Men's Economic Status and Marriage Timing in Rural and Semi-Urban Malawi

Isabel Pike, *Graduate Institute of International and Development Studies (IHEID)*

In recent decades, qualitative research from across sub-Saharan Africa has shown how young men are often unable to marry because they lack wealth and a stable livelihood. With survey data, researchers have begun to study how men's economic circumstances are related to when they marry in the continent's capitals and larger urban centers. However, our understanding of these dynamics outside of large cities remains limited. Drawing on longitudinal survey data, this paper examines how men's economic standing, both at the individual and household level, relates to their marriage timing in rural and semi-urban communities in the Salima district of Malawi. The findings show that men who have higher earnings, work in agriculture, and come from a household that sold cash crops were more likely to marry. In contrast, students as well as men from households owning a large amount of land were substantially less likely to marry. Additionally, men living in the semi-urban communities were around half as likely to marry as their rural counterparts. This negative association is largely explained by the greater proportion of men who are students in towns and trading centers and also the relatively less agricultural nature of these communities. These findings show the value of considering both individual and family characteristics in studies of marriage timing and also suggest that as sub-Saharan Africa urbanizes, the age of marriage for men will likely rise.

Introduction

In recent decades, qualitative research from across sub-Saharan Africa has shown that many young men wish to marry but are unable to because of their lack of wealth and a stable livelihood (Amuyunzu-Nyamongo and Francis 2006;

I am grateful for feedback from Kathleen Beegle, Philippe Bocquier, Monica Grant, Daniel Meyer, Michelle Poulin, Christine Schwartz, James Raymo, and Daniela Urbina as well as for support from the Center for Demography and Ecology at UW-Madison [P2C HD047873]. My thanks also to those who attended presentations at the African Population and Health Research Center (APHRC) in June 2015 in Nairobi, Kenya and at the Quetelet Conference on "Men's perspective in unions, fertility and parenthood" in November 2016 in Louvain-la-Neuve, Belgium for their comments and questions. Finally, I thank the anonymous reviewers for their helpful comments. *Direct correspondence to Isabel Pike, Department of Anthropology and Sociology, Maison de la Paix, Rue Eugène-Rigot 2 Geneva, Switzerland; e-mail: isabel.pike@graduateinstitute.ch*

Social Forces 100(1) 113–136, September 2021
doi:10.1093/sf/soaa092
Advance Access publication on 26 September 2020

Mains 2012; Masquelier 2005; Mojola 2014; Pike, Mojola, and Kabiru 2018; Sommers 2012; Stites 2013). In these accounts, the inability to marry comes to the fore in societies grappling with larger forces, particularly the challenges of relying on the land for a livelihood, the limited options for wage work, and shifts in both intergenerational and gender relations. Young men are described as "stuck" (Sommers 2012), unable to attain socially recognized adulthood, and in turn, reacting to their predicament in a variety of ways, from moving to cities to raiding cattle and striking up relationships with wealthier widows. Using survey data, researchers have begun to study the associations between men's economic circumstances and when they marry in the continent's capitals and larger urban centers (Antoine 2006; Bocquier and Khasakhala 2009; Calvès 2007; Nappa et al. 2019). However, our understanding of these dynamics in contexts outside of major cities remains limited, despite the fact that sub-Saharan Africa is still predominantly rural.

This paper draws on longitudinal data to examine how men's economic circumstances are associated with the ages at which they marry in the Salima district of central Malawi. The survey covered both rural and semi-urban communities, the latter comprising the town of Salima and trading centers, which are small centers of business often along a roadside. The paper builds on prior research in two key ways. As already noted, the first is that to the extent that men's marriage timing in sub-Saharan Africa has been studied, it has largely focused on populations living in cities (Antoine 2006; Bocquier and Khasakhala 2009; Calvès 2007). This paper explores whether the economic factors associated with marriage timing in larger urban areas, such as main type of work, also impact marriage timing in rural and semi-urban communities. Second, in conceptualizing men's economic circumstances, the article takes factors at both the individual and household level into account. In general, studies of men and women's marriage timing in sub-Saharan Africa have focused on individual characteristics. The existing studies that do consider family background are often concerned with the impact on marriage timing of orphanhood (Chae 2013; Palermo and Peterman 2009) as well as household shocks (Hoogeveen, Van Der Klaauw, and Van Lomwel 2011; Molotsky 2019). Further, these studies are often primarily concerned with early marriage among girls and young women. However, characteristics of the respondent's household may also be important to consider when trying to capture the economic circumstances of young men.

Economic Uncertainty and Marriage Timing in Sub-Saharan Africa

Scholars have studied the question of how men's economic circumstances are associated with the ages at which they marry for centuries (Hajnal 1965; Malthus 1803; Oppenheimer, Kalmijn, and Lim 1997; Oppenheimer 2003). Early considerations of men's marriage timing focused on the impact of men's economic security and how long it takes an individual to gather the necessary resources to establish a new household (Hajnal 1965; Malthus 1803). More recently, Valerie Oppenheimer argued that to the extent that men are expected to contribute economically in marriage, men's economic situations remain fundamental to

marriage timing and that uncertainty in men's career paths complicates finding a marital partner, thereby delaying marriage (Kalmijn 2011; Oppenheimer 1988; Oppenheimer, Kalmijn, and Lim 1997). These ideas represented a departure from the predominant explanation at the time that women's changing position in the labor market was the cause of later marriage and rising levels of divorce (Becker 1974, 1981; Oppenheimer 1988). Since the initial publication of Oppenheimer's theory, a large body of research has tested and expanded upon these ideas in the United States (Sweeney 2002) and Europe (Kalmijn 2011). In contrast, scholars have only recently begun to explore the socioeconomic correlates of men's marriage timing using survey data in sub-Saharan Africa.

Research on men's marriage timing in sub-Saharan Africa largely focuses on urban men, often using retrospective life history data from major cities in Francophone nations (Antoine 2006; Bocquier and Khasakhala 2009; Calvès 2007; Nappa et al. 2019). Similar to how Oppenheimer's work represented a new approach, the focus on men here is also somewhat unusual. Research on marriage timing in sub-Saharan Africa has tended to focus on women, in part due to women's greater likelihood to marry in their teenage years (Mensch, Singh, and Casterline 2005) and also a desire to better understand fertility patterns.

This relatively nascent body of research is concerned with how men's economic circumstances shape when they marry: employment status and type are key variables of interest. Overall, education and precarious employment are found to delay union formation. For example, Antoine (2006) finds that in the four African capitals of Dakar (Senegal), Yaoundé (Cameroon), Antananarivo (Madagascar), and Lomé (Togo), being a student, an apprentice, or unemployed was associated with later marriage. Antoine thus attributed the trend of later marriage in these cities to a combination of rising education levels and difficulties in gaining employment. A study conducted in Nairobi, Kenya similarly found that having no fixed salary as well as being unemployed or a student were associated with delayed union formation for men (Bocquier and Khasakhala 2009). Furthermore, some of this research suggests that marriage is now more contingent on economic status for men than it was in the past when marriage timing was more a matter of reaching the normative age (Calvès 2007). Running parallel to these studies is qualitative research that documents the interplay between the struggle for many young men to establish a stable income in cities and their consequent difficulties marrying (Mains 2012; Pike, Mojola, and Kabiru 2018).

To a lesser extent, scholars have also used survey data to examine marriage timing in rural areas in sub-Saharan Africa. Two existing studies in this vein focus on specific ethnic communities: the Turkana in Kenya (Dyson-Hudson and Meekers 1996) and the Sereer in Senegal (Mondain, LeGrand, and Sabourin 2007). Compared with the urban studies, these studies are less focused on men's economic characteristics. Dyson-Hudson and Meekers' (1996) variables of interest are birth order within the family, the marital status of siblings, and whether the respondent "hates women." While Mondain and colleagues' study (2007) consider caste, education level, and whether and at what age men temporarily migrated to the city, they do not explore factors such as earnings and

employment or occupation status. The study's results show that higher education is associated with later marriage and that men who temporarily migrated at younger ages tended to marry earlier than men who migrated later or not at all. The authors attribute these findings to the greater autonomy young men gain when they move to urban areas and the adoption of less traditional behaviors.

Much of the rural and urban marriage timing studies focuses on men's individual characteristics. However, one strand of this research particularly attuned to how individuals are embedded in households is that on household shocks. Scholars, largely economists, have studied how marriage timing in rural areas is impacted by shocks, from the loss of livestock to lower rainfall (Corno and Voena 2016; Hoogeveen, Van Der Klaauw, and Van Lomwel 2011; Molotsky 2019). This research is largely concerned about early marriage among girls and young women, but several studies do also explore the impact of these shocks on young men, including one that uses the same data as this paper (Molotsky 2019). The findings of this body of research generally show that household shocks increase the likelihood of getting married or engaged for young women but do not have much of an effect for young men (Corno and Voena 2016; Molotsky 2019). This might reflect how clearing the economic hurdles to marry, such as building a house (Sommers 2012) or amassing the money and/or goods for bridewealth (Masquelier 2005; Stites 2013) is more of an individual responsibility than it was in the past.

Given the focus on household shocks, these studies tend to not focus on men's individual economic characteristics, such as type of work or earnings. The present study combines this area of research's attention to how individuals are embedded in households with the focus on men's individual trajectories of the more urban-focused research.

Comparing Rural–Urban Marriage Trajectories

Another key feature of the existing marriage timing research in sub-Saharan Africa is that it tends to focus on either rural areas or urban areas, but rarely both at the same time. This is significant given that though economic uncertainty pervades both rural and urban life for many in sub-Saharan Africa, rural marriage dynamics do differ from those in urban areas. Notably, rural men and women tend to marry considerably earlier than their urban counterparts. In an analysis of Demographic and Health Surveys (DHSs) data, Mensch et al. (2005) found that in Eastern and Southern Africa, among men aged 20–24 years, 15.5% of rural men had married by age 20 compared with 8.2% of urban men. The difference was even starker in Western and Central Africa. Thus, made possible by data that include both rural and semi-urban communities, this paper also extends prior research by interrogating the impact of living in a semi-urban area on marriage timing and how men's economic characteristics might help explain this differential.

While scholars have examined this rural–urban differential of marriage timing among women in sub-Saharan Africa, exploring explanations such as higher levels of education and economic well-being in urban areas (Shapiro

and Gebreselassie 2014), less scholarship exists on these trends for men. The urban-focused marriage timing studies point to education as a potential reason for why men marry later in urban areas. Antoine (2006) refers to a "double effect" on marriage timing of both the duration and level of education: while being in school is largely incompatible with marriage, higher education levels might further delay marriage through changing norms, values, and aspirations.

Another potential reason is the nature of the work that forms the backbone of the economy in much of rural sub-Saharan Africa, namely agriculture or other work that relies on the land such as pastoralism. Across a range of geographic regions and historical periods, scholars have shown the implications of agricultural work—and in some cases, its declining prevalence—on household arrangements, marriage timing, and fertility (Caldwell 1976; Ruggles 2015; Thornton and Fricke 1987; Yabiku 2006). Often involving the whole household rather than one individual, farming as a type of work fosters multigenerational households, earlier marriage, and higher fertility. Indeed, the qualitative component of the study on marriage timing among the Sereer in Senegal describes how agricultural work was seen to lead to earlier marriage because of the benefit of bringing another worker into the home with one 33-year-old man saying: "Those who stay in the village get married early because they stay with their parents, they work for them" (Mondain, LeGrand, and Sabourin 2007, 632). Alongside these economic considerations, agricultural households may be more traditional with greater control over the marriage process by parents, also contributing to earlier marriage (Meekers 1995).

This Study

Using longitudinal data from the Marriage Transitions in Malawi (MTM) survey, this study examines the association between men's economic circumstances and marriage timing in rural and semi-urban communities in the district of Salima in Malawi. As measures of men's personal economic situations, I include type of work, earnings, savings, and education level. Anthropologists have long called for studies of marriage timing to pay more attention to the family contexts of marriage, particularly in societies more organized by kinship, where marriage often brings together many in its "web of significance" (Dahal et al. 1993, 305). Some family demographers of the United States have also emphasized this point, arguing that family economic resources can impact when young adults marry by shaping their opportunities and aspirations (South 2001). In this spirit, I include three household background variables, including the household's wealth level, the amount of land it owns, and whether it sold cash crops in the last year. Thus, the study's primary objective is to examine the socioeconomic correlates of marriage for men outside of major urban centers, taking into account both men's individual and family contexts. Additionally, given that the study included both rural and semi-urban communities, it examines the

factors that help explain the differences in men's marriage timing in these two contexts.

Study Context and Hypotheses

This study's data draw from 60 rural and semi-urban communities in the Salima district of Malawi, which is in the central region of the country and borders Lake Malawi. Subsistence agriculture is the main source of livelihood for Salima's population. Along Lake Malawi, fishing and tourism offer other sources of livelihood (Mpeniuwawa 2013). Salima town, which is the district's capital, serves as a hub of commercial activity. Throughout the paper, I use the term "semi-urban" rather than "urban" to categorize communities in Salima town or trading centers. Around the time that this study's data were collected, Salima town had a population of around 27,000 people (National Statistical Office of Malawi 2008) and an official geographic coverage of 5 km^2 (Manda 2013). Furthermore, agriculture remains central to the economic activity of these communities with, for example, around 40 percent of semi-urban men coming from households that sold cash crops in the past year. Responding to recent calls to move beyond the "blunt" rural–urban dichotomy (Corker 2017), the term semi-urban distinguishes these communities from urban centers that are both larger and more divorced from agricultural economic activity.

In the central region of Malawi, where Salima district is located, the median age of marriage for men is 22.5 years, whereas it is earlier for women, around 18 years (National Statistical Office 2011). There are group differences by gender in the median age of marriage in Malawi—notably, it is higher for men in urban areas, men with higher levels of education, and men in the highest wealth quintile (National Statistical Office 2011). Given this differential at the national level along with the relatively less agricultural nature of the study's semi-urban communities and the potentially higher education levels of the men living there, I expect that living in either Salima town or trading centers will be associated with a lower likelihood of marriage compared with living in a rural area.

One factor that differentiates marriage in Malawi is that several of the country's main ethnic groups, including the Chewa, the Yao, and the Ngoni—which together form the large majority of this study's sample—are matrilineal. This defining characteristic, generally quite rare across sub-Saharan Africa, plays a key role in shaping social norms around marriage in Malawi. For these matrilineal groups, husbands traditionally move to the wife's village following marriage, bridewealth is relatively small in amount or not exchanged at all, and divorce is an easier process (Kaler 2001; Kishindo 2011). However, since at least the 19th century in Central Malawi, migration has resulted in the considerable mixing of matrilineal and patrilineal systems (Phiri 1983). Cash crop production has also strained matrilocal residence in Central Malawi—men growing cash crops would often like to have as much as land as possible, which matrilocal resettlement often cannot offer (Phiri 1983). This mingling of systems is present in Salima district, where, in 2007, more than a third of villages were found to follow not only matrilineal lineage systems but also patrilocal settlement

(Berge et al. 2014). Indeed, though most of the men in this study come from matrilineal ethnic groups, a majority (around 70 percent) continue to live in their community after marrying, though this might be a temporary phase before moving to their wives' community (Ansell et al. 2018).

The positive association of agricultural livelihoods with marriage that scholars have found in other contexts might be particularly strong in this relatively matrilineal setting, given the close tie between marriage and land (Kishindo 2011; Peters 2010). As Kishindo (2011, 94) has written on men "marital migrants" in the predominately matrilineal district of Balaka in southern Malawi: "The relationship between men and women in relation to agriculture is one of mutual dependence, whereas men need women to access land, women need men to do the heavier farm work such as land preparation, and to procure farm inputs, especially fertilizer." Agricultural men in patrilineal communities may also marry earlier in order to access land—in matrilineal and patrilineal communities alike, land is often inherited upon marriage, birth of a child, or when an heir "becomes mature enough to form an independent household" (Takane 2008, 274). The collective nature of agricultural work might also accelerate marriage for men as wives contribute to agricultural production. I therefore expect that men working in agriculture will tend to marry earlier compared with those doing nonagricultural forms of work. Within this same logic, I expect coming from a household that sells cash crops to be associated with a higher likelihood of marriage: it indicates a close tie to agricultural production, and also—in itself—is unlikely to indicate a high social status that might be associated with delayed marriage.

Similarly, the amount of land that a household owns might be associated with earlier marriage, reflecting a more rural, agricultural background. At the same time, though much landownership is customary in Malawi—allocated by local leaders, ideally based on family size, and most frequently passed down by inheritance—higher status families often have larger plots (Kishindo 1993; National Statistical Office 2010). In recent decades, tensions around land have been heightened by cash crop production, land scarcity due to increased population density, and new forms of economic stratification (Kishindo 1993; Peters and Kambewa 2007). Land ownership is not only a concern of rural populations. For example, in the early 1990s, Kishindo (1993) described the "new development" of civil servants in Salima town leasing customary land for agricultural production. Research also suggests that some urban dwellers "worry about being excluded from the system of [land] inheritance" (Berge et al. 2014, 67). Thus, when we consider amount of land as an indicator of advantage, we might expect men from households with less land to be more likely to marry (in order to gain access to land) and men from households with more land to be less likely to marry, given their higher social status and the alternative life trajectories that this opens up.

Additionally, though bridewealth may be smaller than in patrilineal settings, there remain costs to marriage in the study's communities. Among the men who married, the mean cost of the marriage ceremony was around 8000 kwacha (USD 58)[1]—on average, the groom's family covered slightly over a third of the costs

and the groom covered a similar proportion. In addition, around 60 percent of men said that a payment was promised on marriage with the cash portion of the payment averaging 4700 kwacha (USD 34). Relative to the earnings of the men in the sample, these amounts are sizable. Furthermore, beyond the costs of marriage, men's economic characteristics are still considered important in marriage partners. In matrilineal Balaka, women's grounds for divorce include "laziness" and the "failure to provide the basic needs of the family" (Kishindo 2011, 94).

Given these costs to enter into marriage as well as the ideal economic characteristics of marriage partners, I expect that factors indicating economic advantage at the individual level—in this case, higher income and having any savings—will be associated with marrying earlier while their converse will be associated with marrying later. Given the incompatibility between marriage and schooling, I expect being a student to be associated with delayed marriage. The association with household-level wealth, however, is more difficult to predict. On the one hand, it could accelerate marriage by providing men with an additional source of economic support, enabling them to marry. On the other hand, to the extent that wealth is associated with other covariates that I expect to delay marriage, including higher education levels and nonagricultural professions, greater levels of family wealth may be associated with delayed marriage.

Data

This paper uses longitudinal data from the MTM project, a study designed to study the social and economic factors influencing the experience of key life events in early adulthood as well as the likelihood of acquiring HIV (see Beegle and Poulin 2017 for a full description of the dataset). The initial sample, interviewed in 2007, comprised 585 young men and 598 young women from 60 rural and semi-urban communities in Salima district. All respondents were unmarried at the start of the survey. In order to capture adequate numbers of young adults marrying over the duration of the survey, the sampling frame was stratified by age based on data on the timing of first marriage in Salima from a national household survey. At Wave 1, men ranged in age from 14 to 26 years. Most of these men were the only respondent interviewed from their household; however, there were some households where more than one man was selected. Overall, the 541 respondents came from 510 households.

The first round of data collection took place in 2007 and respondents were interviewed up to four additional times in the following twenty-six months. Three household surveys, which included interviews with the respondent, took place in 2007, 2008, and 2009. In addition, around six months after the first and second survey round, partnership interviews were carried out with a randomly selected subset of respondents; these focused on relationship experiences as well as other key life events since the prior interview. Respondents who left

their homes and moved elsewhere after the initial interview were tracked and interviewed when possible. In this paper, I draw on data from 541 of the 585 male respondents interviewed at Wave 1. Among the 44 men excluded from the analysis, 28 were those who were not interviewed again after Wave 1. Other respondents were excluded for missing data on key variables across waves despite completing the interviews.

These data are well suited to this research question for several reasons. First, the survey was designed to study the socioeconomic factors associated with life events in early adulthood, including marriage, in rural and semi-urban communities. Second, the data are prospective and longitudinal, allowing us to observe a sample of men, all unmarried at the start, marry in "real-time." To the extent that economic measures vary over time, the ordering of events is much clearer in longitudinal data with fewer concerns of recall bias. Third, the breadth of the dataset allows me to examine various facets of men's economic circumstances at the individual and household level and to take into account variables that reflect the economy of this particular context such as the sale of cash crops. Finally, the survey covered a combination of rural and semi-urban communities; this mix provides variation in types of employment (i.e., not all men are employed in agriculture) as well as helps shed light on differences in marriage trends between rural and semi-urban areas.

Dependent Variables

The key dependent variable is the age of first marriage, which is represented in the model as the hazard of marriage, based on the values of the independent variables. As in much of sub-Saharan Africa, marriage in Malawi is a process rather than a distinct event, involving various steps and ceremonies (Meekers 1992). As such, research decisions need to be taken about how to measure the start of a marriage (Antoine and Lelièvre 2009). Surveys, such as the DHS, often rely on respondents' self-assessment of their marital status (Mensch et al. 2005). This approach is also taken with the survey data used in this paper, in which date of marriage is determined from the question: *In what month and year did you get married?* While the survey asks about the various ways in which people marry, including religious and traditional ceremonies, I consider a respondent as married if he states that he is married, regardless of *how* he married. The age of marriage variable is then created from the two separate date variables: month and year of the respondent's birth and month and year of marriage. A handful of respondents married by the final survey wave but did not give a date. In these cases, I imputed their age at marriage based on the halfway point between their age at Wave 3 and the preceding wave when they were unmarried.

Individual Independent Variables

The key independent variables at the individual level include the amount a man earned in the previous year, whether he has savings, his occupation, and

his education level. These variables were measured at each of the three main survey waves. Earnings, measured as a continuous variable in Malawian Kwacha (MWK) in the data, are transformed into log-earnings. The amount of earnings is based on the response to the survey question: "*Think about all of the work that you have done in the past year in which you have been paid cash or kind. How much do you estimate that you have earned in the past year?*" Depending on how the question was interpreted, it may not capture income from self-employment or from household agricultural production. Savings is included as a dichotomous variable of any savings/no savings. Savings include not only cash but also animals (cows, chickens, and goats) as well as other assets, which include other types of animals (pigs and sheep) and bicycles. If a respondent had savings in one or more of these forms, he is categorized as having any savings. The occupation variable was created from answers to the survey question: "*During the past 12 months, what kind of work did you spend most of your time on?*" It included four categories: agriculture, nonagricultural economic activities, domestic activities, and other. Domestic and other were combined into one category and an additional "student" category was created for men who answered "school related" to another question on main specific activity of the previous year and/or reported that they were currently in school. The variable for highest education level reached includes the categories: none, primary, and secondary school or higher. For men still studying, this variable is the level of education in which they are currently enrolled.

Another key independent and time-varying variable is whether the respondent lives in a rural or semi-urban area. This variable was created by matching the geographic information system (GIS) coordinates of the respondents at the various waves with the Malawi National Statistics Office's classification of the area and is included in the model as a dichotomous variable. The semi-urban category comprises men who lived in Salima town and trading centers. Though all men were initially living in rural or semi-urban communities, by Wave 2, some (around 7%) had moved to a major urban area. Given the focus on marriage timing in rural and semi-urban areas, these men are not included in the analysis after Wave 2.

Household Independent Variables

The household independent variables include the amount of land the household of the respondent owns, whether they sold crops for cash in the last rainy season, and a wealth quartile based on a factor analysis of household infrastructure variables, including whether the household owns the home, household building materials, water/electricity access, and telephone/toilet facilities, as well as ownership of twenty household durable items, such as a mattress, iron, and radio. The land ownership variable is based on responses to the question: "*How much land is owned by you or any member of your household, including land which is farmed but also land which is fallow?*" It includes three variables: nonlandowners or small landowners (an acre of land or less),

medium landowners (more than an acre to four acres), and larger landowners (more than four acres). These categories, respectively, represent the bottom quartile of landowners, the middle two quartiles, and the top quartile. Some households provided the amount of land they owned in terms of hectares or football fields. In these cases, the amount of land was converted into acres through multiplying hectares by 2.47 and football fields by 1.5. Households were classified as selling cash crops if they had sold any combination of maize, cotton, tobacco, and/or another cash crop during the prior rainy season.

These measures are not necessarily the characteristics of the respondent's biological family but rather the characteristics of the households that the men lived in at Wave 1, prior to marriage. However, the majority of men (71%) are the child or adopted child of the household head at Wave 1, whereas the other large portion (27%) are related to the household head, either as a grandchild, sibling, nephew, brother-in-law, or in some other way. The remaining small percentage was not related to the household head (1%) or the head of the household himself (1%). Thus, the vast majority of households consist of close family of the respondent, providing an indication of the respondent's immediate social network and potential source of financial assistance. Due to this objective to capture the respondent's background, the earliest observation (Wave 1) of these variables are used, rather than having them vary over time as is the case with the individual economic characteristics.

Controls

In addition to these independent variables of interest, two controls are included for ethnicity and age. While the survey includes eight ethnic groups, the majority of men are from the Chewa ethnic group (63%) with a sizable portion Yao (19%) and a smaller percentage Ngoni (9%). The five other ethnic groups, including the Lomwe, Tumbuka, Sena, Senga, and Tonga, were grouped into the other category. Religion is not included as a control as there is a high correlation between religion and ethnicity: nearly all Yao respondents are Muslim (88%), whereas most of the Ngoni and the Chewa respondents are Christian (98% and 84%, respectively). The analyses also control for age, including variables for men's age at the first wave and age squared.

Methods

To examine the association between men's economic characteristics and marriage timing, this paper uses event history analysis—an appropriate technique when the research question involves the timing of an event and the transition from one state to another (in this case, unmarried to married) (Cleves et al. 2010). Time to marriage or censoring was measured in years based on month-year dates of birth and marriage or interview. I use Cox proportional hazard models, which are flexible in that they do not require parameterization of the baseline hazard

of marriage and are well-suited to events that occur in continuous time rather than at discrete intervals (Cleves et al. 2010). The time origin of the time scale is age 15, which was the legal age of marriage at the time of the survey; though shortly afterward in 2015, it was increased to 18 years (Chilunga 2015). This is the age at which the respondents start to be "at risk" of marriage. However, my analysis specifies at which age the respondent entered the survey in order to address the left censoring that results from all men being unmarried at Wave 1 (i.e., being at risk of marriage from age 15, but not having entered the study until after this point).

The Cox proportional hazard model that I use, including time-invariant and time-varying independent variables, is illustrated below:

$$h\,(t; x_1, \ldots, x_n) = h0\,(t) \cdot \exp\left(b_1 \cdot x_1 + . \cdots + b_n \cdot x_n\right)$$

The time-invariant variables (control and household variables) are drawn from Wave 1, whereas the time-varying variables (related to men's individual economic situations) are taken from Waves 1 and 2 to estimate the hazard of marriage at Waves 2 and 3 as well as the hazard of marriage between the waves for men who were selected for interview at those points. To examine the association between men's economic circumstances and marriage timing, I estimate three models: the first set including the semi-urban area variable and the control variables, the second adding the individual characteristics, and the third adding the household variables. I conduct the analyses for the whole sample of men and then excluding men who are students, which allows for an assessment of economic characteristics and marriage timing among men who have begun their working lives in earnest. Prior studies of men's marriage timing have also taken this approach (Oppenheimer, Kalmijn, and Lim 1997).

Event history analysis requires having both a variable indicating experience of the event, in this case, whether a man had married or not, and the amount of time that has occurred since the person was at risk of the event until that time point when they have or have not experienced the event. For a number of cases, the data posed a challenge in that at Wave 2, the respondents stated that they had not married but then at Wave 3, they stated that they were married and provided a date of marriage that either was the same or preceded Wave 2's interview date. To handle this issue, the respondent's answer as to whether they were married at the two waves was prioritized over the date and so for these cases, the date of marriage was changed to two weeks following the date of interview. The more processual nature of union formation in this setting might partly explain this data issue.

Lastly, one assumption of the Cox proportional model is that the hazards are proportional—in other words, the coefficients of the covariates are not significantly associated with time. Using an analysis of residuals, I find that this assumption holds for all the variables of interest and controls across the various models.

Table 1. Individual and household characteristics of men at Wave 1, MTM 2007–2009 ($n = 541$)

	Rural		Semi-Urban	
	Mean or %	SD	Mean or %	SD
Age	20.3	1.7	20.4	1.9
Married while enrolled in survey (%)	33.8		15.5	
Earnings				
In Malawian Kwacha (2007)	5668	7736	6902	12,336
Equivalent in US dollars	41	56	50	89
Savings (%)				
No savings	86.6		91.8	
Some savings	13.5		8.3	
Type of work (%)				
Agricultural	47.9		18.4	
Nonagricultural	18.9		28.0	
Student	27.8		43.0	
Domestic and other	5.4		10.6	
Highest education level				
None	4.5		1.5	
Primary	76.7		45.9	
Secondary or higher	18.9		52.7	
Household land ownership (%)				
An acre or less	18.3		45.4	
>1 acre and <4 acres	56.9		37.2	
4 acres or more	24.9		17.4	
Household sells cash crops (%)				
Sold in previous year	60.8		41.1	
Did not sell in previous year	39.2		58.9	
Household wealth quartile (%)				
Poorest 25%	32.0		12.6	
25–50%	34.1		12.6	
50–75%	26.1		21.7	
Wealthiest 25%	7.8		53.1	
Ethnicity (%)				
Yao	19.8		18.4	
Chewa	68.6		53.6	
Ngoni	6.6		12.6	
Other	5.1		15.5	
N	334		207	

Results

Sample Characteristics

Table 1 below shows characteristics of the survey respondents at Wave 1 by whether they live in a rural or a semi-urban community. The majority of men (62%) live in a rural community, whereas just over a quarter live in Salima town and the rest live in a trading center. At Wave 1, the respondents' ages range from 14 to 26 years with 20.3 years as the mean age and the large (92%) majority of respondents falling between 18 and 23 years. Overall, just over a quarter of men married while enrolled in the survey, but there were marked differences by residential area: around one third of rural men married over the course of the survey compared with around 15 percent of semi-urban men.

In terms of economic characteristics, the descriptive statistics reflect the high levels of poverty in Malawi as well as the relatively young age of men in the sample. The average earnings in the previous year were 5700 kwacha (USD 41) in rural areas and slightly higher at 6900 kwacha (USD 50) in semi-urban areas, with the majority (84%) of men earnings less than 10,000 kwacha (USD 72) in the past year. About a fifth of the respondents had no earnings at all in the previous year, with a higher proportion of nonearners in the semi-urban areas. Only around 10 percent of men report having any savings, even though this measure includes cash as well as ownership of noncash assets such as livestock and poultry. In terms of occupation, a higher proportion of men engage primarily in agricultural work in the rural areas, and in the semi-urban areas, a higher proportion of men are students or do nonagricultural work. However, it is telling that around a fifth of men living in Salima town or a trading center stated some form of agriculture as their primary activity in the past year, highlighting the blurry line between rural and urban in this context.

For the household economic variables, the wealth quartiles indicate a higher concentration of wealthier homes in the semi-urban communities: more than half the respondents from Salima town or the trading centers are in the highest wealth quartile, whereas only around 8 percent of respondents living in rural communities are in this quartile. Most households in both semi-urban and rural areas own some land (86%). A higher proportion of semi-urban men come from households that own one acre or less, but still, more than half come from households that own more than an acre of land. Around a quarter of the rural men come from households owning more than four acres compared with just under a fifth of urban men. Around half the respondents' households sold cash crops in the previous year with higher proportions in the rural communities. Though, again, the proportion of semi-urban households selling cash crops is relatively high at around 40 percent.

Economic Characteristics and Marriage Timing

We now turn to the associations between men's economic situations and marriage timing with the results of the Cox proportional hazard models (table 2),

starting with the analyses of the whole sample. The first model examines the association of living in a semi-urban area with marriage, including only the control variables. It shows that men who live in the semi-urban communities are half as likely to marry than their rural counterparts. When we introduce the individual-level variables in the second model, this association reduces in magnitude and significance, suggesting that men's later marriage in semi-urban areas is in part due to differences in their socioeconomic characteristics compared with rural men, particularly their more frequent student status.

The second model also shows a significant association between earnings and occupation with marriage timing. A 1 percent increase in earnings is associated with a 14 percent increase in the likelihood of marriage. Compared with men engaged in nonagricultural work, students have a 72 percent lower likelihood of marriage. Men working in agriculture are close to 1.5 times more likely to marry, though this latter association is only marginally significant. The results also suggest that men whose main economic activity in the past year was "domestic or other" were more likely to marry, but this finding should be read with caution given the small number of men in this category. Meanwhile, having any savings is not significantly associated with the likelihood of marriage, though the hazard ratio is in the expected direction of a higher likelihood of marriage. Education level along with the control variables of ethnicity and age also show no significant association.

In the third model, both individual and household characteristics are included. The positive association with earnings remains as does the negative association of being a student, both at similar magnitudes. Additionally, the amount of land owned shows a significant negative association with marriage: men from households owning more than four acres are approximately half as likely to marry as men from households that own an acre or less. In contrast, men who come from cash crop selling households are almost twice as likely to marry than men who come from households that did not sell cash crops in the prior year.

Men Who Have Left School

In the second set of analyses, also shown in table 2, students are excluded. Without this population that is more concentrated in the semi-urban communities and has a much lower likelihood of marrying, there is still a negative association of living in a semi-urban area. However, it has decreased in both magnitude and in significance. When men's individual economic characteristics are included in the fifth model, this association reduces further in magnitude and becomes only marginally significant. Notably, with students are excluded, men working in agriculture are still around 1.5 times more likely to marry than men engaged in economic activities that are not agricultural, but this association is now significant. In addition, the association of earnings with marrying has increased in magnitude and significance compared with the model that included students: a 1% increase in earnings is now associated with a 16% higher likelihood of marrying. As in the first set of models, education level along with the control variables remains not significantly associated with marrying.

Table 2. Cox proportional hazard models of transition to first marriage for men: MTM 2007–2009

	All men						Excluding students					
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	HR	SE	HR	SE	HR	SE	HR	SE	HR	SE	HR	SE
Semi-Urban	0.47	0.10***	0.61	0.13*	0.64	0.16†	0.61	0.13*	0.68	0.15†	0.70	0.18
Individual												
Earnings (log)			1.14	0.05**	1.14	0.05**			1.16	0.06**	1.16	0.06**
Has savings (ref. none)			1.28	0.27	1.41	0.32			1.30	0.28	1.43	0.33
Type of work (ref. nonagricultural)												
Agricultural			1.47	0.32†	1.45	0.32†			1.54	0.34*	1.54	0.35†
Student			0.28	0.11**	0.26	0.11**			-	-	-	
Other			1.74	0.56†	1.79	0.59†			1.78	0.58†	1.83	0.61†
Highest education (ref. primary)												
None			0.87	0.32	0.77	0.28			0.88	0.32	0.78	0.28
Secondary or more			0.86	0.20	0.99	0.25			0.85	0.21	0.99	0.26
Household												
Land ownership Ref. (≤1acre)												
>1 acre and <4 acres					0.73	0.15					0.70	0.15†
≥4 acres					0.46	0.13**					0.44	0.13**
Cash crops (ref. sold none)					1.81	0.35**					1.77	0.35**

(*Continued*)

Table 2. Continued

	All men						Excluding students					
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	HR	SE	HR	SE	HR	SE	HR	SE	HR	SE	HR	SE
Wealth quartile (ref. poorest quartile)												
25–50%					1.05	0.22					1.00	0.21
50–75%					1.18	0.29					1.18	0.30
75–100%					0.63	0.21					0.61	0.21
Controls												
Age at Wave 1	1.05	1.53	0.80	1.14	0.58	0.82	0.51	0.74	0.64	0.92	0.46	0.66
Age-squared	1.00	0.03	1.01	0.03	1.02	0.03	1.02	0.03	1.01	0.03	1.02	0.03
Ethnicity (ref. Chewa)												
Yao	0.90	0.19	0.92	0.20	0.87	0.19	0.89	0.19	0.92	0.20	0.85	0.20
Ngoni	0.65	0.22	0.67	0.23	0.71	0.25	0.70	0.24	0.71	0.24	0.74	0.27
Other	0.54	0.21	0.72	0.27	0.69	0.26	0.85	0.32	0.81	0.31	0.76	0.30
Person-years	1,051		1,048		1048		693		692		692	
Log likelihood	−701.1		−669.8		−661.6		−618.0		−607.6		−599.78	
N	541		541		541		404		403		403	

Note: Robust standard errors, adjusted for clustering by individual. HR = hazard ratios, SE = standard error.
$^{*}p < .05$.
$^{**}p < .01$.
$^{***}p < .001$.
$^{\dagger}p < .10$.

When both the individual and household variables are included, living in a semi-urban community shows no negative association with marriage. This suggests that in addition to the higher proportions of students in semi-urban areas, the rural/semi-urban difference in the likelihood of marriage is also due to the differences in the proportions of men engaged in agriculture and coming from agricultural homes. Cash crops and amount of land owned continue to operate in opposite directions. Men from households selling cash crops are 1.77 times more likely to marry than men from households not selling cash crops. Meanwhile, men from households owning more than four acres remain significantly less likely to marry compared with men from the households owning an acre or less. Excluding students, there is now some indication that men from households owning a medium amount of land are also less likely to marry than those owning an acre or less. With the inclusion of the household variables, the hazard ratio of working in agriculture remains at a similar magnitude but is now only marginally associated with marrying earlier. This suggests that the positive association of men's work in agriculture is in part explained by coming from households that are engaged in agricultural production, not just at the subsistence level but in a way that generates income for the household.

Discussion and Conclusion

The aim of this study was to examine how men's economic profiles—both in terms of their individual characteristics and their family backgrounds—are associated with marriage timing in rural and semi-urban Malawi. This approach builds on prior research on marriage timing for men in sub-Saharan Africa that has tended to examine these dynamics in major urban centers and to focus on men's individual economic characteristics (Antoine 2006; Bocquier and Khasakhala 2009; Calvès 2007; Nappa et al. 2019). The study's results show that men's individual economic circumstances do indeed have consequences for marriage timing beyond major urban areas in sub-Saharan Africa. Earnings, occupation, and various aspects of men's family background all shape the ages at which men marry. The study also found that men in semi-urban communities were half as likely to marry as their rural counterparts. This differential is largely explained by the greater proportion of students in the semi-urban areas as well as the less agricultural livelihoods of households in these communities. Through examining the socioeconomic correlates of marriage, the study contributes to our understanding of the relatively ubiquitous yet underexplored trend of men in more urban areas to marry later (Mensch, Singh, and Casterline 2005).

Higher earnings are significantly associated with marriage across all of the models. The study's data show that there are often costs to marriage, both in terms of bridewealth and ceremony, and that men themselves often contribute to both these amounts. In addition, some level of economic provision is also expected in marriage partners (Kishindo 2011). Having higher earnings thus appears to facilitate marriage. Alongside the occupational differences of men in rural and semi-urban areas, the survey's data on marriage costs also suggest

that more expensive wedding ceremonies in the semi-urban areas might delay marriage. The average cost of a marriage ceremony in semi-urban areas was substantially higher than that of a marriage ceremony in the rural areas: 12,500 kwacha (USD 90) versus 6800 kwacha (USD 49). So though men might earn more on average and be more likely to come from wealthier homes in the semi-urban areas, the expectations of ceremonies might be higher, potentially leading them to wait longer to marry.

As has been found consistently in studies of men's marriage timing not only in sub-Saharan Africa (Antoine 2006) but also other world regions (Kalmijn 2011), being a student greatly reduces the likelihood of marrying. In terms of the "double effect" of education (Antoine 2006), it appears that the duration of education is the key contributor to delayed marriage rather than education level in this context. As has been found elsewhere, when controlling for student status, education level was not associated with men's marriage timing (Bocquier and Khasakhala 2009). However, given the young age of the sample, it is relatively hard to disentangle the two: men who are still studying are likely those who will have higher education levels in the long run.

In contrast, when men who are students are excluded, working in agriculture appears to have an accelerating association with marriage. Prior research on land and gender relations in matrilineal regions of Malawi suggests that this could be due to the high degree of "mutual dependence" between husbands and wives and the access to land that marriage brings (Kishindo 2011, 94; Peters 2010). For men who do not follow the matrilineal custom of moving to their wives' village after marriage, agricultural livelihoods might still encourage earlier marriage given that small-holder farming is supported by family labor. In contrast, marrying might not be as conducive to other occupations or could even potentially be a hindrance. That work types are foundational to family formation has been used to explain changes in marriage and family patterns in the United States (Ruggles, 2015) but less so in the literature on marriage timing in sub-Saharan Africa.

The higher likelihood of marriage for men who came from households that sold cash crops further supports the theory that agricultural livelihoods facilitate earlier marriage—not just at the individual level but more in terms of livelihood systems. In contrast, coming from a family that owned larger amounts of land was associated with later marriage for men. One potential reason for these apparently contradictory associations is that larger land holdings may not necessarily mean engagement in agriculture. In Malawi, wealthier households and households with more land are more likely to hire casual labor for farm work (National Statistical Office 2010). Moreover, it might also indicate a higher economic status that opens up alternative life paths—including pursuing studies—that delays marriage. Selling cash crops, on the other hand, might be an indicator of agricultural households that are doing relatively better economically compared with others that are operating at only the subsistence level but is not in itself an indicator of high economic status. Cash crop households thus might accelerate marriage through fostering positive norms toward earlier marriage as well as providing financial means to support the young man to make this step.

These findings show how it is valuable to consider both men's personal and family economic circumstances in studies of marriage timing. Doing so reveals how economic advantage can work in opposite directions—while higher individual earnings and coming from a household that sold cash crops accelerated marriage, coming from a household with a large amount of land delayed it. This suggests that while the availability of income might facilitate marriage, a larger economic advantage may in fact delay it by opening up other possibilities. Similarly, the positive association of men's personal earnings with marriage and the negative association of being a student—an indication of economic advantage at this sample's age—also show how at the individual level, economic advantage can operate in different directions. Together these findings suggest thinking of economic advantage in terms of capabilities (e.g., earnings) versus expanded horizons, particularly when studying marriage timing at relatively young ages.

Though the study provides these insights, it is important to note that it is not without limitations. The first is the small sample size and the relatively small proportion of men who married during the course of the survey. Of the 541 men included in the analysis, 27 percent married during the survey period with the majority of these in the rural communities. Therefore, some hazard ratios are likely not significant due to a lack of statistical power. Second is the related issue of selection. Previous analysis of the data shows that migration is not uncommon among this age group: 23 percent of Malawian men aged 15–24 years have lived in their current community for five years or less (Beegle and Poulin 2013). However, the study aimed to limit attrition by tracking respondents when they moved and those who were lost to attrition resembled those who remained in the survey (Beegle and Poulin 2017). Furthermore, in its focus on the socioeconomic correlates of marriage timing, this article does not explore how fatherhood factors into men's marriage trajectories. Together, these limitations point to directions for future research, including a study that captures adequate numbers of men in major urban, semi-urban and rural communities that would allow for testing whether economic characteristics, such as earnings, have differential associations in rural and more urban areas.

Despite these limitations, the study has shown how men's economic circumstances are associated with marriage timing in a rural and semi-urban context, pointing to the importance of both individual and family background characteristics that work in at-times contradicting ways. The results also shed light on the well-documented negative association of living in a more urban area on marriage. Together, the higher proportion of students and the lower proportion of men engaged in agriculture and coming from agricultural households explain the difference in marriage timing between the rural and semi-urban men in this study. While prior work on men in major urban areas suggests that this delay is in part due to men's individual economic difficulties (Antoine 2006), this study shows that it is also due to different systems of livelihoods with mechanisms working at both the individual and the family level. As sub-Saharan Africa urbanizes—with men staying in school longer and working less frequently in agriculture—men's age at marriage will likely continue to rise.

Notes

1. Throughout the article, Malawian Kwacha amounts are converted at the 2007 exchange rate of 139 MWK to 1 USD.

About the Authors

Isabel Pike is an Assistant Professor in the Department of Anthropology and Sociology at the Graduate Institute of International and Development Studies (IHEID) in Geneva, Switzerland. Using qualitative and quantitative methods, she studies how gender and economic inequality shape youth outcomes as well as development narratives. Her research has been published in *Gender & Society* and *Journal of Marriage and Family*.

References

Amuyunzu-Nyamongo, Mary, and Paul Francis 2006. "Collapsing Livelihoods and the Crisis of Masculinity in Rural Kenya". In *The Other Half of Gender*, edited by Bannon, Ian, Correira, Maria C., pp. 219–45. Washington, DC: The World Bank.

Ansell, Nicola, Flora Hajdu, Lorraine van Blerk, and Elsbeth Robson. 2018. "'My Happiest Time' or 'My Saddest Time'? The Spatial and Generational Construction of Marriage among Youth in Rural Malawi and Lesotho." *Transactions of the Institute of British Geographers* 43 (2): 184–99. doi:10.1111/tran.12211.

Antoine, Philippe. 2006. "Analyse Biographique de La Transformation Des -modèles Matrimoniaux Dans Quatre Capitales Africaines: Antananarivo, Dakar, Lomé et Yaoundé." *Cahiers Québécois de Démographie* 35 (June): 5–37. doi:10.7202/018591ar.

Antoine, Philippe, and Éva Lelièvre (eds.) 2009. *Fuzzy States and Complex Trajectories: Observation, Modelization and Interpretation of Life Histories*. Paris: INED-CEPED.

Becker, Gary S. 1974. "A Theory of Marriage". In *Economics of the Family: Marriage, Children, and Human Capital*, edited by Schultz, Theodore, pp. 299–351. Chicago: University of Chicago Press.

Becker, Gary S. 1981. *A Treatise on the Family*. Boston: Harvard University Press.

Beegle, Kathleen, and Michelle Poulin. 2013. "Migration and the Transition to Adulthood in Contemporary Malawi." *The Annals of the American Academy of Political and Social Science* 648: 38–51.

Beegle, Kathleen, and Michelle Poulin. 2017. "Marriage Transitions in Malawi Panel Data." *Studies in Family Planning* 48 (4): 391–6. doi:10.1111/sifp.12041.

Berge, Erling, Daimon Kambewa, Alister Munthali, and Henrik Wiig 2014. "Lineage and Land Reforms in Malawi: Do Matrilineal and Patrilineal Landholding Systems Represent a Problem for Land Reforms in Malawi?" *Land Use Policy* 41:61–9. doi: 10.1016/j.landusepol.2014.05.003.

Bocquier, Philippe, and Anne Khasakhala. 2009. "Factors Influencing Union Formation in Nairobi, Kenya." *Journal of Biosocial Science* 41 (4): 433–55. doi:10.1017/S0021932009003319.

Caldwell, John C. 1976. "Toward a Restatement of Demographic Transition Theory." *Source: Population and Development Review* 2 (34): 321–66. http://www.jstor.org.

Calvès, Anne-Emmanuèle. 2007. "Too Poor to Marry? Urban Employment Crisis and Men's First Entry into Union in Burkina Faso." *Population (English Edition)* 62 (2): 293–311.

Chae, Sophia. 2013. "Timing of Orphanhood, Early Sexual Debut, and Early Marriage in Four Sub-Saharan African Countries." *Studies in Family Planning* 44 (2): 123–46.

Chilunga, Zawadi. 2015. "Malawi Pass Law to End 'Sweet 16' Marriages: Legal Age of Marriage Now 18." *Nyasa Times* 2015. https://www.nyasatimes.com/malawi-pass-law-to-end-sweet-16-marriages-legal-age-of-marriage-now-18/.

Cleves, Mario, Roberto Gutierrez, William Gould, and Yulia Marchenko. 2010. *An Introduction to Survival Analysis Using Stata*, 3rd edn. College Station, TX: Stata Press.

Corker, Jamaica. 2017. "Fertility and Child Mortality in Urban West Africa: Leveraging Geo-Referenced Data to Move Beyond the Urban/Rural Dichotomy." *Population, Space and Place* 23 (3). doi:10.1002/psp.2009 T4 - Leveraging Geo-Referenced Data to Move Beyond the Urban/Rural Dichotomy M4 - Citavi.

Corno, Lucia, and Alessandra Voena. 2016. "Selling Daughters: Age of Marriage, Income Shocks and the Bride Price Tradition". In *W16/08 Institute for Fiscal Studies (IFS) Working Papers*. London: Institute for Fiscal Studies (IFS).

Dahal, Dilli R, Tom Fricke, Arland Thornton, Source Ethnology, and No Autumn. 1993. "The Family Contexts of Marriage Timing in Nepal." *Ethnology* 32 (4): 305–23.

Dyson-Hudson, Rada, and Dominique Meekers. 1996. "The Universality of African Marriage Reconsidered: Evidence from Turkana Males." *Ethnology* 35 (4): 301–20.

Hajnal, John. 1965. "European Marriage Patterns in Perspective". In *Population in History: Essays in Historical Demography*, edited by Eversley, G.D.V., Eversley, D.E., pp. 101–43. Chicago, IL: Aldine.

Hoogeveen, Johannes, Bas Van Der Klaauw, and Gijsbert Van Lomwel. 2011. "On the Timing of Marriage, Cattle, and Shocks." *Economic Development and Cultural Change* 60 (1): 121–54. doi:10.1086/661215.

Kaler, A. 2001. "'Many Divorces and Many Spinsters': Marriage as an Invented Tradition in Southern Malawi 1946-1999." *Journal of Family History* 26 (4): 529–56. doi:10.1177/036319900102600405.

Kalmijn, Matthijs. 2011. "The Influence of Men's Income and Employment on Marriage and Cohabitation : Testing Oppenheimer's Theory in Europe." *European Journal of Population* 27 (3): 269–93. doi:10.1007/s10680-011-9238-x.

Kishindo, P. 2011. "The Marital Immigrant. Land, and Agriculture: A Malawian Case Study." *African Sociological Review/Revue Africaine de Sociologie* 14 (2): 89–97. doi:10.4314/asr.v14i2.70238.

Kishindo, Paul. 1993. "Land Tenure: The Case of the Salima District, Central Malawi." *Malawi Journal of Social Science* 16: 57–67.

Mains, Daniel. 2012. "Young Men's Struggles for Adulthood in Urban Ethiopia: Unemployment, Masculinity, and Migration." In *Young Men in Uncertain Times*, edited by Vered Amit, and Noel Dyck, 111–31. New York: Berghahn Books. doi:10.3167/ajec.2010.

Malthus, Thomas. 1803. *An Essay on the Principle of Population Or a View of Its Past and Present Effects on Human Happiness, an Inquiry Into Our Prospects Respecting the Future Removal Or Mitigation of the Evils Which It Occasions*. London: Johnson.

Manda, Mtafu A.Z. 2013. "Situation of Urbanisation in Malawi Report." Mzuzu. Malawi Government: Ministry of Lands and Housing. doi: 10.13140/RG.2.1.2413.2960.

Masquelier, Adeline. 2005. "The Scorpion's Sting: Youth, Marriage and the Struggle for Social Maturity in Niger." *Journal of the Royal Anthropological Institute* 11 (1): 59–83. doi:10.1111/j.1467-9655.2005.00226.x.

Meekers, Dominique. 1992. "The Process of Marriage in African Societies: A Multiple Indicator Approach." *Population and Development Review* 18 (1): 61–78. doi:10.2307/1971859.

Meekers, Dominique. 1995. "Freedom of Partner Choice in Togo." *Journal of Comparative Family Studies* 26 (2): 163–78.

Mensch, Barbara S., Susheela Singh, and John B. Casterline. 2005. *Trends in the Timing of First Marriage Among Men and Women in the Developing World*, Working Paper Series, No. 202. New York, NY: Population Council.

Mojola, Sanyu A. 2014. "Providing Women, Kept Men: Doing Masculinity in the Wake of the African HIV/AIDS Epidemic." *Signs* 39 (2): 341–63.

Molotsky, Adria. 2019. "Income Shocks and Partnership Formation: Evidence from Malawi." *Studies in Family Planning* 50 (3): 219–42. doi:10.1111/sifp.12099.

Mondain, Nathalie, Thomas LeGrand, and Paul Sabourin. 2007. "Changing Patterns in Men's First Marriage among the Sereer in Rural Senegal." *Journal of Comparative Family Studies* 38 (4): 627–44.

Mpeniuwawa, Kondwani Richman Promie. 2013. *Role of Social Cash Transfer in Nutrition in Salima District of Malawi*. Nairobi: University of Nairobi.

Nappa, Jocelyn, Bruno Schoumaker, Albert Phongi, and Mari-Laurence Flahaux. 2019. "Economic Hardship and Transformation of Unions in Kinshasa." *Population (English Edition)* 74 (3): 257–80. doi:10.3917/popu.1903.0273.

National Statistical Office. 2010. "*National Census of Agriculture and Livestock (NACAL), Malawi, 2006-2007*." Zomba, Malawi. http://www.nsomalawi.mw/images/stories/data_on_line/agriculture/NACAL/NacalReport.pdf.

National Statistical Office. 2011. *Malawi - Demographic and Health Survey*. Zomba, Malawi and Calverton, Maryland.

National Statistical Office of Malawi. 2008. *Spatial Distribution and Urbanisation Report*, p. 2008. Population and Housing Census: Zomba, Malawi.

Oppenheimer, Valerie Kincade. 1988. "A Theory of Marriage Timing." *American Journal of Sociology* 94 (3): 563–91.

Oppenheimer, Valerie Kincade. 2003. "Cohabiting and Marriage during Young Men's Career-Development Process." *Demography* 40 (1): 127–49. doi:10.2307/3180815.

Oppenheimer, Valerie Kincade, M Kalmijn, and N Lim. 1997. "Men's Career Development and Marriage Timing during a Period of Rising Inequality." *Demography* 34 (3): 311–30. doi:10.2307/3038286.

Palermo, Tia, and Amber Peterman. 2009. "Are Female Orphans at Risk for Early Marriage, Early Sexual Debut, and Teen Pregnancy? Evidence from Sub-Saharan Africa." *Studies in Family Planning* 40 (2): 101–12.

Peters, Pauline E. 2010. "Our Daughters Inherit our Land, but our Sons Use their Wives "Fields": Matrilineal-Matrilocal Land Tenure and the New Land Policy in Malawi." *Journal of Eastern African Studies* 4 (1): 179–99. doi:10.1080/17531050903556717.

Peters, Pauline E., and Daimon Kambewa. 2007. "Whose Security? Deepening Social Conflict over 'Customary' Land in the Shadow of Land Tenure Reform in Malawi." *Journal of Modern African Studies* 45 (3): 447–72. doi:10.1017/S0022278X07002704.

Phiri, Kings M. 1983. "Some Changes in the Matrilineal Family System among the Chewa of Malawi since the Nineteenth Century." *Journal of African History* 24: 257–74.

Pike, Isabel, Sanyu A. Mojola, and Caroline W. Kabiru. 2018. "Making Sense of Marriage: Gender and the Transition to Adulthood in Nairobi, Kenya." *Journal of Marriage and Family* 80 (5): 1298–1313. doi:10.1111/jomf.12525.

Ruggles, Steven. 2015. "Patriarchy, Power, and Pay: The Transformation of American Families, 1800-2015." *Demography* 52 (6): 1797–1823. doi:10.1007/s13524-015-0440-z.

Shapiro, David, and Tesfayi Gebreselassie. 2014. "Marriage in Sub-Saharan Africa: Trends, Determinants, and Consequences." *Population Research and Policy Review* 33 (1): 229–55. doi:10.1007/s11113-013-9287-4.

Sommers, Marc. 2012. *Stuck: Rwandan Youth and the Struggle for Adulthood*. Athens, Georgia: University of Georgia Press.

South, Scott J. 2001. "The Variable Effects of Family Background on the Timing of First Marriage: United States, 1969-1993." *Social Science Research* 30 (4): 606–26. doi:10.1006/ssre.2001.0714.

Stites, Elizabeth. 2013. "A Struggle for Rites: Masculinity, Violence and Livelihoods in Karamoja, Uganda". In *Gender, Violence, and Human Security: Critical Feminist Perspectives*, edited by Tripp, Aili Mari, Ferree, Myra Marx, Ewig, Christina, pp. 132–62. New York: New York University Press.

Sweeney, Megan M. 2002. "Two Decades of Family Change: The Shifting Economic Foundations of Marriage." *American Sociological Review*. . doi: 10.2307/3088937.

Takane, Tsutomu. 2008. "Customary Land Tenure, Inheritance Rules, and Smallholder Farmers in Malawi." *Journal of Southern African Studies* 34 (2): 269–91. doi:10.1080/03057070802037969.

Thornton, Arland, and Thomas Fricke. 1987. "Social Change and the Family: Comparative Perspectives from the West, China, and South Asia." *Sociological Forum* 2 (4): 746–779.

Yabiku, Scott T. 2006. "Land Use and Marriage Timing in Nepal." *Population and Environment* 27 (5–6): 445–61. doi:10.1007/s11111-006-0030-5.