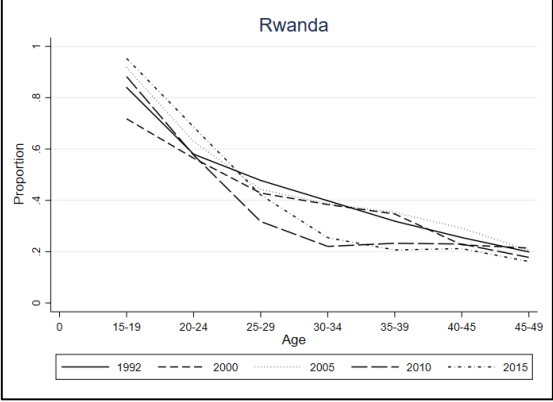
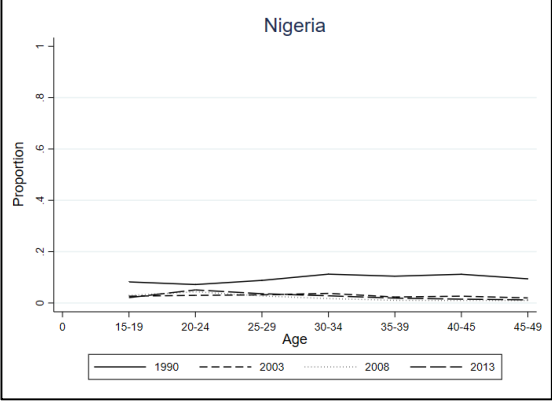
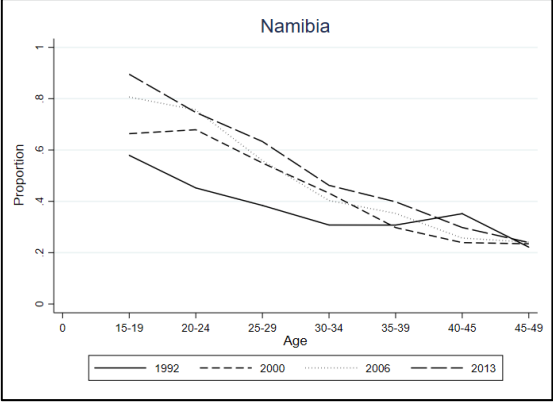
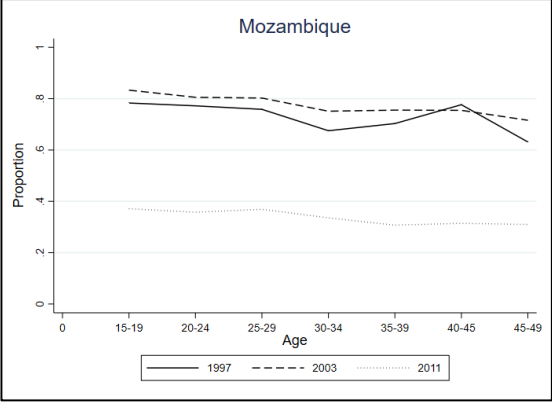
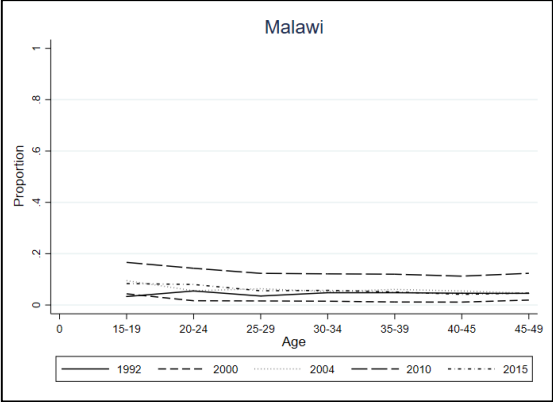
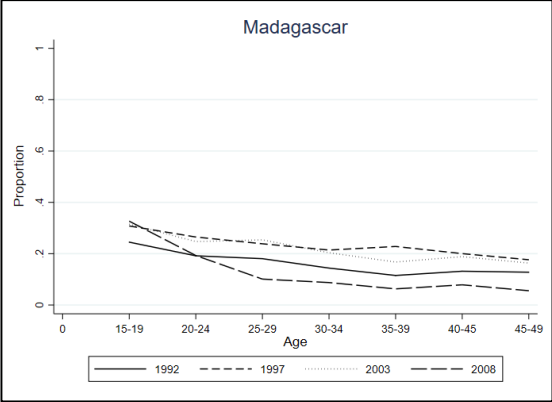
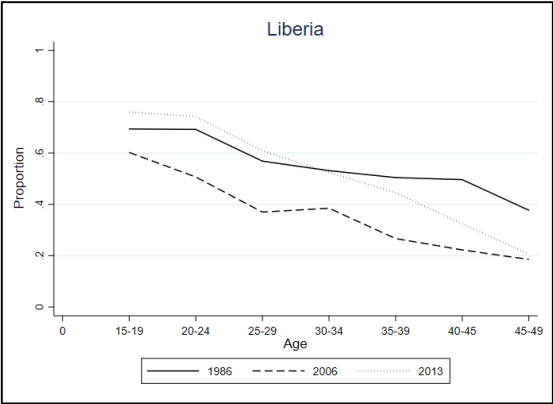
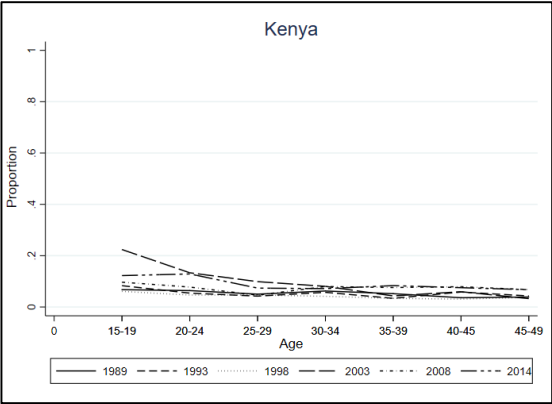


Figure 1 (continued)

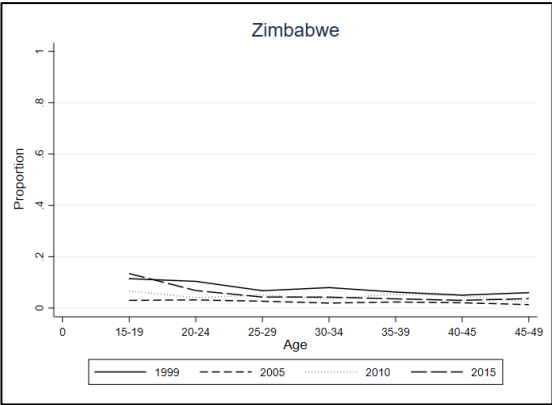
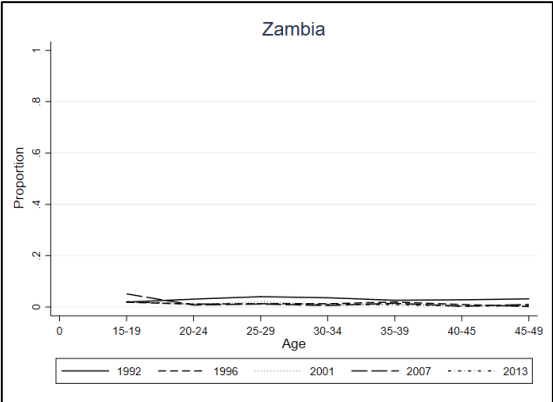
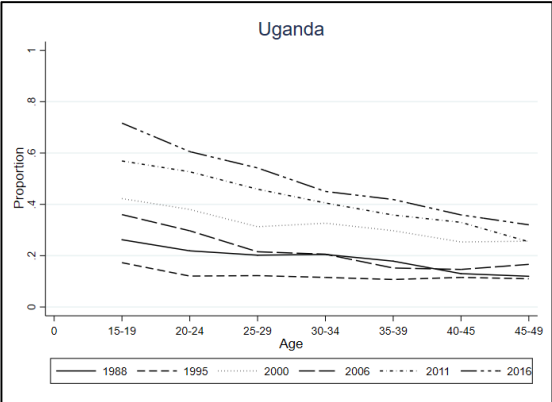
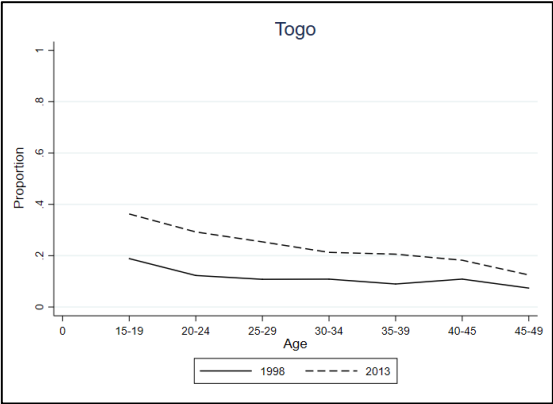
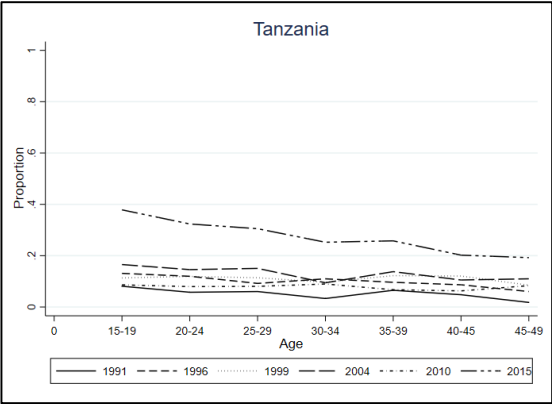
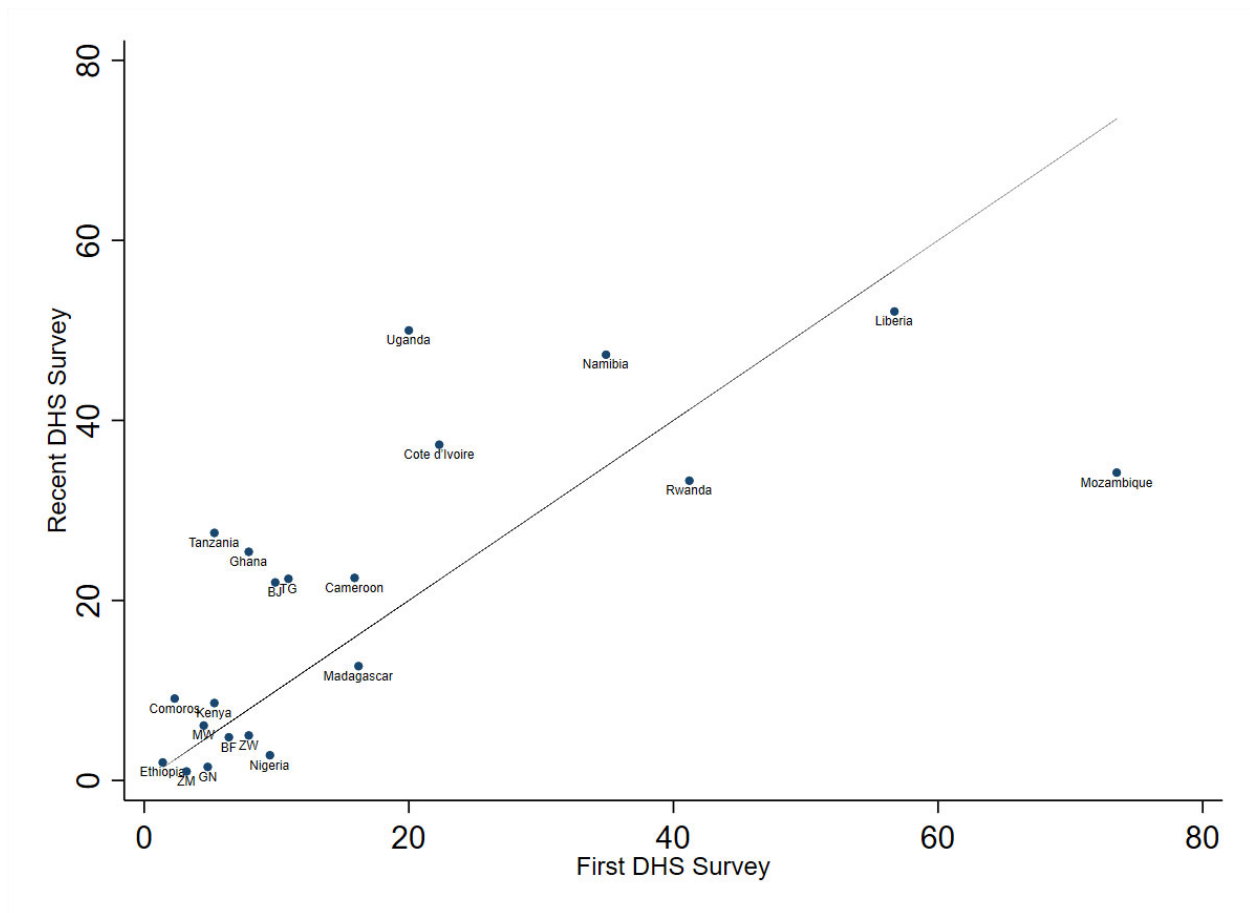
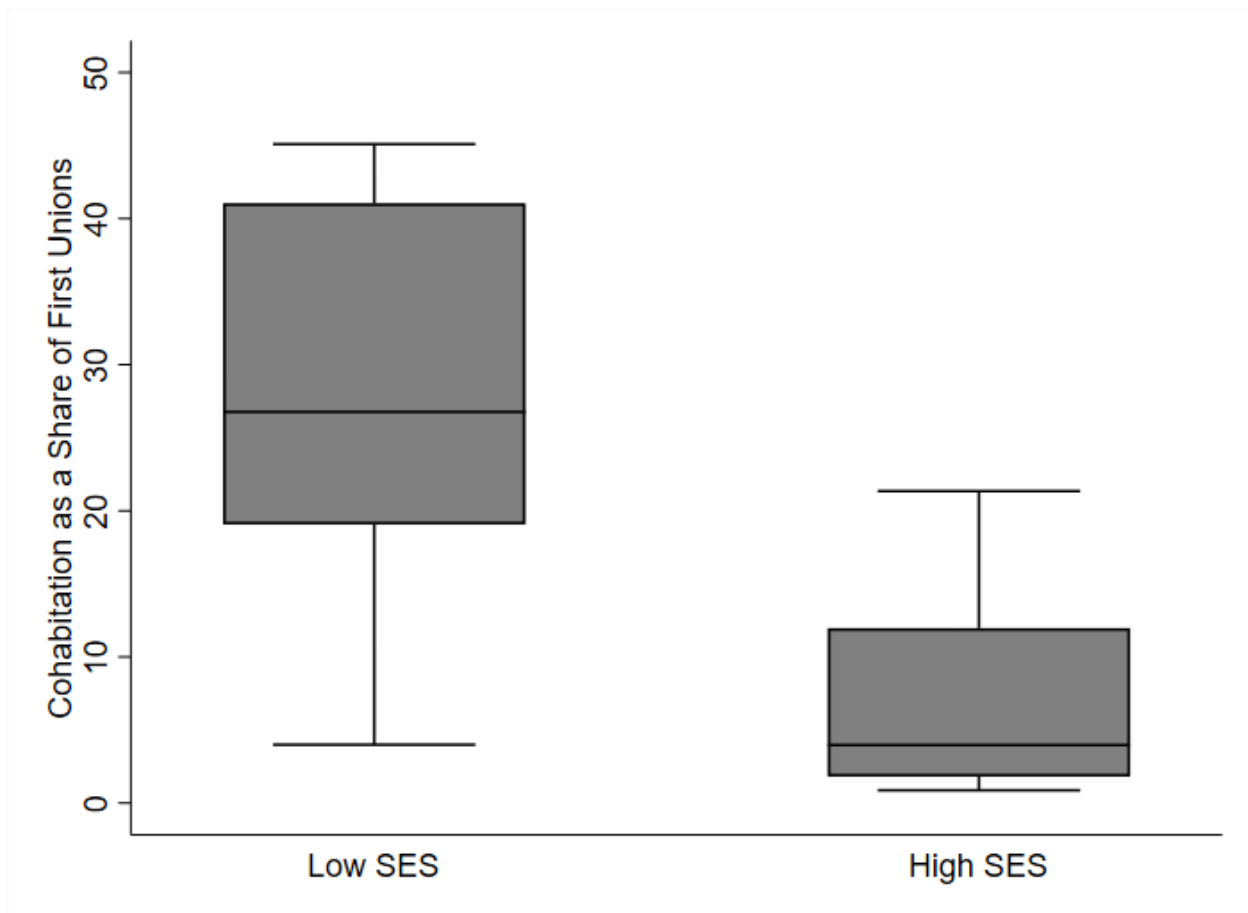


Figure 2: Cohabitation as a Share of all Unions in First DHS Survey and Recent DHS Survey



Note: The added 45-degree line shows where a country would lie if cohabitation as a share of unions is equal in the first and most recent DHS survey. Countries above the line have had increases and those below it have experienced declines.

Figure 3: Cohabitation as a Share of First Unions by Type of Cohabitation



Note: A t-test of the difference in prevalence of cohabitation across the “Low SES Cohabitation” (12 countries) and “High SES Cohabitation” (7 countries) finds that it is significant at the 5% level.

Appendix Table 1: Descriptive Statistics for Cohabiting and Married Women in First Unions in the 21 Countries

	Benin 2011		Burkina Faso 2010		Cameroon 2011		Comoros 2012	
	Cohabiting	Married	Cohabiting	Married	Cohabiting	Married	Cohabiting	Married
Age								
15-19	.041 (.004)	.036 (.002)	.170 (.017)	.076 (.002)	.199 (.010)	.078 (.003)	.328 (.033)	.058 (.005)
20-24	.178 (.008)	.157 (.004)	.351 (.022)	.201 (.004)	.345 (.012)	.183 (.005)	.333 (.033)	.165 (.008)
25-29	.253 (.009)	.239 (.005)	.255 (.020)	.205 (.004)	.253 (.011)	.213 (.005)	.230 (.030)	.220 (.009)
30+	.523 (.010)	.568 (.006)	.223 (.019)	.518 (.005)	.203 (.010)	.527 (.006)	.108 (.218)	.557 (.011)
Urban	.342 (.010)	.388 (.005)	.626 (.022)	.239 (.004)	.583 (.012)	.433 (.006)	.578 (.035)	.379 (.011)
Education Attained								
No Education	.754 (.009)	.742 (.005)	.462 (.023)	.827 (.004)	.026 (.004)	.290 (.006)	.044 (.014)	.408 (.011)
Primary	.149 (.008)	.152 (.004)	.228 (.019)	.112 (.003)	.318 (.016)	.411 (.006)	.088 (.020)	.207 (.009)
Secondary	.090 (.006)	.096 (.003)	.281 (.021)	.056 (.002)	.594 (.012)	.263 (.006)	.627 (.034)	.285 (.010)
Higher	.006 (.001)	.009 (.001)	.030 (.008)	.005 (.001)	.061 (.006)	.035 (.002)	.240 (.030)	.100 (.007)
Wealth								
Poorest	.216 (.009)	.203 (.004)	.046 (.010)	.181 (.004)	.039 (.005)	.213 (.005)	.044 (.014)	.204 (.009)
Poorer	.230 (.009)	.214 (.005)	.111 (.014)	.198 (.004)	.167 (.009)	.210 (.005)	.123 (.023)	.196 (.009)
Middle	.215 (.009)	.219 (.005)	.126 (.015)	.213 (.004)	.233 (.011)	.194 (.005)	.196 (.028)	.192 (.009)
Richer	.339 (.010)	.363 (.005)	.189 (.018)	.220 (.004)	.276 (.011)	.193 (.005)	.328 (.033)	.192 (.009)
Richest	.141 (.007)	.166 (.004)	.530 (.023)	.189 (.004)	.285 (.011)	.191 (.005)	.309 (.032)	.215 (.009)
Working outside home	.700 (.010)	.707 (.005)	.666 (.022)	.809 (.004)	.623 (.012)	.707 (.006)	.368 (.054)	.463 (.016)
Union Characteristics								
Years of cohabitation	11.19 (.159)	12.26 (.088)	6.46 (.306)	12.96 (.080)	5.159 (.136)	12.98 (.115)	3.559 (.259)	10.61 (.171)
Polygamous	.365 (.005)	.377 (.010)	.228 (.019)	.410 (.005)	.181 (.010)	.278 (.006)	.221 (.029)	.179 (.008)
Religion								
Traditionalist	.168 (.008)	.113 (.004)	.019 (.006)	.091 (.003)	.012 (.003)	.029 (.002)	-	-
Muslim	.118 (.007)	.302 (.005)	.460 (.023)	.633 (.005)	.051 (.005)	.279 (.006)	.975 (.011)	.992 (.002)
Catholic	.318 (.010)	.270 (.005)	.455 (.023)	.209 (.004)	.519 (.012)	.315 (.006)	-	-
Protestant	.064 (.005)	.060 (.003)	.049 (.010)	.056 (.002)	.370 (.012)	.318 (.006)	-	-
Other Christian	.220 (.009)	.186 (.004)	-	-	.027 (.004)	.022 (.002)	.010 (.007)	.003 (.001)
Other	.017 (.003)	.023 (.002)	.004 (.003)	.003 (.001)	.012 (.003)	.010 (.001)	-	-
None	.046 (.002)	.094 (.006)	.013 (.005)	.007 (.001)	.009 (.002)	.027 (.002)	.015 (.008)	.004 (.001)
Observations	2288	8092	470	11360	1615	5950	204	2119
	10380		11830		7565		2323	
Proportion Cohabiting	22.0		4.0		21.3		8.8	

Appendix Table 1 (cont): Descriptive Statistics for Cohabiting and Married Women in First Unions in the 21 Countries

	Cote d'Ivoire 2011		Ethiopia 2016		Ghana 2014		Guinea 2012	
	Cohabiting	Married	Cohabiting	Married	Cohabiting	Married	Cohabiting	Married
Age								
15-19	.105 (.007)	.060 (.004)	.141 (.029)	.075 (.003)	.078 (.009)	.015 (.002)	.420 (.071)	.109 (.004)
20-24	.242 (.010)	.174 (.006)	.322 (.038)	.020 (.004)	.279 (.016)	.104 (.005)	.280 (.064)	.174 (.005)
25-29	.244 (.010)	.213 (.007)	.228 (.034)	.235 (.005)	.260 (.015)	.207 (.007)	.200 (.057)	.211 (.005)
30+	.408 (.011)	.553 (.008)	.309 (.038)	.494 (.006)	.383 (.017)	.673 (.008)	.100 (.043)	.506 (.007)
Urban	.432 (.012)	.342 (.008)	.597 (.040)	.252 (.005)	.418 (.017)	.466 (.008)	.680 (.007)	.313 (.006)
Education Attained								
No Education	.593 (.012)	.735 (.007)	.221 (.034)	.568 (.006)	.203 (.014)	.393 (.008)	.36 (.069)	.790 (.005)
Primary	.259 (.011)	.183 (.006)	.349 (.039)	.277 (.005)	.220 (.014)	.163 (.006)	.220 (.059)	.109 (.004)
Secondary	.124 (.008)	.073 (.004)	.242 (.035)	.096 (.003)	.561 (.017)	.382 (.008)	.380 (.069)	.082 (.004)
Higher	.024 (.004)	.009 (.002)	.188 (.032)	.059 (.003)	.016 (.004)	.062 (.004)	.040 (.028)	.019 (.002)
Wealth								
Poorest	.213 (.010)	.260 (.007)	.114 (.026)	.309 (.005)	.202 (.014)	.330 (.008)	.08 (.039)	.219 (.005)
Poorer	.206 (.010)	.223 (.007)	.094 (.024)	.147 (.004)	.235 (.015)	.163 (.006)	.080 (.039)	.198 (.005)
Middle	.182 (.009)	.190 (.006)	.060 (.020)	.134 (.004)	.264 (.015)	.151 (.006)	.140 (.050)	.204 (.005)
Richer	.206 (.010)	.184 (.006)	.121 (.027)	.131 (.004)	.190 (.014)	.163 (.006)	.180 (.055)	.228 (.006)
Richest	.192 (.010)	.143 (.006)	.611 (.040)	.279 (.005)	.110 (.011)	.193 (.007)	.520 (.071)	.151 (.005)
Working outside home	.685 (.011)	.759 (.007)	.564 (.041)	.317 (.005)	.761 (.015)	.852 (.006)	.680 (.067)	.793 (.005)
Union Characteristics								
Years of cohabitation	12.71 (.144)	9.014 (.188)	6.470 (.620)	12.18 (.094)	8.110 (.237)	13.24 (.145)	4.40 (.940)	13.28 (.118)
Polygamous	.214 (.010)	.331 (.008)	.221 (.034)	.127 (.004)	.108 (.011)	.201 (.007)	.160 (.052)	.462 (.007)
Religion								
Traditionalist	.012 (.003)	.049 (.004)	.007 (.007)	.008 (.001)	.030 (.006)	.031 (.003)	-	-
Muslim	.337 (.012)	.581 (.008)	.221 (.034)	.469 (.006)	.057 (.008)	.264 (.007)	.780 (.059)	.916 (.004)
Catholic	.234 (.010)	.120 (.005)	.007 (.007)	.006 (.001)	.128 (.012)	.157 (.006)	-	-
Protestant	.212 (.010)	.131 (.006)	.242 (.035)	.193 (.004)	.606 (.017)	.399 (.008)	-	-
Other Christian	.048 (.005)	.020 (.002)	.523 (.041)	.323 (.005)	.143 (.012)	.113 (.005)	.200 (.057)	.066 (.003)
Other	.012 (.003)	.007 (.001)	-	-	-	-	-	-
None	.144 (.009)	.091 (.005)	-	-	.036 (.006)	.036 (.003)	.020 (.020)	.018 (.002)
Observations	1681	3640	149	8070	831	3488	50	5710
Proportion Cohabiting	5321		8219		4319		5710	
	31.6		1.8		19.2		0.9	

Appendix Table 1 (cont): Descriptive Statistics for Cohabiting and Married Women in First Unions in the 21 Countries

	Kenya 2014		Liberia 2013		Madagascar 2008		Malawi 2015	
	Cohabiting	Married	Cohabiting	Married	Cohabiting	Married	Cohabiting	Married
Age								
15-19	.057 (.010)	.040 (.002)	.138 (.008)	.036 (.004)	.369 (.016)	.104 (.003)	.134 (.012)	.086 (.003)
20-24	.242 (.019)	.164 (.004)	.282 (.011)	.116 (.007)	.277 (.014)	.177 (.004)	.304 (.016)	.246 (.004)
25-29	.238 (.019)	.250 (.005)	.252 (.011)	.196 (.008)	.141 (.011)	.200 (.004)	.190 (.014)	.208 (.004)
30+	.463 (.022)	.546 (.006)	.328 (.011)	.652 (.010)	.213 (.013)	.519 (.006)	.373 (.017)	.460 (.005)
Urban	.384 (.022)	.357 (.005)	.386 (.011)	.330 (.010)	.364 (.016)	.258 (.005)	.192 (.014)	.204 (.004)
Education Attained								
No Education	.116 (.014)	.174 (.004)	.345 (.011)	.571 (.010)	.159 (.012)	.214 (.005)	.142 (.012)	.119 (.003)
Primary	.537 (.022)	.512 (.006)	.372 (.011)	.265 (.009)	.415 (.016)	.468 (.006)	.625 (.017)	.625 (.004)
Secondary	.254 (.019)	.231 (.005)	.267 (.010)	.137 (.007)	.381 (.016)	.284 (.005)	.208 (.014)	.228 (.004)
Higher	.093 (.013)	.084 (.003)	.015 (.003)	.027 (.003)	.045 (.007)	.034 (.002)	.025 (.006)	.028 (.002)
Wealth								
Poorest	.156 (.016)	.258 (.005)	.283 (.011)	.327 (.010)	.143 (.011)	.199 (.004)	.209 (.014)	.156 (.003)
Poorer	.242 (.019)	.184 (.004)	.262 (.010)	.273 (.009)	.169 (.012)	.170 (.004)	.205 (.014)	.189 (.004)
Middle	.209 (.018)	.185 (.004)	.243 (.010)	.184 (.008)	.147 (.011)	.166 (.004)	.184 (.014)	.190 (.004)
Richer	.222 (.018)	.188 (.004)	.138 (.008)	.109 (.007)	.187 (.013)	.182 (.004)	.186 (.014)	.204 (.004)
Richest	.171 (.017)	.185 (.004)	.074 (.006)	.107 (.006)	.354 (.015)	.283 (.005)	.216 (.014)	.260 (.004)
Working outside home	.573 (.022)	.650 (.005)	.573 (.015)	.627 (.012)	.775 (.024)	.900 (.005)	.586 (.017)	.662 (.004)
Union Characteristics								
Years of cohabitation	9.644 (.346)	12.08 (.093)	8.258 (.163)	15.04 (.018)	5.446 (.215)	11.82 (.092)	9.520 (.280)	11.23 (.076)
Polygamous	.167 (.017)	.146 (.004)	.117 (.007)	.194 (.008)	.157 (.012)	.055 (.003)	.129 (.012)	.100 (.003)
Religion								
Traditionalist	-	-	.008 (.002)	.004 (.001)	.019 (.004)	.019 (.002)	.272 (.016)	.282 (.004)
Muslim	.053 (.010)	.137 (.004)	.063 (.006)	.190 (.008)	.008 (.003)	.009 (.001)	.107 (.011)	.109 (.003)
Catholic	.211 (.018)	.191 (.004)	-	-	.390 (.016)	.351 (.005)	.128 (.012)	.180 (.004)
Protestant	.726 (.020)	.649 (.005)	-	-	.340 (.015)	.358 (.005)	-	-
Other Christian	-	-	.889 (.007)	.785 (.009)	-	-	.484 (.017)	.425 (.005)
Other	.004 (.003)	.004 (.001)	-	-	.040 (.006)	.058 (.003)	-	-
None	.006 (.003)	.020 (.002)	.040 (.005)	.021 (.003)	.203 (.013)	.205 (.005)	.010 (.003)	.004 (.001)
Observations	508	7835	1821	2232	955	7979	823	12057
	8343		4053		8934		12880	
Proportion Cohabiting	6.1		45.0		12.0		6.8	

Appendix Table 1 (cont): Descriptive Statistics for Cohabiting and Married Women in First Unions in the 21 Countries

	Mozambique 2011		Namibia 2013		Nigeria 2013		Rwanda 2013	
	Cohabiting	Married	Cohabiting	Married	Cohabiting	Married	Cohabiting	Married
Age								
15-19	.148 (.007)	.140 (.005)	.069 (.007)	.007 (.002)	.080 (.010)	.081 (.002)	.040 (.005)	.001 (.000)
20-24	.223 (.008)	.195 (.006)	.199 (.011)	.048 (.005)	.309 (.017)	.157 (.002)	.295 (.010)	.060 (.004)
25-29	.218 (.008)	.188 (.006)	.245 (.012)	.107 (.007)	.270 (.016)	.215 (.003)	.312 (.011)	.204 (.006)
30+	.411 (.009)	.477 (.008)	.487 (.014)	.837 (.008)	.341 (.017)	.546 (.003)	.353 (.011)	.735 (.007)
Urban	.471 (.009)	.274 (.007)	.525 (.014)	.507 (.011)	.389 (.018)	.356 (.003)	.267 (.010)	.210 (.006)
Education Attained								
No Education	.223 (.008)	.381 (.007)	.113 (.009)	.081 (.006)	.062 (.009)	.455 (.003)	.164 (.009)	.141 (.005)
Primary	.552 (.009)	.493 (.008)	.293 (.012)	.231 (.010)	.222 (.015)	.200 (.003)	.702 (.011)	.698 (.007)
Secondary	.212 (.007)	.109 (.005)	.560 (.014)	.550 (.011)	.642 (.018)	.259 (.003)	.129 (.008)	.111 (.005)
Higher	.014 (.002)	.018 (.002)	.034 (.138)	.138 (.008)	.073 (.010)	.086 (.002)	.005 (.002)	.051 (.003)
Wealth								
Poorest	.068 (.005)	.187 (.006)	.194 (.011)	.152 (.008)	.019 (.012)	.214 (.003)	.280 (.010)	.139 (.005)
Poorer	.100 (.006)	.219 (.006)	.210 (.011)	.157 (.008)	.113 (.012)	.214 (.003)	.221 (.010)	.188 (.006)
Middle	.143 (.006)	.233 (.006)	.276 (.012)	.151 (.008)	.216 (.015)	.188 (.003)	.166 (.009)	.215 (.006)
Richer	.278 (.008)	.187 (.006)	.218 (.011)	.198 (.009)	.350 (.018)	.189 (.003)	.142 (.008)	.219 (.006)
Richest	.410 (.009)	.173 (.006)	.101 (.008)	.342 (.011)	.303 (.017)	.193 (.003)	.191 (.009)	.239 (.006)
Working outside home	.421 (.009)	.340 (.007)	.432 (.014)	.519 (.011)	.746 (.028)	.723 (.004)	.820 (.009)	.888 (.005)
Union Characteristics								
Years of cohabitation	9.293 (.149)	11.27 (.131)	7.198 (.198)	14.75 (.240)	7.147 (.262)	12.88 (.060)	7.090 (.155)	12.30 (.118)
Polygamous	.277 (.008)	.240 (.007)	.229 (.011)	.187 (.009)	.149 (.013)	.304 (.003)	.110 (.007)	.044 (.003)
Religion								
Traditionalist	.274 (.008)	.240 (.007)	-	-	.005 (.003)	.011 (.000)	-	-
Muslim	.052 (.004)	.208 (.006)	-	-	.102 (.011)	.571 (.003)	.046 (.005)	.010 (.001)
Catholic	.222 (.008)	.258 (.007)	.282 (.012)	.152 (.008)	.088 (.010)	.087 (.002)	.307 (.011)	.425 (.008)
Protestant	-	-	.629 (.013)	.699 (.010)	-	-	.640 (.011)	.555 (.008)
Other Christian	.317 (.009)	.167 (.006)	-	-	.805 (.015)	.332 (.003)	.003 (.001)	.010 (.001)
Other	.033 (.003)	.014 (.002)	.070 (.007)	.131 (.008)	-	-	-	-
None	.102 (.006)	.113 (.005)	.019 (.004)	.018 (.003)	-	-	.006 (.002)	.001 (.001)
Observations	2982	4301	1342	1920	737	23036	1887	4310
	7283		3262		23773		6197	
Proportion Cohabiting	41.0		41.1		3.1		30.5	

Appendix Table 1 (cont): Descriptive Statistics for Cohabiting and Married Women in First Unions in the 21 Countries

	Tanzania 2015		Togo 2013		Uganda 2016		Zambia 2013	
	Cohabiting	Married	Cohabiting	Married	Cohabiting	Married	Cohabiting	Married
Age								
15-19	.137 (.009)	.075 (.004)	.078 (.008)	.036 (.003)	.139 (.005)	.050 (.003)	.192 (.046)	.070 (.003)
20-24	.245 (.011)	.183 (.005)	.223 (.013)	.144 (.005)	.302 (.007)	.184 (.005)	.205 (.048)	.197 (.004)
25-29	.227 (.011)	.195 (.006)	.258 (.014)	.220 (.006)	.232 (.007)	.191 (.006)	.233 (.050)	.235 (.005)
30+	.392 (.012)	.547 (.007)	.441 (.016)	.600 (.007)	.328 (.007)	.576 (.007)	.370 (.057)	.497 (.006)
Urban	.270 (.011)	.271 (.006)	.380 (.015)	.310 (.007)	.240 (.006)	.180 (.005)	.466 (.059)	.425 (.006)
Education Attained								
No Education	.183 (.010)	.183 (.005)	.306 (.014)	.471 (.008)	.106 (.005)	.150 (.005)	.055 (.027)	.095 (.003)
Primary	.686 (.012)	.594 (.007)	.392 (.015)	.313 (.007)	.576 (.008)	.602 (.007)	.479 (.059)	.535 (.006)
Secondary	.128 (.009)	.210 (.006)	.285 (.014)	.202 (.006)	.254 (.007)	.161 (.005)	.425 (.058)	.313 (.005)
Higher	.003 (.001)	.013 (.002)	.017 (.004)	.014 (.002)	.063 (.004)	.087 (.004)	.041 (.023)	.056 (.003)
Wealth								
Poorest	.209 (.010)	.190 (.005)	.176 (.012)	.309 (.007)	.202 (.006)	.239 (.006)	.164 (.044)	.179 (.004)
Poorer	.203 (.010)	.162 (.005)	.186 (.012)	.190 (.006)	.207 (.006)	.205 (.006)	.178 (.045)	.208 (.004)
Middle	.222 (.011)	.182 (.005)	.214 (.013)	.165 (.006)	.198 (.006)	.186 (.005)	.192 (.046)	.221 (.005)
Richer	.214 (.010)	.228 (.006)	.201 (.013)	.154 (.006)	.186 (.006)	.185 (.005)	.301 (.054)	.205 (.005)
Richest	.152 (.009)	.239 (.006)	.221 (.013)	.181 (.006)	.207 (.006)	.186 (.005)	.164 (.044)	.187 (.004)
Working outside home	.814 (.010)	.759 (.006)	.794 (.013)	.820 (.006)	.766 (.007)	.831 (.005)	.534 (.059)	.576 (.006)
Union Characteristics								
Years of cohabitation	8.994 (.198)	11.97 (.124)	9.277 (.239)	12.56 (.128)	8.300 (.121)	13.31 (.124)	7.575 (.874)	11.66 (.097)
Polygamous	.160 (.009)	.184 (.005)	.253 (.014)	.338 (.007)	.254 (.007)	.258 (.006)	.137 (.041)	.099 (.003)
Religion								
Traditionalist	-	-	.168 (.012)	.202 (.006)	.000 (.000)	.000 (.000)	-	-
Muslim	-	-	.068 (.008)	.242 (.007)	.111 (.005)	.107 (.004)	-	-
Catholic	-	-	.261 (.014)	.210 (.006)	.416 (.008)	.416 (.007)	.124 (.039)	.173 (.004)
Protestant	-	-	.235 (.013)	.177 (.006)	.456 (.008)	.467 (.007)	.877 (.039)	.827 (.004)
Other Christian	-	-	.170 (.012)	.082 (.004)	.000 (.000)	.002 (.001)	-	-
Other	-	-	-	-	.015 (.002)	.006 (.001)	-	-
None	-	-	.099 (.009)	.087 (.004)	.001 (.000)	.003 (.001)	-	-
Observations	1545	5147	1003	4303	4149	5058	73	7701
	6692		5306		9207		7774	
Proportion Cohabiting	23.1		18.9		45.1		0.9	

Appendix Table 1 (cont): Descriptive Statistics for Cohabiting and Married Women in First Unions in the 21 Countries

	Zimbabwe 2015	
	Cohabiting	Married
Age		
15-19	.259 (.031)	.066 (.004)
20-24	.279 (.032)	.189 (.006)
25-29	.194 (.028)	.213 (.006)
30+	.269 (.031)	.532 (.007)
Urban	.368 (.034)	.428 (.007)
Education Attained		
No Education	.010 (.007)	.010 (.001)
Primary	.299 (.032)	.251 (.006)
Secondary	.652 (.034)	.649 (.007)
Higher	.040 (.014)	.090 (.004)
Wealth		
Poorest	.204 (.028)	.156 (.005)
Poorer	.159 (.026)	.164 (.005)
Middle	.204 (.028)	.151 (.005)
Richer	.254 (.031)	.257 (.006)
Richest	.179 (.027)	.273 (.006)
Working outside home	.408 (.035)	.435 (.007)
Union Characteristics		
Years of cohabitation	6.030 (.480)	10.96 (.113)
Polygamous	.114 (.023)	.094 (.004)
Religion		
Traditionalist	-	-
Muslim	.003 (.001)	.005 (.005)
Catholic	.040 (.014)	.060 (.003)
Protestant	.806 (.028)	.836 (.005)
Other Christian	.060 (.017)	.054 (.003)
Other	-	-
None	.090 (.020)	.046 (.003)
Observations	201	4829
	5030	
Proportion Cohabiting	4.0	