

DETERMINANTS OF WOMEN'S AGE AT FIRST MARRIAGE IN ZIMBABWE: A SURVIVAL ANALYSIS APPROACH

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Abstract

The study aims to examine the effect of select socio-demographic factors on women's age at first marriage. The study employs survival analysis, specifically the Cox proportional hazard regression model and analysis of deviance using the Zimbabwe's 2022 anonymised population and housing census data. The median women's age at marriage in Zimbabwe is 21 years. Log rank tests show that there are statistically significant differences on median age at first marriage on all factor levels of the seven independent variables. Cox regression indicates that all the seven independent variables significantly influence women's age at marriage. The most contributing factors to the age at first marriage are whether women had given live birth, province and level of education. The findings of this study suggest that policies that delay entry into first marriage must be province (region) based. Findings also suggest that improvement in educational attainment for women will play a significant role in delaying entry into first marriage.

Keywords: median age at, survivor function, log rank test, Cox regression, hazard ratio, analysis of deviance

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INTRODUCTION

Marriage is an important institution for both individuals and society as a whole (Kamimura *et al.*, 2021). Marriage marks the beginning of socially sanctioned exposure to pregnancy and sets the course for subsequent childbearing. Marriage is one of the proximate determinants of fertility because it increases the chances of sexual intercourse and the risk of pregnancy in the absence of contraception (Bongaarts & Potter, 1983). In sub-Saharan African societies, marriage has traditionally been early and universal. Generally, any variation relates to the age at which marriage takes place, rather than whether it happens at all (Vera-Hernández & Fenske, 2022). The timing of marriage has several implications as far as the definition of the family as a social institution is concerned (Mabemba & Ntombela, 2023). The age at which marriage occurs has connection for not only the duration between marriage and childbirth, but also the subsequent level of fertility or size of the family. The reproductive performance and social status of women are explained largely by the age of their first marriage or cohabitation (Kulu *et al.*, 2018). Inadequate attention has previously been given to the broader health and social implications of variability in women's marriage age for public health. Biomedical scientists have been concerned primarily with whether the onset of reproduction occurs before the woman is adequately able to nurture her offspring and maintain her own health (Vera-Hernández & Fenske, 2022). Social scientists have argued that early marriage prevents women from attaining their rightful education, accessing employment and training opportunities, developing social relationships with peers, and participating in civic life (Vera-Hernández & Fenske, 2022).

Zimbabwe is experiencing child marriages. It is reported that 16 pupils at Monozi Primary School in Mbire district failed to sit for the 2024 Grade Seven Zimbabwe Schools Examinations Council (ZIMSEC) examinations after falling pregnant due to early child marriages (Kanyenze, 2024). It was also reported that 4,557 girls left school in

2023 because of pregnancy and of these, 3,942 were from rural schools, while 615 were from urban schools (The Herald, 2024). Despite the government's efforts to address the issue through the Education Act of 2020, which allows pregnant students to continue their studies, the dropout rate remains alarmingly high (*The Herald*, 2024).

Studies on age at which women enter first marriage has been done in other sub-Saharan African countries but to date little attention has been paid to Zimbabwe. This article attempts to fill this gap in knowledge and the aim is determine factors influencing women's age at first marriage in Zimbabwe. The study also attempt to compare Zimbabwe women's age at first marriage with other regional countries.

AGE AT FIRST MARRIAGE

'Age at first marriage' is a basic temporal term that is culturally constructed for marriage relationship between an adult male and an adult female intended to have sex, to reproduce and to adapt to environment from one generation to another around the world (Mwema & Etyang, 2023). Female age at first marriage is an important characteristic of population dynamics (Kopp & Neiman, 2016). Marriage has traditionally been early and universal in sub-Saharan Africa and this has been blamed for high fertility and the failure to achieve most UN Millennium Development Goals (MDGs) including the eradication of extreme poverty and hunger, achieving the goal of universal primary education, promotion of gender equality and empowerment of women, reduction of childhood mortality, improvement in quality of maternal health, and combating HIV and AIDS and other diseases (Ayiga & Rampagane, 2013).

Age at first marriage is of great interest to demographers due to its direct link to fertility (Maciejewski & Olzak, 2020). Age at first marriage as a component of marriage patterns, varies not only within, but also across cultures and countries due to differences in culture and

socioeconomic conditions (Ayiga & Rampagane, 2013). Without use of contraception, early age at marriage means early and prolonged exposure to the risk of pregnancy and may lead to a large family size. Delayed entry into marriage directly affects completed marital fertility by reducing the number of years available for child-bearing..

Age at first marriage has health implications on women and their under-five children (Adebowale *et al.*, 2012) and for the stability of the marriage itself, since people who marry early may not be experienced enough to negotiate the intricacies that characterise marriages such as marital conflicts (Mabemba & Ntombela, 2023). Some studies in sub-Saharan Africa have found that girls who marry early are more vulnerable to sexually-transmitted diseases (STDs) and HIV&AIDS because of the simultaneous increase in coital frequency and decrease in condom use among married couples (Clark, 2004; Moursi *et al.*, 2017; Mensch *et al.*, 2005). The reasons for early marriage are rooted in traditional and social norms, as well as factors such as women's disadvantaged status, poverty, and biases against girls' education (Moursi *et al.*, 2017). From the parents' perspective, early marriage offers protection against premarital pregnancy and provides lifelong security for their daughters (Moursi *et al.*, 2017).

Countries have different marriage systems which are determined by cultural and social norms of the area. Even within the same state, each tribe follows or may have its unique marriage system (Mabemba & Ntombela, 2023). However, a number of UN agreements define parameters relating to marriage and reproduction, including establishing a minimum allowable marriage age. By ratifying these international agreements, governments are expected to legislate a minimum age at marriage for both sexes, ideally at **18 years** (Vera-Hernández & Fenske, 2022). In Zimbabwe, the **Marriages Act No. 1 of 2022** set the minimum age of marriage at 18 years and previous laws had 16 years as a minimum. Delaying marriage and childbirth confers

major benefits on girls and may also lead to societal benefits, such as improved health of children and faster economic growth (Moursi *et al.*, 2017)

The mean age at first marriage in Malawi is **17.4 years** (Baruwa *et al.*, 2020). As far as type of residence is concerned, many studies have observed that early age at first marriage is higher in rural or low-income areas than in the urban areas (Baruwa *et al.*, 2020). A study reported that the hazard of early marriage was higher in urban than rural settings in Zambia (Mabemba & Ntombela, 2023). It reports that education was positively associated with age at first marriage in Ethiopia, Ghana, Kenya, Nigeria and Zambia (Mabemba & Ntombela, 2023). It was found out that education is key in determining at what age women marry, having, as would be expected, a positive effect on age at first marriage and depressing spousal age gap in lesser developed countries (Carmichael, 2011). Religion is another important variable that affects both ages at marriage and at first birth (Mabemba & Ntombela, 2023).

SURVIVAL ANALYSIS

Statistical modelling of the time to occurrence of a specific event (survival time) has application in several fields of research. Historically, the event of primary interest in survival analysis is patient morbidity, but active research in the field over the past few decades provides applications spread across many domains, including biostatistics, sociology, economics, demography, and engineering (Box-Steffensmeier *et al.*, 2004; Hossain, 2009; Ibrahim *et al.*, 2005). In addition to survival times, additional information of covariates has been used to evaluate their importance in predicting the survival probability of a given observed individual. This now entails modelling of survival data.

Survival data have two important special characteristics: (1) survival times are non-negative and consequently are usually positively skewed;

and (2) typically some subjects (units of observation) have censored survival times, that is survival times of these subjects are not observed. However, of these two special characteristics, the one which renders most statistical procedures redundant is the issue of censoring. There are three types of censoring: right censoring, left censoring and interval censoring. Right censoring occurs when a subject leaves the study before an event occurs, or the study ends before the event has occurred and it is the most prevalent type of censoring. Left censoring is when it is known that the failure occurs some time before the recorded follow-up period, that is actual survival time is less than the observed. With interval censoring, it is known that the event occurs between two times, but the exact time of failure is not known.

Survival data are normally represented by a triple of variables (X, T, δ) , where X is the feature vector, and δ is an indicator variable. $\delta = 1$ if T is the time to the event of interest and $\delta = 0$ if T is the censored time; for convenience, T is usually name the observed time¹⁹. In summarising survival data, there are three functions of central interest, namely the survivor function, the hazard function, and the cumulative hazard function(Collet,2015).

Suppose T is a non-negative random variable representing the time until some event of interest and T has a probability distribution with underlying probability density function $f(t)$. It is usually assumed that T is continuous and its distribution function is given by

$$F(t) = P[T \leq t] = \int_0^t f(u)du \quad (1)$$

This function is also called the cumulative incidence function, since it summarises the cumulative probability of death occurring before time, t (Collet,2015). The survival function, which is denoted by $S(t)$ is the probability that a subject survives beyond time t and it is given by

$$S(t) = P(T > t) = 1 - F(t) \quad (2)$$

One other function, commonly used in survival analysis, is the hazard function ($h(t)$), which is also known as the force of mortality, the conditional failure rate, or the instantaneous death rate¹³. Hazard function is defined as the probability of dying at time t , conditional on subject having survived to time t and mathematically defined as

$$h(t) = \lim_{\delta t \rightarrow \infty}$$

$$= \lim_{\delta t \rightarrow \infty}$$

$$= \lim_{\delta t \rightarrow \infty}$$

$$= \lim_{\delta t \rightarrow \infty}$$

$$f(t)$$

$$P(t \leq T < t + \delta t | T \geq t) \delta t$$

$$F(t + \delta t) - F(t) \delta t \cdot S(t)$$

$$(3)$$

$$=$$

$$S(t)$$

The women's age at first marriage is interpreted as survival time from a single state to married state. During this interval, women may either enter into marriage or be right censored at the time of the survey. In this case, women who were single at the time of the survey constitute censored cases. Censored cases require special attention and as such, ordinary regression procedures are not appropriate. For censored survival data, the Cox proportional hazards regression model is the most widely used model (Abdallh & Algamal, 2023).

COX PROPORTIONAL HAZARDS MODEL

In examining time-to-event data, the model of Cox proportional hazards is widely applied (Kleinbaum & Klein, 2012). The general Cox proportional hazard model is given by

$$h(t, \mathbf{x}) = \exp(\boldsymbol{\beta}^T \mathbf{x}) h_0(t) \quad (4)$$

where $h_0(t)$ is the baseline hazard function which depends on time but not covariates and $\beta^T \mathbf{x} = \beta_1 x_{1i} + \beta_2 x_{2i} + \dots + \beta_p x_{pi}$. The model is semi-parametric because the baseline hazard can take any form and the covariates enter model linearly. The use of Cox regression in studying demographic processes such as age at first marriage is fairly common in the literature (Adebowale et al., 2012; Ayiga & Rampagane, 2013; Mabemba & Ntombela, 2023; Baruwa et al., 2020; Carmichael, 2011).

METHODS AND MATERIALS

DATA SOURCE

The data is from Zimbabwe 2022 population and housing census. The data constitute 10% of census individual's dataset and it is anonymised. Data anonymisation is the process of protecting private or sensitive information by erasing or encrypting identifiers that connect an individual to stored data. Dataset comprised 1 507 299 individuals. After data manipulations the research ended up with 344 217 women in the age group 10-49 years (reproductive age) which is quite a big dataset in relation to volume. Of these women in the reproductive age group, 55.49% were married. The remainder, 44.51%, were never married and were taken as right censored.

DESCRIPTION OF VARIABLES

The dependent variable was the women's age at first marriage. The censoring variable is whether the women have ever been married or not. Independent variables include the socio-demographic variables, which are province, place of residence, religion, ethnic origin, whether ever given any live birth, respondent's education level and women's working status.

Geographically, Zimbabwe is divided into 10 provinces (regions), namely Bulawayo, Manicaland, Mashonaland Central, Mashonaland East,

Mashonaland West, Matabeleland North, Matabeleland South, Midlands, Masvingo and Harare. Place of residence is categorised into two, rural and urban. It is assumed that women in rural areas have a lower age at first marriage than their urban sisters. Religion is believed to play a part in shaping the views, norms, belief attitudes and practices of the people and, in turn, govern the reproductive behaviour, and subsequently fertility. Religion is coded into four categories (African Tradition, Christian, Non-Christian and None). Ethnic origin refers to a person's 'roots' and it is coded into five categories (African, Caucasian, Asiatic, Mixed race, Other). Education, particularly women's education, has a significant interaction effect on age at first marriage. Education level is coded into four options (None, Primary, Secondary, Tertiary). Women working status influences age at first marriage with those working likely postponing the marriage. Working status is coded into two categories (Working and Non-Working).

RESULTS

DESCRIPTIVE STATISTICS (RESPONDENTS PROFILES)

The background characteristics of the study participants are shown in Table 1. The majority (55.49%) of respondents were married for the first time. Those never married (44.51%) were considered as right censored observations.

Table 1: Descriptive Statistics

Variables	Factor Levels	Sample Size, n	Percent (%)
Marital Status	Never married	153 056	44.51
	Married	165 745	48.20
	Formerly Married	25 046	7.28
	Bulawayo	19 228	5.59
	Manicaland	43 736	12.71
	Mashonaland Central	26 352	7.66
	Mashonaland East	37 479	10.89

Province	Mashonaland West	39 256	11.40
	Matabeleland North	16 681	4.85
	Matabeleland South	15,673	4.55
	Midlands	39 847	11.58
	Masvingo	36 203	10.52
	Harare	69 762	20.27
Place of Residence	Rural	180 057	52.31
	Urban	164 160	47.69
Religion	African Tradition	11 126	3.23
	Christian	314 125	91.26
	Non-Christian	4 580	1.33
	None	14 386	4.18
Ethnic Origin	African	343 194	99.70
	Caucasian	494	0.14
	Asiatic	102	0.03
	Mixed race	344	0.10
	Other	83	0.02
Ever given any live birth	Yes	176 705	51.34
	No	167 512	48.66
Level of Education	None	2 299	0.68
	Primary	83 119	24.74
	Secondary	225 131	67.02
	Tertiary	25 357	7.55
Working Status	Working	62 979	18.30
	Not Working	281 229	81.70

Most of women were from Harare (20.27%), followed by Manicaland (12.71%). The study reveals that most (52.31%) women were from rural settlements. On religion, 91.26% were Christians. On ethnic origin, 99.70% were of African origin. On the highest level of education attained, 67.01% of women had secondary education. On occupation, 81.70% of women in the reproductive age group were not working. Histogram of dependent variable, age at first marriage shows that age at first marriage is positively skewed (not normally distributed). Non-

normality and censoring are the two key characteristics of survival data.

SURVIVOR FUNCTION PROFILES

Table 2 shows the median age at first marriage by various background characteristics and Figure 2 shows the survivor function plots for all independent variables as well as the overall survivor function plot. The median age at marriage refers to the age at which approximately half of the women are expected to have been married. Zimbabwe's median age at first marriage is 21 years. On provinces, Bulawayo had the highest median age at first marriage of 25 years and Manicaland, Mashonaland Central, Mashonaland West and Masvingo provinces had the minimum age at first marriage of 20 years. Using log rank test, these provincial differences were significant ($p - value = 0.0000$). Median age at first marriage vary by place of residence. As depicted in Table 2, rural women enter into first marriage 2 years earlier than their urban counterparts. These differences were statistically significant ($p - value = 0.0000$). Differentials in age at first marriage by religious affiliations are noted. Those who subscribe to African tradition had less age at first marriage as compared to Christians and Non-Christians. The differences were also statistically significant ($p - value = 0.0000$). On ethnic origin, those of African origin had less age at first marriage (21 years) as compared to Caucasian (24 years), Asiatic (23 years), Mixed Race (26 years). These differences were also statistically significant ($p = value$). Results indicate that age at first marriage differs depending on whether a woman has ever given any birth or not. Women who had given birth had median age at first marriage of 20 years, with those who had not having median age at first marriage of 30 years. The difference is also significant ($p - value = 0.0000$). Median age at first marriage differs by the level of education at national level. Women with primary education enter into first marriage one year earlier than those with secondary education and for years earlier than those with tertiary education. Those with tertiary education had the highest median age first marriage of 25 years and this supports the previous proposition that education delays marriage.

Table 2: Median Age at First Marriage and Log Rank Test

Variables	Factor Levels	Median Age at First Marriage	Log Rank Test (p-value)
ALL		21	
Province	Bulawayo	25	0.0000
	Manicaland	20	
	Mashonaland Central	20	
	Mashonaland East	21	
	Mashonaland West	20	
	Matabeleland North	21	
	Matabeleland South	23	
	Midlands	21	
	Masvingo	20	
	Harare	22	
Place of Residence	Rural	20	0.0000
	Urban	22	
Religion	African Tradition	20	0.0000
	Christian	21	
	Non-Christian	21	
	None	20	
Ethnic Origin	African	21	0.0000
	Caucasian	24	
	Asiatic	23	
	Mixed race	26	
	Other	23	
Ever given any live birth	Yes	20	0.0000
	No	30	
Level of Education	None	21	0.0000
	Primary	20	
	Secondary	21	
	Tertiary	25	
Working Status	Working	22	0.0000
	Not Working	21	

Moreover, results indicate that median age at first marriage slightly differs with occupation in Zimbabwe and the differences were statistically significant. Women who are not working enter into marriage one year earlier than those working. Figure 2 are the survivor function plots with respect to all the independent variables and the they are in agreement with what has been depicted in Table 2. It is evident that there are differentials in the median age at first marriage within all factor levels of the independent variables. However, descriptive analysis approach cannot account for the magnitude of the effect of the various factors. To determine the factors that influence age at first marriage, Cox proportional hazard model is fitted.

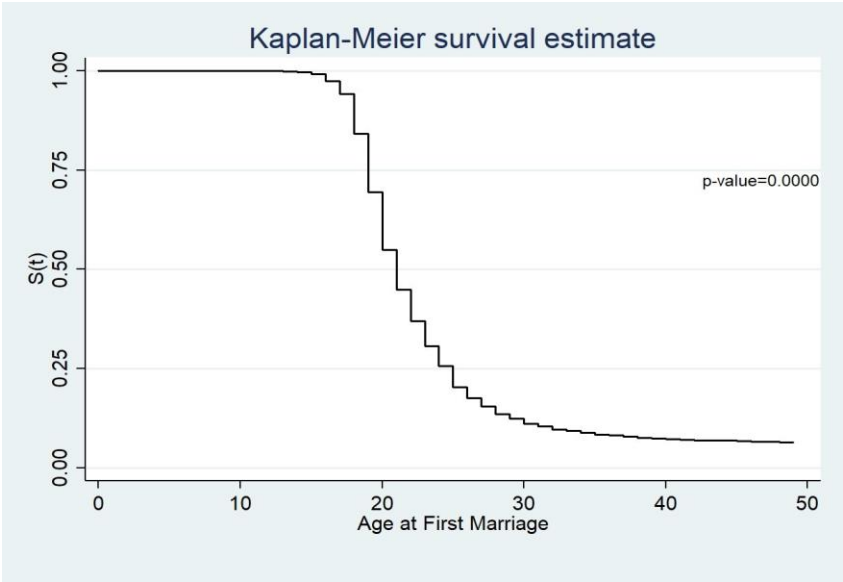


Figure 2a: Overall Survivor Function

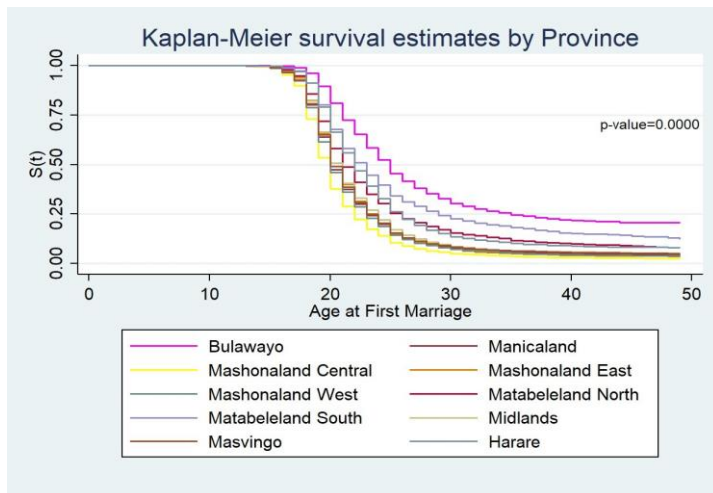


Figure 2b: Survivor Function by Province

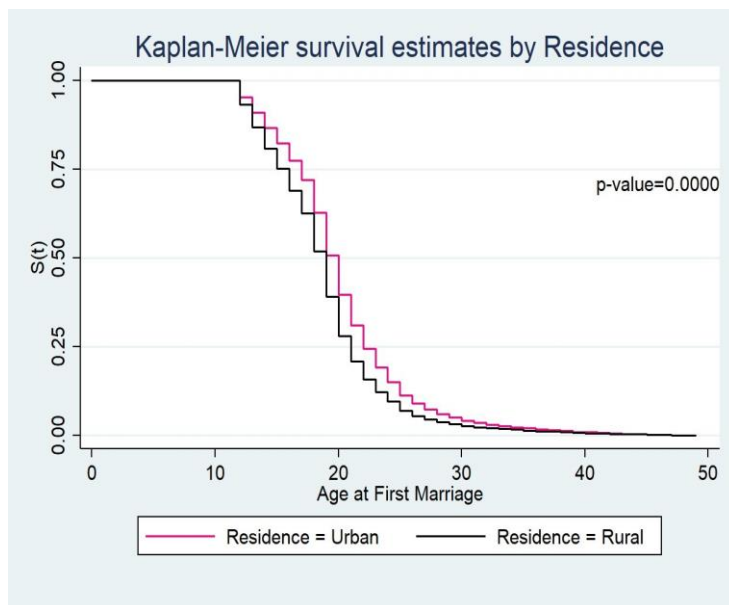


Figure 2c: Survivor Function by Place of Residence

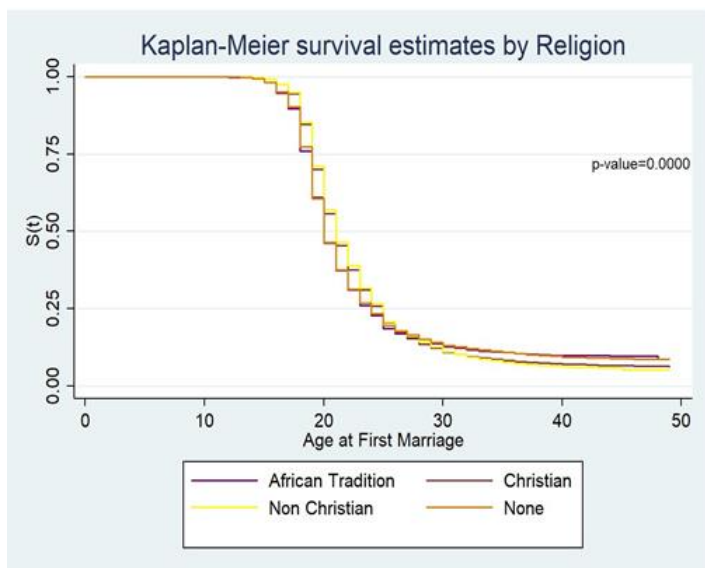


Figure 2d: Survivor Function by Religion

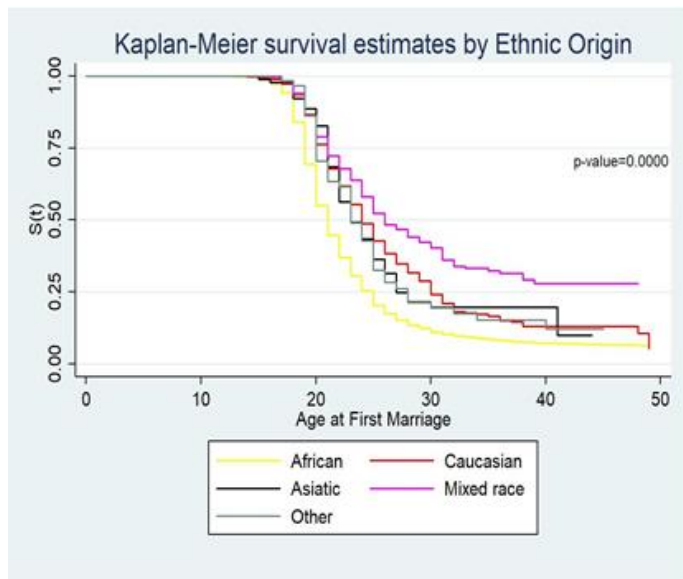


Figure 2e: Survivor Function by Ethnic Origin

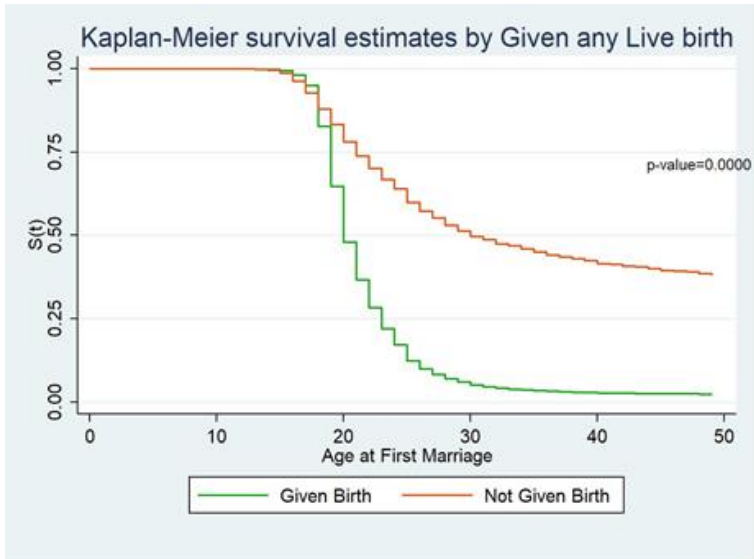


Figure 2f: Survivor Function by whether women had given live birth

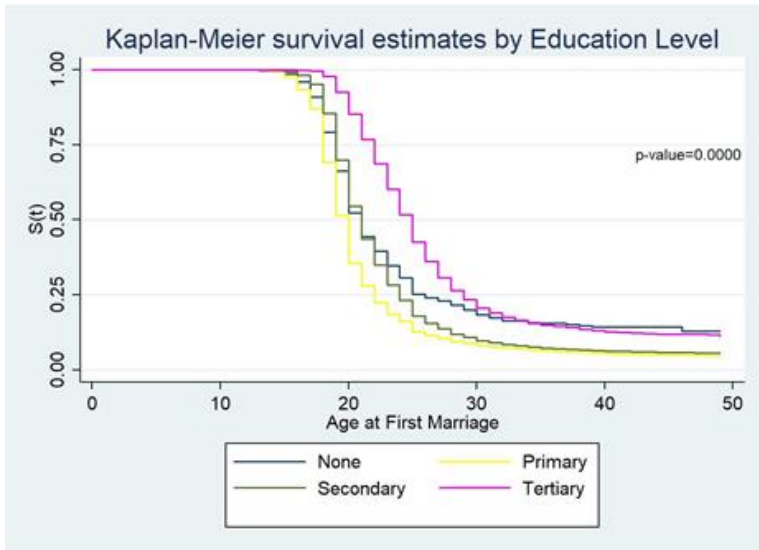


Figure 2g: Survivor Function by Education Level

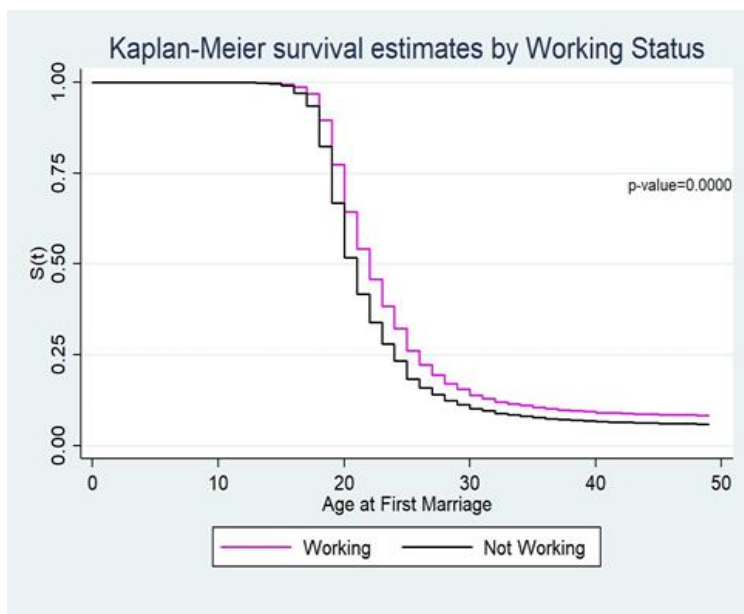


Figure 2h: Survivor Function by Working Status

Figure 2a-h: Survivor Functions

COX REGRESSION

Table 3 shows the results of Cox regression that is coefficients, hazard ratios, confidence intervals and significance test results. With Cox Regression modelling for independent factor variables, each first factor level is taken as baseline hazard. Hazard ratio of less than unity mean that the factor level has less hazards thus the factor level will experience first marriage at a later age as compared to baseline hazard ratio. Hazard ratio equivalent to unity implies there are no differences between the factor level and baseline hazard. Hazard ratio greater than unity implies that the factor level concerned has more hazards and it will experience first marriage at less age as compared to the baseline. All the confidence intervals and p -values are in agreement, that is if the confidence interval doesn't include unity it implies that p - value <

0.05, indicating statistical significance of both coefficient and hazard ratio.

Table 3: Cox Regression Model Statistics

Variables	Factor Levels	Coefficient	Hazard Ratio (HR)	Confidence Interval (CI)		p-value
Province	Manicaland	0.661089	1.936901	1.8853	1.9899	0.00000
	Mashonaland Central	0.834436	2.303515	2.2384	1.9899	0.00000
	Mashonaland East	0.665104	1.944692	1.8933	1.9975	0.00000
	Mashonaland West	0.753731	2.124913	2.0693	2.1820	0.00000
	Matabeleland North	0.216825	1.242127	1.2025	1.2831	0.00000
	Matabeleland South	-0.055563	0.945952	0.9145	0.9785	0.00128
	Midlands	0.621014	1.860813	1.8115	1.9114	0.00000
	Masvingo	0.607470	1.835781	1.7850	1.8880	0.00000
	Harare	0.582552	1.790602	1.7477	1.8345	0.00000
Place of Residence	Urban	-0.238776	0.787591	0.7781	0.7972	0.00000
Religion	Christian	-0.076103	0.926721	0.9023	0.9518	0.00000
	Non-Christian	-0.087200	0.916494	0.8737	0.9614	0.00000
	None	-0.029640	0.970795	0.9384	1.0043	0.08658
Ethnic Origin	Caucasian	-0.270692	0.762852	0.6771	0.8595	0.00000
	Asiatic	-0.071358	0.931128	0.7137	1.2149	0.59902
	Mixed race	-0.568919	0.566137	0.4802	0.6675	0.00000
	Other	-0.237922	0.788264	0.5880	1.0567	0.11162
Ever given any live birth	No	-1.148753	0.317032	0.3126	0.3216	0.00000
Level of Education	Primary	0.296463	1.345092	1.2420	1.4567	0.00000
	Secondary	0.075316	1.078225	0.9962	1.1670	0.06215
	Tertiary	-0.409066	0.664271	0.6129	0.7199	0.00000
Working Status	Not Working	0.131143	1.140130	1.1276	1.1528	0.00000

The results show that province is a significant factor affecting age at first marriage. The hazard ratios for Manicaland, Mashonaland

Central, Mashonaland East, Mashonaland West, Midlands, Masvingo and Harare are approximately double to the Bulawayo one, implying these provinces experience significantly early marriage as compared to Bulawayo. Matabeleland South is the only province whose hazard ratio is less than the Bulawayo, one implying it experiences first marriage at a later age as compared to Bulawayo. The study concludes that the Matabeleland region, which encompasses Bulawayo, Matabeleland North and Matabeleland South, enter into first marriage at a later age as compared to other provinces. As expected, the risk of entering into marriage is lesser among urban women as compared to rural women ($HR = 0.7876$, $CI=(0.7781,0.7972)$). This could be attributed to the fact that women in rural areas are exposed to traditional norms that may favour early marriage. Also, this may be due to lack of a more productive activity in rural areas and they find solace in settling in marriage. The delay in entering marriage for women residing in urban areas could be as a result of exposure to a more diverse lifestyle and subjection to weaker social control than those in rural areas.

Religious affiliation is an important factor affecting age at first marriage in Zimbabwe. Christians and Non-Christians had less hazards as compared to those who believed in African Tradition and the hazard ratios are significantly different. There were no significant differences to those who do not believe in any religion to those who believed in African tradition. The results also indicate that age at first marriage is associated with ethnic origin. Those of African origin had high chances of entering into marriage at low age as compared to other ethnic origins (Caucasian, Asiatic, Mixed race, Other) as highlighted by hazard ratios below unity for these factor levels. Birth experience is significantly associated with age at first marriage and women who have not experienced birth had low hazard of marriage as compared to those who have experienced birth ($HR = 0.3170$, $CI = (0.3216, 0.3216)$).

The risk of entering into marriage is lesser among women with tertiary education ($HR = 0.6643$, $CI = (0.6129, 0.7199)$) as compared to those without any education. However, those with primary education have significantly higher risk ($HR = 1.3451$, $CI = (1.2420, 1.4567)$) as compared to those without any education. Also, those with secondary education had approximately same hazard ratio ($HR = 1.0782$, $CI = (0.9962, 1.1670)$) with those without any education. In addition, occupation was significant in determining of age at first marriage. Women not working had high risk of first marriage at low age as compared to those working ($HR = 1.1401$, $CI = (1.1276, 1.1528)$).

The model's concordance statistic is 0.671 which is good, considering that all our independent variables are factors. Table 4 shows the analysis of deviance. All the independent variables are significant as indicated by large test statistics and the corresponding *p* - values. Using the Chi-Square statistics magnitude derived from analysis of deviance, the importance of independent variables from most to the least important on the determination of age at first marriage, is ranked as: (1) Ever given any live birth; (2) Province; (3) Education Level; (4) Place of Residence; (5) Working Status; (6) Ethnic Origin; (7) Religion.

Table 4: Analysis of Deviance

Response	df	Chi-Square	p - value
Province	9	8186.858	0.0000
Place of Residence	1	1484.157	0.0000
Religion	3	46.621	0.0000
Ethnic Origin	4	68.191	0.0000
Ever given any live birth	1	25144.620	0.0000
Education Level	3	4949.425	0.0000
Working Status	1	544.712	0.0000

DISCUSSION

The results are consistent with most studies done in other countries. The study found that the median age at first marriage in Zimbabwe is **21 years**. A study found out that the median age at first marriage was 19 years in Uganda and 29 years in South Africa, and that ethnicity had a significant effect on age at first marriage in both countries (Ayiga & Rampagane, 2013). Zimbabwe's age at first marriage is quite less to its neighbour South Africa. However, the results are quite comparable on that ethnicity had a significant effect on age at first marriage. The Ndebele tribe, found mainly in the Matabeleland provinces of Zimbabwe, tend to have high median age at first marriage, with Bulawayo province having the highest median age of 25 years. The results are quite comparable to Mabemba and Ntombela (2023) who note that child marriages are high in the Shona people as compared to other tribes in the country. This issue of child marriages could be the cause of this less median age at marriage in Shona tribes.. The Marriages Act No.1 of 2022 which outlaw's child marriages should be fully implemented and enforced .

The study findings suggest that improvement in educational attainment for women will play a significant role in delaying entry into first marriage. Those with tertiary education had the highest median age at first marriage of 25 years.

The existence in urban areas of modern social and economic amenities such as schools, clinics, wage employment, recreational amenities, and radio and television, is the reasons for the differences on age at first marriage in urban and rural areas in Zimbabwe. These amenities act as alternative attractions to girls in urban areas who otherwise would be compelled to enter marriage early to bear children as domestic and farm hands in the rural areas. With devolution, the study hopes that there will be development in all the provinces, districts and wards of

Zimbabwe, thereby closing developmental gaps between rural and urban areas.

CONCLUSION

Zimbabwe's median age first marriage of 21 years is still on the low side as compared to developed countries, thus policymakers and people are concerned with socioeconomic development to give greater priority to addressing early marriage, especially in relation to programmes to improve women's status and reduce poverty. Descriptive survival analysis indicates that median age at first marriage significantly differs by province, place of residence, religion, ethnic origin, whether women have ever given any birth, level of education and working status. The findings of this study suggest that policies that delay entry into first marriage be province- as well as place of residence-based. The most contributing factors to the age at first marriage are whether women had given live birth, province and level of education. The study recommends full implementation and adherence to the Marriages Act which sets minimum age at marriage at 18 years and prohibits sexual intercourse with those under 18 years. This will curtail child marriages. Also, findings suggest that improvement in educational attainment for women will play significant role in delaying entry into first marriage.

The study will contribute to a better understanding of regional differentials in age at first marriage in Zimbabwe, which is poorly understood and hence add to the existing body of knowledge. The study will also important for population policy planning and implementation by providing insight into past and future trends in marriage patterns in Zimbabwe.

This study is quantitative and used cross sectional data and this study recommends qualitative studies to be done to establish pathways through which the factors influence women's age at first marriage in Zimbabwe

LIMITATION OF THE STUDY

The study assumes that the independent variables have not changed from age at first marriage to the census night of 20th of April 2022.

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